SAIMS

36th ANNUAL CONFERENCE PROCEEDINGS

THE BRAVE FRONTIER OF MANAGEMENT

SOLVING THE PUZZLE OF COMPLEXITY, OPPORTUNITY AND SUSTAINABILITY

14 - 17 SEPTEMBER 2025

SUN CITY CONVENTION CENTRE

HOSTED BY

NWU®

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Design of front page and layout: Prof Roland Goldberg, Prof Mia Bothma, Dr Leon Du Preez

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ISBN: 978-1-0370-9898-7(e-book)

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TABLE OF CONTENTS

Message from the conference chairperson 1

Message from the review chairperson 2

Organising committee 3

SAIMS 2025 review process 4

SAIMS 2025 contribution per institution 6

SAIMS 2025 list of reviewers 11

SAIMS 2025 sponsors 13

Keynote speaker: Prof Bismark Tyobeka 14

Keynote speaker: Musa Kalenga 15

Conference tracks 16

Best paper award 17

Track 1: Accounting, banking and insurance

Analysing the requirements of the South African GAAR against the newly amended Canadian GAAR 20

Guiding the evolving role of the finance function in a Digital era for South Africa 35

High school and first-year university accounting syllabi: bridging the gap 49

Track 2: Finance and investment

Dividend payouts during crisis periods: could the escalation of commitment bias provide a viable explanation? 66

Migrant remittances and financial inclusion among households in South Africa 85

The influence of gender stereotypes on financial literacy of black students 108

Track 4: Entrepreneurship and small business management

A framework for categorising African family business research 123

Entrepreneurial education pathways fostering passion and intention among youths in South Africa 150

Examining small business success in the renewable energy industry in South Africa - an exploratory study 163

Spatial fluidity and firm competitiveness: unpacking the nexus between entrepreneurial mobility and ecosystem dynamics 180

Sustainable growth of taverns in the liquor industry: understanding the enablers 196

The impact of delegation challenges on SME performance in South Africa: a leadership and organisational perspective 212

The influence of age and gender on the business risk of small businesses in Gqeberha, Eastern Cape, South Africa 236

TABLE OF CONTENTS

Values entrenchment: organisational strategy formulation among indigenous black South African family businesses 250

Willingness to collaborate between local and immigrant entrepreneurs in Soshanguve: a brave frontier of management 278

Track 5: General and strategic management (Including management education)

An alternative to work-life balance: attaining life-work balance with load shedding 290

Effect of technical competencies of women in core mining activities on team operational performance in South Africa 307

Experiences of the effect of the transition to a hybrid working model on the organisational culture and employee well-being 323

Exploring internal risk-reporting practices in a South African petrochemical company 341

Navigating 4IR paradoxes in South African universities: rethinking management education 357

Transforming student engagement and learning through the implementation of gamification: an exploratory study 372

Unlocking strategic value through enterprise risk management 389

Track 6: Marketing management (Excluding digital marketing)

Adopting UTAUT in the South African fintech context 405

Assessing the challenges and requirements for market entry in East Africa for a South African electrical manufacturing company 424

Cause-related marketing: exploring the influence of visual and verbal non-profit cues on consumer attitude and intention 443

Consumer expectations, satisfaction and purchase intention in the South African short-term insurance industry 462

Developing a conceptual framework of consumer engagement perceptions regarding the use of social media within the hotel industry 480

Great is your faith! A serial mediation model of brand faith and repurchase intentions: a multi-group analysis 498

Identifying factors that influence customer experience in the peri-urban sector: the case of spaza shops 522

Influential factors that shape purchasing behaviours for luxury goods within the LGBTIQQ+ consumer segment 538

Machine learning for predicting sustainable consumer-brand relationship in green beauty products 555

The current landscape of place in social marketing: a scoping review 572

The shopping orientation effect on loyalty programme quality and customer satisfaction in South African supermarkets 591

TABLE OF CONTENTS

Transitioning to sugar free beverages through message framing: consumer responses and proposed social marketing interventions 608

Track 6: Digital marketing

Application of the theory of consumption value (TCV) dimensionality in the South African food delivery service environment 626

Digital marketing of small businesses in the retail sector: understanding the enablers 644

Driving self-brand connection, loyalty and word-of-mouth through social media engagement among millennials 663

Examining advergaming efficacy: the moderating role of user control on flow experience and brand attitude among young (Generation Z) Burger King mobile players 679

Opportunity in complexity: understanding German consumers' online shopping quality expectations through a demographic lens 700

Solving the social media puzzle for South African wine brands: uncovering brand engagement opportunities 717

The impact of AI-driven consumer behaviour on online purchase decisions: a structural equation modelling approach 734

The influence of augmented reality on purchase intention among South African Gen Z: retailing perspective 751

Track 9: Operations and supply chain management

Crowdsourcing in last mile delivery: a bibliometric review and research agenda 770

Leveraging informal institutions for value chain agility in sub-Saharan Africa: evidence from the cotton industry 788

Mediating effects of trust, information quality, and supplier partnerships on commitment and performance within the automotive supply chain 815

Modelling the effect of suppliers' and customers' cooperation on green performance in manufacturing companies of South Africa 831

Nexus between education, logistics information integration, supply chain network and physical distribution performance: the case of retail SMEs in South Africa 848

Profiling the impact of driver fatigue on driver road accident involvement and freight performance: Gauteng province of South Africa 864

Supply chain management in the South African police service: practices, challenges, and strategies for enhanced public sector procurement 885

The influence of supply chain technology on information sharing and supply chain performance of the Vaal Triangle retail industry in South Africa 899

The role of intermodal container transport in Poland's maritime logistics 922

Track 10: Information and communication technology

Digital orientation and strategy implementation: the public sector perspective 936

TABLE OF CONTENTS

Track 11: Human resource management

Beyond the books: exploring the well-being support needs of MBA students Effect of talent retention on organisational performance 956 974

Employee engagement at the Department of Social Development Head Office in Lesotho 1008

Employee theft in South African retail: a multi-disciplinary investigation of management practices and employee morale as preventive mechanisms 1025

Enhancing municipal workforce excellence through a competency-based management approach in Mpumalanga province 1043

Experimenting with behavioural economics, financial literacy, personal financial efficacy and retirement decisions among employees in a South African engineering organisation 1060

Harnessing Gen Z paradoxes for sustainable change in clinical research organisations 1077

Job demands and burnout among call centre employees in Windhoek: the moderating role of job satisfaction 1095

Strategic human resource management in a public sector regulatory body: a qualitative perspective 1113

The effect of talent management dimensions on talent retention of TVET colleges' lecturers 1134

The relationship between workplace bullying, workplace harassment on work climate and employee performance 1151

Track 13: Critical management studies

Leadership styles in Africa: quantifying the uniqueness of the humane orientation 1171

Track 14: Artificial intelligence

Adopting robotics process automation for digital transformation in the insurance industry 1194

AI and the future of business leadership training: rethinking management education in South African private institutions 1211

From guidance to governance: integrating artificial intelligence risk management standards 1228

Generative artificial intelligence in academic writing: an integrative literature review of promises, downsides and ethical implications for policy and practice 1245

Institutional readiness factors for AI integration into ERP systems of higher education institutions: a systematic literature review 1262

Leveraging AI to enhance operational risk management practices in South African retail banking 1285

TABLE OF CONTENTS

Track 15: Tourism management

Investigating the use of social media in regional tourism marketing: a case study 1305

Signalling sustainable tourism: the impact of communication strategies on consumers' greenwashing perception and hotel selection in South Africa 1322

MESSAGE FROM THE CONFERENCE CHAIRPERSON



It is a privilege to welcome you to the 36th Annual SAIMS Conference, taking place from 14 to 17 September 2025 at the Sun City Convention Centre. The theme of this year, The Brave Frontier of Management: Solving the Puzzle of Complexity, Opportunity and Sustainability, is a theme that truly speaks to the challenges and opportunities facing us as academics, scholars, practitioners, and leaders in management sciences today. In a world shaped by rapid change, uncertainty, and innovation, management has become a journey into unfamiliar territory, one that requires creativity, resilience, and collaboration. This theme invites us not only to confront the complexity of our time, but also to recognise the opportunities it brings and to explore sustainable solutions that balance progress with responsibility. It challenges us to ask difficult questions, to reimagine our roles as problem-solvers and innovators, and to develop new pathways for management scholarship and practice in Southern Africa and beyond.

For me, SAIMS has always been more than a conference. It is a community. A place where ideas are discussed, collaborations are born, and friendships are strengthened.

Over the years, this community has continued to grow in reach and impact, and I am delighted to see so many familiar faces alongside new colleagues joining us for the first time.

I would like to thank everyone who has worked tirelessly behind the scenes, the organising committee, reviewers, session chairs, sponsors and the Faculty of Economic and Management Sciences at the NWU. Thank you for the commitment and hard work that have made SAIMS 2025 possible. Most importantly, I want to thank the conference delegates for your commitment to advancing management sciences. Your research, your ideas, and your willingness to engage are what make this conference truly special.

As we spend the next few days together, I encourage you to engage fully in the sessions, take part in the conversations, network with fellow delegates, and enjoy the unique setting of Sun City. May you leave not only with new knowledge but also with valuable collaborations and memories that will last well beyond the conference.

On behalf of the School of Management Sciences at the North-West University and the organising team, I wish you a rewarding and memorable SAIMS 2025 conference!

Kind regards,
Prof. Mia Bothma

MESSAGE FROM THE REVIEW CHAIRPERSON

Welcome to the 36th Annual Conference hosted by the School of Management Sciences, NWU, and themed The Brave Frontier of Management: Solving the Puzzle of Complexity, Opportunity and Sustainability.

As the chair of the reviews, I am delighted to introduce this year's programme, which reflects both the courage and creativity needed to thrive on today's management frontier. Our theme reminds us that complexity can be daunting, but it also unlocks opportunities. Sustainability, in turn, serves as the steady guide in charting a path through this challenging terrain.

This year we received a remarkable 197 submissions. This is a clear sign of the depth of engagement, diversity of thought, and commitment to advancing management science within our community. Each submission was carefully reviewed in a rigorous, double-blind process, ensuring fairness and the highest scholarly standards. I would like to extend my heartfelt thanks to the review team and all the reviewers for their tireless dedication, and to every scholar who entrusted us with their work.

The final programme features a dynamic mix of empirical research, conceptual exploration, and practice-oriented case studies. Together, these contributions illuminate how management scholars and practitioners are solving today's puzzles, turning complexity into clarity, identifying new opportunities, and embedding sustainability at the heart of organisational practice.

Thank you for joining us on this exciting journey into the brave frontier of management. I look forward to the stimulating conversations, collaborative learning, and innovative solutions that will emerge from our collective efforts.

Kind regards,
Prof. Marko van Deventer



ORGANISING COMMITTEE 2025



PROF MIA BOTHMA
Conference chairperson

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PROF ALFRED HENRICO



PROF FRIKKIE HERBST



PROF MARTIN BOTHA

EVENTS



MRS ALDI VAN WYK
Team leader



PROF CARINDA WILLIAMS
Team member



DR DANELLE FOURIE
Team member



PROF KIRSTY-LEE SHARP
Team member

MARKETING & COMMUNICATION



PROF ROLAND GOLDBERG
Team leader



PROF COSTA SYNODINOS
Team member



MR SAMKELE MONAKALI
Team member

REVIEWS



PROF MARKO VAN DEVENTER
Team leader



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SCHOOL OF MANAGEMENT SCIENCES

14 October 2025

SAIMS 2025 CONFERENCE: REVIEW PROCESS

To whom it may concern,

The North-West University, School of Management Sciences, hosted the 36th annual conference of the South African Institute for Management Scientists from 14 – 17 September at the Sun City Convention Centre.

The following review process was followed:

1) The date of the SAIMS 2025 conference were communicated on 13 December 2024, followed by the 1st call for papers on 18 February 2025. The final call for papers was distributed on 9 April 2025.

2) Full papers (competitive papers) and Work-in-progress submissions were submitted on the Conftool platform. The final date of submission was 2 May 2025.

3) A total of 197 papers were received, which included 123 full papers and 74 work-in-progress submissions.

4) All submitted papers were double-blind reviewed. The author's identity was not provided to any of the reviewers.

5) All reviewers were assigned, distributed and recorded on the ConfTool system. The reviewers were assigned based on their priority topic and received the assigned reviews on their ConfTool profile. The reviewers also completed the review and entered the scores for the papers on the ConfTool system.

6) Reviewers were asked to give a score out of 10 for the following elements of the full paper they reviewed:

- Title, abstract and keywords 5%
- Introduction 10%
- Literature review and problem investigated 15%
- Research objectives and hypotheses 5%
- Methodology 15%
- Results, findings and conclusions 20%
- Contribution of the study 20%
- Technical care 10%

7) Reviewers were able to make in-text comments and upload the file for the authors.

8) The review committee of the conference reviewed all the scores and feedback provided, and where there were significant differences between the scores of the two reviewers, a third reviewer was assigned.

9) Paper outcomes

Submission type	Submissions received	Accepted as full papers	Presented and published in proceedings	Accepted as Work in Progress	Rejected	Withdraw	Acceptance rate
Full paper	123	74	72	11	14	24	63.4%
Work-in-progress	74	0	0	48	3	23	65.75%

10) The authors were informed of the review outcome through the ConfTool system, where they could also access the comments and feedback from the reviewers.

11) Authors were informed to incorporate the reviewer comments and upload the final version of the full paper on the ConfTool system.

12) In total, 72 full papers and 74 work-in-progress papers were presented at the conference.

13) Full papers that were not presented at the conference were excluded from the conference proceedings.

Prof Marko Van Deventer was the chairperson of the review committee and was supported by Prof Mia Bothma, Prof Luzaan Hamilton, Dr Junior Longweni and Dr Leon Du Preez. The review team managed the entire review process and ensured that a rigorous and unbiased process was followed.

I trust that you find this information in order.

Your sincerely,

Prof Mia Bothma

SAIMS 2025: Chairperson

Prof Marko Van Deventer

SAIMS 2025: Review Chairperson

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Email: mia.bothma@nwu.ac.za
SCHOOL OF MANAGEMENT SCIENCES

14 October 2025

SAIMS 2025 CONFERENCE: CONTRIBUTION PER INSTITUTION

To whom it may concern,

After the double-blind review, acceptance and confirmation of presentation at the conference, a total of 72 papers were included in the SAIMS 2025 Conference Proceedings.

As indicated below, the North-West University (Conference host) contributed 11.18% of the full papers, which means that 88.82% of the full papers accepted and presented at the SAIMS 2025 conference were contributions from other institutions. This indicates that the DHET 60% rule was met.

Contribution per institution

Institution	Number of authors from the institution	Institution contribution %
Accra Technical University	1	0,62%
Agriculture Research Council	1	0,62%
Crossfin Ventures	1	0,62%
Czestochowa University of Technology	1	0,62%
First National Bank	1	0,62%
Heilbronn University of Applied Science	1	0,62%
Henley Business School	1	0,62%
IIE Rosebank	2	1,24%
IMM Graduate School	2	1,24%
Monash University	2	1,24%
National Prosecuting Authority	1	0,62%
Nedbank	1	0,62%
Nelson Mandela University	26	16,15%
North-West University	18	11,18%
Reutlingen University	1	0,62%
Rhodes University	3	1,86%
Rosebank College	2	1,24%
Sibanye Stillwater	1	0,62%
Sol Plaatje University	8	4,97%
State University of Campinas	5	3,11%
Steinmüller Africa (Pty) Ltd.	1	0,62%
Stellenbosch University	7	4,35%
Tshwane University of Technology	3	1,86%
University of Cape Town	1	0,62%
University of Johannesburg	22	13,66%
University of Namibia	6	3,73%
University of South Africa	3	1,86%
University of the Free State	9	5,59%
University of the Witwatersrand	15	9,32%
University of Zululand	3	1,86%
Vaal University of Technology	11	6,83%
Walter Sisulu University	1	0,62%
Total	**161**	**100%**

Herewith, the author affiliation of the full papers in the book of proceedings for the SAIMS 2025 conference

Track: Accounting, Banking, and Insurance		
Title	**Author(s)**	**Institution(s)**
Guiding the evolving role of the finance functions in a digital era for South Africa	1) Nwosu, Lillian 2) Sibanda, James 3) Pelser, Faan	North-West University
Analysing the requirements of the South African GAAR against the newly amended Canadian GAAR	1) Sefa, Gontse 2) Moroeng, Keoikantse Phatsimo	University of the Witwatersrand
High school and first-year university accounting syllabi: bridging the gap	1) Mahlaule, Calvin 2) Fouche, Jaco 3) De Villiers, Rikus	North-West University
Track: Artificial Intelligence		
Title	**Author(s)**	**Institution(s)**
Adopting robotics process automation for digital transformation in the insurance industry	1) Sethibe, Tebogo 2) Mmakau, Sello	[1]Agriculture Research Council [2]University of South Africa
Leveraging AI to enhance operational risk management practices in South African retail banking	1) De Bruyn, Ian Wayne 2) Lindeque, Edward George	[1]Nedbank [2]North-West University
AI and the future of business leadership training: rethinking management education in South African private institutions	1) Matsane, Frank Sfiso 2) Mbanje, Dr Samson 3) Mutangadura, Dr Joseph	[1,2]Rosebank College [3]Tshwane University of Technology
Generative artificial intelligence in academic writing: an integrative literature review of promises, downsides and ethical implications for policy and practice	Mafuratidze, Norman	University of Johannesburg
From guidance to governance: integrating artificial intelligence risk management standards	Lindeque, Edward George	North-West University
Institutional readiness factors for AI integration into ERP systems of higher education institutions: a systematic literature review	1) Hlongwane, Motjeo 2) Khomokhoana, Pakiso	University of the Witwatersrand
Track: Critical Management Studies		
Title	**Author(s)**	**Institution(s)**
Leadership styles in Africa: quantifying the uniqueness of the humane orientation	1) Steyn, Renier 2) Msweli, Pumela	University of South Africa
Track: Digital Marketing		
Title	**Author(s)**	**Institution(s)**
Driving self-brand connection, loyalty and word-of-mouth through social media engagement among millennials	1) Ocloo, Elikem Chosnie 2) Coffie, Isaac Sewornu 3) Müller, Re-an	[1]Accra Technical University [2,3]North-West University
Digital marketing of small businesses in the retail sector: understanding the enablers	1) Rootman, Chantal 2) Sidat, Sumaiya 3) Nkula, Asiphumeze	Nelson Mandela University
Opportunity in complexity: understanding German consumers' online shopping quality expectations through a demographic lens	1) Kern, Manuel 2) Ferreira, Danie 3) Jonas, Altouise 4) Schmäh, Marco	[1]Heilbronn University of Applied Science [2,3]Nelson Mandela University [4]Reutlingen University
The influence of augmented reality on purchase intention among South African Gen Z retail perspective	Makhoba, Melusi Maxwell	University of Johannesburg
Examining advergaming efficacy: the moderating role of user control on flow experience and brand attitude among young (Generation Z) Burger King mobile players	1) Nzita, Mayemba Karel 2) Lubbe, Isolde Ward	University of Johannesburg
Application of the theory of consumption value (TCV) dimensionality in the South African food delivery service environment	Mogwasa, Lucky Seemola	Vaal University of Technology
The impact of iAI-driven consumer behaviour on online purchase decisions: A structural equation modelling approach	Nzita, Mayemba Karel	University of Johannesburg
Solving the social media puzzle for South African wine brands: uncovering brand engagement opportunities	1) Bondesio, Lisa 2) Theron, Edwin 3) Kühn, Stefanie W.	Stellenbosch University

Track: Entrepreneurship and Small Business Management		
Title	**Author(s)**	**Institution(s)**
Entrepreneurial education pathways to passion and intention among South African youths	1) Mhlongo, Zinhle 2) Ntshangase, Sibusiso David 3) Ezeuduji, Ikechukwu Onyekwere	University of Zululand
Values entrenchment: organisational strategy formulation among indigenous black South African family businesses	1) Venter, Elmarie 2) Kupangwa, Welcome 3) Farrington, Shelley Maeva	Nelson Mandela University
Spatial fluidity and firm competitiveness: Unpacking the nexus between entrepreneurial mobility and ecosystem dynamics	1) De Moraes, Gustavo Hermínio Salati Marconde 2) Pigola, Angélica 3) Fischer, Bruno Brandão	[1, 2,3]State University of Campinas [1,3]North-West University
Examining small business success in the renewable energy industry in South Africa - an exploratory study	1) Neethling, Adolph 2) Vermaak, Devan Joshua	Stellenbosch University
The influence of age and gender on business risk of small businesses in Gqeberha, Eastern Cape, South Africa	1) Skoti, Thembani 2) Msuthwana, Vusumzi	[1]First National Bank [2]Nelson Mandela University
Sustainable growth of taverns in the liquor industry: Understanding the enablers	1) Rootman, Chantal 2) Smith, Elroy 3) Coutsourides, Peter	Nelson Mandela University
A framework for categorising African family business research	1) Farrington, Shelley 2) Billings, Cassidy 3) Venter, Elmarie	Nelson Mandela University
Willingness to collaborate between local and immigrant entrepreneurs in Soshanguve, South Africa	1) Mtsweni, Moses 2) Mutoko, Rewai Wilbert	Tshwane University of Technology
The impact of delegation challenges on SME performance in South Africa: a leadership and organizational perspective	Adekomaya, Victoria Oluwafunmilayo	University of Johannesburg
Track: Finance and Investments		
Title	**Author(s)**	**Institution(s)**
Migrant remittances and financial inclusion among households in South Africa	Lesejane, Lesego Audrey	University of Johannesburg
Dividend payouts during crisis periods: Could the escalation of commitment bias provide a viable explanation?	Viviers, Suzette	Stellenbosch University
The influence of gender stereotypes on financial literacy of black students	1) Antoni, Xolile 2) Nyathi, Vukosi 3) Mbaye, Zanele	Rhodes University
Track: General and Strategic Management		
Title	**Author(s)**	**Institution(s)**
Unlocking strategic value through enterprise risk management	Boikanyo, Dinko Herman	University of Johannesburg
Navigating 4IR paradoxes in South African universities: rethinking management education	1) Khomokhoana, Pakiso Joseph 2) Ramafi, Pelonomi 3) Naidoo, Rennie	University of the Witwatersrand
Employee experiences of the effect of the transition to a hybrid working model on the organisational culture and employee well-being	1) Niemann, Rita 2) Makhubu, Palesa	University of the Free State
Effect of technical competencies of women in core mining activities on team operational performance in South Africa	1) Munilal, Suneshnee 2) Ndaba, Zanele	Wits Business School
Transforming student engagement and learning though the implementation of gamification: an exploratory study	1) Mitchell, Bruce 2) Co, Mary Jesselyn	Monash University
Exploring internal risk-reporting practices in a South African petrochemical company	1) Mulambya, Emmanuel 2) Denyschen, Altus	North-West University
An alternative to work-life balance: Attaining life-work balance with load shedding	Sepenyane, Retshepile Vanessa	University of the Free State

Track: Human Resource Management		
Title	**Author(s)**	**Institution(s)**
Harnessing Gen Z paradoxes for sustainable change in clinical research organisation	1) Ndivane, Mathabo 2) Massyn, Liezel	University of the Free State
Employee theft in South African retail: a multi-disciplinary investigation of management practices and employee morale as preventive mechanisms	1) Turner, Jade 2) Mafuratidze, Norman	University of Johannesburg
The relationship between workplace bullying, workplace harassment on work climate and employee performance	1) Mpofu, Mthokozisi 2) Diergaardt, Annebell Belinda 3) Hlatywayo, Clifford K	[1]IIE Rosebank [2,3]University of Namibia
Beyond the books: Exploring the well-being support needs of MBA students	1) Sinra, Ronald 2) Massyn, Liezel	University of the Free State
Effect of talent retention on organizational performance	1) Wesonga, Justus Nyongesa 2) Van Der Westhuizen, Johan	Vaal University of Technology
Strategic human resource management	1) Sibiya, Bongani 2) Sibiya, Ayanda	[1]North-West University [2]University of Johannesburg
Experimenting with behavioural economics, financial literacy, personal financial efficacy and retirement decisions among employees in a South African engineering organisation	1) De Beer, Leon T 2) Fouché, Jaco 3) Botha, Leon Gerhard	[1,2,3]North-West University [1]Norwegian University of Science and Technology
Employee engagement at the Department of Social Development head office in Lesotho	1) Du Toit, Masonette Maria 2) Lejalla, Toli	University of the Free State
Enhancing municipal workforce excellence through competency-based management in Mpumalanga Province	1) Malika, Isaac Kgobane 2) Toendepi, Joyce	University of Johannesburg
The effect of talent management dimensions on talent retention of TVET colleges' lecturers	1) Tsatsimpe, Kagiso Wellington	North-West University
Job demands and burnout among call centre employees in Windhoek; the moderating role of job satisfaction	1) Mpofu, Mthokozisi 2) Hlatywayo, C. K. 3) Nehoya, Chelsi 4) Johannes, Maria	[1]IIE Rosebank [2,3,4]University of Namibia
Track: Information, Communication technology and Economics		
Title	**Author(s)**	**Institution(s)**
Digital orientation and strategy implementation: The public sector perspective	1) Baloyi, Wiston Mbhazima 2) Meyer, Natanya 3) Rossouw, Dirk	University of Johannesburg
Track: Marketing management (excluding Digital Marketing)		
Title	**Author(s)**	**Institution(s)**
Adopting UTAUT in the South African FinTech context	1) Ngweyna, Thabani 2) Krüger, Janine 3) Sidat, Sumaiya	[1]Crossfin Ventures [2,3]Nelson Mandela University
Transitioning to sugar free beverages through message framing: consumer responses and proposed social marketing interventions	1) Zulu, Melissa 2) Muposhi, Asphat	University of the Witwatersrand
Developing a conceptual framework of consumer engagement perceptions regarding the use of social media within the hotel industry	1) Krüger, Janine 2) Smith, Elroy Eugene	Nelson Mandela University
Identifying factors that influence customer experience in the peri urban sector: the case of spaza shops	1) Yase, Tembelihle 2) Van Eyk, Marle 3) Amoah, Felix	Nelson Mandela University
Machine learning for predicting sustainable consumer-brand relationship in green beauty products	1) Synodinos, Costa 2) Pigola, Angélica 3) Moraes, Gustavo Hermínio Salati Marcondes de	[1,3]North-West University [2,3]State University of Campinas
Influential factors that shape purchasing behaviours for luxury goods within the LGBTQI+ consumer segment	1) Monakali, Samkele 2) Jonas, Altouise 3) Tait, Madele	Nelson Mandela University
Cause-related marketing: exploring the influence of visual and verbal non-profit cues on consumer attitude and intention	1) Ferreira, Danie 2) Human-Van Eck, Debbie	[1]Nelson Mandela University [2]Stellenbosch University
The shopping orientation effect on loyalty programme quality and customer satisfaction in South African supermarkets	1) De Meyer-Heydenrych, Christine 2) Cunningham, Nicole	University of Johannesburg

Track: Marketing management (excluding Digital Marketing)		
Title	**Author(s)**	**Institution(s)**
Great is your faith! A serial mediation model of brand faith and repurchase intentions: a multi-group analysis	Ligaraba, Neo	University of the Witwatersrand
Assessing the challenges and requirements for market entry in East Africa for a South African electrical manufacturing company	1) Singh, Santosh 2) Bick, Geoffrey 3) Carmichael, Teresa	[1]University of Cape Town [2]Henley Business School [3]University of the Witwatersrand
Consumer expectations, satisfaction and purchase intention in the South African short-term insurance industry	De Meyer-Heydenrych, Christine	University of Johannesburg
The current landscape of place in social marketing: a scoping review	1) Naidoo, Claire Liese 2) Issock, Paul	University of the Witwatersrand
Track: Operations and Supply Chain Management		
Title	**Author(s)**	**Institution(s)**
Mediating effects of trust, information quality, and supplier partnerships on commitment and performance within the automotive supply chain	1) Omoruyi, Osayuwamen 2) Mthiyane, Siphesihle Nokwanda	[1]Sol Plaatje University [2]Vaal University of Technology
Supply chain management in the South African Police Service: practices, challenges, and strategies for enhanced public sector procurement	1) Chwethiso, Nosicelo 2) Mwansa, Mushimbei Mwilima 3) Omoruyi, Osayuwamen	[1]National Prosecuting Authority [2,3]Sol Plaatje University
Crowdsourcing in last mile delivery: a bibliometric review and future research agenda	1) Mogire, Eric 2) Kilbourn, Peter 3) Luke, Rose	University of Johannesburg
Profiling the impact of driver fatigue on driver road accident involvement and freight performance: Gauteng Province of South Africa	1) Mashiya, Tshidi 2) Chinomona, Elizabeth 3) Govuzela, Sithembiso	Vaal University of Technology
Leveraging informal institutions for value chain agility in Sub-Saharan Africa: Evidence from the cotton industry	Mapanga, Arthur	Walter Sisulu University
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Your sincerely,

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14 October 2025

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KEYNOTE SPEAKER:
PROFESSOR MZUBANZI BISMARK TYOBEKA

Professor Mzubanzi Bismark Tyobeka currently serves as Vice-Chancellor of North-West University (NWU), South Africa. Formerly the CEO of the National Nuclear Regulator, he has over two decades of experience in nuclear sciences and engineering. He began his career at Eskom Enterprises, progressing through roles such as Senior Physicist and Chief Nuclear Engineering Analyst, before becoming a Nuclear Engineer at the International Atomic Energy Agency (IAEA).

He has held numerous prestigious positions, including:

- Chairperson of NWU Council
- Member of the International Nuclear Safety Advisory Group
- Chairman of the Regulatory Cooperation Forum under IAEA

President of the 6th Review Meeting of the Joint Convention on Safety of Spent Nuclear Fuel and Radioactive Waste Management

Prof. Tyobeka is also an Extraordinary Professor at the Centre for Applied Radiation Science and Technology and an Extraordinary Professor of Nuclear Engineering at NWU. He is Chairperson of the Nuclear Missile and Dual-Use Committee of the Council for Non- Proliferation for Nuclear and Biological Weapons of the South African Government and Chairperson of the Funding Strategy Group of Universities South Africa (USAf), a body comprising all 26 public universities in South Africa.

In recognition of his academic and leadership contributions, Prof. Tyobeka completed the Harvard Business School programme and was recently appointed as a Knight of the Republic of France through the conferral of the National Order of Merit by President Macron of France.

Recently, Prof. Tyobeka has been appointed by the Minister of Electricity and Energy, Dr Kgosientsho Ramokgopa, as a member of the Ministerial Expert Panel on Nuclear, effective from 14 July 2025. He has also recently been appointed as chairperson and board member of the South African Bureau of Standards (SABS) for a five-year term, commencing on 18 June 2025.

Prof. Tyobeka holds multiple degrees, including a Ph.D. in Nuclear Engineering from Pennsylvania State University. The French Republic recently awarded him the National Order of Merit, and he also serves as an Adjunct Professor at North Carolina State University.



KEYNOTE SPEAKER: MUSA KALENGA



MUSA KALENGA

Musa is an author, marketer, brand communication specialist, writer and entrepreneur. He is a lauded speaker, author of Ladders and Trampolines and a strategist who was recognised as one of the Top 200 young South Africans by the Mail & Guardian in 2012. He is the former Head of Digital Marketing for Nedbank and former Client Partner for Facebook Africa.

Currently Group Chief Executive Officer of the Brave Group and Co-founder of Bridge Labs, Chairman for the University of Johannesburg SCiiS Industry Advisory Board and Investor. Musa addresses the problem of gaining access to appropriate online tools for entrepreneurs and Small to Medium Businesses (SMB's) by building mobile platforms to support growth in emerging markets. His passion is changing the communities we live in, African emerging markets and inspiring the youth through technology.

As a respected thought leader in the marketing industry, Musa advises on digital marketing strategy for businesses with his Marketing in a Digital World Executive Programme through his notion of "Act like a human, think like a brand."

PROFESSIONAL BACKGROUND

Musa started his first business, Monatefellaz, a youth marketing consultancy, while studying at the University of the Witwatersrand (WITS).

After Monatefellaz was incorporated into IHOP WORLD, as part of a merger with a division of the Brand Leadership Group, Musa worked as Managing Director before becoming Group Head of Digital Marketing at Nedbank, and then Facebook Client Partner for Africa.

As a strategic marketer for these two companies, Musa worked with foreign governments and multinational companies to create innovative digital products and solutions in the travel, insurance, automobile, FMCG and banking industries.

Musa has a genuine passion for the African continent, and rich entrepreneurial experience.

– Andile Masuku, entrepreneur and host of the Africa Tech Roundup

QUALIFICATIONS AND ACHIEVEMENTS

With a Bachelor of Commerce and Chartered Marketer (SA) designation from WITS, Musa has excelled academically, and was the top student in Sustainability and Future Fit Business at the Gordon Institute of Business Science (GIBS), while completing his MBA in 2015.

Musa received three nominations for the prestigious Black Business Quarterly Awards in 2008, and was voted as one of the Top 200 Young South Africans by the Mail & Guardian in 2012.

Musa was the first Chairman of the Youth Advertising Board of South Africa in 2005/6, and previously held the position of Head of Brand Portfolio for the Interactive Advertising Bureau (IAB). He is also a board member for Africa Teen Geeks.

As a thought leader and influencer, Musa was a member of the Johannesburg Hub of the World Economic Forum Global Shapers Community, an organisation of inspiring young individuals who work together to make a strategic and grassroots impact on their communities through dialogue, policy contributions and partnerships.

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TRACK 1: ACCOUNTING, BANKING AND INSURNANCE

ANALYSING THE REQUIREMENTS OF THE SOUTH AFRICAN GAAR AGAINST THE NEWLY AMENDED CANADIAN GAAR

Gontse Sefa and Phatsimo Moroeng*

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ABSTRACT

South Africa introduced General Anti-Avoidance Rules (GAAR) to guard against aggressive tax avoidance transactions, which threatened the integrity and effectiveness of the tax system of South Africa. However, since its first enactment, it has been amended several times in response to weaknesses that have rendered it ineffective. This study aims to identify any weaknesses in the GAAR of South Africa when compared to the newly amended Canadian GAAR. The study is performed by employing a combination of doctrinal and comparative analysis methods. The data used included journal articles, research reports, dissertations and the South African and Canadian legislation. The findings revealed that the GAAR of South Africa has more undefined terms used in its provisions when compared to Canada. This study aims to provide insights that may assist the South African government in designing better-structured and relevant anti-avoidance rules.

Keywords: amendments; Canada; general anti-avoidance rules; South Africa; tax

INTRODUCTION

Governments across the globe lose billions annually due to tax avoidance. This affects their ability to provide adequate services such as national security, health care and education. South Africa is not excluded from the list of these affected countries (Nomala, Unabandon & Marimuthu, 2024). In 2021, research showed that South Africa lost R54 billion due to multinational corporations and wealthy individuals shifting their profits and wealth to tax havens, which is one common way used to avoid taxes (Cronje, 2021).

Tax avoidance has led to major challenges globally due to its known effect of reducing tax revenue collected by governments and undermining the tax system. This has thus led to the worldwide development of the General Anti-Avoidance Rules (GAAR), which are rules aimed at combating aggressive tax avoidance measures (Waterkeepers & Hillier, 2016).

GAARs have a long history, having been first introduced in Australia as early as 1915 and in the Netherlands in 1925. Other countries, such as the United Kingdom and India, implemented

the GAAR in 2013 and 2017, respectively. The key objective of the GAAR (to combat aggressive tax avoidance) can lead to complex legal designs as tax avoidance is not uniformly defined internationally (Werdegar's & Hillier, 2016). Therefore, despite GAARs having been in operation for a considerable number of years, the application of these rules still gives rise to uncertainties due to the difficulty faced by taxpayers in understanding the provisions.

Canada introduced its GAAR in 1988 through section 245 of the Canadian Income Tax Act. Canada's GAAR was instituted years after other GAARs. However, it is one of the leading GAARs when considering its ease of interpretation when contrasted with others (Kujinga, 2013). It is deemed to be an effective GAAR due to its different structure. For instance, the determination of whether there is a tax benefit obtained by the taxpayer is a factual determination rather than a subjective one. This gives taxpayers less ability to prove that there is no tax benefit. Since its enactment, until March 2021, Canada's GAAR has been applied to approximately 1300 cases. The South African Revenue Service (SARS) have been unsuccessful in proving the existence of an impermissible avoidance transaction in only twenty-four (24) of these (Department of Finance Canada, 2021).

Even with its great history of effectiveness, the federal government has proposed changes to the GAAR, which will apply to transactions effected on or after January 2024, to further strengthen it. The amendments entail changing the definition of an avoidance transaction from reading as the main purpose to one of the main purposes. This means taxpayers will have less room to argue that a transaction is not impermissible due to a tax benefit not being the main purpose of the transaction, which will eliminate uncertainties (Department of Finance Canada, 2020).

SCOPE AND DELIMITATION

This paper is partially based on an Honours research report and will focus solely on the South African GAAR, and the new amendments made to the Canadian GAAR. No other parts of the Canadian GAAR or GAARs from other countries will be discussed in detail.

This paper is structured as follows: The next section presents a literature review that expands on the South African GAAR. Followed by a discussion of the methodology. After which, the findings detailing the key amendments of the Canadian GAAR as well as the application of the case law will be presented and finally, a discussion of the conclusion and recommendations.

LITERATURE REVIEW

South Africa introduced its GAAR in 1941 through section 90 of the South African Income Tax Act 58 of 1962 (Income Tax Act), to hold taxpayers who engage in avoidance transactions

accountable (Langenhoven, 2016). This section suffered criticism due to having a wide scope, which did not make it effective in setting apart permissible from impermissible tax avoidance transactions, as a transaction needed to be deemed impermissible for the provisions of the GAAR to apply (Kujinga, 2013).

To respond to the issues identified in section 90, this section was amended in 1953 and substituted by section 103 (Langenhoven, 2016). The amendment aimed to narrow its application and better enable it to differentiate between permissible and impermissible transactions. Section 103 introduced the abnormality requirement that deemed abnormal transactions to be impermissible. However, it did not provide guidance on how to define what a normal transaction is. Therefore, this left the interpretation of what would be considered normal to the courts, which inevitably meant inconsistencies in interpretation (Pidduck, 2017). This section received criticism as commentators thought that the abnormality requirement presented more uncertainties rather than the clarity that the amendment intended to bring (Langenhoven, 2016).

South Africa thus concluded that section 103 contained inherent weaknesses which rendered it ineffective in curbing impermissible avoidance transactions (Loof, 2013). These weaknesses provided taxpayers with loopholes to prove that their transactions did not have the abnormality element. Therefore, there was a need for amendments, and in 2006, section 103 was repealed and the current GAAR, contained in sections 80A-80L was introduced (Bauer, 2018). The provisions of the current GAAR carry forward provisions from its predecessor, such as determining the purpose of the transaction, its abnormality and whether there is a tainted element. These provisions were deemed to be ineffective in the previous GAAR; therefore, the effectiveness of the current rules may be questionable (Mzila, 2020).

The current GAAR is found in sections 80A-80L of the Income Tax Act. These sections are included in the fiscal plan to prevent tax avoidance apart from the specific anti-avoidance rules already contained in the Income Tax Act (Haffejee, 2009). The current GAAR provides more sections to consider compared to the previous one, making the GAAR too lengthy and most likely to cause uncertainties (Liptak, 2017). It is also criticised for containing principles of its predecessor, which were repealed due to inconsistencies in interpretation.

The GAAR requires:

(i) The existence of an arrangement.

(ii) That the arrangement has a tax benefit.

(iii) That the tax benefit be the sole or main purpose of the arrangement.

(iv) That the arrangement has a tainted element.

Arrangement

The Income Tax Act defines an arrangement as any transaction, operation, scheme, agreement or understanding (whether enforceable or not), including all steps therein or parts thereof, and includes any of the foregoing involving the alienation of property.

The terms 'transaction, operation and scheme' were directly taken from s 103. The current GAAR has no common law to help interpret these terms. We therefore still need to consider the interpretations concluded within the ambit of the predecessor GAAR. In one of the few GAAR cases trialled in a court of law, the *ABSA and Another v CSARS case,* the court concluded that for a taxpayer to be a party to the arrangement, they ought to willingly participate in the arrangement (Malema, 2021).

Tax benefit

For the GAAR to come into effect, there ought to be an impermissible tax avoidance arrangement. This is defined in section 80A as an arrangement if its sole or main purpose was to obtain a tax benefit.

Tax is defined in s 80L as:

i. *Any tax, levy or duty imposed by this Act, or any other law administered by the Commissioner*.

The tax benefit requirement is an important one as it determines whether an avoidance arrangement exists, regardless of the magnitude of the tax benefit. To apply the current GAAR, it is essential to establish whether there is a tax benefit in the specific arrangement under consideration (Malema, 2021). *In Commissioner for Inland Revenue v King (1947),* it was concluded that when a taxpayer gets rid of a future tax liability or if the transaction reduces future income, this is a tax benefit (Bauer, 2018).

Sole or main purpose

Section 80G outlines a rebuttable presumption:

An avoidance arrangement is presumed to have been entered into or carried out for the sole or main purpose of obtaining a tax benefit unless and until the party obtaining a tax benefit proves that, reasonably considered in light of the relevant facts and circumstances, obtaining a tax benefit was not the sole or main purpose of the avoidance arrangements.

In determining whether a transaction has the sole or main purpose of obtaining a tax benefit, it needs to be considered whether the determination ought to be an objective or subjective test. Considering the wording of section 80A, it reads as though the determination must be an objective one. This means that the onus of proof lies on the taxpayer to prove the purpose of

the transaction (De Vos, 2016). However, section 80G implies a subjective test as it requires consideration of the relevant facts and circumstances (Mzila, 2020) and if the test were to be subjective, the onus of proof would lie on the Commissioner to determine the intention of the taxpayer. Therefore, this contrast creates uncertainty on how the principle ought to be applied (De Vos, 2016).

Tainted element

Section 80A requires an impermissible tax avoidance arrangement to contain one or more of the tainted elements:

a) in the context business –

i. It was entered into or carried out by means or in a manner which would not normally be employed for bona fide business purposes, other than obtaining a tax benefit; or

ii. It lacks commercial substance, in whole or in part, taking into account the provisions of section 80C;

a) in a context other than business, it was entered into or carried out by means or in a manner which would not normally be employed for a bona fide purpose, other than obtaining a tax benefit; or

b) in any context –

i. It has created rights or obligations that would not normally be created between persons dealing at arm's length; or

ii. It would result directly or indirectly in the misuse or abuse of the provisions of this Act (including the provisions of this Part).

To invoke the GAAR, the Commissioner must send a notice to the taxpayer communicating his intention to apply the provisions of the section. Section 80J states that:

(*1) The Commissioner must, prior to determining any liability of a party for tax under section 80B, give the party notice that he or she believes that the provisions of this Part may apply in respect of an arrangement and must set out in the notice his or her reasons therefore;*

(2) A party who receives notice in terms of subsection (1) may, within 60 days after the date of that notice or such longer period as the Commissioner may allow, submit reasons to the Commissioner why the provisions of this part should not be applied;

(3) The Commissioner must within 180 days of receipt of the reasons, or the expiry of the period contemplated in sub-section (2)—

a. Request additional information in order to determine whether or not this Part applies in respect of an arrangement;

b. Give notice to the party that the notice in terms sub-section (1) has been withdrawn; or

c. Determine the liability of that party in terms of this Part.

(4). If at any stage after giving notice to the party in terms of subsection (1), additional information comes to the knowledge of the Commissioner, he or she may revise or modify his or her reasons for applying this Part or, if the notice has been withdrawn, give notice in terms of subsection (1).

The current GAAR provides a wider scope than its predecessor, and although the advantages of that can be argued, the main issue noted is the uncertainty created by this wide scope. Terms such as transaction, scheme, operation, agreement and understanding are not defined, and this has caused uncertainties regarding the interpretation of the provisions (Bauer, 2018). These uncertainties are further amplified by the fact that, since its inception until 2020, the current GAAR had not been trialled in a court of law (Kujinga, 2013). In 2021, the case of *ABSA and Another v Commissioner for the South African Revenue Service (CSARS)* was reported as the first case on the South African GAAR. The GAAR could not be successfully applied to this case, bringing into question its efficacy (Pidduck, Klopper, Malema & Kirsten, 2022). However, despite the apparent issues, the current GAAR has not been amended (Bauer, 2018).

RESEARCH METHODOLOGY

The primary objective of this study is to investigate whether there are weaknesses in the South African GAAR to necessitate the amendment of its provisions. To achieve this objective, a combination of the doctrinal method and a comparative analysis was used. A doctrinal legal research methodology is the detailed analysis and interpretation of legislation and other legal documents (Ngwoke, Mbano & Helynn, 2023). Whereas comparative research examines the legal systems of different countries on a particular subject and aims to identify differences or similarities for legal reform. It provides the government with valuable insight into solutions to identified problems (Ngwoke *et al.*, 2023).

This study examines the GAAR contained in the Income Tax Act by analysing its structure and wording to identify its weaknesses. It further compares the South African GAAR to that of Canada to determine areas of improvement and how to structure possible amendments by applying the Canadian GAAR requirements to the South African case: Mr X v Commissioner for the South African Revenue Service (IT 24502), which was heard in the tax court of South

Africa. The use of this case as part of the analysis is central to understanding whether the Canadian GAAR may inform potential reforms to the South African GAAR, and it was chosen as it is one of the few cases in which the current GAAR formed the basis of the dispute. Therefore, the combination of the doctrinal and comparative methodology is appropriate. In addition to the GAAR and relevant case law, the study makes use of secondary sources such as journal articles, reports, and dissertations.

FINDINGS

The Canadian GAAR

The Canadian GAAR was introduced through section 245 of the Canadian Income Tax Act after the tax system experienced a failure of the specific anti-avoidance rules (Kujinga, 2012). It aimed to protect the integrity of the tax system by preventing taxpayers from taking part in tax avoidance transactions (which are transactions that lead to the misuse of the provisions of the Income Tax Act) (Rosen & Pollock, 2024) and to deny taxpayers a tax benefit that has been obtained through engaging in such transactions (Department of Finance Canada, 2020).

In 2023, the Canadian government announced the amendment of the GAAR which it said aimed to modernise it and increase its efficacy. These amendments were made notwithstanding the long history of the GAAR's effectiveness in averting aggressive avoidance transactions (Osler, 2023). Some of the key amendments include:

i. Introduction of a preamble to guide the interpretation of the provisions
ii. Introducing an economic substance rule
iii. Lowering the avoidance transaction standard

Preamble

The amendments introduce a preamble, which aims to provide clarity on the purpose and scope of the GAAR to ensure that it is applied as intended (Fasken, 2023).

The preamble of paragraph 245(0.1) states that:

This section of the Act contains the general anti-avoidance rule, which

(a) applies to deny the tax benefit of avoidance transactions that result directly or indirectly either in a misuse of provisions of the Act (or any of the enactments listed in subparagraphs (4)(a)(ii) to (v)) or an abuse having regard to those provisions read as a whole, while not preventing taxpayers from obtaining tax benefits contemplated by Parliament; and

(b) strikes a balance between

i. the Government of Canada's responsibility to protect the tax base and the fairness of the tax system, and

ii. taxpayers' need for certainty in planning their affairs.

iii. The preamble does not form part of the analytic framework of the GAAR but aims to reinforce its role and importance (PwC, 2023).

Tax benefit

The Canadian GAAR is triggered when there is evidence of a tax benefit derived from an avoidance transaction (Rosen & Pollock, 2024).

Misuse or abuse of the tax law

The Canadian GAAR will not be imposed on an avoidance transaction unless it can be reasonably proven that the transaction directly or indirectly misuses the provisions of the section or the Income Tax Act itself (Kujinga, 2012). Section 245(4) aims to differentiate permissible from impermissible avoidance transactions by identifying those that misuse the provision and deeming them to be impermissible (Kujinga, 2012).

In the *Canada Trustco* case, the court stated that an avoidance transaction is abusive if it:

i. Achieves an outcome that the provision aims to prevent;

ii. Defeats the rationale of the provision; or

iii. Frustrates the object, spirit, and purpose of the provision.

Economic substance

The Canadian GAAR does not aim to re-characterise a transaction or match its legal form to its economic substance. The *Canada Trustco case* created a limitation on the role that the economic substance test plays in the application of the GAAR as courts, since then, do not employ the test when applying the GAAR provisions to avoidance transactions (Kujinga, 2012). This limitation has had a negative effect on the tax system (Department of Finance Canada, 2020).

As part of the amendments made to the GAAR, a new test to assess the lack of economic substance has been introduced (Osler, 2023). The amendment aims to:

i. Define economic substance to easily identify when there is a lack thereof.

ii. Ensure the test is an important consideration in the application of the GAAR.

iii. Outline the consequences of a transaction which lacks economic substance. (Department of Finance Canada, 2020).

The new test requires the transaction to significantly lack economic substance for it to misuse or abuse the provisions of the Income Tax Act. When the transaction is proven to significantly lack economic substance, the GAAR will automatically apply, and the tax benefit will be set aside, and a reasonable tax will be imposed on the taxpayer (Department of Finance Canada, 2020).

Avoidance transaction

Considering the amendments enacted in 2024, the avoidance transaction definition is amended to read as a transaction in which one of the main purposes is to acquire a tax benefit, instead of requiring the transaction to be primarily for tax purposes (PwC, 2023). Therefore, the aim is to change the determination threshold from primary to one of the main purposes (Fasken, 2023). This means that even if a transaction is engaged mainly for *bona fide* purposes, it can still be an avoidance transaction because one of its main purposes is to avoid tax. This amendment increases the scope of the GAAR (GrantThornton, 2024).

Application of the South African case law

Details of the case

The Commissioner alleged that Mr X (Applicant) undertook transactions which constituted impermissible avoidance arrangements. These transactions were as follows:

i. Promissory notes held by Trade subsidiaries as a result of transactions between A-Investments and its offshore subsidiaries

ii. The declaration Promissory notes to X by A-Investments

iii. The settlement of the promissory notes held by X through A-Investments, being obligated to pay the other parties the net income from certain transactions which involved some of the subsidiaries; and

iv. In each instance, following a sale by A-Investments, the payment made to X by A-Investments

Applying section 80G of the South African Income Tax Act, it can be concluded that each step was entered to obtain a tax benefit, because based on how the transaction was structured, the fees paid to Mr X did not attract any income tax or securities transfer tax. Had this specific structure not been used, the fees would have attracted income tax in the hands of Mr X. The Commissioner issued a notice of audit to Mr X for his 2006 to 2012 year of assessments. He then subsequently issued a s 80J notice. This notified Mr X of the Commissioner’s intention to invoke the GAAR.

Mr X objected to the Commissioner's aim to invoke the GAAR on the basis that the notice issued was too vague and rather contradictory. Per Mr X’s argument, the Commissioner’s

basis for invoking the GAAR per the section 80J notice and the audit letter differed from the one stated in the Rule 31 statement (if an appeal proceeds to the tax court, SARS is required to deliver a rule 31 statement setting out the grounds, the facts and the legal basis of their assessment, and the facts and legal basis relied on in opposing the appeal). In the section 80J notice, the Commissioner had alleged that each arrangement yielded a tax benefit. In contradiction, in the Rule 31 statement, he now alleged that the arrangement altogether resulted in a tax benefit and that one or more of the parts of the arrangement individually yielded a tax benefit.

The issues raised by Mr X include:

i. Paragraph 65 of the notice stated that there ought to have been one or more arrangements for the GAAR to be invoked. However, the arrangements were referred to both in singular and plural. Therefore, it was unclear how many arrangements existed.

ii. It was unclear which transactions formed a scheme and how many schemes were deemed to exist.

iii. It was unclear which or how many arrangements yielded a tax benefit.

iv. The contradictory views of the section 80J notice and the Rule 31 statement on what constitutes a scheme and

v. The contradictory views of the section 80J notice and the Rule 31 statement on which arrangement(s) resulted in a tax benefit.

The applicant's plea

Mr X sought to have the courts rule out paragraph 53 of the Rule 31 statement and the added words "separately and" from paragraph 55 which read as follows: "Each arrangement including steps listed above is a separate arrangement for the purpose of the GAAR, consisting of a set of preconceived transactions which separately and together constitute a 'scheme'". Mr X believes that the Rule 31 statement was an attempt by the Commissioner to correct the shortcomings of the s 80J notice issued.

Court's ruling

The court dismissed Mr X's strike-out application and the Commissioner's application to invoke the GAAR on the basis that the Commissioner's duty to begin should be preceded by gathering evidence.

Application of the Canadian GAAR

The Canadian GAAR will be applied to the transactions listed above.

Avoidance Transaction

The recent amendments made to the Canadian GAAR, have changed the avoidance transaction definition. It requires that one of the main purposes of a transaction should be to obtain a tax benefit (PwC, 2023). The purpose of the transaction is determined by using an objective test (Department of Finance Canada, 2020). This means that the purpose is determined by evaluating the facts surrounding each transaction entered by Mr X, rather than requiring him to make representations to the court (Pidduck, 2017). This provides fewer chances for Mr X to escape the application of the GAAR by making representations which may argue his intention otherwise.

The objective test requires the court to reasonably conclude that the transaction was engaged for *bona fide* business purposes (Department of Finance Canada, 2020). When considering the transactions above, it is noted that the specific structure used by Mr X and A-Investments is the reason the transaction as a whole yielded no tax liability. This is because the structure generated secondary company tax credits for A-Investments (a South African company) through purchase and sale transactions with its offshore subsidiaries. These tax credits were then offset against tax liabilities which arose from dividends declared by it. This means that these transactions were intended to convert taxable income into tax-exempt dividends, thereby avoiding paying tax.

Tax benefit

Applying the Canadian GAAR, each of the steps would be evaluated to determine whether a tax benefit existed in addition to considering the transaction as a whole. This would enable the Commissioner to determine whether it is an individual step that yielded a tax benefit or the structure as a whole. The structure used various offshore subsidiary companies to settle promissory notes and pay fees for services rendered to Mr X. However, the fees were not paid as taxable income, but as tax-free dividends used to settle loan claims. A *bona fide* transaction would reasonably be less complex than the structure used and would most likely yield some sort of tax liability. For this reason, it would be reasonable for the court to conclude that this structure was utilised specifically to obtain a tax benefit as a tax liability was avoided. As a result, this would have prevented the contradictory positions issued in the section 80J notice and the Rule 31 statement, respectively.

Misuse and abuse of the tax law

As stated, a transaction misuses the tax law if it lacks economic substance, and the amendments have included a definition for economic substance and factors to consider when determining whether a transaction lacks economic substance.

The factors set out in the amendments are an or test and are a non-exhaustive list. Therefore, only one factor needs to be met for the transaction to be deemed to lack economic substance (BDO, 2023). A-Investments frequently entered into sale and purchase transactions with its offshore subsidiaries and this created tax credits and promissory notes which were held by these subsidiaries. As stated above, the tax credits were later offset by the tax liabilities arising from the dividends declared by A-Investments. Therefore, it can be concluded that the transactions were engaged to offset different financial positions.

Conclusion of the case law

The lack of interpretation and clarity of the terms used by the GAAR of South Africa could be the reason the GAAR was questioned in the *Mr X vs Commissioner* case. Considering the above application of the Canadian GAAR, Mr X would not have argued that the Commissioner's intention to invoke the GAAR is based on vague arguments because the interpretation of the provisions would be clear. This could have prevented Mr X from disputing the application of the GAAR, and the Commissioner could have successfully applied the GAAR to the transactions undertaken by Mr X and A-Investments. This could have also prevented the lengthy court proceedings and saved each party time as well as the legal costs incurred.

As identified, the section 80J notice and the Rule 31 statement provide contradicting views of what the Commissioner himself interprets a scheme to be. The choice of words in the Canadian GAAR (arrangement vs transaction) would have prevented the confusion caused by the South African Commissioner's section 80J notice, as it is less complex to prove the existence of a transaction as compared to an arrangement or scheme.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This research aimed to identify possible takeaways from the newly amended Canadian GAAR that can be adopted by the South African GAAR to eliminate its weaknesses. An analysis of the South African GAAR was conducted, which highlighted the challenges faced when trying to interpret the GAAR. Additionally, the *Mr X vs Commissioner* case was analysed to identify the shortcomings of the GAAR that led to the dispute.

The Canadian GAAR was analysed with the dual intention of understanding its amended provisions and identifying any differences from those of South Africa. The Canadian GAAR was then applied to the selected South African case, and this helped identify the interpretation and application differences between the Canadian and South African GAARs.

The findings revealed that the South African GAAR, even after a few amendments, still contains some weaknesses and that these weaknesses may require more guidance on how to interpret the provisions and apply them.

Recommendations

Based on the findings of the study, below are the possible amendments that could be implemented to the South African GAAR. These are adapted from the newly enacted amendments of the Canadian GAAR:

Preamble

Canada released a preamble in their recent amendments to provide clarity on the purpose and the scope of the GAAR to ensure that it is applied as intended. Therefore, as the South African GAAR contains fewer interpretation guidelines when compared to Canada, releasing a preamble would allow for clarity.

The abnormality requirement

Many South African commentators continue to doubt the abnormality requirement. Similarly, the Canadian GAAR has responded to past challenges to its economic substance criterion by providing a considerably more comprehensive list of the factors that would be used to determine this requirement in its amendment. By taking such an amendment into consideration, the South African GAAR might similarly eliminate its current challenges and criticism.

Implications

The GAAR aims to safeguard the tax system's credibility and integrity; therefore, amending the GAAR would be one way of ensuring the credibility and integrity of the tax system. Insights from the study could assist the South African government in designing better structured and relevant anti-avoidance rules**.**

Recommendations for future research

Further research could be performed as part of a focus group, including both natural persons and representatives of non-natural persons, to explore their perceptions of the GAAR and their application of it in practice.

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GUIDING THE EVOLVING ROLE OF THE FINANCE FUNCTION IN A DIGITAL ERA FOR SOUTH AFRICA

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ABSTRACT

The objective of this study is to identify if South African private entities finance function's role has evolved and focuses more on generating as well as preserving business long term value. The study adopted an explanatory research design which is supported by the qualitative data collection methods. The researcher collected data from senior finance professionals who are working in South African private entities to determine their views about the evolving role of the finance function. The study's findings indicates that the role of the finance function has evolved. It has changed from originally focusing on financial control and supporting other entity functions to the recent role where it is more broad, strategic, technology driven, agile and firmly embedded in the business generating and preserving long term value for their organisations. The main contribution of this study is that it will assist the chief financial officers (CFOs) and finance practitioners in transforming their finance function operating models. Furthermore, this study also provided best practises of how finance functions in a digital era should operate as part of ongoing research into the future of finance so that finance practitioners and academics can adapt learning pathways in line with the evolving mandate. Hence, it will help them to orchestrate corporate wide changes, and advance the entity value creation.

Keywords: finance transformation; finance function; automation; value

INTRODUCTION

The finance function may eventually approach a breaking point if nothing changes since so many of its traditional tasks can now be readily automated (Liu-Lindberg *et al*., 2022). The finance function is the department of an organisation that is responsible for handling the financial matters of the business. It is essential to ensuring the organisation's financial stability and supporting strategic decision-making by managing diverse financial activities (Davidson, 2020). CFOs are well aware of the advantages of artificial intelligence that by automating repetitive processes, technology in general have the potential to completely transform the

finance function and free up staff members to concentrate on more important activities (Capa, 2023). Thus, it has become imperative to use technology to create agility as it gets more embedded into every element of an organisation (Mouka, 2025). Furthermore, as technology reshapes products and expectations of customers, entities are required to adapt their operating models (Hood, 2025). Hence, the problem facing finance professionals is to either adapt and create value or continue to function in the same way and end up depleting the organisation's resources (Liu-Lindberg *et al*., 2022).

THEORETICAL BACKGROUND AND LITERATURE REVIEW

Theoretical framework

To research the evolving role of the finance function in South African private entities and develop its framework which guide the best practices of how the finance functions should operate, this study used the institutional theoretical framework. Institutional theory states that organisations are influenced by their environment, particularly by the standards and expectations of the institutional setting in which they operate (David *et al*., 2019). Thus, organisations are likely to adopt practices and structures that are highly valued and admired in their industry or sector in order to establish legitimacy and maintain their reputation (Berthod, 2018). According to the institutional theory, people and organisations are impacted by the norms and values of the institutions in which they operate, and they are likely to abide by them in order to gain legitimacy and social acceptance (David *et al*., 2019). Similarly, the constantly evolving operational environment, which is mostly driven by the rapid advances of technology (RPA, AI, ML, Blockchain, cloud computing, ERP, etc.), has also had an effect on the finance function (Danitz *et al*., 2022). Additionally, the expectations of stakeholders regarding finance along with ever evolution of business operating models, proliferation of technology and macroeconomic instability factors have also impacted the finance function significantly (Jadox, 2022). Therefore, to continue to be useful to its stakeholders over time, the finance function has changed along with these factors.

Literature review

Among the materials examined to meet the objectives of the research include books, journals, articles, and the Internet.

The role of the modern finance function in a digital era

The business landscape is changing due to a number of variables, including technological developments, new corporate models, macroeconomic instabilities, and continuously changing stakeholders demands (Roos *et al*., 2022). As the state of the world economy is still uncertain, in 2025, CFOs will still face challenges due to economic unpredictability, including

the COVID-19 pandemic's after effects and geopolitical concerns (Mouka, 2025). Therefore, finance is now aware that entities will continue to function in difficult and diverse environments for the foreseeable future. Consequently, to manage the challenges that their organisations encounter in the digital age, finance functions need to employ distinct technologies and strategies (Farrar, 2019). Hence, finance teams are using automation as an enabler to free up time for tasks that technologies cannot perform, such as fostering relationships, strategic thinking, implementing organisational vision, converting data into actionable insight, and driving business transformation (Liu-Lindberg *et al*., 2022).

The finance has always been in charge of controlling business expenses and enhancing productivity (Thrasybule & Turner, 2024). However, as circumstances have evolved, so too have the demands placed on the finance function and its responsibilities (McCaffry, 2024). The advantage of this transformation is that the finance department is now able to concentrate on generating and sustaining the long-term value for their organisations (Campagna *et al*., 2021). Furthermore, the roles of finance function have changed significantly over time, and they are now seen as genuine value partners that focus on creating and safeguarding long-term value for their entities. It has lately started to play a more comprehensive role by strategically partnering with other business functions to actively guide business decisions and support the organisation's overarching objective. Thus, it has now fully developed as value generators for the business (Kanaka, 2022).

Moreover, the growing requirement for more adaptability and resilience has accelerated the major changes happening, which are changing how the finance function works, contributes to, and collaborates within the business. Also, technology evolution has put finance at the forefront of strategic decision-making and value creation (Lawrence, 2023). This is also influenced by unstable operating environment that is changing the roles of the finance professional mainly owing to the increased automation of technical accounting tasks and evolving expectations of stakeholders from finance (Liu-Lindberg *et al*., 2022). Thrasybule and Turner (2024) affirm that finance mandate and role are growing, and it is expected that they will lead the digital strategy. Research also indicates that finance plays a bigger role in data, automation, and infrastructure adaptability. This is vital as the finance function has a rich knowledge and understanding of the business. Hence, they ought to be drivers in the process rather than merely facilitators (Thrasybule & Turner, 2024).

Nevertheless, finance professionals are now responsible for making sure that organisations adopt a more comprehensive perspective, balancing and protecting the interests of people, the environment, and prosperity of the entity (Winterson, 2021). As a result, modern finance functions are strategically positioned inside the business and have a significantly wider range of work and a much larger ecosystem of tools and processes (Hippe *et al*., 2021). McCaffry

(2024) contends that, in a digital age the depth, breadth, and speed of finance activity have all broadened. Some of the critical roles of accounting departments includes identifying, creating, and preserving value supported by their business acumen and knowledge of the fundamental factors that influence value (McCaffry, 2024).

Furthermore, the focus of the finance function in a digital age is changing from costs to organisational value, and how finance professionals are evaluated and justified will depend on these innovative concepts of value (McCaffry, 2024). This has forced finance teams to not only concentrate on transactional finance, but also to be involved in the strategic evolution of the business (Campagna *et al*., 2021). This is possible because finance work as internal consultants with other departments to comprehend their operations, identify opportunities and problems, pinpoint areas for process improvement, and ultimately devise solutions (Thrasybule & Turner, 2024). This holistic role is transforming finance teams into strategists and revenue enhancers while highlighting the significance of increasing operational efficiency. They also seek insights on growth possibilities and new profit tools (Workday, 2022).

Finance departments have also taken on the responsibility of helping their entities create a new future as part of their expanded function since they want a less reactive and more proactive finance function. They also help create business strategy and act as advisors to other departments and teams (UIPath, 2022). Therefore, as part of its overall mandate, the finance function is changing to becoming the guardian of the company performance. It is well-positioned to drive organisational performance in this extended role, including providing guidance on how the business allocates essential resources to achieve strategic objectives (Hippe *et al*., 2021).

RESEARCH METHODOLOGY

Study Design

The explanatory sequential method was the chosen research design for this study. Explanatory design aims to explain a variety of phenomena in particular contexts instead of focussing on a single example of a problem (Baskerville & Pries-Heje, 2010). The researcher selects themes and constructs based on significant, non-significant, and contradictory responses, analysed qualitatively (Creswell, 2014). The study's employed explanatory research design used qualitative methodology to guide the collection of data and analysis.

Study setting and participants

This study used purposive sampling approach as the research collected qualitative data and it is descriptive. It utilised a sample size of 8 senior finance professionals from private entities which were chosen from the registered companies. These 8 senior finance professionals took

part in the interview. Data was collected using a script of pre-written questions that were centred on the participants views on the role of the finance function in a digital era.

Statistical Analysis

This study did not involve rigorous statistical hypothesis testing or sample size estimates. With the use of ATLAS.ti, responses from semi-structured interviews were statistically analysed, presented, and then validated using themes identified. This approach provided a varied but targeted representation of viewpoints pertinent to the objectives of the study. This was considered appropriate to enable the identification and examination of key themes in the results.

Ethical Aspects

The North-West University, Economic and Management Sciences Research Ethics Committee approved this study on 24 November 2023.

Limitation of scope

This research will be limited to private entities in South Africa. Private entities in this study means all non-state-owned enterprises.

RESULTS AND DISCUSSIONS

These findings are thematically and graphically represented in table 4.1 and figure 1 to 2 which were produced by the ATLAS.ti tool.

TABLE 4.1: STUDY THEMES AND SUB-THEMES

Theme	Sub-Theme	Summary of Key Findings
1. Changing Roles of Modern South African Private Entities Finance Function	Business development	Finance functions are actively involved in business growth initiatives, identifying new revenue streams, and supporting commercial teams in increasing sales and profitability.
	Strategy setting / Influencing decision-making	Finance plays a key role in strategy formulation, long-term planning, investor relations, ESG initiatives, and capital market engagement.
	Collaborating with other functions / stakeholders	The finance function no longer operates in isolation. It collaborates with other departments to oversee organisational performance and drive value creation.
	Analysing the business / Providing actionable insights	Finance is responsible for deep business analysis, scenario planning, and using data-driven insights to support decision-making.

	Constant implementation of technology / Digital transformation	Finance professionals lead digital transformation projects, integrating financial systems, improving processes, and co-creating technology solutions for long-term business sustainability and adaptability.
2. Finance function is integrated in business and collaborates with other business functions	Finance no longer isolated	The finance function is no longer a stand-alone unit but works alongside other business functions to understand operational decisions and their financial impact. Finance executives now serve as key advisors to the CEO.
	Modern finance role is pervasive and acts as the 'blood vessels' of the organisation	Finance operates as an extended ecosystem, collaborating deeply with different business units. Digital tools have enabled finance professionals to focus on strategic and value-adding activities.
	Finance is fully integrated in the business	Finance professionals are embedded in all business activities, helping to optimise the value chain and serve as architects of organisational value.

Theme 1. Changing roles of modern South African private entities finance function

Theme one presented seven distinct sub-themes that illustrated the participants' diverse perspectives on the role of modern finance function.

FIGURE 1: PARTICIPANTS' VIEWS ON THE ROLE OF MODERN FINANCE FUNCTION

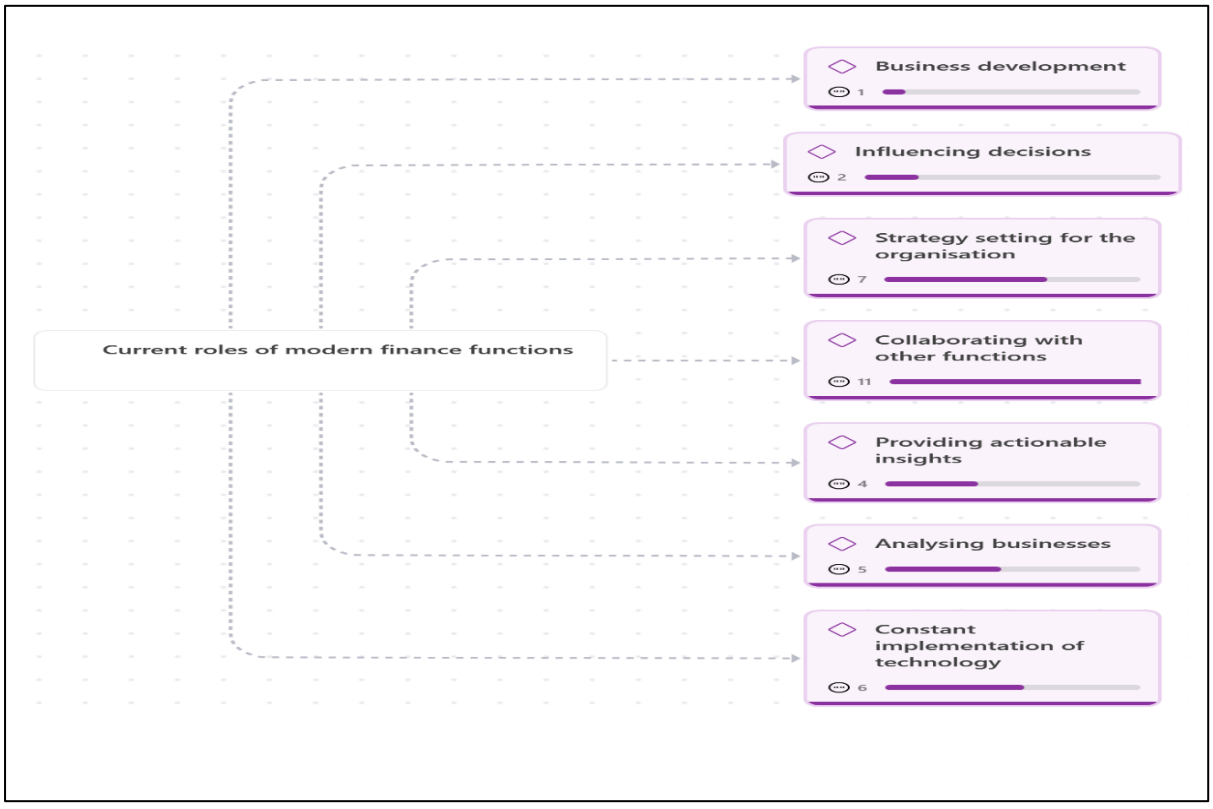


Figure 1 shows that South African private entities senior finance professionals hold the view that the role of the modern finance function has changed. These views further highlight that, in a digital era, finance professionals spend more time performing value adding activities such as analysing the business, providing actionable insights, collaborating with other functions, identifying ways to improving performance, strategy setting, influencing decisions, seeking ways to generate more revenue, understanding and improving business processes/operations, digital transformation, long-term planning and solving business problems.

P1-P8 responses highlighted the following in their responses with regards to the above statement:

To support above explanation, P1 and P4 expressed the following:

"…In the past, there was a serious focus on transactional accounting and the process of producing financial results in the financial statements. That progressed for many decades until, like all other disciplines, there was an overwhelming change in the way business gets done. The role of the finance professional started to get elevated to that of a strategist working alongside the CEO and other executives. In addition, they started integrating data in a way that its analysis started to provide insights for the leadership to make better and informed decisions for the business" (P1).

"I must say finance is no longer just about reporting in financial statements. They are important statements, but it's beyond that, because the robot can actually do that now. The AI technology can provide an income statement, balance sheet and cash flow statements. The finance function role is to look at what are these numbers revealing and why are the numbers in the manner that they are..... In addition, their role is to interrogate what the financial information is saying about the business and advising the stakeholders what needs to be done to improve the performance of the business….. Especially, if there are areas with non-performance…." (P4).

Nevertheless, P2, P3 and P7 further attested that, unlike the past, finance professionals' roles have broadened encompassing business strategy advisory/setting, business partnering, performance enabling, decision support through insights provision, supporting revenue generation and digital transformation as stated below:

"Definitely, due to technology, finance professionals are spending more time on value adding activities such as analysis, providing insights, collaborating with other functions, identifying ways on how to improving the performance of the entity and advising on strategy for the organisation" (P2).

"It has evolved to include both the historical functions of financial control and support as well as business strategy and preserving long term value. Therefore, it is the traditional role plus more responsibilities that have been added to the role of finance professionals. These include aspects such as risk management, performance management and the focus on digital transformation which are new issues in business that result in the value creation and creating sustainability for the organisations" (P7).

These above verbatim words are an indication that South African private entities senior finance professionals hold the views that, the finance function has passed the stage where it is transactional focused. It is entrenched in the complexities of the business, actively involved in the strategic setting, strategic review, strategy control and being a key partner in delivering business strategy. This is unlike the past where finance functions were only concerned with financial, management accounting, tax, and auditing activities. Now, the team is expected to understand the whole business, being forward looking and overseeing organisational performance. Additionally, finance is no longer only seen as people that generate financial information, but a team that actually give a deep analysis to the business, explain what the financial information is saying about the business and advising about what needs to be done to improve its performance.

Hence, the role of the finance professional has been elevated to that of a strategist working alongside the CEO and other executives. Aforementioned findings were confirmed by Danitz *et al*. (2022) who affirmed that, the evolution of the finance function has been enabled by recent technologies initiatives. This has created capacity for finance function teams to focus more on other value adding activities such as collaborating with other functions, providing actionable business insights, identification of valuable activities, enabling business growth, driving business strategy, co-creating entities technology initiatives and leading organisational transformational agendas (Danitz *et al*., 2022). Additionally, they are regarded as true value partners or enablers who concentrate on generating and preserving long-term value for their organisations. Accordingly, they are now becoming fully fledged value drivers for the company (Kanaka 2022) and (Liu-Lindberg *et al*., 2022).

Theme 2: Finance function is integrated in business and collaborates with other functions

Theme two presented three distinct sub-themes that illustrated the participants' diverse perspectives that finance function is integrated in business and collaborates with other functions

FIGURE 2: PARTICIPANTS' VIEWS THAT FINANCE FUNCTION IS INTEGRATED IN BUSINESS AND COLLABORATES WITH OTHER FUNCTIONS

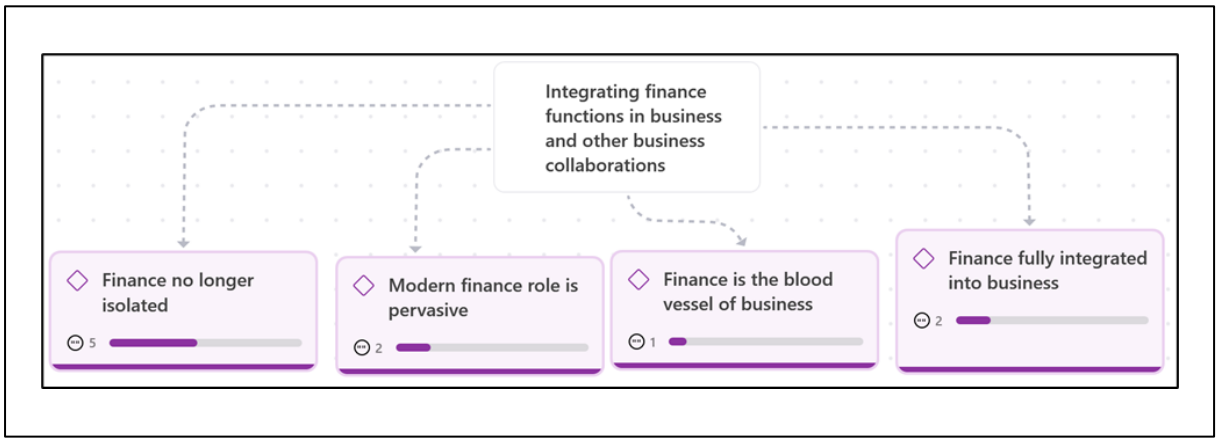


Figure 2 indicate that South African private entities senior finance professionals hold the view that modern finance function is no longer isolated. It is fully integrated in the entity and partners with other functions in solving business problems. Additionally, finance modern role is pervasive as it is regarded as a blood vessel of the entire business.

The above findings are explained by P1-P2 explanation who said:

"Business as we know today cannot function in isolated pockets because there are interdependencies between various functionalities of business. These significantly influence the way those individual business units' function and the way they make decisions. ……... Hence, the finance has become like the blood vessels of the body by being all over the organisation supporting the leadership…." (P1).

"Finance is no longer isolated and they are no longer back office as they regularly engage with other function. This is driven by its responsibility in providing insights to other functions. They also engage with other functions in understanding what is happening in those functions for it to provide accurate reporting, help resolve problems and identify activities which have finance impact to the organisation" (P2).

P4 further contends that:

"Finance partners with other functions because, most of the business or operational decisions have a financial impact. For instance, before an engineer, operations, marketing person makes a decision that will have financial implications, they involve the finance teams... and highlight to them so that they can understand the financial impact of the decision they are trying to make. I fully believe that finance cannot do what they need to do if they do not embed themselves in the business……...Hence, finance is certainly fully integrated in the business. Its value addition is in it being more entrenched in the business. This is because, if finance

understand the business, the better it can partner with the business. So, it needs to have a good appreciation of what the operation is experiencing" (P4).

P1, P2, P4-P8 responses above shows that the finance function is now compelled to partner with other businesses functions and understand what is happening because, operational or functional decisions have financial impact. This indicates that the finance function cannot operate in isolated pockets since there are interdependencies between various functions in the business. These interdependencies significantly influence the way business units operate and make decisions. This is driven by the recent role of the finance function which is embedded in the organisation supporting other stakeholders in different functions.

These responses also indicate that finance value addition is dependent on it being more entrenched in the business. Participants also stated that, the motivation for finance interacting regularly with stakeholders is that, these days, it wants to understand business operations in order to be part of problem solutions. This is unlike the past where they would not really give any thoughts to the needs of other business units since they did not understand the needs of the entity. To support the above findings, Kanaka (2022) and Campagna *et al*., (2021) also affirmed that, the finance function has recently begun to play a more holistic role by collaborating strategically with other functions to actively direct company decisions and support its overall goals.

CONCLUSION AND RECOMENDATIONS

As stated earlier, the main objective of this study was to research the evolving role of the finance function in South African private entities that will guide best practices of how modern and future finance functions should operate. In light of the above discussions, this study concluded that the majority of South African private entities senior finance professionals agree that the role of the finance function has evolved. It has changed from originally focusing on financial control and supporting other entity functions to the recent role where it is more broad, strategic, tech driven, agile and entrenched in the business generating and preserving long term value for their organisations. These findings led to the conclusion that modern finance function's role focuses more on generating and preserving business long term value through driving business growth, crafting business strategies, leading organisational digital transformation, co-creating company's technology agendas, solving business problems and business partnering. This study also concluded that this evolution has mainly been enabled by exponential growth of automation tools, changing stakeholders' expectations from finance, macroeconomic instabilities, rapid changes in the business operating models and geopolitical tensions. The study findings are aligned to the institutional theory used as it explains that,

organisations or people are mainly shaped by their operating environment and so has elements in the operating environment have also affected the finance function.

The important contribution of this study lies in the illustration of best practises of how modern and future finance functions should operate. This will help finance practitioners and academics to adapt learning pathways in line with the evolving mandate. It is expected that when finance practitioners apply elements of finance best practises illustrated, it can achieve the requirements of the new finance function evolving mandate as an organisational value creator. The lessons learned will also assist the CFOs and finance practitioners in transforming their finance function operating models. Hence, it will help them to orchestrate corporate wide changes, and advance the entity value creation.

The researcher recommends that South African private entities finance functions continue to transform their operating models. It should be enabled by recent technologies, data optimisation and process engineering. This will help them to be agile, and meet best practises of how modern and future finance functions should operate in a digital era. Consequently, this will enable the finance department to be reinvented into a proactive change agent utilising automation and offering high value strategic services supported by effective processing of transactions. It is also recommended that finance executives should fully integrate the finance function in the entity and enable it to focus more on collaborating with other stakeholders.

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HIGH SCHOOL AND FIRST-YEAR UNIVERSITY ACCOUNTING SYLLABI: BRIDGING THE GAP

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ABSTRACT

The transition from high school to university poses challenges for accounting students due to disparities between the syllabi and teaching approaches. This study examines the gaps between high school and first-year university accounting curricula in South Africa and how these differences affect students' performance and adaptability. A mixed-method approach was adopted, including a theoretical and conceptual literature review, document analysis of accounting syllabi, and a quantitative survey using structured questionnaires. Responses from 297 first-year accounting students at a South African university were analyzed using thematic analysis, descriptive statistics, and factor analysis. The findings highlight significant gaps in teaching and learning. Students noted that the first-year university syllabus emphasizes critical thinking and independent study, which are underdeveloped at the high school level. Over 80% of respondents identified differences in teaching methods, assessment standards, and syllabus content relevance. They observed that first-year accounting content integrates real-world applications, unlike the theoretical focus of high school curricula. However, both levels provide adequate support materials, suggesting that resource availability is not a major issue. Outdated high school materials and reliance on rote learning were identified as key barriers to adapting to university expectations. The study recommends aligning high school accounting curricula with the analytical and practical demands of university education. Teachers should be trained to adopt methods that promote critical thinking and application skills. Tailored orientation programs at universities can also help students navigate new assessment and grading systems. These findings offer insights for curriculum developers, educators, and policymakers to harmonize educational transitions.

Keywords: academic preparedness; critical thinking skills; curriculum alignment; educational transition; teaching methodologies

BACKGROUND

High attrition rates among first-year accounting students in South African higher education institutions are a significant concern, largely due to systemic challenges such as insufficient academic preparedness and socio-economic barriers, which negatively impact individual student outcomes and the accounting profession. High school foundational knowledge significantly impacts students' ability to succeed in university accounting programs. Final year high school grades predict academic performance in accounting at Higher Education Institutions (HEIs). Students with accounting backgrounds often have an advantage when instruction aligns with university expectations (Bruwer & Ontong, 2020; Everaert *et al*., 2024; McGhie, 2012). Factors influencing first-year accounting performance include teaching methodologies, resource availability, and transition challenges. Inadequate preparation can exacerbate these challenges (Bokana, 2010),

PROBLEM STATEMENT

Research shows that the content and design of accounting curricula in high school and university are often insufficient, leading to a disconnect between students' preparedness for higher education. This disconnect is further exacerbated by systemic challenges in South Africa, such as poor curriculum management, ineffective teaching, inadequate subject coverage, insufficient educator qualifications, outdated textbooks, limited teaching resources, and overcrowded classrooms (Amin & Mahabeer, 2021; Legotlo, 2014).

The study aims to identify gaps in high school and university accounting syllabi, assess student preparedness, and improve academic success rates for first-year accounting students by addressing gaps, conducting literature review, document analysis, and assessing students' perceptions.

LITERATURE REVIEW

Teaching and learning of accounting syllabi (objective 1)

The following are reviewed:

High school accounting syllabi

Accounting is a vital discipline that promotes critical thinking, ethical conduct, and analytical problem-solving, with the curriculum in South Africa remaining unchanged since 2012 (Akpan, 2020) High school accounting syllabi in South Africa focus on foundational principles and critical thinking skills, enabling ethical financial decision-making. However, studies reveal gaps in student preparedness for university accounting, leading to high dropout rates and insufficient instructional time, hindering effective learning (Bazyar *et al*., 2015).

University-level accounting syllabi

The university-level accounting curriculum emphasizes advanced topics like financial, external reporting, cost, and managerial accounting, requiring support structures and curriculum adjustments for transitioning from high school to university studies. Nevertheless, studies indicate a persistent gap between the academic training provided in universities and the foundational skills provided in the high school (De Villiers & Farrington, 2017; Mokhampanyane, 2023; Rossouw & Brink, 2021). This disconnect often results in poor performance among first-year students and inadequate preparation for the demands of the accounting profession (Lubbe *et al*., 2020; McGhie, 2012).

Contributory factors widening the gap between high school and university accounting syllabi

The disparity between high school and university accounting syllabi is a persistent issue, as high school curricula often lack the necessary depth for university studies (Papageorgiou, 2023).Post-apartheid South African education faces criticism for relying on Western methods, outdated textbooks, insufficient teacher training, resource disparities, and class size, which limit individual attention and result in poor teaching quality. These challenges underscore the need for innovative teaching strategies and curriculum alignment to enhance the transition from high school to university.

Research approach

The study utilized a mixed-methods research approach, combining quantitative and qualitative methods, to explore the compatibility between high school and university accounting syllabi. According to Creswell (2014), mixed-methods research combines the strengths of qualitative and quantitative approaches, providing a better understanding of the research problem than either method alone. The integration of these methods facilitated a robust exploration of the teaching and learning gaps. Following the framework outlined by Holt and Goulding (2014), the study was conducted in two distinct phases: (i) Literature review and document analysis to examine the alignment of accounting syllabi, and (ii) A cross-sectional survey to assess perceptions of teaching and learning gaps from first year accounting students.

Study setting

The study was conducted at a leading South African university with three campuses, each hosting an accountancy department. The institution is recognized for its prominent role in accounting education and provided an appropriate context to explore transitions between high school and university accounting education.

Study population and sample

The study targeted first-year Bachelor of Commerce (BCom) Accounting students enrolled in the university's School of Accounting. Stratified random sampling was employed to ensure adequate representation of students across the three campuses. From a target sample size of 297 students, 164 responses were obtained, achieving a response rate of 55.2%, which is deemed adequate for statistical analysis.

Data collection

The data collection process involved literature review and document analysis of curriculum documents from high school and university accounting syllabi, and a structured questionnaire to understand first-year accounting students' perceptions of teaching and learning gaps between high school and university. A pilot study was conducted to validate the instrument, improving question clarity, format, and scales, as recommended by Fraser *et al*. (2018).

Data analysis

The survey data was analyzed using IBM-SPSS version 25, revealing adequate KMO and Bartlett's test fitness and item loading into one component, indicating they align with the questionnaire's objective.

TABLE 1: KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**0.941**
Bartlett's Test of Sphericity	Approx. Chi-Square	10029.151
	Df	66
	Sig.	0.000

TABLE 2: COMPONENT LOADING OF THE QUESTIONNAIRE ITEMS

Component Matrix[a]	
	Component
	1
Item1	0.995
Item2	0.958
Item 3	0.957
Item 4	0.969
Item 5	0.991

Item 6	0.994
Item 7	0.992
Item 8	0.997
Item 9	0.939
Item 10	0.935
Item 11	0.987
Item 12	0.991
Extraction Method: Principal Component Analysis.	
a. 1 component extracted.	

Descriptive statistics (frequency and percentage) and inferential statistics (Chi-square tests) were applied to evaluate the relationships between variables and identify key dimensions of the teaching and learning gaps.

Ethical clearance and informed consent

The study received ethical clearance from the EMS-REC, participants were informed about the study's purpose, scope, and rights, and informed consent was obtained before data collection.

FINDINGS AND DISCUSSION

The alignment between high school and university accounting syllabi (objective 2)

The South African high school accounting syllabus provides a foundational understanding of accounting topics like ethics, reconciliations, VAT, and financial statements, which are revisited at university level. However, it lacks advanced applications for nonprofits and public sector organizations, emphasizing procedural knowledge over analytical skills. High school to university accounting transitions are challenging due to curriculum, teaching practices, and systemic issues, with fragmented knowledge and overly ambitious curriculums in South Africa.

TABLE 3: COMPARISON BETWEEN HIGH SCHOOL ACCOUNTING SYLLABI AND THAT OF THE FIRST YEAR OF AN ACCOUNTING QUALIFICATION AT THE SELECTED UNIVERSITY

High School	High School	High School	University
Grade 10	**Grade 11**	**Grade 12**	**First Year**

Indigenous bookkeeping	Reconciliations	Companies	Introduction to accounting:
Ethics (Introduction)	Fixed assets	Ethics	The nature and function of accounting
GAAP Principles	Partnerships	Fixed assets	The accounting equation
Internal control (Introduction)	Clubs	Close corporations (CCs)	Conceptual framework and other basic principles
Bookkeeping of sole trader	Cost accounting	Internal control	Accounting cycle
Value Added Tax (VAT)	Budgeting	Inventory systems	Completion of accounting circle
Salaries and wages	Cash budget	Reconciliations	Accounting systems
Final accounts	Inventory Systems	VAT	Elements of financial statements
Financial statements – Sole trader	Value Added Tax (VAT)	Cost accounting	Non-current assets
Cost accounting		Production cost statement with notes	Non-current liabilities
Budgeting		Trading and profit and loss statement, unit costs, break-even	Current liabilities
		Budgeting	Financial statements
		Revision and examination preparation	The framework and accounting
			Different entities

Source: Department of Basic Education (DBE, 2011)

Assess first-year accounting students' perceptions of the teaching and learning gaps between high school and university syllabi. (Objective 3)

Demographic profile of the respondents

The survey included 164 respondents, with 59.8% being female and 40.2% male (Table 4). The respondents were predominantly aged between 18 and 21 years (78.7%), with 18.9% aged 22–27 years, while only a small percentage (2.4%) were above 27 years. This age distribution aligns with the typical demographic of first-year university students, who are transitioning from high school to higher education. Respondents represented a range of linguistic backgrounds, with Afrikaans (28.0%) and Setswana (26.8%) being the most common home languages. English accounted for 12.2%, and 32.9% reported other languages. This

diversity provides valuable insights into how students from different linguistic backgrounds experience the transition to university-level accounting education. In terms of academic background, 68.3% of respondents had passed both Accounting and Mathematics in high school, which are key prerequisites for pursuing accounting-related degrees. A smaller proportion had passed Accounting alone (10.4%), Mathematics alone (15.9%), or Accounting and Mathematics Literacy (3.7%). This indicates that most respondents have the foundational knowledge required for university accounting studies. The degree enrolment data shows that 51.2% of respondents were pursuing a BCom in Chartered Accounting, and 36.6% were enrolled in a BCom in Financial Accounting, with 12.2% pursuing other degrees. This confirms that most participants are directly engaged in accounting programs, making them well-positioned to provide insights into the continuity and gaps between high school and university accounting syllabi.

The study's relevance is bolstered by the respondents' demographic profile, including age, academic background, and accounting program enrolment, and their diverse gender and home language.

TABLE 4: DEMOGRAPHIC PROFILE OF THE RESPONDENTS

		Frequency	Percent
Gender	Female	98	59.8
	Male	66	40.2
Age	18 – 21 years	129	78.7
	22 – 27 years	31	18.9
	28 – 32 years	1	0.6
	33 years and above	3	1.8
Home language	Afrikaans	46	28.0
	English	20	12.2
	Others	54	32.9
	Setswana	44	26.8
Subject passed in high school	Accounting	17	10.4
	Accounting and Mathematics	112	68.3
	Accounting and Mathematics Literacy	6	3.7
	Mathematics	26	15.9

	Others	3	1.8
Degree enrolled for	BCom CA	84	51.2
	BCom FA	60	36.6
	Others	20	12.2

This study reveals a significant disparity in high school and first-year university accounting curricula, teaching methods, and learning environments, affecting students' preparedness and academic success.

Alignment of syllabi

Table 5 shows the frequency and percentage of the respondents' feedback with the items' Chi square test. According to Rana and Singhal (2015), a Chi square test is significant if the p-value is equal or less than 0.050. The finding that 56.7% of respondents agreed that the first-year accounting syllabi are not built on high school syllabi, though not statistically significant ($\chi^2 = 2.951$, $p = 0.086$), highlights a persistent challenge in aligning these educational levels. While this perception of a disconnect is not uniform among the respondents, it reflects varied experiences and expectations among them. This aligns with broader research highlighting how misalignment between high school and university curricula hampers students' ability to transition effectively, particularly in accounting education. Studies indicate that high school performance, prior exposure to accounting, and factors like APS scores and learning approaches significantly influence first-year success (Ayaya & Moswatsi, 2024; De Villiers & Farrington, 2017). However, these academic predictors are intertwined with non-academic factors such as attendance, language barriers, and self-efficacy, which complicate the transition (Bruwer & Ontong, 2020; Byrne *et al*., 2014; Everaert *et al*., 2024). The study's lack of statistical support suggests structural misalignment and deeper issues in teaching methods, emphasizing the need for a holistic approach to support students' academic and personal growth.

Differences in Teaching Methods

A significant majority (87.8%) identified differences in teaching methods between high school and university ($\chi^2 = 93.756$, $p < 0.001$). University teaching emphasizes critical thinking and independence, contrasting rote learning methods in high schools. Wolcott and Sargent (2021) suggest cognitive development models and teaching strategies for accounting education (Papageorgiou, 2023; Wolcott & Sargent, 2021). This would enable students to transition more effectively to university learning environments.

Critical Thinking and Independence

A large proportion of respondents (90.2%) agreed that university requires more critical thinking than high school ($\chi^2 = 106.244$, $p < 0.001$). Similarly, 81.7% noted that university demands greater independence in learning ($\chi^2 = 65.951$, $p < 0.001$). Despite the high school syllabus' aim to develop critical and analytical thinking (DBE, 2011), many students struggle to apply these skills in practice. Papageorgiou and Carpenter (2020) highlight high school graduates' lack of critical thinking skills for university. Abbott and Palatnik (2018) recommend constructivist teaching approaches to bridge this gap.

Assessment Challenges

The results reveal that a significant proportion of respondents found first-year university assessments more challenging than high school assessments (74.4%, $\chi^2 = 39.024$, $p < 0.001$), with a similarly high percentage (73.2%) disagreeing that high school and university assessment methods are the same ($\chi^2 = 35.220$, $p < 0.001$). Moreover, 74.4% of respondents also disagreed that the timing of high school tests is as favorable as university tests ($\chi^2 = 39.024$, $p < 0.001$). These statistically significant findings highlight the stark contrast between the two educational levels in terms of assessment complexity, methods, and time management demands. University assessments assess knowledge retention and higher-order thinking skills like problem-solving, critical analysis, and concept synthesis, contrasting high school assessments' focus on basic recall and procedural understanding (Lubbe *et al*., 2020; Steenkamp *et al*., 2009). The study suggests that university tests are becoming more challenging due to a lack of alignment between high school and university curricula.

Relevance of Content

This study identifies significant differences between high school and first-year university accounting syllabi, emphasizing their relevance to real-life experiences, promotion of active listening, critical thinking, problem-solving, and innovation. The result indicating that 57.3% of respondents felt that the first-year syllabi were more closely linked to real-life experiences than high school syllabi, while not statistically significant ($\chi^2 = 3.512$, $p = 0.061$), suggests that there is a perception among a majority of students that university syllabi offer a more practical approach to learning. This finding points to a potential gap in how high school education prepares students for the realities of higher education, particularly in the accounting discipline. High school syllabi may focus more on theoretical knowledge and less on applying concepts to real-world scenarios (Van Romburgh, 2014).

In contrast, the statistically significant findings regarding university syllabi were more pronounced. A significant 73.8% of respondents agreed that first-year university syllabi foster active listening and critical thinking skills ($\chi^2 = 37.098$, $p < 0.001$). University pedagogical shifts

prioritize analytical skills beyond memorization, crucial for success in higher education and professional environments, especially in accounting, where critical financial data analysis is essential (Canpolat *et al*., 2015; Lawson *et al*., 2014).

Furthermore, 66.5% of respondents indicated that first-year university syllabi encourage problem-solving and innovation ($\chi^2 = 17.780$, $p < 0.001$). University education focuses on fostering students' problem-solving and innovation skills, crucial for professional success. Emphasizing adaptability and creativity in first-year syllabi aligns with educational theories advocating for interactive, student-centered learning approaches (Papageorgiou, 2023

Support materials and learning environments

The findings reveal a lack of consensus among respondents regarding the quality of university support materials and learning environments compared to those in high school. Only 47.0% of respondents agreed that university support materials are better than those in high school ($\chi^2 = 0.610$, $p = 0.435$), and 51.2% agreed that university learning environments are better ($\chi^2 = 0.098$, $p = 0.755$). This variability in responses could be influenced by the diverse backgrounds of the respondents, particularly differences in socioeconomic status and the quality of resources available to them during high school (Munir *et al*., 2023). Students from disadvantaged communities, who attended high schools with limited resources, inadequate learning materials, and underdeveloped infrastructure (Hassan *et al*., 2022; Nwosu & Matashu, 2022), may perceive minimally resourced university environments as superior. Conversely, students from more privileged high school environments with better support systems may find university resources and learning environments less impressive or less supportive. This divergence underscores how pre-university educational experiences can shape perceptions of the adequacy of support systems at the tertiary level (Ndlela & Brysiewicz, 2018; Nel *et al*., 2009). There is need for universities to adopt an inclusive approach in designing support systems and learning environments that cater to students from diverse backgrounds. Previous studies (Ayaya & Moswatsi, 2024; Mokhampanyane, 2023) emphasize the importance of adequate learning environments and resources in fostering academic success. For students from disadvantaged or rural backgrounds, providing well-equipped and supportive environments at both high school and university levels is essential (Chiramba & Ndofirepi, 2023; McKinney & Hagedorn, 2017). Efforts to bridge this gap could include providing equitable access to quality learning materials, enhancing infrastructure, and offering tailored support programs for students transitioning from under-resourced high schools.

TABLE 5: RESPONDENTS FEEDBACK ON THE TEACHING AND LEARNING GAPS IN FIRST YEAR ACCOUNTING

Items	Frequency		Percent		Chi-Square Test		
	Agree	Disagree	Agree	Disagree	χ^2	D.F.	P-value
First-year accounting syllabi which is not built on high-school accounting syllabi	93	71	56.7	43.3	2.951[a]	1	0.086
The difference in the teaching methods used at high-school and university	144	20	87.8	12.2	93.756[a]	1	0.000
I am expected to be critical in my thinking at university when compared to high school	148	16	90.2	9.8	106.244[a]	1	0.000
I am expected to be more independent in my studies at university, whereas I am used to relying on my teachers to teach me all the content in high school	134	30	81.7	18.3	65.951[a]	1	0.000
First-year assessment is difficult and is of a high standard, which is not the case in the high-school syllabi	122	42	74.4	25.6	39.024[a]	1	0.000
First-year content in the syllabi is linked to real-life experiences, which is not the case in the high-school syllabi	94	70	57.3	42.7	3.512[a]	1	0.061
First-year accounting syllabi promotes active listening and critical thinking, which is not the case in the high-school syllabi	121	43	73.8	26.2	37.098[a]	1	0.000
First-year accounting syllabi encourages students to innovate and solve problems, which is not the case in the high-school syllabi	109	55	66.5	33.5	17.780[a]	1	0.000
The assessment methods for first year and high-school syllabi are the same	44	120	26.8	73.2	35.220[a]	1	0.000
The time given to complete a test first-year is favorable, which is not the case in high school	42	122	25.6	74.4	39.024[a]	1	0.000

The support materials provided in first year are better than the ones provided at high school	77	87	47.0	53.0	.610[a]	1	0.435
The learning environment in first year is better than the one provided at high school	84	80	51.2	48.8	.098[a]	1	0.755

Contribution of the study

The study examines the alignment of high school and university accounting syllabi, identifying gaps in curriculum continuity, teaching methods, and assessment practices. It also reveals first-year university students' perceptions of these gaps, offering recommendations for curriculum development and policymaking.

CONCLUSION

The study reveals significant gaps in high school and first-year university accounting syllabi in South Africa, impacting students' preparation and performance. High school syllabi focus on foundational principles, while university syllabi expect advanced analytical skills. Document analysis shows inadequate coverage of critical topics, and students perceive a lack of preparedness as a major hurdle.

LIMITATION AND AREA FOR FURTHER STUDIES

The study is limited to quantitative survey and literature analyses. No physical face to face interaction with the participants. Future research can expand further to bridge this gap in findings.

RECOMMENDATIONS

To improve high school and university accounting syllabi, collaboration between educators, professional development programs, resource materials, and workshops are suggested. These strategies aim to harmonize curricula, introduce transitional topics, and establish a continuous monitoring framework for continuous improvement in accounting education alignment.

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TRACK 2: FINANCE AND INVESTMENT

DIVIDEND PAYOUTS DURING CRISIS PERIODS: COULD THE ESCALATION OF COMMITMENT BIAS PROVIDE A VIABLE EXPLANATION?

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ABSTRACT

Managers often maintain or increase dividend payments during crisis periods to signal confidence in their company's financial position and prospects. In this study, the question of whether the escalation of commitment theory could explain this seemingly irrational behaviour in the South African context was investigated. Data on the dividend payout ratios of companies listed on the Johannesburg Stock Exchange were collected pre-global financial crisis (2000 – 2007), during the global financial crisis (2008-2009), pre-Covid-19 pandemic (2010-2019) and during the Covid-19 pandemic (2020-2022). The unbalanced panel dataset consisted of 3 466 firm-year observations and included companies in the Financials, Industrials and Resources industries. A significant increase is noted in the dividend payout ratios of companies operating in all three industries during the global financial crisis and among Financials during the Covid-19 pandemic. Shareholders should interpret rising dividends during financial crises with caution as the escalation of commitment bias seemingly influences dividend payouts.

Keywords: dividend payout ratio; crisis; dividend signalling theory; escalation of commitment theory

INTRODUCTION AND PROBLEM INVESTIGATED

Trump's tariffs: full-blown panic or a reawakening of risk?

This question, raised by a quantitative analyst at one of South Africa's largest asset managers (De Clercq, 2025), is one that is currently being asked in boardrooms across the world. While the size and impact of Trump's tariffs on the South African economy is still unclear, it will most likely have a negative effect (Kohnert, 2025). It is amidst this volatile economic climate that managers of companies listed on the Johannesburg Stock Exchange (JSE) must determine whether to retain or distribute free cash flow (FCF) to ordinary shareholders. FCF can be distributed by repurchasing shares and/or paying cash dividends. Whilst more JSE-listed companies are using share repurchases (Steenkamp, Wesson and Smit, 2023), the focus in

this paper was on cash dividends as this form of distribution occurs more regularly than *ad hoc* repurchases.

As far back as 1976, the celebrated American economist Fisher Black described the dividend decision as a puzzle of which the pieces don't seem to fit together (Black, 1976). Fifty years later, the list of factors that need to be considered before declaring a dividend continues to grow. Most theories explain dividend payments in reference to shareholders' preferences. The bird-in-the-hand theory, for example, posits that companies should pay dividends as shareholders value dividends (cash received today) more highly than the promise of retention-generated capital gains to be received in future (Lintner, 1962; Gordon, 1959). In contrast, the tax effect theory suggests that companies should not pay dividends as shareholders are able to defer capital gains taxes whereas this is not the case for dividends (Black and Scholes, 1974; Miller and Modigliani, 1961). The catering and clientele theories also urge companies to meet the income needs and tax preferences of their largest shareholders (Baker and Weigand, 2015; Baker and Wurgler, 2004; Allen, Bernardo and Welch, 2000).

The signaling theory focusses on the information that managers wish to convey to the market through their dividend decisions. This theory, initially proposed by Bhattacharya (1979), is rooted in the fact that managers know much more about the financial health and prospects of a firm than shareholders and other market participants. By initiating, maintaining or increasing dividends, managers can thus signal their confidence in the company. These signals are generally regarded in a positive light and tend to result in favourable share price developments. In contrast, dividend cuts or omissions are typically interpreted as negative signals (Nie and Yin, 2022; Firer, Gilbert and Maytham, 2008).

Research shows that managers often resort to maintaining or increasing dividends during crisis periods to signal confidence (Ali, 2022; Tran, Nguyen and Dao, 2022; Baker, Chang and Ho, 2021; Kilincarslan, 2021; Nguyen and Tran, 2016). Forti and Schiozer (2013), however, caution that these signals could come at a significant cost if the company has to raise external capital to fund ongoing operations or deal with future eventualities. The flotation costs associated with seasoned debt and equity issuances not only increase a firm's weighted average cost of capital, but running out of cash could also result in financial distress costs, all of which decrease a firm's intrinsic value (Brigham and Daves, 2022).

In this paper, it is proposed that the act of maintaining or increasing dividends during a crisis period can also be explained by the escalation of commitment (EOC) theory. This theory describes behavioural patterns which continue despite potentially negative outcomes (Staw, 1997). Numerous studies have been undertaken on the topic, mostly in the fields of psychology and sociology (e.g. Feldman and Wong, 2018; Collins, 2012; Wong, Yik and

Kwong, 2006). Scholars have also linked the EOC bias to decision-making by project managers (Cheng, Schulz and Booth, 2009; Denison, 2009; Klimek, 1997) and more recently by institutional, venture capital and retail investors (Kurniawan and Santoso, 2023; Jackson, Howes, Kausel, Young and Loftis, 2018; Devigne, Manigart and Wright, 2016). Apart from Van der Werf (2013), no other researchers have used the EOC theory to explain managers' dividend decisions.

The author thus set out to determine whether JSE-listed companies maintained or increased dividends during these two crises and whether these seemingly irrational decisions could be explained by the EOC theory. Data on the dividend payout ratios (DPRs) of JSE-listed companies were collected from Bloomberg before and during two crises, namely the global financial crisis (GFC) and the Covid-19 pandemic. The unbalanced panel dataset consisted of 3 466 firm-year observations and included companies across the Financials, Industrials and Resources industries. The findings are valuable for managers and shareholders of JSE-listed companies who are, once again, facing a great deal of economic and policy uncertainty under the current Trump administration. In the following section, more details are presented on the EOC theory including linkages with the dividend signalling theory. Next, the research methodology is explained followed by key findings and practical implications.

LITERATURE REVIEW

The EOC theory describes the tendency among individuals or groups to continue investing resources in a failing course of action despite clear evidence that it is not viable (Drummond, 2014; Staw, 1997). Researchers attribute this tendency to psychological factors such as overconfidence and the fear of admitting failure (Sleesman, Lennard, McNamara and Conlon, 2018; Brockner, 1992). The consequences of the EOC bias can result in the misallocation of resources, missed opportunities, unethical behaviour and reputational damage, all of which can destroy shareholder value (Rutten, Dorée and Halman, 2014; Denison, 2009; Street and Street, 2006).

The EOC bias has often been used to explain the irrational decision of managers to increase investments in projects that are likely to fail (Fairchild and Li, 2025; Klimek, 1997). Research shows that managers do this as they do not want to admit that they might have made mistakes earlier in the capital budgeting process. McElhinney and Proctor (2005) found that the absence of stated project objectives and formal project appraisals contribute to managers becoming 'entrapped'. So as not to lose the trust of the company's shareholders, and potentially their employment contracts, managers hence justify "throwing good money after bad" (Statman and Caldwell, 1987: 7). Escalation of bias is more severe when a decision was publicly communicated (Gopinath and Nyer, 2009).

Managers might also persist with failing projects or strategies not because of their future potential, but to justify previous investments or avoid the perception of poor decision-making (Sarangee, Schmidt and Calantone, 2019; Brockner, 1992). This is where the EOC theory intersects with the dividend signalling theory (Van der Werf, 2013). As mentioned previously, the signalling theory suggests that managers use dividends as a means to signal their confidence about their company's health and prospects (Khan, Farooq, Jabri, Ullah and Hussain, 2025; Rashidi, 2025). Just as managers might feel entrapped into investing in a failing project to protect their reputation (McElhinney and Proctor, 2005), they might also feel entrapped to maintain or increase dividends, even in financially challenging times. Failure to do so might signal weakness or poor decision-making in previous periods (Sleesman *et al*., 2018). Managers might also be aware that investors tend to prefer dividend payers to non-payers (Abor and Fiador, 2013; Grinstein and Michaely, 2005) and dividend payers that offer stable/smooth dividends (Kilincarslan, 2021; Leary and Michaely, 2011). Some of the most important factors that managers of JSE-listed companies need to consider prior to initiating a dividend are shown in Table 1.

TABLE 1: CONSIDERATIONS PRIOR TO INITIATING A DIVIDEND[(A)]

Consideration	**Supporting references**
Dividend tax regime	**Nel, Wesson and Steenkamp (2022)**; Alzahrani and Lasfer (2012); Allen *et al*. (2000); Black and Scholes (1974); Miller and Modigliani (1961)
Level of investor protection	Attig, Ghoul, Guedhami and Zheng (2021); Alzahrani and Lasfer (2012); Fatemi and Bildik (2012)
Cultural dimensions (e.g. uncertainty avoidance, indulgence and long-term orientation)	**Viviers and Wesson (2024)**; Chang, Chang and Dutta (2020)
Investor sentiment	Bilel and Mondher (2021); Baker and Wurgler (2006, 2004)
Peer influence	Cave and Lancheros (2024); Jain and Kashiramka (2024)
Company size	**Nyere and Wesson (2019)**; **Pelcher (2019)**; Fatemi and Bildik (2012)
Life cycle stage	**Munzhelele, Wolmarans and Hall (2022)**
Sales growth	**Nyere and Wesson (2019)**
Profitability	**Nyere and Wesson (2019)**; Fatemi and Bildik (2012)
Availability of FCF	**Nyere and Wesson (2019)**
Ownership (e.g. institutional, foreign and family)	**Naidu, Charteris and Moores-Pitt (2022)**; Cao, Du and Hansen (2017); Truong and Heaney (2007)
Board independence	**Viviers, Mans-Kemp, Janse van Vuuren and Shiel (2023); Moloi, Nharo, and Hlobo (2021); Mans-Kemp and Viviers (2015); Abor and Fiador (2013)**
Growth opportunities	Fatemi and Bildik (2012)
Behavioural biases (e.g. overconfidence, excessive optimism and illusions of control)	Khan *et al*. (2025); Lin and Yu (2025); Rashidi (2025)
Managerial entrenchment	Jo and Pan (2009)

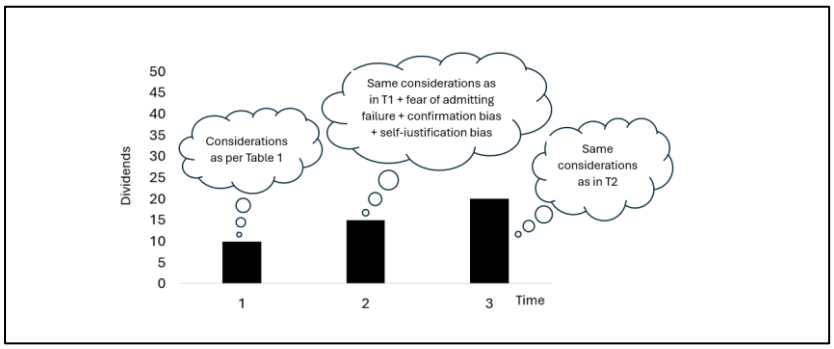
(a) Studies conducted in South Africa or those that included South African companies are highlighted in bold. Only articles published in credible journals are cited.

The first four factors listed in Table 1 are entirely beyond management's control. Changes in these factors could, however, have far-reaching consequences for managers and investors alike. One such change occurred on 1 April 2012 when South Africa transitioned from a secondary tax on companies to a dividend withholding tax regime. This shift was part of a broader effort to align the South Africa tax regime with international norms (Nel, 2018). Peer influence relates to managers mirroring the payout patterns of their peers. Cave and Lancheros (2024) argue that this type of herding behaviour is due to increased competition for capital. By far the largest number of factors influencing dividend payouts in Table 1 are internal to the company and relate to its financial performance, prospects and clientele.

Considering the diversity of factors, it is unsurprising that empirical evidence regarding dividend signalling behaviour in South Africa remains inconclusive. While some scholars found no support for this theory (Nyere and Wesson, 2019; Wolff and Auret, 2009), others observed that dividends are occasionally used to convey positive messages to market participants (Munzhelele *et al*., 2022; Moloi *et al*., 2021; Firer *et al*., 2008). Li and Chen (2020) showed that the desire among South African managers to meet or exceed shareholders' expectations was so strong over the period 2011 to 2019 that some resorted to manipulating earnings.

As shown in Figure 1, the EOC theory becomes relevant once a company has started paying a dividend. Maintaining or increasing the dividend (whether in terms of the dividend per share or DPR) in T2 is also influenced by the fear of admitting that the dividend in T1 was set too high. Research shows that the confirmation and self-justification biases tend to reinforce earlier decisions even though these might have been incorrect or sub-optimal (Mendel, Traut-Mattausch, Jonas, Leucht, Kane, Maino, Kissling and Hamann, 2011; Cheng *et al*., 2009). Confirmation bias refers to the tendency among individuals to favour information that aligns with their beliefs and values while disregarding or undervaluing evidence that contradicts them (Kelly and Milkman, 2013; Mendel *et al*., 2011). Self-justification bias describes how individuals rationalise their beliefs and decisions (Brockner, 1992).

FIGURE 1: EOC THEORY IN RELATION TO DIVIDEND DECISIONS



Source: Author's own construction

In light of the above, the following hypotheses were empirically tested:

$H_{0,1}$: *There was no difference in dividend payouts before and during the GFC.*

$H_{0,2}$: *There was no difference in dividend payouts before and during the Covid-19 pandemic.*

RESEARCH METHODOLOGY

The population consisted of all companies listed on the JSE from 1 January 2000 to 31 December 2022. Companies that were delisted or suspended at the end of the research period were included in the sample to address survivorship bias. The unbalanced panel dataset consisted of 3 466 firm-year observations. The majority of companies were categorised within the Industrials industry, accounting for 49 percent of the total. This was followed by Financials (33%) and Resources (17%). The Resources industry encompasses firms operating in oil, gas and mining subsectors. The Financials industry includes banks, insurance companies and other financial service providers. The Industrials industry spans a diverse range of sub-sectors including industrials, technology, consumer goods, healthcare, telecommunications and utilities (JSE, 2021). Real estate investment trusts (REITs) were excluded as these companies are legally required to distribute at least 75 percent of their taxable earnings available for distribution to shareholders annually.

A company's DPR% was used to reflect its dividend payouts in a particular year. This ratio is computed by dividing a company's total annual dividend per share by its earnings per share. Data on this variable were sourced from Bloomberg. The hypotheses were assessed using mixed model analysis of variance (ANOVA) tests. This type of ANOVA is suitable when investigating the influence of both fixed and random effects on a dependent variable, as is the case with panel data.

A two-way fixed effects regression spanning the entire research period was also conducted as a robustness test. In this regression Log10(DPR%) was the dependent variable and the year-on-year percentage change in real gross domestic product (GDP) the independent variable. Control variables measuring firm size (market capitalisation), leverage (Debt/Equity) and FCF were included in this analysis. Values in ZAR at financial year-end were collected from Bloomberg. Control variables were identified from similar studies in South Africa, notably Nyere and Wesson (2019) and Arko, Abor, Adjasi and Amidu (2014). Outliers were log transformed and variance inflation factors computed to assess multicollinearity. The following regression model was tested:

$$\mathrm{Log10(DPR\%)_{i,t}} = \beta_1 \mathrm{STATE\ OF\ SA\ ECON_{i,t}} + \beta_2 \mathrm{SIZE_{i,t}} + \beta_3 \mathrm{LEVERAGE_{i,t}} + \beta_1 \mathrm{FCF_{i,t}} + \varepsilon_{i,t}$$

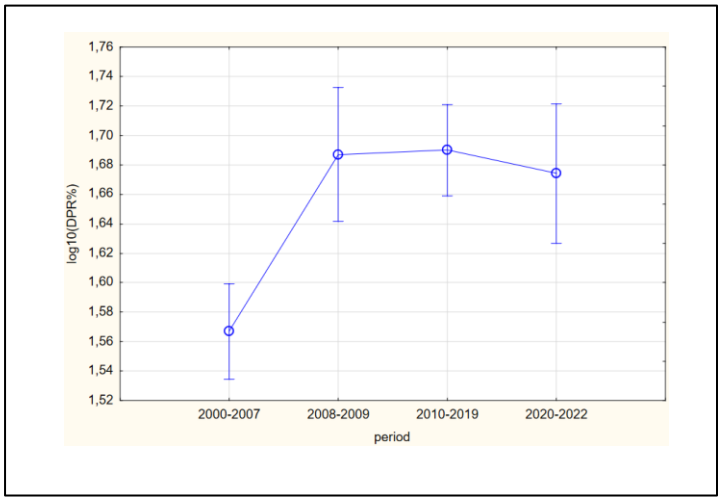
RESULTS AND DISCUSSION

Table 2 contains the descriptive statistics for Log10(DPR%) per period, first for the entire sample and then per industry. The mean Log10(DPR%) values per period for the entire sample are plotted in Figure 2.

TABLE 2: DESCRIPTIVE STATISTICS LOG10(DPR%) PER PERIOD

	Period	N	Mean	SD
Entire sample	Pre-GFC: 2000-2007	1 166	1.57	0.36
	During GFC: 2008-2009	249	1.69	0.38
	Pre-Covid-19 pandemic: 2010-2019	1 667	1.69	0.34
	During pre-Covid-19 pandemic: 2020-2022	339	1.67	0.52
Financials	Pre-GFC: 2000-2007	340	1.63	0.40
	During GFC: 2008-2009	67	1.67	0.33
	Pre-Covid-19 pandemic: 2010-2019	551	1.74	0.39
	During pre-Covid-19 pandemic: 2020-2022	119	1.83	0.43
Industrials	Pre-GFC: 2000-2007	637	1.54	0.34
	During GFC: 2008-2009	170	1.67	0.37
	Pre-Covid-19 pandemic: 2010-2019	866	1.65	0.31
	During pre-Covid-19 pandemic: 2020-2022	159	1.63	0.61
Resources	Pre-GFC: 2000-2007	189	1.60	0.35
	During GFC: 2008-2009	57	1.62	0.45
	Pre-Covid-19 pandemic: 2010-2019	250	1.68	0.30
	During pre-Covid-19 pandemic: 2020-2022	61	1.57	0.36

FIGURE 2: MEAN LOG10(DPR%) FOR THE ENTIRE SAMPLE

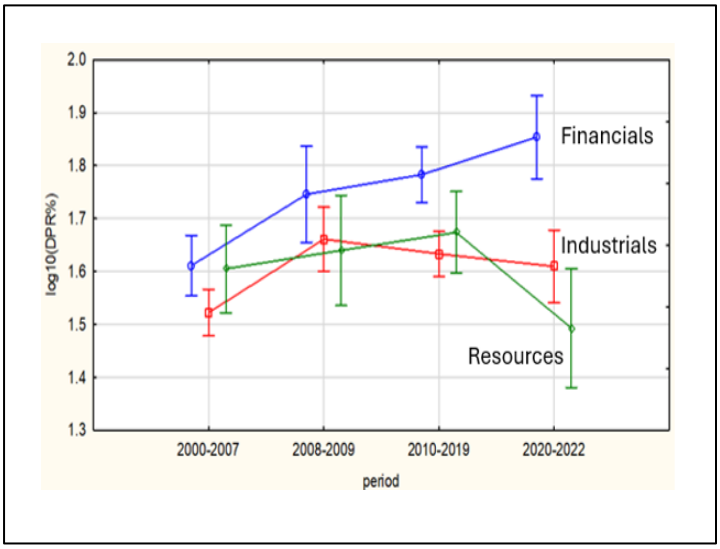


As shown in Table 2 and Figure 2, dividend payouts were much higher towards the end of the research period than in the beginning. Nyere and Wesson (2019) and Firer and Viviers (2013) also noted rising dividend payments among JSE-listed companies. As Log10(DPR%) was significantly higher during the GFC than before the crisis ($F(1,1122)=22.46$, $p<0.01$), $H_{0,1}$ could be rejected. Managers seemingly exhibited some EOC bias during this crisis.

During the Covid-19 pandemic period (2020-2022) dividends were slightly lower than in the period before the pandemic ($F(1,1723)=0.02$, $p=0.89$). Given the lack of significance, $H_{0,2}$

could not be rejected. The decrease in the sampled companies' Log10(DPR%) during the Covid-19 pandemic corresponds with evidence in other developing markets where government support for businesses was generally lower than in developed markets (Viviers and Wesson, 2024; Muthu and Wesson, 2023; Ali, 2022; Ali, Rehman, Ashraf and Shear, 2022; Krieger *et al*., 2021). Figure 3 shows how dividend payouts differed per industry over the research period.

FIGURE 3: MEAN LOG10(DPR%) PER INDUSTRY



The first observation from Figure 3 is that the proportion of earnings distributed to shareholders in the Financials industry was consistently higher than those in the other two industries. The mean Log10(DPR%) values of companies in all three industries increased significantly during the GFC (Table 3). De Jager (2015) attributed higher dividends among listed South African banks during the GFC to unrealised transitory gains from the period preceding this crisis. Local banks might also have paid higher dividends during this crisis in line with their counterparts in other emerging markets (Forti and Schiozer, 2015) for signalling purposes.

Differences in the nature of the two crises might explain divergent dividend behaviour during the GFC and during the Covid-19 pandemic. A financial crisis primarily occurs within the financial system and is characterised by disruptions in financial institutions, markets and asset values (Tran *et al*., 2022). Examples include stock market crashes, banking failures and sharp declines in asset prices which may lead to liquidity shortages and credit constraints. In contrast, an economic crisis refers to broader disruptions to the economy, resulting in lower growth, higher unemployment rates and curtailed consumer spending. Economic crises are typically caused by wars, natural disasters and political instability (ibid.).

TABLE 3: SIGNIFICANT DIFFERENCES BETWEEN PERIODS (PER INDUSTRY)

	Period	**Industry**	**(1) 1.61**	**(2) 1.52**	**(3) 1.61**	**(4) 1.75**	**(5) 1.66**	**(6) 1.64**	**(7) 1.78**	**(8) 1.63**	**(9) 1.67**	**(10) 1.85**	**(11) 1.61**	**(12) 1.49**
(1)	2000-2007	Financials		**0.02***	0.90	**<0.01****	0.24	0.64	**<0.01****	0.54	0.20	**<0.01****	0.97	0.07
(2)	2000-2007	Industrials			0.08	**<0.01****	**<0.01****	**0.04***	**<0.01****	**<0.01****	**<0.01****	**<0.01****	**0.02***	0.63
(3)	2000-2007	Resources				**0.02***	0.28	0.50	**<0.01****	0.55	0.12	**<0.01****	0.93	0.07
(4)	2008-2009	Financials					0.13	0.13	0.41	**0.03***	0.23	0.05	**0.02***	**<0.01****
(5)	2008-2009	Industrials						0.73	**<0.01****	0.34	0.80	**<0.01****	0.21	**<0.01****
(6)	2008-2009	Resources							**0.02***	**0.91**	0.50	**<0.01****	0.63	**0.03***
(7)	2010-2019	Financials								**<0.01****	**0.02***	0.06	**<0.01****	**<0.01****
(8)	2010-2019	Industrials									0.37	**<0.01****	0.47	**0.02***
(9)	2010-2019	Resources										**<0.01****	0.22	**<0.01****
10)	2020-2022	Financials											**<0.01****	**<0.01****
(11)	2020-2022	Industrials												0.08
(12)	2020-2022	Resources												

** Significant at the 99% confidence level; * Significant at the 95% confidence level

As the Covid-19 pandemic is a prime example of an economic crisis, it might explain why Industrials and Resources companies chose to omit or cut dividends during this crisis. Lockdowns, social distancing measures and supply chain interruptions brought on by the pandemic meant that cash preservation became a critical consideration (Buertey, Ramsawak, Dziwornu and Lee, 2024; Ali *et al*., 2022; Cejnek, Randl and Zechner, 2021; Krieger, Mauck and Pruitt, 2021). The classification of the Covid-19 pandemic as an economic crisis does not, however, explain why dividends of companies in the Financials industry increased significantly during this period. The findings are particularly perplexing when considering that the South African Reserve Bank (SARB) called on commercial banks on 7 April 2020 to withhold dividends for a few months (Bloomberg, 2020). It was only in February 2021 that banks were allowed to resume dividend payments (Henderson, 2021).

Eugster, Ducret, Isakov and Weisskopf (2022) reported that the sudden decrease in the number of dividend payers in Europe in 2020 reduced the opportunities for investors to capture dividends. Firms that maintained dividend payments during the pandemic were thus able to attract more interest than before. Attracting the attention of foreign investors through higher DPRs might thus have played a role in the decisions of JSE-listed Financials to maintain or increase dividends during the Covid-19 pandemic. The use of dividends to alleviate depositors' concerns about bank liquidity (Forti and Schiozer, 2015) might have been another explanation, as could be the extensive use of share-based incentives for executives in this industry (Deysel and Kruger, 2015). The emphasis on share price preservation in the banking sector was so strong that the remuneration committee of one local bank even chose to ignore the impact of the Covid-19 pandemic in structuring their executives' 2021 compensation packages (Moneyweb, 2022). As the listed banking sector is very small, peer influence could furthermore have influenced dividend payouts.

As illustrated in Table 4, a significant inverse relationship existed between Log10(DRP%) and the state of the South African economy over the research period. The inverse association of this robustness test suggests that JSE-listed companies generally increased dividends when economic conditions deteriorated. Whilst this finding supports the mixed model ANOVA results, it should be noted that the model fit (R^2) is quite low.

TABLE 4: REGRESSION RESULTS ADJUSTED FOR HETEROSKEDASTICITY

	Std Coeff	Estimate	Std Error	Statistic	p-value
I: Log10(STATE OF SA ECON)	**-0.09**	**-0.39**	**0.10**	**-3.79**	**<0.01****
C: Log10(Debt/Equity)	0.03	0.02	0.02	0.75	0.46
C: Log10(FCF)	0.02	0.04	0.60	0.61	0.54
C: Log10(Market cap)	0.12	0.05	0.03	1.76	0.08
Two-way fixed effects regression summary: N = 241 companies; F(4,2317)=11.39, p=000; R^2 = 0.02; Breusch-Pagan=2591.26, p=000. All VIF values were acceptable, i.e. they were all less than 10.					

** Significant at the 99% confidence level

Scholars have long noted that South African managers are aware of the damage that dividend cuts and omissions can do to their companies' share prices (Erasmus, 2013; Firer *et al*., 2008). By setting conservative dividend payout policies, managers could thus sustain payouts even during challenging times. The findings of this study suggest that managers of JSE-listed companies, particularly those in the Financials industry, are inclined to remain committed, perhaps because they feel entrapped (McElhinney and Proctor, 2005) or because their past decisions are public knowledge (Gopinath and Nyer, 2009). Some managers might also have maintained or increased dividends during the GFC crisis to avoid signalling weakness or admit that previous payouts were too high (Sarangee, *et al*., 2019; Brockner, 1992).

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The author set out to determine whether JSE-listed companies maintained or increased dividends during the GFC and Covid-19 pandemic and whether these seemingly irrational decisions could be explained by the EOC theory. The empirical evidence reveals that companies operating in all three of the considered industries (Financials, Industrials and Resources) significantly increased dividend payouts during the GFC (2008-2009) compared to the preceding period (2000-2007). Those in the Financials industry also paid significantly higher DPRs during the Covid-19 pandemic (2020-2022) than during the pre-pandemic period (2010-2019). The two-way fixed effects regression over the entire research period confirmed that the sampled companies tended to increase dividend payouts as economic conditions in the country deteriorated. The study hence found some support for the EOC theory, particularly during the GFC and for Financials during the Covid-19 pandemic.

Baker and Weigand (2015: 126) warned that "universal or one-size-fits-all theories or explanations for why companies pay dividends are too simplistic … the dividend decision is sensitive to numerous factors including firm characteristics, market characteristics and substitute forms of dividends". Whilst heeding this warning and recognising it as a limitation of this study, it is still fair to say that the EOC theory, in conjunction with other considerations, might explain dividend behaviour among JSE-listed companies during the two crises evaluated in this study.

Managers should realise that advances in artificial intelligence and machine learning are significantly reducing information asymmetries. As such, dividend payouts might be losing some of their signalling power. Care should thus be taken when using dividends to signal confidence during crisis periods, especially if fundamentals such as FCF and leverage are weak. Shareholders should interpret rising dividends during periods of economic uncertainty and future crises with caution, particularly when these occur in the Financials industry. These signals could be costly in the long run. More research on the relevance of the EOC theory is, however, required and could perhaps take the form of interviews with executives of locally listed companies. Future researchers could also extend Li and Chen's (2020) study which showed that managers of JSE-listed companies were willing to manipulate earnings to meet dividend targets pre-Covid-19. Yet another study could investigate the relationship between managerial entrenchment and dividend payouts of South African companies.

ACKNOWLEDGEMENTS

The author is indebted to Someleze Nongwe for assisting in the data collection and Prof Martin Kidd for the statistical analysis.

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MIGRANT REMITTANCES AND FINANCIAL INCLUSION AMONG HOUSEHOLDS IN SOUTH AFRICA

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ABSTRACT

This paper investigates the relationship between financial inclusion and remittances among households using the 2017 World Bank Global Financial Inclusion (Global Findex) database for South Africa. Chi-Square and Logistic Regression model were used to analyse the relationship between financial inclusion and remittances. This paper finds receipt remittances increases the probability of using formal financial products and services such as ownership of financial institution accounts and access to make deposits through financial institutions account. The paper further established that 61% of households are financially included and 39% are financially excluded. The paper concludes that conclude that reduction of the barriers and costs to remittance inflows can boost access to and usage of formal financial products and services in South Africa, leading to increased funds for investments and the country's economic growth.

Keywords: financial inclusion; households; remittances; South Africa

INTRODUCTION

In a global community, people often migrate from one area or country to another, searching for a better life (Musakwa & Odhiambo, 2019). This migration benefits both the place of origin as well as the new area, town or country. The economic benefits take place when migrants transfer or send money home through different remittance channels such as commercial banks and retail money market by means of Electronic Fund Transfer (EFT), World Remit, or Mukuru. The importance of such remittances as a stable source of capital have been emphasised by researchers, particularly in developing countries and emerging economies (Ajefu & Obege, 2019; Jukan, Okcic & Hopic, 2020). As stated by the Migration Policy Institute, these remittances have also significantly contributed to the Gross Domestic Product (GDP) of many countries showing the countries' resilience to global headwinds (Ajefu & Ogebe, 2020). Remittance inflows to developing countries exceed the Foreign Direct

Investment (FDI) inflows as well as the Official Development Aid (ODA) (Olayungbo & Quadri, 2019; World Bank Group [WBG], 2020)

The motivation behind remittances is frequently impacted by a combination of economic and social factors, including self-interest, altruism, investment, loan payback, and economic consumption (Lucas & Stark, 1985; Rapoport & Docquier, 2006). According to the World Bank Group [WBG] (2017a), South Africa, Ethiopia, Senegal, Mali, Madagascar, Kenya, Liberia, Uganda, Nigeria, and Ghana are the top ten remittance-receiving countries in Sub-Saharan Africa. The World Bank Group [WBG] (2018) estimated that in 2017, the total remittances globally amounted to $613 billion, of which $466 billion was directed to developing countries. According to the Global Knowledge Partnership on Migration and Development (KNOMAD) (2019), worldwide remittance flows exceeded $689 billion in 2018. In Sub-Saharan Africa (SSA), migrant remittances have also showed significant growth over the past two decades, up from the nominal value of $4.8 billion in 2000 to $48 billion in 2018. This increase was supported by healthy economic conditions in high-income economies (World Bank Group [WBG], 2019a). The growth also demonstrates a consistent increase in the number of individuals who choose to relocate in pursuit of a better life: from 21.6 million in 2000, the number of African migrants increased to 36.3 million in 2017 (World Bank Group [WBG], 2019a).

The rest of the paper unfolds as follows. Section 2 discusses the relevant literature, while section 3 discusses the data source and empirical methodology. Section 4 reports the empirical results. Section 5 concludes the paper.

LITERATURE REVIEW

In Africa, remittance flows contribute significantly to economic growth (Adugna, 2018). For instance, a study conducted in Ghana, South Africa and Nigeria on migrant remittance and economic growth revealed that migrant remittances significantly affect the sampled countries' economic growth (Kanu & Ozurumba, 2013). Furthermore, Ajaegbu (2017) reported that remittances strengthen the ability of migrants to help change their family's financial status in their country of origin. Thus, the alleviation of poverty amongst most African households is achieved through migrant remittances. The remittance market appears crucial for the countries at the receiving end of the wealth, as well as the families of the migrants in their country of origin (Mukasa, 2012). To that end, Mukasa (2012) focused on 'Ubuntu,' which says a person is a person because of the help of others, and so the subject of remittance might be led by this philosophy. Domestic and cross-border remittances are both important channels for directing money to low-income and disadvantaged households, including immigrants

working in South Africa. It is frequently the initial usage of an individual's financial services and the gateway to other financial services (National Treasury, 2020).

An extensive body of studies has examined the impact of remittances on the:

- *labour market* (Funkhouser, 1992);
- *economic growth* (Chami, Fullenkamp & Jahjah, 2005; Rapoport & Docquier, 2006; Adams, 2011);
- *inequality and poverty* (Musakwa & Odhiambo, 2019; Adams, 1992; Giannettia, Federicib & Raitanoc, 2009; Brown & Jimenez, 2008; Milanovic, 1987; Russell, 1992; Stark, Taylor & Yitzhaki, 1988; Taylor 1999; Taylor & Wyatt, 1996; Adams,1992; Taylor and Wyatt, 1996; McKenzie & Rapoport, 2007);
- *education* (Acosta, 2006; McKenzie & Rapoport, 2006; Osorio, 2010; Acosta, Fajnzylber & Lopez, 2007);
- *financial inclusion* (Li, Salinas & Ramırez, 2014);
- *health* (Amuedo-Dorantes, Sainz & Pozo, 2007; Drabo & Ebeke, 2011; Valero-Gil 2008; Lopez Cordova, 2005; Amuedo-Dorantes *et al*. (2007); and
- *investments in micro enterprises* (i.e. Dustmann & Kirchkamp, 2002; Mesnard, 2004).

In terms of the influence of remittances on the growth of the financial sector in recipient countries, Aggarwal, Demirgüç-Kunt, and Peria (2011) appear to have undertaken the most complete analysis and comprehensive study. The latter research, which covered a sample of 109 nations from 1975 to 2007, found a positive and substantial relationship between remittances and financial sector development, notably an increase in aggregate savings and credit. Gupta, Pattillo, and Wagh (2009) used a similar technique as Aggarwal *et al*. (2011) to assess the impact of remittances on financial growth in 44 Sub-Saharan African countries between 1975 and 2004. They discovered comparable evidence that remittances contribute to financial development.

Recent studies, as discussed below, show that remittances have a positive impact on the development of the financial sector, but few studies (Sobiech, 2019; Myeni, Makate & Mahonye, 2020; Sibindi & Ngcobo, 2018; Ambrosius & Cuecuecha, 2016; Ajefu & Obege, 2019; Jukan, Okcic & Hopic, 2020) show that remittances have an impact on individuals' (and households') financial inclusion. As previously mentioned, there is limited research on the impact of remittances on financial inclusion. Existing research on the relationship or impact of remittances on financial inclusion shows that remittances have a beneficial impact on bank deposits (Aggarwal *et al*., 2011) and savings (Anzoátegui *et al*., 2014; Cuccaro, 2014) in recipient countries, but no convincing evidence of a link between remittances and borrowing (Anzoategui *et al*., 2014; Cuccaro, 2014). According to research, remittances are generally

utilised to smooth recipients' consumption (establishing a balance between spending and saving at different stages of their life) amid economic shocks (Amuedo-Dorantes & Pozo, 2011).

Although a significant share of remittances are spent for short-term consumption, remittance recipient households save, and both domestic and international transfers provide households with an opportunity to minimise their vulnerability and accumulate assets over time. However, none of the studies reviewed above provides evidence on the impact of such remittances on household financial inclusion. This study seeks to address that gap by investigating the impact of remittances on the financial inclusion of the South African population at the household level.

Empirical studies have reported different and inconsistent results on how migrant remittances influence financial inclusion due to diverging and inconsistent contexts. From the foregoing, we observe that there is a limited literature on African countries on remittances and household outcomes in relation to financial inclusion. This study contributes to the existing literature and provides findings to inform policymakers and industry experts.

RESEARCH OBJECTIVES AND HYPOTHESIS

The aim of this paper is to explore the relationship between remittances and financial inclusion. This paper explores whether remittances enhance the use of financial products and services among South African households and whether remittance-receiving households differ from non-remittance-receiving households in terms of their use of formal savings instruments and financial products. The findings have implications for whether increases in migrants' remittances will enhance the financial inclusion status of households in South Africa.

SOURCE OF DATA AND EMPIRICAL METHODOLOGY

Source of data

This study uses data from the 2017 World Bank Global Financial Inclusion (Global Findex) survey for South Africa from World Bank Group database. The survey is nationally representative and uses a stratified random sampling approach, and interviewed 1000 households taking into account the overall population size of South Africa (Demirgüç-Kunt, et.al., 2018). The survey was a single-round, and provides information on financial inclusion, including the receipts and sending of domestic remittances status of households. Information on the households' use of formal financial products and services includes whether: (i) household owns financial institution account, (ii) household uses ATM/debit cards for financial transactions, (iii) household have access to savings account, (iv) household have access to credit or borrowing and (vii) household uses mobile/internet banking. Our focus in this study

is to investigate the relationship between households' receipts of remittances and financial inclusion (access to formal financial products and services).

To address the above questions, this study uses Chi-Square and Logistic Regression model analysis. In order to determine the direct association between each financial inclusion variable and whether the participants have received remittances in the past 12 months or not, the Pearson Chi-square test of the association was applied at a 5% level of significance. This study also examines the impact of selected control variables (socio-demographic and economic determinants) on financial inclusion and remittances in order to obtain unbiased and consistent estimation of the relationship between remittances and financial inclusion.

Empirical Methodology

The general formula for a binary logistic regression model is formulated by Stoltzfus (2011) as follows:

$$P(Y_i = 1) = \frac{e^{\beta_0+\beta_1 X_1+\beta_2 X_2+\cdots+\beta_i X_i}}{1+e^{\beta_0+\beta_1 X_1+\beta_2 X_2+\cdots+\beta_i X_i}}, \quad (1)$$

Where:

$P(Y_i = 1)$ is the probability of the i[th] adult being financially included with $\mathrm{Y_i}$ being the financial inclusion status of the ith adult in the study, The $\mathrm{X_i's}$ are the independent variables which are the age of an individual respondent, gender which is whether the respondent is male or female; the educational level of a respondent; the level of income quintile the households belong to base on the income bracket earned by an individual respondent; and the employment status of the respondent. β_is are the model parameter estimates and they are estimated using maximum likelihood. The maximum likelihood estimation seeks for the strongest linear combination of independent variables that increases the likelihood of detecting whether an individual is financially included or not (Stoltzfus, 2011).

Instrumental Variable Approach

In order to determine the direct association between each financial inclusion variable and whether the participants have received remittances in the past 12 months or not, the Pearson Chi-square test of the association was applied at a 5% level of significance in line with the study by Joshi and Rajpurohit (2016) who used a similar approach to determine the association between pairs of categorical variables. Pie charts were then used to depict the association derived from the Chi-square tests.

Since there were multiple financial inclusion variables, the two-step cluster analysis was used to group the variables into one dependent variable, which was renamed 'financial inclusion' and represents an aggregate variable for financial inclusion. The two-step cluster analysis automatically identifies the essential variables to represent 'financial inclusion' from the group of variables and categorises the participants into clusters based on how similar they are in

terms of the financial inclusion variables. The approach of combining several variables into one dependent variable using cluster analysis has been used by authors such as Bozpolat (2016). The aggregate financial inclusion variable of the two-step cluster analysis was then used in the stepwise logistic regression model in order to determine the effect of remittances' receipt over the past 12 months and control variables on financial inclusion. Other authors used ordinal logistic regression since the dependent was ordinal but in the current study, binary or binomial logistic regression was used since the dependent variable is binary. The Logistic Regression model is one of the primary, most straightforward, and most commonly used methods of regression in previous studies such as the ones conducted by Bozpolat (2016) and Mbu and Nso (2021). The link function of a logistic regression model is the logarithm of the odds and the odds are the likelihood of success of an event (μ) over its failure (1-μ) (Hilbe, 2011). Hilbe (2011) adds that the log-odds are referred to as the logit function. In other words, given a collection of indications, the model forecasts the chance of falling into a specific level of category response. For example, being financially included implies success. These are represented by 1 and 0 in the binary variable 'financial inclusion' that was created from the two-step cluster analysis.

The researcher found Logistic Regression useful in the current study because based on previous studies such as the ones conducted by Bozpolat (2016) and Mbu and Nso (2021) it enables one to study the effect of several main independent variables on a dependent variable simultaneously while also including some control variables unlike the chi-square test which only accommodates two variables at a time. As such, binary logistic regression was used to determine the domestic remittances receipts and individual attributes of age, gender, education. The living standard measure affects the likelihood of one's financial inclusion (1= financially included and 0 = not financially included).

RESULTS

This section presents the empirical analysis of the survey-interview data for households based in South Africa that was conducted between 30 June 2017 and 05 July 2017 by the WBG, to investigate the impact of domestic remittances on financial inclusion using SPSS Software. Financial inclusion indicators were used to measure the use of or access to financial products, services and technologies. This includes ownership of a financial institution account; whether the household made use of debit orders; made deposits using the financial institution account; made use of a credit card; had access to borrowings or loans, had access to savings in financial institution account, and had access to using mobile and internet banking, as well as domestic remittances.

DESCRIPTIVE STATISTICS

Most domestic migrants have moved from rural areas to urban areas. The descriptive statistics shows that the dataset is a cross sectional of 972 observations containing data from the 1000 households interviewed.

TABLE 1: AGE DESCRIPTIVE STATISTICS

Age descriptive statistics					
	N	Minimum	Maximum	Mean	Std. deviation
Age	971	15	91	34.43	14.289

Source: SPSS output

The mean and standard deviation were used for age since it is continuous and not categorical, and the latter is summarised in the frequency ***Table 1*** above. The participant's average age is about 34 years, the youngest participant is 15 years of age, and the eldest is 91 years old.

Below are the empirical results of the chi-square test of association between remittances receipt and other variables. These results test each hypothesis of the study (H_1 to H_7), one at a time.

TABLE 2: ASSOCIATION AMONGST REMITTANCES AND OTHER VARIABLES

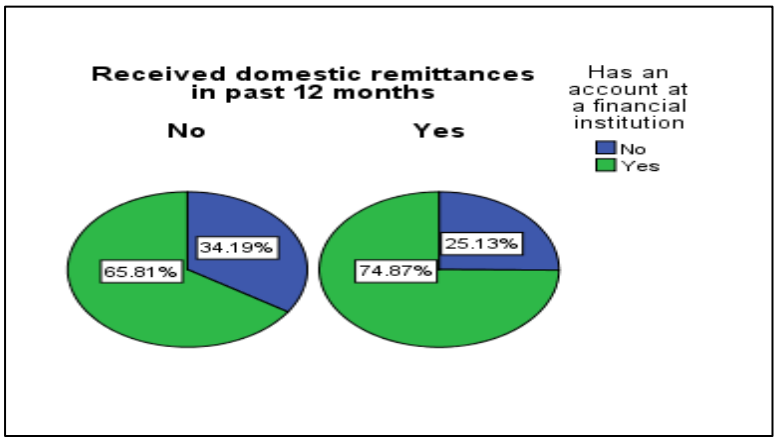
Association between having received domestic remittances in the past 12 months or not and whether the households:		**Chi-square Value**	**df**	***p*-value**
1. has an account at a financial institution	Pearson Chi-Square	9.042	1	.003
2. has account: any deposit into the account in the past 12 months	Pearson Chi-Square	20.626	2	.000
3. has a debit card	Pearson Chi-Square	14.132	2	.001
4. saved in the past 12 months: using an account at a financial institution	Pearson Chi-Square	17.676	2	.000
5. borrowed in the past 12 months: from a financial institution	Pearson Chi-Square	2.041	2	.360
6. has a credit card	Pearson Chi-Square	8.779	2	.012
7. used a mobile phone or internet to access FI account	Pearson Chi-Square	24.375	2	.000

Source: SPSS output

Based on ***Table 2*** above, all p-values of the chi-square tests are significant at 5% level of significance ($p < .05$) except for having borrowed in past 12 months from a financial institution, which is above the 5% level of significance ($p > .360$). It implies that all financial inclusion variables are associated with whether a participant received remittances in the past or not except for whether they have borrowed from a financial institution in the past 12 months.

Moreover, the degree of financial inclusion is greatly premised on variables such as owning a bank account with a financial institution, ownership of debit card, usage of internet to access financial inclusion account and credit card ownership in the previous 12 months. The underlying factor in financial inclusion is the ownership of bank account in the past 12 months as the other financial inclusion variables depend on the ownership of bank account. This empirical evidence is consistent with the study of Anzoategui, Demirgüç-Kunt & Martinez-Pería (2011); Jukan, Okicic & Hopic (2020); Ajefu & Obege, (2019); Jukan, Okicic & Hopic, (2020). The following charts further depict how significant this association is:

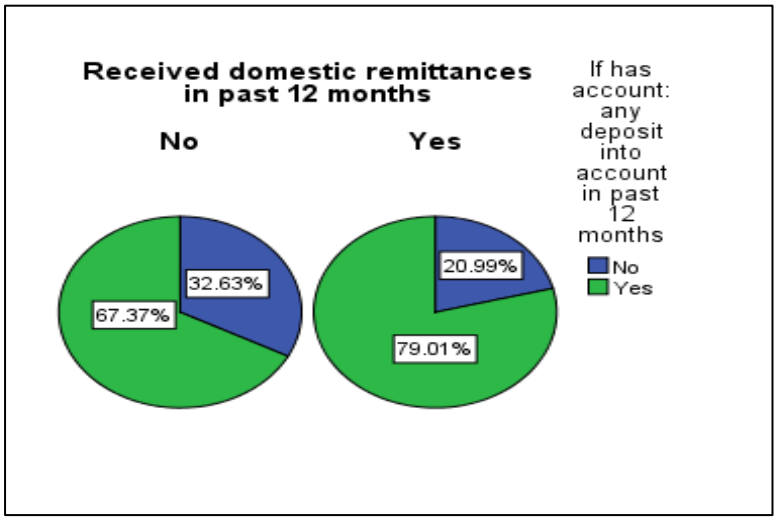
FIGURE 1: OWNERSHIP OF FINANCIAL INSTITUTION ACCOUNT



Source: SPSS output.

Based on ***Figure 1*** above, 74.87% of participants who have received remittances in the past 12 months indicated that they have an account at a financial institution but only 65.81% of those who did not receive remittances in the past 12 months indicated that they have an account with a financial institution. This implies that having an account at a financial institution is more strongly associated with receiving remittances, although it should also be noted that many participants still received remittances despite not having an account at a financial institution. As such, financial inclusion broadly involves access to financial services through different channels, namely; MTOs, bank accounts and cell phone banking. This empirical evidence is consistent with the study of Anzoategui, Demirgüç-Kunt & Martinez-Pería (2011); Ajefu & Obege, (2019) and inconsistent with the results of Jukan, Okicic & Hopic, (2020).

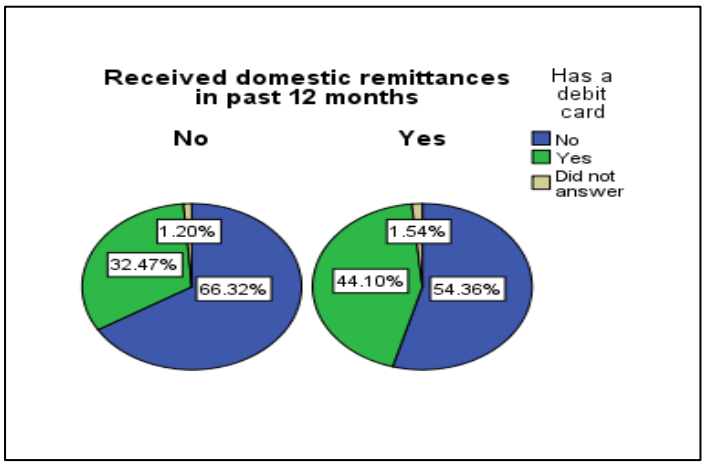
FIGURE 2: DEPOSIT INTO FINANCIAL INSTITUTION ACCOUNT



Source: SPSS output

Based on ***Figure 2*** above, 79.01% of participants who have received remittances in the past 12 months indicated that deposits were made into the account they have with the financial institution. However, only 67.37% of those who did not receive remittances in the past 12 months indicated a deposit was made once into financial institution account. Thus, ownership of a bank account is crucial to financial inclusion for individuals though there are also other channels and platforms that are conduits towards financial inclusion. This empirical evidence is consistent with the study of Anzoategui, Demirgüç-Kunt & Martinez-Pería (2011); Ajefu & Obege, (2019) and inconsistent with the empirical evidence submitted by Jukan, Okicic & Hopic, (2020).

FIGURE 3: OWNERSHIP AND USE OF THE DEBIT CARD

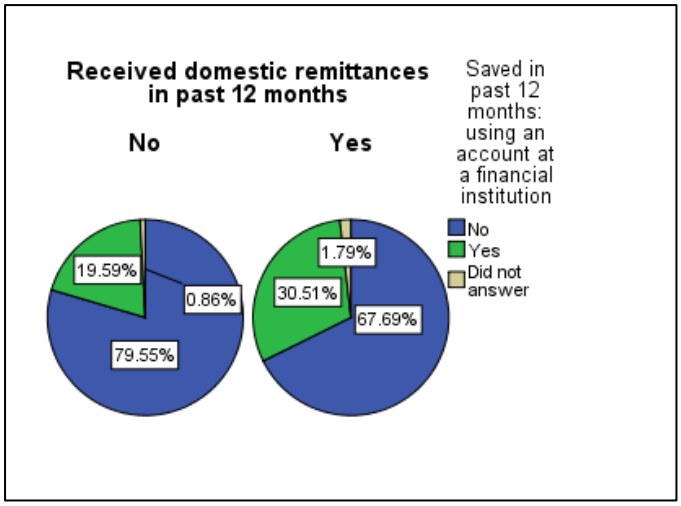


Source: SPSS output

Figure 3 above reveals that 360 participants who have received remittances in the past 12 months, minority being 44,10% own and have used debit cards compared to the majority,

54,36% who received remittances but do not own or used debit card. This indicate a positive growth in financial inclusion is South Africa as majority of the population were not actively participating in the financial service sector by utilising the financial institutions' debit cards. Ownership of debit and credit cards play a pivotal role in financial inclusion as it facilitate the transfer of migrant and domestic remittances. This empirical evidence is not consistent with the outcomes of the study of Jukan, Okicic & Hopic, (2020). It is further noted from the empirical data that even the participants who did not receive remittances, few, 32,47% compared to 66,32% used own and use debit card. The percentage of households that receive remittances from family and friends is expected to increase over the years. Financial literacy education needs to be emphasised and be done at the school foundation place and thereby improve the signs of financial inclusion.

FIGURE 4: SAVINGS IN THE PAST 12 MONTHS USING AN ACCOUNT AT A FINANCIAL INSTITUTION



Source: *SPSS output*

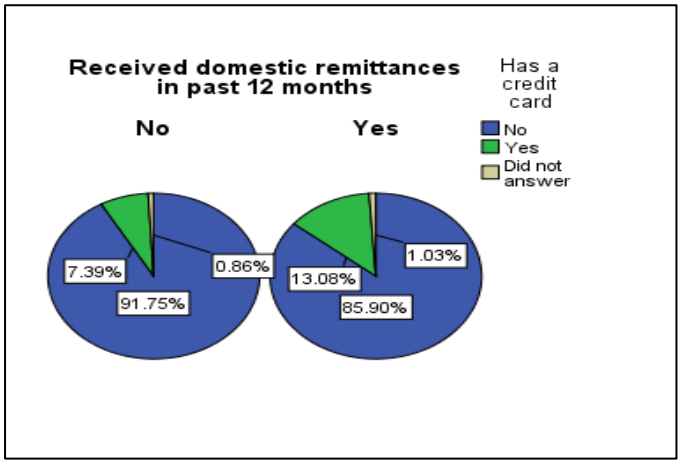
Based on ***Figure 4*** above, 30.51% of participants who have received remittances in the past 12 months indicated that they utilised the savings pockets in the account they owned with the financial institutions in the past 12 months. Majority being 67, 69% of those who received remittances, did not save or investment for the future. This is a concern; saving is another element of using financial products and thereby enhance financial inclusion. There is a possibility that the full remittance money received by the household over the past 12 months is used for monthly commitments and there is no change to spare or save up for the future.

Only 19.59% of those who did not receive remittances in the past 12 months' savings used the financial institution's account.

The extant evidence encapsulated in from ***Figure 4*** confirm that majority of the households are not financially included as they do not hold a savings account with financial institution. It

is not clear as to whether the participants voluntarily excluded themselves or they financial system and the value of money they receive is not sufficient for them to utilise savings account. This empirical evidence is not consistent with the study of Anzoategui, Demirgüç-Kunt & Martinez-Pería (2011) and Jukan, Okicic & Hopic, (2020) who identified a significant and positive relationship between receipt remittances and the use of saving instruments. The empirical evidence is consistent with the study of Oyelami and Ogunfife (2020) who found that remittances have no positive but significant effect on (savings) financial inclusion in the Sub-Saharan Africa (SSA) region. Financial literacy in relation to different class of investments and savings need to be taught and highly prioritised especially from early age.

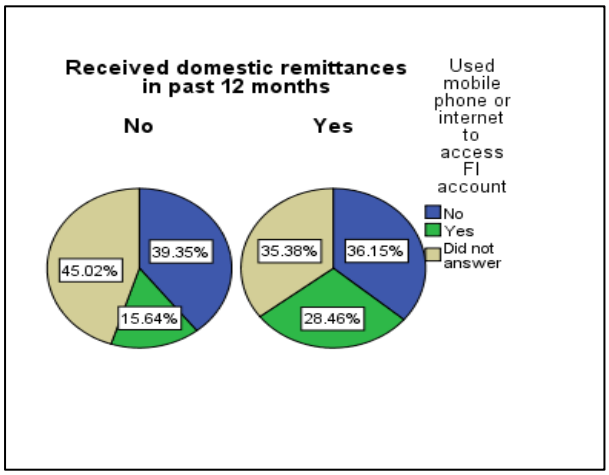
FIGURE 5: OWNERSHIP AND USE OF CREDIT CARDS



Source: SPSS output

Figure 5 above indicates that 13.08% of participants who have received remittances in the past 12 months indicated that they own and have used credit cards. Majority being 85.90% of those participants do not have a credit card. Only 7.39% of those who did not receive remittances in the past 12 months indicated that they own and have used credit cards. As such, credit card ownership is one of the indicators for financial inclusion among migrants through remittances, similar to debit cards. This empirical evidence is consistent with the studies of Anzoategui, Demirgüç-Kunt & Martinez-Pería (2011) and Jukan, Okicic & Hopic, (2020) who found a significant and negative relationship between receipt remittances and the use of a credit card.

FIGURE 6: USE OF MOBILE PHONE OR INTERNET TO ACCESS FINANCIAL INSTITUTION ACCOUNT



Source: SPSS output

Based on ***Figure 6*** above, 28.46% of participants who have received remittances in the past 12 months indicated that they used mobile phones and the internet to access financial institution accounts, 36.15%, the majority, did not use mobile phones or internet banking, and 35.38% did not respond. From those who did not receive remittances in the past 12 months, only 15.64% used mobile and internet banking to access their financial institution's accounts, 39.35% did not and 45.02% did not respond. The use of cell phone banking has become a significant channel for financial inclusion. The usage is still low but growing. The growing usage of cell phone banking as a financial inclusion mechanism allows migrants to increase their remittances to their beneficiaries. This empirical evidence is consistent with the study of Afegu and Obege (2019), who identified a significant and yet negative relationship between the receipt of remittances and the access and use of digital and mobile banking.

Overall, the results depict that more of the participants (households) who have received remittances are financially excluded. This finding is also consistent with the view that remittance receipts help in financial development (Ajefu & Ogebe, 2019; Anzoátegui, Demirgüç-Kunt & Martinez-Pería, 2011; Jukan, Okicic & Hopic, 2020). Yet, there are some barriers noted in the financial system concerning remittance and financial inclusion. It is questionable as to whether the participants voluntarily or involuntarily self-excluded themselves financially as per the reasons stated by Allen *et al.* (2016). Some of the stated reasons are the 'lack of enough funds' to use banking facilities, followed by participants who indicated that banks are 'expensive', other being that their religion and cultural practices prohit them from accessing and utilising financial services and products such as credit card, loans and/or savings. The impact of internal remittance inflow on financial inclusion is further examined in the section below.

THE EFFECT OF REMITTANCES ON FINANCIAL INCLUSION TAKING CONTROL VARIABLES INTO CONSIDERATION USING LOGISTIC REGRESSION

This section focuses on the empirical results of the relationship between the independent variable receipts of remittances taking control variables into account.

TABLE 3: VARIABLES IN THE EQUATION

Variables in the equation						
	B	S.E.	Wald	Df	*p-value*	Odds ratio
Received remittances(1)	.378	.145	6.760	1	.009	1.460
Secondary(1)	.520	.186	7.827	1	.005	1.682
Tertiary(1)	1.457	.364	16.060	1	.000	4.294
Poorest(1)	-.931	.224	17.263	1	.000	.394
Second(1)	-.483	.221	4.761	1	.029	.617
Middle(1)	-.394	.213	3.422	1	.064	.674
Fourth(1)	-.450	.208	4.700	1	.030	.637
Employed(1)	.555	.148	13.972	1	.000	1.741
Has National ID(1)	.808	.259	9.743	1	.002	2.243
Age_15_to_less_than_25_years(1)	-.356	.162	4.851	1	.028	.700
Age_65_to_less_than_75_years(1)	1.082	.478	5.120	1	.024	2.951
Constant	-.812	.340	5.683	1	.017	.444

Source: SPSS output

Table 3 encapsulates that all the variables remaining in the binary logistic regression model after stepwise selection significantly affects financial inclusion ($p < .05$). The odds ratios determine the odds of being financially included, given the variable in question. Odds ratios less than one imply that the variable decreases the odds of being financially included (i.e., being in the poorest 20% quintile decreases the odds of being financially included (1-0.394) *100=60.6%). Odds ratios greater than 1 imply that the variable increases the odds of being financially included (i.e., having received remittances increases the odds of being financially included by (1.460-1) *100=46%).

The degree of financial inclusion is positively related to income level class as portrayed in ***Table 3***. As the person becomes poorer, the higher the degree of financial exclusion. Also depicted in this table is that the odds for the poorest, middle- and fourth-income level band are below (1), inferring a higher degree of financial inclusion. Poor people lack enough financial resources to channel remittance funds through formal financial inclusion channels such as bank accounts. As such, poor people receive fewer migrant remittances through formal financial inclusion channels. However, the employed, pensioners and the rich indicated odds above 1 implying a higher degree of financial inclusion than the poorest in the fourth band income level. Moreover, ownership of an ID has proved to be one of the factors that determines the degree of financial inclusivity among South African citizens. Ownership of ID odds is above 1 (2.243), implying that people with IDs in South Africa can easily access

financial services as ownership is one of the required documents to open an account with a financial institution for instance.

SYNOPSIS AND DISCUSSION OF THE RESULTS

The chi-square test of association tested the impact of remittance receipts and demographic variables on financial inclusion and ***Table 4*** below summaries the results.

TABLE 4: SUMMARY OF HYPOTHESES TEST RESULTS

Hypotheses	Results
***H_1*: There is a positive relationship between domestic remittances received by households and financial inclusion (ownership of account)**	Not rejected
***H_2*: There is a positive relationship between domestic remittances received by households and financial inclusion (deposit made)**	Not rejected
***H_3*: There is a positive relationship between domestic remittances received by households and financial inclusion (use of the debit card)**	Rejected
***H_4:* There is a positive relationship between domestic remittances received by households and financial inclusion (access to savings through financial institution account)**	Rejected
***H_5:* There is a negative relationship between domestic remittances received by households and financial inclusion (access to borrowings from a financial institution)**	Not Rejected
***H_6*: There is a negative relationship between domestic remittances received by households and financial inclusion (access and use of credit card)**	Not Rejected
***H_7*: There is a negative relationship between domestic remittances received by households and financial inclusion (mobile internet banking to access financial institution account)**	Not rejected

Source: Author's construction

This section discusses these results in detail and recommendations formulated to guide the future financial inclusion projects' financing decisions and initiatives and advance methods of receiving remittances to guide the banking, investment and financing decisions for future development in households in South Africa.

The results of this study show that households' receipts of remittances enhance the ownership of bank account and the likelihood of using ATM and making deposit in bank accounts. This paper contributes to an emerging literature on the impact of remittances on the financial sector and regional economic development and is also closely related to a growing body of literature on the relationship between remittances and financial inclusion (Anzoategui *et al*. 2014; Aggarwal *et al*. 2011; Ambrosius and Cuecuecha, 2016). However, this study differs from the existing literature in the following aspects. We investigate the impact of remittances on

households' use of financial services in the context of South Africa: as one of the largest recipients of remittances in the world, it provides a particularly compelling context to undertake empirical research on remittances and financial inclusion. In South Africa, as in many developing countries, remittances are sent and received in cash, and many remittance-receiving households belong to the low-income strata, which are otherwise likely to be excluded from formal financial services.

The relevance of this study is to contribute to the body of knowledge on the relationship between remittances and financial inclusion proxies (ownership of financial institution accounts; access to make deposits through financial institutions account; access to savings account, access to credit or borrowing; access and use of mobile/internet banking). Hence, increasing both the international and internal focus on financial inclusion through remittances is crucial to the economic development of every developing country. Remittances are often the first touchpoint in the use of financial services and, as such, provide a springboard for further financial inclusion.

Overall, the evidence indicates that the receipts of remittances have a mixed impact depending on the proxy of financial inclusion. The data gathered confirmed that receipts of remittances had a significant and positive impact when financial inclusion was measured by ownership of a financial institution account; deposits into the account, use of a debit card; and savings. This is consistent with the findings of Ajefu & Ogebe (2019); Anzoategui, Demirgüç-Kunt & Martinez-Pería (2011); Jukan, Okicic & Hopic (2020). However, according to the chi-square access to borrowings from a financial institution is not significantly associated with remittances hence the initial hypothesis in terms of borrowing is not rejected. The study has also found that remittance receipts have a significant and negative impact on the use of the internet, digital and mobile banking, access to savings account and use of debit cards . This finding is consistent with the findings of Anzoategui, Demirgüç-Kunt & Martinez-Pería (2011); Jukan, Okicic & Hopic (2020). Additionally, gender, age, education level, and level of economic income quintile were found to be significant at the 95% confidence interval across the model positively and negatively. This is consistent with the extant literature, which argues that gender, age and education level matters and that level of income quintile have its limits. Additionally, with the aggregate of the 'financial inclusion' variable, remittance receipts were found to be significant in the Logistic Regression model.

The results from the Logistic Regression analysis provide three (3) essential findings regarding households in South Africa:

1. Receipts of remittances have a mixed impact depending on the proxy for financial inclusion.

2. Level of education has a positive and significant impact on financial inclusion.
3. Gender has a positive and significant impact on financial inclusion.

This section featured the study's empirical analysis and detailed discussion of the findings. The descriptive statistics indicate that households in South Africa who receive remittances through financial institutions are more than those who do not receive remittances. Additionally, with the aggregate of the 'financial inclusion' variables, remittance receipts are significant in the Logistic Regression model. The Logistic Regression model indicates that receipts of remittances have a mixed impact on financial inclusion, depending on the proxy for financial inclusion. The findings are consistent with Ajefu & Ogebe (2019), Jukan, Okicic & Hopic (2020); Anzoategui, Demirgüç-Kunt & Martinez-Pería (2011). The last section concludes and summarises the findings and recommendations.

SUMMARY AND CONCLUSION

The paper investigated the relationship between remittances and financial inclusion among households using the 2017 Global Financial Inclusion (Findex) survey from World Bank Group database for South Africa. The results of the study confirm that the receipts of remittances increase ownership of a bank account and deposits made through an account held with a financial institutions. However, remittance flows do not influence household's use of ATM/ debit cards, access to savings, access to credit or borrowings and the use of mobile/internet banking for financial products and services. In addition, the study established that only 61% of the households are financially included and 39% are financially excluded. The results of the study confirmed that a positive relationship between remittances and financial inclusion proxies obtained from this study can be used to inform policy decisions on the basis of improving financial inclusion as it is linked to economic development and growth. The study also established that the use of technology in financial inclusion is still in its infant stages in South Africa. Various studies have been undertaken across Africa and beyond on financial inclusion but there are still limited empirical studies based on the South African context. In conclusion, the current study will close the gap in the existing literature on the relationship between internal migrant remittances and financial inclusion in the South African context. The study further concludes that reduction of the barriers and costs to remittance inflows can boost access to and usage of formal financial products and services in South Africa, leading to increased funds for investments and the country's economic growth.

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THE INFLUENCE OF GENDER STEREOTYPES ON FINANCIAL LITERACY OF BLACK STUDENTS

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ABSTRACT

Black individuals have the lowest levels of financial literacy globally. In South Africa, the Eastern Cape province has the lowest financial literacy levels, and these differ by gender. Gender differences in financial literacy may be explained by gender stereotyping. The study aimed to investigate the influence of gender stereotypes among black students. A quantitative research design was used, and closed-ended questionnaires were used to collect primary data. Descriptive and inferential statistics were used to test the hypotheses of the study. Findings indicated that students have moderate financial literacy with gender stereotypes having a weak negative and nonsignificant relationship with financial literacy. Suggestions from the study were that parents should play a greater role in addressing issues of gender stereotyping and that education institutions and universities should play a greater role in improving the financial literacy of black students. The findings serve as a baseline for future studies in financial literacy.

Keywords: financial literacy; black students; stereotypes; gender socialisation

INTRODUCTION AND BACKGROUND

Individuals with high financial literacy levels are better able to manage their finances including saving money, controlling spending, budgeting, handling mortgage and debt, planning for retirement, participating in financial markets, and ultimately accumulating wealth (Lusardi & Mitchell, 2023). Financial literacy means knowing how to handle money wisely (Hung, Yoong & Brown, 2012). It also refers to an individual's ability to process financial information and make informed financial decisions (Lusardi & Mitchell, 2014). Financial literacy involves having the requisite financial knowledge and the application of such knowledge (Ouachani, Belhassine & Kammoun, 2021; Lusardi, 2019). However, globally many individuals possess low levels of financial literacy (Hasler & Lusardi, 2017), including in South Africa (Nanziri & Leibbrandt, 2018) where individuals been shown to have low levels of subjective financial knowledge (Antoni & Maswena, 2023). Financial literacy levels are affected by age and race. For instance, younger individuals have lower levels of financial literacy (Nanziri & Leibbrandt,

2018). Generally, white people have high levels of financial literacy, followed by Indian people, coloured people and then by black South Africans (Du Preez & Ferreira-Schenk, 2024). Black individuals in South Africa have the lowest levels of financial knowledge (Roberts, Struwig, Gordon & Zondi, 2021). Lowest financial literacy levels are found especially among black females and youth (Nanziri & Leibbrandt, 2018). This study focused on black students between the ages of 18 to 40 because students have been shown to have low levels of financial literacy in South Africa (Nanziri & Leibbrandt, 2018).

Gender also influences financial literacy with male students having higher levels of financial literacy than their female counterparts (Du Preez & Ferreira-Schenk, 2024; Shambare & Rugimbana, 2012). Many national and international studies document the gender difference between males and females across racial groups (Du Preez & Ferreira-Schenk, 2024; Bucher-Koenen, Lusardi, Alessie & Van Rooij, 2017; Hasler & Lusardi 2017). Hasler and Lusardi (2017) indicate that the gender gap in financial literacy between males and females is found in both developed and emerging economies. The gender differences in financial literacy appear to be independent of the socioeconomic background of the individuals (Bucher-Koenen *et al.,* 2017). This suggests that gender differences are also likely to exist among black students in South Africa. For instance, Goldman and Phiri (2018) show a gender difference in financial knowledge among individuals between the ages of 18 and 25 in the Eastern Cape province in South Africa. The Eastern Cape also has the lowest financial literacy levels among the South African provinces (Nanziri & Leibbrandt, 2018). Furthermore, irresponsible financial behaviour tends to be prevalent in students as they generally have the lowest levels of financial literacy (Mudzingiri, Muteba Mwamba & Keyser, 2018). Studies have shown that male and female students demonstrate different levels of financial literacy (Du Preez & Ferreira-Schenk, 2024; Hasler & Lusardi, 2017) but no single reason explains the difference between male and female financial literacy (Bottazzi & Lusardi, 2021). One potential reason might be that males and females are pressured to conform to stereotypical gender roles that influence how young people become financially literate (Hung *et al*, 2012). Gender stereotyping is important in this study as it may explain the gender gap in financial literacy. This stereotyping could be attributable to the fact that parents may have different expectations for males and females based on certain traditional gender roles (Bottazzi & Lusardi, 2021). In this study, the term gender stereotypes refers to the societal beliefs that proficiency in financial knowledge and financial skills is predominantly associated with males (Driva, Lührmann & Winter, 2016). The section below elaborates on the problem statement and research objectives of the study.

PROBLEM STATEMENT

Few studies have investigated financial literacy in black individuals (Rootman & Antoni, 2015) and the retirement planning behaviour of black individuals (Zeka & Matchaba-Hove, 2016) in the Eastern Cape despite the findings of previous studies showing that black individuals have low levels of financial literacy (Roberts *et al.* 2021). Studies have also shown gender disparities in financial literacy, specifically among black females (Bottazzi & Lusardi, 2021) and this may be attributable to gender stereotypes. While some international studies have shown that gender stereotypes have a negative relationship with financial literacy (Bottazzi & Lusardi, 2021; Driva *et al*., 2016), no study in South Africa has investigated the influence of gender stereotypes on financial literacy. Hung *et al.* (2012) show that societal norms and gender stereotypes contribute to the financial literacy gap, with females often receiving less encouragement and fewer opportunities to develop financial knowledge and skills.

PRIMARY AND SECONDARY OBJECTIVES

The primary objective of the study is to investigate the influence of gender stereotypes on financial literacy among black students.

The following secondary objectives were also pursued:

- To measure the financial literacy levels of black students.
- To determine the influence of gender stereotypes and financial literacy.
- To make recommendations to parents and draw implications for financial education.

LITERATURE REVIEW

Gender socialisation

Gender socialisation is the process by which girls and boys learn how to express their gender traits – girls express femininity in becoming women and boys express masculinity in becoming men (Menshykova, 2021). Simply put, the process creates gender ideologies and teaches gender stereotypes, including views, actions, social standards and expectations that instruct individuals on how to perceive, internalise and behave in a certain manner in the process of becoming an adult woman or man (Perales, Hoffmann, King, Vidal & Baxter, 2021). To better understand and clarify gender socialisation, it is important to differentiate between the terms ‘sex’ and ‘gender’ (Begall, Grunow & Buchler, 2023). The term ‘sex’ refers to the anatomical and physical characteristics differences between males and females. In contrast, the term ‘gender’ involves gender ideologies about masculinity and femininity (Evans, 2024).

This process often begins in the family during early childhood and continues throughout adulthood and involves other influences including peer groups, the media and schools

(Tabatadze & Gorgadze, 2023). Parents and guardians play a crucial role in the development of gender roles, stereotypes and ideologies by passing on and exemplifying gender-specific values, cultural norms and gender-specific behaviours (Menshykova, 2021). From the time a baby is born and welcomed into a family, based on their sex, they are brought up according to society's norms and expectations of how they should think, act, and behave according to their gender (Evans, 2024).

Due to the gender socialisation children experience in their families, it is generally the case that by the age of three years, children have developed an awareness of their gender (Begall *et al.,* 2023). This awareness fosters certain affinities such as choosing to play with other children of the same gender in preference to children of the opposite gender. This is because children of the same gender tend to identify with and share similar interests and are therefore further socialised by peers of the same gender (Perales *et al*, 2021). As peers of the same sex spend time with one another, they teach and learn from each other what is considered 'suitable' for their gender and discuss what each gender should do (Menshykova, 2021). When children begin attending school, their education environment also exposes them to other socialisation agents including their teachers and peers (Tabatadze & Gorgadze, 2023). Teachers become agents of gender socialisation by imposing expectations on children on the basis of their gender (Begall *et al.,* 2023). They affirm the gender role by categorising students into activities deemed gender appropriate for either boys or girls (Evans, 2024). Similar to family and parents, educators approach and interact with students differently depending on their gender (Tabatadze & Gorgadze, 2023). Educators frequently encourage males more than girls to participate in demanding sports and science and mathematics classes (Perales *et al*, 2021). Additionally, boys and girls are disciplined differently, a fact which might validate and reinforce children's preconceptions and views (Begall *et al*., 2023).

Financial literacy

Financial literacy is composed of two components – financial knowledge and financial skills (Oke & Benedict, 2024). This simply implies that individuals must have knowledge of financial subject areas and be able to apply that knowledge to make informed financial decisions (Hung *et al*., 2012). Financial knowledge refers to the understanding of financial concepts that are significant to an individual, such as saving and budgeting (Antoni, Dlepu & Notshe, 2020). It entails being aware of one's financial situation, understanding financial concepts and applying financial principles to decision-making processes (Dhananjay & Sanjeeb, 2022). Financial knowledge is either objective or subjective (Ouachani *et al*., 2021; Białowąs, 2018). Objective financial knowledge refers to precise and preserved financial data about an individual, while subjective financial knowledge speaks about opinions regarding knowledge of concepts related to personal finance (Ouachani *et al.,* 2021; Białowąs, 2018). Similar to the studies of

Lusardi and Mitchell (2023) and Ouachani *et al.* (2021), this study measured objective financial knowledge and, by extension, the degree of financial literacy (Lusardi & Mitchell, 2023; Ouachani *et al*., 2021). Financial knowledge comprises different aspects: assets, inflation, interest rates, debt, deposits and time value of money (Lusardi & Mitchell, 2023; Ouachani *et al.,* 2021).

Financial skills refer to the capacity to successfully use financial information in practical contexts (Antoni *et al.,* 2020; Huston, 2010). Financial literacy includes learning and applying multiple skills, including budgetary comprehension, taxation, debt and finance management, familiarity with credit and investment fundamentals and their application, emergency fund savings and retirement planning (Dhananjay & Sanjeeb, 2022). For one to possess financial literacy, it is important to not only have the necessary financial knowledge, but also the ability to apply financial knowledge to make informed financial decisions (Ouachani *et al.* 2021) and have the necessary financial skills. This simply implies that in order for an individual to possess financial literacy, financial knowledge alone is not sufficient (Ouachani *et al.,* 2021).

Gender stereotypes and financial literacy

Gender stereotypes significantly influence financial literacy (Bottazzi & Lusardi, 2021; Driva *et al*., 2016). Driva *et al.* (2016) define these stereotypes as societal beliefs that financial knowledge and skills are predominantly associated with males. These stereotypes are deeply ingrained societal beliefs that ascribe certain characteristics, roles and capabilities to individuals based on their gender (Agnew & Cameron-Agnew, 2015). In the context of financial literacy, these stereotypes often position males as more financially knowledgeable and capable than females (Bottazzi & Lusardi, 2021; Driva *et al.* 2016). This study examines the impact of gender stereotypes on financial literacy.

Stereotypes manifest in various ways, including the perception that men are better at handling money, investing and making financial decisions (Bottazzi & Lusardi, 2021; Driva *et al*., 2016). Conversely, women are often seen as less competent in these areas, leading to lower self-confidence in their financial abilities (Hasler & Lusardi, 2017). These stereotypes are reinforced through socialisation processes from a young age (Agnew & Cameron-Agnew, 2015). Boys are more likely to be encouraged to take risks, engage in discussions about money and manage finances, while girls are often steered towards caregiving roles and domestic responsibilities (Driva *et al.,* 2016). As a result, boys typically have more opportunities to develop financial skills and knowledge while girls may receive less encouragement and fewer opportunities to do so (Agnew & Cameron-Agnew, 2015). These stereotypes can discourage females from engaging in financial activities, thereby perpetuating the disparity in financial literacy levels between men and women.

Research hypothesis

The initial literature review of this study provides the following hypothesis:

H_0: Gender stereotypes do not significantly influence financial literacy.

H_1: Gender stereotypes do significantly influence financial literacy.

RESEARCH METHODOLOGY

This study adopted a positivistic research paradigm and implemented a quantitative research design. The following section describes the sampling process, questionnaire design and data analysis of the study.

Sampling

The study population of this study comprises black students in the Eastern Cape. After identifying the relevant population for this study, it was important to carefully consider the choice of an appropriate sampling technique (Turner, 2020). In this study, non-probability judgment sampling was used because it relies on and makes use of specific criteria. In this case, the target is black students in the Eastern Cape of South Africa. Black students in the commerce faculty were considered the most appropriate group because they were likely to have a better understanding of financial concepts and high levels of financial literacy (Antoni *et al.,* 2020; Shambare & Rugimbana, 2012). The sample size was 300 black students from an Eastern Cape university.

Questionnaire design

A closed-ended questionnaire consisting of Sections A, B and C was used to collect data from the respondents. Section A entailed demographic information of the respondent, including age, gender and year of study. Section B comprised four questions to measure financial literacy using multiple-choice questions. Section C covered questions about gender stereotypes and used a 5-level Likert scale. For financial literacy, four multiple-choice questions from Lusardi and Mitchell (2023) were used and adapted to suit the South African context. Similar gender stereotype questions from the work Driva *et al*. (2016) were adapted for use in this study. Ethical approval was sought from RUESC and approved. Table 1 provides some of the questions and statements used in this study.

TABLE 1: FINANCIAL LITERACY AND GENDER STEREOTYPE

• **Interest rate question**	• **Suppose you had R10 000 in a savings account, and the interest rate was 3% yearly. After one year, how much would you have in your savings account if you left the money to grow?**

• **Time value of money question**	• Suppose John inherits R20 000 today, and his brother inherits R20 000 three years from now. Who is richer because of inheritance?
• **Gender stereotype**	• Men are usually more interested in finances than women

Source: Authors' compilation, 2025

The study used four questions to measure financial literacy, including two interest rate questions and time value of money questions. Furthermore, five statements were used to measure gender stereotypes. More information on the statements will follow in Table 2. The section below will provide information on data analysis.

Data analysis

Each completed questionnaire was scrutinised for missing data and questionnaires that were incomplete or completed incorrectly were disregarded. Information from the completed questionnaires was captured in Microsoft Excel and transferred to Statistica version 13. The data were then subjected to extensive statistical analysis. This study made use of content validity to ensure that the questionnaire adequately covered all aspects of financial literacy and gender stereotyping . In terms of construct validity, Exploratory Factor Analysis (EFA) was employed to determine if the items on the questionnaire accurately reflect the underlying theoretical constructions. Cronbach's alpha was used to ensure the reliability of the data. Items/statements with a factor loading of 0.5 were considered significant (Hair, Black, Babin & Anderson, 2014; Wiid & Diggines, 2013). Scales with an Alpha of 0.7 or higher are generally considered acceptable (Taber, 2018).

In this study, frequency and percentages were used to analyse demographic information and financial literacy. Pearson's product-moment correlation was used to measure the strength of the relationship between the two variables (Collis & Hussey, 2021; Ali & Bhaskar, 2018). It determines whether a relationship or correlation between two variables is positive or negative (Collis & Hussey, 2021; Ali & Bhaskar, 2018). The Pearson product-moment correlation coefficient also ranges from -1 to 1 (Collis & Hussey, 2021; Ali and Bhaskar, 2018). Furthermore, a p-value of 0.05 was used to assess the statistical significance of the correlation (Hair *et al.,* 2014)

EMPIRICAL RESULTS

Response rate and demographics

All 300 questionnaires that were distributed were returned. However, three of the questionnaires were deemed invalid for data capturing as they were was incomplete, resulting in 297 remaining valid questionnaires. Given the three invalid questionnaires that were discarded, the response rate was 99%. Tools used to capture and analyse the primary data

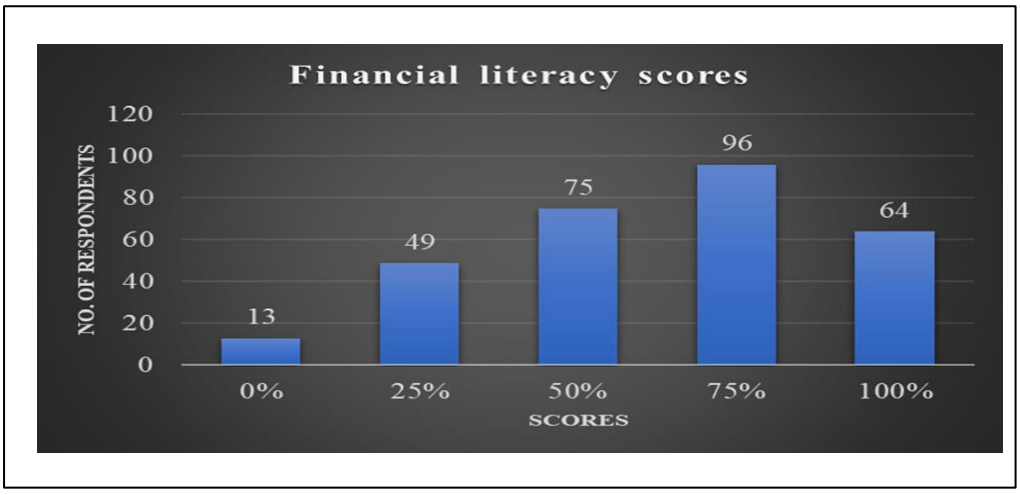
collected from the questionnaires included Microsoft Excel and Statistica (version 13). The majority of the respondents were females, comprising 62.29% (185 respondents) of responses, compared to male respondents, who constituted 36.36% (108 respondents), while only 1.01% (three respondents) came from non-binary individuals. Additionally, only 0.34% (one respondent) of the respondents from the study sample chose not to reveal their gender.

The distribution of ages demonstrated a significant majority of younger respondents, especially individuals ranging from 20 to 25 years old, representing 60.61% of the overall sample. Of the sample, 115 individuals under the age of 20 featured prominently, making up 38.72% of the sample. No respondents fell into the age brackets of 31 to 35 or 36 to 40. In terms of study, first-year students made up the majority of responses at 47.14% (140 respondents). The other 31.99% of respondents were second-year students, with a total of 95 respondents. Furthermore, 20.54% were third-year students, amounting to 61 respondents, and one student did not indicate year of study.

Financial literacy scores

Section A of the questionnaire gathered information on financial literacy and consisted of four questions designed to gauge financial literacy levels. Lusardi and Mitchell (2014) suggest that levels of financial literacy can generally be grouped into low, medium and high categories based on individuals' understanding of financial concepts including budgeting, interest rates and inflation. In this context, scores below 50% can be categorised as low level, scores from 50% to 74% can be categorised as a moderate level, and scores from 75% and above can be categorised as high level. Figure 1 presents the financial literacy levels of the respondents.

FIGURE 1: FINANCIAL LITERACY SCORES



Source: Authors' compilation (2025).

Figure 1 illustrates the distribution of financial literacy scores among 297 respondents of the overall financial literacy questions. Most respondents scored 75% (96 individuals), and 64

respondents scored 100% suggesting that most respondents have high levels of financial literacy. This was followed by 75 respondents scoring 50%, indicating that these respondents have a moderate financial literacy level. However, low financial literacy levels are demonstrated by the 49 respondents who scored 25% and the 13 respondents who scored zero. Overall, while there were respondents with low levels of financial literacy, slightly more than half of the respondents showed high financial literacy levels.

Validity and reliability results

EFA was conducted to ensure validity, and Cronbach's alpha values were calculated for reliability. For this study, only factor loadings 0.5 or greater were considered. Scales were regarded as reliable if they had a Cronbach's alpha coefficient greater than 0.7. Table 2 provides the EFA and Cronbach's alpha for the study.

TABLE 2: EFA AND ALPHA RESULTS

Items	Statements	Factor loading	Items-total correl.	CA after deletion
Gender stereotype			**Cronbach's alpha: 0.86**	
C28	Men are usually more interested in finances than women	0.67	0.55	0.85
C29	Men are usually better in dealing with finances than women	0.72	0.67	0.82
C30	Men are more likely to be concerned with finance in their jobs	0.78	0.72	0.80
C31	Men are more likely to be concerned with the family finances than women	0.79	0.74	0.80
C32	For a successful future, it is more important for men to be good at dealing with finance than for women	0.77	0.62	0.83

Source: Authors' compilation (2025)

Table 2 shows that all five items (C28, C29, C30, C31 & C32) measure gender stereotypes onto Factor 1. Factor 1 was retained as it seemed valid and reliable. All items of Factor 2 had factor loadings of more than 0.5, indicating that all statements are valid. Factor 1 also records Cronbach's alpha coefficient of 0.86, which is more than 0.7. Hence, the factor is considered to be reliable. Factor 1 was named gender stereotypes and was defined as men being interested, better, concerned and successful in finances than women.

Descriptive and correlation

This section uses descriptive statistics and correlation. Table 3 shows the descriptive statistics and correlation results for financial and gender stereotypes.

TABLE 3: CORRELATION OF FINANCIAL LITERACY AND GENDER STEREOTYPES

Factors	Descriptive and Correlations			
	Means	**Std.Dev.**	**Financial literacy**	**Gender stereotypes**
Financial literacy	62.46	28.34	1	-0.07
Gender stereotypes	2.45	0.93	-0.07	1
Statistically significant (P<0.05) *				

Source: Authors' compilation (2025)

Table 3 illustrates a financial literacy mean of 62.46%, which means that the financial literacy of the respondents is at a moderate level (62.46%). Financial literacy has a standard deviation of 28.34%, which is medium, indicating that the data collected was clustered closely around the mean score. Gender stereotypes have a mean of 2.45, which indicates that, on average, respondents are less likely to agree with statements measuring gender stereotypes. A weak negative and non-significant correlation exists between financial literacy and gender stereotypes (r = -0.07; p-value >0.05). This means that when gender stereotypes are high, financial literacy is low, but the influence is non-significant. The results revealed a weak negative relationship, which means financial literacy and gender have an indirect relationship, and they move in opposite directions. Thus, the null hypothesis (H_0) has been accepted.

RECOMMENDATIONS AND IMPLICATIONS

This findings showed that the majority of black students in this study have high levels of financial literacy. Other studies in South Africa have found that commerce students have high levels of financial literacy (Antoni *et al.,* 2020; Shambare & Rugimbana, 2012). However, there are concerns in content areas such as the time value of money and investment risk. These are basic financial and advanced concepts (Ouachani *et al.,* 2021) which should be included in financial literacy education.

The correlation results show that while financial literacy and gender stereotypes do have a negative relationship, it is not significant. This means that when gender stereotypes increase, financial literacy decreases, but there is no significance to this correlation. This is in contrast with the findings of Bottazzi and Lusardi (2021) that the background of parents, specifically the mother's role and gender, contributes to financial knowledge among females. Also, Driva *et al*. (2016) show that gender stereotypes have a negative relationship and are significantly related to financial literacy. The result of the study may be explained by commerce students overcoming gender stereotypes because of financial literacy education received from the faculty in the course of their studies.

However, as there is a negative correlation between financial literacy and gender stereotypes, issues around gender roles and gender stereotypes should be addressed by means of

financial literacy education. Financial educators should incorporate discussions about gender roles and stereotypes within their programmes. By fostering conversations that challenge traditional views, educators can promote a more inclusive approach to financial responsibility that involves all family members. This study has implications for parents who may unwittingly socialise children according to gender roles, thereby perpetuating gender ideologies and gender-specific values, cultural norms and gender-specific behaviours (Menshykova, 2021). This has a negative influence on financial literacy, even if not significant, which may be the reason women may fear accepting certain financial roles and responsibilities.

LIMITATION AND CONCLUSIONS

This study contributes to the current body of knowledge on the topic by providing empirical evidence of the relationship between financial literacy and gender stereotypes. In addition, information was gathered on the financial literacy levels among black students in the Eastern Cape and subsequent recommendations have been made. However, the study is subject to certain limitations: as the sample was confined to 300 black students, it may not be fully representative of the broader student population of black students in the Eastern Cape. Future studies should broaden the sample to include other universities. This study also makes use of the non-probability sampling method and therefore cannot be generalised to include all black or other students. Future studies should consider the probability of sampling to help with a better representation of the population. For this sample, the study revealed that gender stereotypes do not influence financial literacy but future studies need to test gender stereotypes on a diverse and larger sample size.

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TRACK 4: ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT

A FRAMEWORK FOR CATEGORISING AFRICAN FAMILY BUSINESS RESEARCH

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ABSTRACT

The aim of this study was to develop a framework for categorising African family business (AFB) research that would enable AFB researchers to identify the boundaries of the field and direct their research towards where a contribution can be made. To develop the framework, existing frameworks were identified, and several review articles were analysed to identify common topical clusters and research themes. A framework comprising of 12 topical clusters, with between six and 13 research themes for each, is proposed. The framework expands on existing frameworks and provides a comprehensive tool for mapping AFB research. Furthermore, it clarifies existing research areas and enables the identification of gaps in AFB research. By aligning research topics to the field as a whole and to addressing research gaps, AFB researchers can compare their research to that of other scholars and could add an African voice to the global discourse.

Keywords: family business; African; categorising framework; topical clusters

INTRODUCTION

Despite a growth in family business research globally, and the important contributions that family businesses make to Africa's economy, African family business (AFB) research is limited and regarded as substantially understudied (Asi, Floris and Argiolas, 2022; Ge and Campopiano, 2020; Acquaah and Eshun, 2016). In addition, existing reviews show the vast majority of previous studies have mostly focussed on Western family businesses in their samples and as their reference points (De las Heras-Rosas and Herrera, 2020; Acquaah and Eshun, 2016). Given that family businesses make up the overwhelming majority of businesses shaping Africa's economic landscape, it is crucial to promote research that specifically examines family businesses within an African context (De las Heras-Rosas and Herrera, 2020; Acquaah and Eshun, 2016).

However, highlighting the problem addressed in this study, we, like Payne (2018) argue that as the field of family business research, including research conducted in an African context, evolves and continues to broaden, it becomes imperative that the boundaries of the field as a

whole and the direction of its development be considered in more depth. To address this problem, the aim of the current study was to develop a framework for categorising AFB research that would enable AFB researchers to identify the boundaries of the field and direct their research toward that where a contribution can be made. Such a framework provides researchers with a clear structure, helping them to understand where their research fits in within the broader field of family business. In addition, by aligning their research topics to the field as a whole and to addressing research gaps, AFB researchers can compare their research to that of others in other contexts and could add an African voice to the global discourse. In this study, a family business is defined as one in which 51% or more of the ownership or equity is controlled by a single family, and at least two family members are actively involved in the daily management and operations of the business (Ferraro and Cristiano, 2021; De las Heras-Rosas and Herrera, 2020). Furthermore, AFB research refers to studies conducted on family businesses located in countries on the African continent (Acquaah and Eshun, 2016).

RESEARCH METHODOLOGY

Methods

Secondary data was collected by means of desk research, and a search of the literature was undertaken. The search strategy for identifying the topical clusters into which AFB research could be categorised, included identifying the search terms, databases and inclusion criteria. Search terms included “family business”, “family firm”, “literature review” and “systematic literature review”, whereas the databases searched included Google Scholar, Web of Science and Scopus. Although no time was specified when searching for the literature in general, the time frame of 2018-2023 (6 years) was specified for the systematic literature reviews (SLR) to be analysed as it was assumed that many articles in prior SLR would be included in later ones and that more recent SLR would better reflect recent research trends. The inclusion criteria for the review articles were that they were published in English and pertained to existing family business research topics. To develop the framework for categorising AFB research, existing frameworks of topical clusters were first identified, after which several SLR were analysed to identify common topical clusters and research themes that emerged from these reviews.

Existing frameworks for categorising family business research

Two existing frameworks were identified to inform the development of the framework proposed in this study, namely that of Yu, Lumpkin, Sorenson and Brigham (2012:37) and Xi, Kraus, Filser and Kellermanns (2015). After gathering and analysing 257 publications from 1998 to 2009, Yu et al. (2012) thoroughly categorised similar variables within the dataset to develop topical clusters by which to group research on the field of family business as a whole. The

topical clusters included: performance, strategy, social and economic impact, governance, succession, family business roles as well as family dynamics (Yu et al., 2012). Research categorised into these clusters is described in Table 1. The objective of Yu et al's. study was also to depict the state that the field of family business research at the time, by capturing the variables that were being extensively investigated in family business research and which deserved greater attention to the advance the field. Yu et al. (2012) were able to determine the relationships between the several variables in family business research, exposing current themes, gaining a better understanding of what scholars currently deemed as significant research avenues and identifying what gaps existed. They suggested that topics that required attention were family values and succession related procedures.

TABLE 1: TOPICAL CLUSTER DESCRIPTIONS

Cluster	Description of research
Performance	Relating to performance-overall success and performance-financial. For example, profitability, revenue and business outcomes.
Strategy	Focusing on policies and plans enacted by the family business relating to strategy content, investment policies, financial structure, internationalisation and survival and growth.
Social and economic impact	Relating to entrepreneurship, social capital and knowledge transfer, economic contribution as well as regulatory and business environment.
Governance	Relating to decision-making processes and control mechanisms that consist of human resources, business mission/goals, role of network, decision making, governance structure, family control and family ownership.
Succession	Relating to the professionalisation of management, succession processes, succession plans, succession/transition events and compensation.
Family business roles	Relating to different roles and attitudes of different stakeholders of a family business. For example, the roles of spouse/copreneur and female family members, attitude toward family business-nonfamily members, attitude toward family business-family members, attitude toward family business CEOs, and family involvement in business.
Family dynamics	Relating to the relationships, values and characteristics that a family desires from its business such as family values, satisfaction, commitment, conflict and family business characteristics.

Source: Yu et al. (2012)

Similar to the Yu et al. (2012) and the methodology followed in the current study, Xi et al. (2015) sought to review the field of family business research, as a whole, by mapping all the literature published to date at the time. To do this, the study identified patterns in citations and uncovered the most impactful articles to categorise family business research into various clusters (Xi et al., 2015). They followed a thorough process of gathering data and eliminating studies based on their relevance and ability to meet search criteria. By drawing on the similarities of the processed data, Xi et al. (2015) were able to identify topical clusters, which were then assigned relevant articles related to the cluster topic. The framework utilised by Xi

et al. (2015) comprised of five topical clusters, namely, family dynamics, governance, competitive advantage, leadership and management, as well as succession. Xi et al.'s (2015) description of the research categorised into each of their clusters is summarised in Table 2.

By means of creating, defining and grouping family business research into various topical clusters, Xi et al. (2015) were able to truly grasp the evolvement of the field of family business research in its entirety and provide direction as to which avenues in the field required further exploration. They identified that the field, as a whole, had primarily focused on two avenues only, namely comparisons between family and non-family businesses, and distinctive family business characteristics (Xi et al., 2015:). At the time, future recommended research included the area of socioemotional wealth (SEW), along with micro-areas that did not receive enough attention such as commitment, justice and satisfaction in family businesses (Xi et al., 2015).

TABLE 2: TOPICAL CLUSTER DESCRIPTIONS

Cluster	Description of research
Family dynamics	Relating to the special dynamics of family businesses and includes defining family and the family culture.
Governance	Relating to corporate governance in family businesses. Specifically, as it relates to rights and responsibilities, ownership and management control, decision making, governance structures and leadership.
Competitive advantage	Focusing on family business resources, capabilities, performance and goal achievement.
Leadership and management	Relating to ownership, management and shareholders.
Succession	Relating to succession planning, survival and the transition process.

Source: Xi et al. (2015)

Both Yu et al. (2012) and Xi et al. (2015) identified the topical clusters governance, succession and family dynamics in their frameworks. In addition to these topical clusters commonly researched, Yu et al. (2012) included the clusters strategy, performance, family business roles, as well as social and economic impact, to their framework, whereas Xi et al. (2015) included the clusters competitive advantage, as well as leadership and management to theirs. Both these studies and their frameworks are suitable as reference points for the development of the framework in this study, as they identified the most significant topical clusters by which to categorise family business research when attempting to categorise and analyse existing research.

Topical clusters identified in family business reviews

Several SLR on family business research topics, published during the period 2018-2023, were also analysed to identify common topical clusters into which AFB research could be categorised. To date, there have been many SLR articles focusing on different topical clusters

within the field of family business. However, most focus on the topical clusters of succession, entrepreneurship, finance, innovation, performance, internationalisation, governance, reputation, gender, SEW and corporate social responsibility. Although several reviews in each topical cluster have been done over the years, only the more recent (2018-2023) were considered to develop the framework in this study. The assumption made was that more recent reviews were likely to include some or many of the articles included in previous reviews. To develop the framework in this study, identifiable topical clusters and research themes into which the SLRs analysed had categorised their studies, were sought. These are briefly described below.

Succession

The topic of succession has been of interest to scholars since the inception of the field of family business. Published in 1994, the first review article on succession in family business was written by Handler (1994). This initial review was followed by several others published between 2013 and 2017. Some of the more recent review articles, summarised in Table 3, addressed numerous topics on succession, including the influence and role of women and gender, as well as generational involvement, spirituality and the influence of innovation on succession. Other topics included succession strategies as well as the management of knowledge and succession in general.

TABLE 3: REVIEW ARTICLES ON SUCCESSION IN FBs

Authors	No. of articles	Date period	Purpose/objective	Topical categories or themes identified
Kubíček and Machek (2019)	35	2005-2017	To review the FB literature relating to women/gender in intergenerational succession	• Three categories of gender-related factors influencing succession identified: environment, people and processes.
Nave, Ferreira, Fernandes, do Paco, Alves and Raposo (2022)	84	Until 2021	To analyse the literature on succession in FBs	• Four general themes identified: SEW, leadership, the succession process and succession planning.
Magrelli, Rovelli, Benedetti, Uberbacher and De Massis (2022)	253	1967-2020	To analyse intergenerational succession dynamics and involvement in the FB	• Succession dynamics themes identified: succession, engagement in leadership and ownership positions.
Asi et al. (2022)	115	1991-2020	To analyse the relationship between succession and spirituality in FBs	• Themes arising: religion, geographical context, values, diversity.
Ge and Campopiano (2022)	63	2001-2022	To review the literature on knowledge management in FBs across the generations	• Training and mentoring of successors were identified as impacting FBs succession.

Entrepreneurship

Although two reviews of research on entrepreneurship in the context of family businesses were published in 2016. Two initial reviews of research on entrepreneurship in the context of family businesses were published in 2016. The first review of 129 articles was conducted by López-Fernández, Serrano-Bedia and Pérez-Pérez (2016) and, the second, by Goel and Jones (2016), which reviewed 59 articles. Goel and Jones's (2016) review specifically analysed entrepreneurial exploration and implementation in family businesses. Several review articles focusing on entrepreneurship in family businesses have been published since these initial 2016 review articles, with publication dates varying between 2018 to 2023. Those with publication dates between 2019 to 2023 (see Table 4) primarily addressed topics such as the influence of immigration on family entrepreneurship, as well as how family roles, gender and parents influenced entrepreneurship within family businesses. The reviews found that compared to non-family businesses, family businesses were more entrepreneurially inclined. Moreover, it was highlighted that the number of women in family business entrepreneurship was on the rise and that where family members were involved in the business, the business was more entrepreneurially orientated. It was also found that where the entrepreneurial nature of the family business was focused on increasing SEW, the performance of the business was negatively affected.

TABLE 4: REVIEW ARTICLES ON ENTREPRENEURSHIP IN FBs

Authors	No. of articles	Date period	Purpose/objective	Topical categories or themes identified
Cardella, Hernández Sánchez and Garcia (2020)	92	1989-2019	To explore the relationship between entrepreneurship and family roles such as gender roles and parental role models	• Literature on entrepreneurship has developed in various avenues: gender, succession, culture, parental role models. • Five themes derived: culture and gender, succession, parental role models, self-employment, women entrepreneurs.
Jamil, Fadzil, Waqar and Yaacob (2021)	29	2010-2020	To analyse how entrepreneurial FBs navigate through different theoretical perspectives	• Focused on: performance, governance and succession.
Hadri, Dvouletý, Bögenhold and Sawy (2023)	64	2014-2020	To investigate the influence of family and immigration on FB entrepreneurship	• Six factors identified: the family's influence, EO, non-family governed FBs, family governed FBs, migrant run FBs as well as gender and socio-cultural influence.
Anwar, Clauss and Meyer (2023)	570	2010-2021	To analyse existing research on entrepreneurship in FBs	• Four foundations identified: SEW, EO, agency theory and family resources. • Seven clusters identified: entrepreneurial motivation, gender,

				EO, business characteristics, family network, internationalisation, heterogeneity.

Finance

The first review on finance in the context of family businesses was published in 2011 (Mazzi, 2011). Three additional reviews were published in 2017 (Michiels and Molly, 2017; Gallucci, Santulli and De Rosa, 2017; Thiele, 2017) which focused on the financing decisions of family businesses, financial considerations and issues within family businesses, as well as non-family equity within family businesses, respectively. More recent review articles (see Table 5) highlighted that research on finance in the context of family businesses addressed topics such as financial behaviour, dividend decisions as well as executive compensation of and within family businesses. From these reviews it was established that research on financial and dividend policies was lacking and often did not take the ownership structure of family businesses into consideration. Furthermore, the reviews highlighted the importance of considering family behaviour and psychological factors when making financial decisions in addition to considering how different cultural contexts influenced financial decisions.

TABLE 5: REVIEW ARTICLES ON FINANCE IN FBs

Authors	No. of articles	Date period	Purpose/objective	Topical categories or themes identified
Quiddi and Habba (2021)	256	1990-2020	To explore and assess research on the evolution of the financial behaviour of FBs	• Emerging themes: governance, dividends, investment/financial policy, capital structure decision, financial performance, SEW.
Molly and Michiels (2022)	47	2001-2020	To review dividend decisions in FBs	• Emerging themes: shareholding, dividend policies, SEW.
Michiels, Botero and Kidwell (2022)	71	1983-2021	To analyse executive compensation within FBs and how this is influenced by the family system	• Focused on: publicly traded businesses, agency theory, secondary data. • Reoccurring theme: compensation, compensation structure.

Innovation

The first review article focusing on innovation within in the context of family businesses was published by Padilla-Melendez, Diéguez-Soto and Garrido-Moreno (2015). This review included 59 articles published between 1991 to 2012. The second review, based on 78 articles by Rod (2016), sought to provide a comprehensive overview of innovation in family businesses. More recent reviews (see Table 6) highlighted that innovation in family businesses

could be affected by succession, family member involvement in the business, as well as the family business culture.

TABLE 6: REVIEW ARTICLES ON INNOVATION IN FBs

Authors	No. of articles	Date period	Purpose/objective	Topical categories or themes identified
Aparicio, Iturralde and Sanchez-Famoso (2019)	207	1994-2017	To analyse innovation in FBs with a focus on aspects not previously researched	• Three research streams identified: internal factors, external factors, advances in innovation.
Suman and Das (2020)	32	2011-2017	To explore the influence of family and business on the organisational innovation of the FB	• Two areas interacted with innovation: family factors and firm factors.
Comin, Oro and Caravalho (2022)	37	2006-2018	To analyse innovation in FBs when looking at family involvement in the FB	• Key research areas: innovative behaviour, innovation performance, ability and willingness to innovate and types of innovation.
Baltazar, Fernandes, Ramadani and Hughes (2023)	32	2005-2021	To analyse the impact of innovation on FBs succession and succession processes in FBs	• Main themes: succession impact and obstacles to innovation.

Additionally, the reviews found that family businesses could be seen as more innovative than their non-family business counterparts when they were more entrepreneurially orientated. Moreover, it was established that whilst minimal research on the relationship between family dynamics and innovation existed, managers could benefit from the insight gained from family members' influence over the innovation process. Furthermore, the reviews highlighted that succession could pose a threat to innovation in the family business unless executed correctly, in which case, it would ensure the business's continuity.

Performance

The first review published on the topic of performance in family businesses was in 2011 by Mazzi (2011). This article reviewed 23 articles and aimed to provide an overview of the current state of knowledge on performance in family business at the time. A second review, also seeking to capture the state of the field of performance in family business, was undertaken in 2014 by Rantanen and Tuominen (2014). The two recent review articles are summarised in Table 7.

TABLE 7: REVIEW ARTICLES ON PERFORMANCE IN FBs

Authors	No. of articles	Date period	Purpose/objective	Topical categories or themes identified
Azila-Gbettor, Honyenuga, Berent-Braun and Kil (2018)	159	2000-2016	To analyse the performance of FBs as it relates to the firms' governance structures	• Quantitative methods and associated techniques are used to analyse performance in FBs. • Measures of corporate governance and measures of performance in FBs were identified.
Lv, Li and Mitra (2020)	46	Until 2019	To analyse the literature on FB performance.	• Performance categories identified: social, financial, innovative.

These articles focused on performance within family business, specifically addressing topics such as the business's social, financial and innovative performance, along with how business performance was impacted by governance structures. The reviews observed that the majority of family businesses made decisions to preserve SEW, and this decision often decreased their profit maximisation and performance. It was, however, found that there was a positive relationship between CSR and innovation, and both financial and social performance in family businesses.

Internationalisation

The first review article (25 articles) on the topic of internationalisation in family businesses was published in 2010 by Kontinen and Ojala (2010) who concluded that more case study or comparative research was needed and that researchers should apply more family business or internationalisation related theories in future studies (Kontinen and Ojala, 2010:97). Several other reviews were published between 2013 and 2017, but those with publication dates between 2020 and 2021 are summarised in Table 8. These articles attempted to identify the various themes within research on internationalisation among family business. In addition, they summarised the impact of family management and ownership on internationalisation and explored internationalisation as an entrepreneurial strategy for the growth and continuity of family businesses. The reviews also established the significance of the family business's branding during internationalisation and how successors preserved this brand. Moreover, it was found that the concentration of control in family businesses influenced the business's internationalisation decisions and that family businesses only internationalised, slowly and in increments to foreign markets that were geographically close, once they were established in their domestic market.

TABLE 8: REVIEW ARTICLES ON INTERNATIONALISATION IN FBs

Authors	No. of articles	Date period	Purpose/objective	Topical categories or themes identified
Casprini, Dabic, Kotlar and Pucci (2020)	161	1991-2019	To establish relationships and themes within existing research on internationalisation among FBs	• Main themes found: ownership and network. • Five research clusters: ownership, diversification, networks, international EO and residual contributions.
Metsola Leppaaho, Paavilainen-Mantymaki and Plakoyiannaki (2020)	172	1991-2018	To analyse existing research on FB internationalisation	• Research on FB internationalisation is based on studying variables and their outcomes. • Three key aspects to FB internationalisation: FB heterogeneity, contexts and methodologies.
Alayo, Iturralde, Maseda and Aparicio (2021)	115	2002-2018	To explore internationalisation as an entrepreneurial strategy for the growth and continuity of FBs	• Six thematic clusters identified: governance, board of directors, foreign market knowledge, entrepreneurship, competitive advantage, entry-mode.
Debellis, Rondi, Plakoyiannaki, and De Massis (2021)	134	1991-2020	To review existing research on FB internationalisation	• Established an integrative framework that showed the current state of internationalisation and FBs in terms of family involvement, FB behaviour, internationalisation dimensions and outcomes.

Governance

The topical area of governance and family businesses had its first review published in 2014 by Suess (2014), analysing 19 articles over the period of 1994 to 2012. At the time, Suess's study was the first attempt by a scholar to develop a conceptual model and categorise the existing literature on family business governance. Suess (2014) proposed that future researchers conduct more qualitative research and further explore heterogeneity in family business governance. A second review, analysing existing research on corporate governance and family businesses, was carried out in 2014 by Joao, Santos and Filho (2014), reviewing 91 articles published during 1990 to 2014. The more recent review articles, summarised in Table 9, focused on governance within family business, specifically addressing topics such as family business performance as it related to the business's governance structures as well corporate governance in family businesses in developing countries. The findings of these

reviews identified family business governance as an emerging field and highlighted the lack of research contributions from developing countries where governance challenges were often experienced. A significant link between corporate governance and the performance of family businesses was also reported.

TABLE 9: REVIEW ARTICLES ON GOVERNANCE IN FBs

Authors	No. of articles	Date period	Purpose/objective	Topical categories or themes identified
Azila-Gbettor et al. (2018)	159	2000-2016	To analyse the performance of FBs as it relates to the firms' governance structures	• Quantitative methods and associated techniques are used to analyse performance in FBs. • Measures of corporate governance and measures of performance in FBs were identified.
Khan, Khalidi and Baig (2021)	477	1988-2017	To investigate corporate governance in FBs with a focus on FBs in developing countries	• FB performance, regulatory requirements and executive governance were popular topics.
Pu, Xu, Wang and Skare (2022)	626	1988-2020	To review the research on governance in FBs	• Internal formal governance was a predominant topic. • Four key FB governance forms were researched: family meetings, councils, constitution and board of directors.

Reputation

Three review articles on the topical area of reputation in the context of family business, with publication dates between 2018 to 2021 are summarised in Table 10. These articles focused on topics such as the reputation and image of family businesses as well as understanding the role these played in different countries and in a business's strategy. The reviews found that research on image and reputation within family business is quite recent but is growing in popularity, with the majority of articles on the topic being published within the last decade. It was established that family businesses pursued and invested in SEW, as well as CSR to benefit their reputation, identity and relationships with stakeholders. Moreover, the reviews held that factors influencing a family business's reputation included their philanthropic and financial activities as well as factors pertaining to the family itself.

TABLE 10: REVIEW ARTICLES ON REPUTATION IN FBs

Authors	No. of articles	Date period	Purpose/objective	Topical categories or themes identified
Lizama, Contreras and Santos (2021)	56	2000-2020	To explore the reputation and identity of FBs and the role it plays in their business strategy	• FBs were more inclined to pursue SEW objectives such as business' reputation and relationships with customers rather than solely financial objectives. • Several key themes: advantages of reputation, effect on strategic behaviour, shareholders, consumer response, performance, financial market.
Chaudhary, Dhir, Ferraris and Bertoldi (2021)	93	Until 2021	To investigate the extent of research produced on trust and reputation in relation to FBs	• Factors that influenced a FB's trust and reputation: the manner in which they went about practicing their philanthropic and financial activities, as well as factors pertaining to the family itself. • Themes identified: reputation, trust, SEW, firm identity, social capital, stakeholders, economic/non-economic goals.

Gender

The first review on the topic of gender in family businesses was carried out in 2011 by Heinonen and Hytti (2011), analysing 170 articles over the period of 2000 to 2011. The second review, published in 2017 by Nelson and Constantindis (2017), reviewed 157 articles over the period 1995 to 2015. In particular, the latter review sought to analyse family business succession by investigating the manner in which gender was viewed in these businesses and the impact this had on the perspectives these businesses have towards gender roles (Nelson and Constantindis, 2017). Nelson and Constantindis (2017) noted that most research on gender-related issues and challenges revolved around those affecting women as opposed to their male counterparts. More recent review articles (see Table 11) report that the most investigated areas were gender diversity within management and governance, entrepreneurship, succession as well as economic and non-economic performance. To this extent, the reviews identified that gaps on gender in family business could be found when attempting to understand female entrepreneurs, as well as the influence of family on women's entrepreneurial experiences. Furthermore, the reviews held that whilst women faced various challenges and opportunities in family businesses, it could not be denied that women made

significant contributions to family businesses, whether it be in succession or knowledge and value transference.

TABLE 11: REVIEW ARTICLES ON GENDER IN FBs

Authors	No. of articles	Date period	Purpose/objective	Topical categories or themes identified
Kubíček and Machek (2019)	35	2005-2017	To review FB research relating to women/gender in intergenerational succession	• Three categories of gender-related factors affecting succession were identified: environment, people and processes.
Nguyen, Nguyen, Le, Luong, and Vuong (2021)	224	1991-2020	To explore gender issues in FB research	• The most investigated topics: gender diversity within management structures, various obstacles and opportunities faced by women in FBs.
Maseda, Iturralde, Cooper and Aparicio (2021)	225	1991-2019	To analyse the role and influence of females in FBs	• Research focus: entrepreneurship or ownership from a male-dominated perspective.
Naciti, Rupo and Pulejo (2022)	125	1999-2021	To explore women's' experience and gender diversity in FBs	• Three key clusters of research identified: women's involvement in corporate governance and performance, women's formal engagement in the family business, and female ancillary roles.
Cooper, Aparicio de Castro, Maseda Garcia and Iturralde Jainaga (2023)	376	1991-2021	To address gender issues in FBs	• Key themes identified: succession, entrepreneurship, governance, economic and non-economic outcomes. • Initially, the focus was on the role of women in FBs and family social capital to assist female entrepreneurs. • Recently, the focus was more on gender diversity in relation to succession and economic/non-economic performance.

Socioemotional wealth (SEW)

The first review article on the topic of socioemotional wealth (SEW) and family businesses was undertaken in 2014 by Mensching, Kraus and Bouncken (2014), reviewing 21 published articles. The review sought to analyse the influence of SEW on a family businesses' financial and non-financial performance, in addition to its influence on other non-performance related

factors (Mensching et al., 2014). The study noted that SEW in the field of family business focused primarily on the behaviour of the family business, but did not apply the concept to draw distinctions between family and non-family businesses (Mensching et al., 2014). For further development of this topic, it was proposed that future research focus on the context in which the family business finds itself, as factors such as culture and industry could heavily impact on SEW preservation (Mensching et al., 2014). Some of the more recent review articles on SEW and family business are summarised in Table 12.

These reviews have identified topics such as the influence and application of SEW in emerging economies and the impact of SEW on a family business's behaviour. The reviews highlighted that in SEW was predominantly related to family business image, reputation and presence, and was one of the most crucial differentiators between family and non-family businesses. Furthermore, the reviews identified that the most linked keywords in relation to SEW were performance, leadership, governance, innovation, ownership and management.

TABLE 12: REVIEW ARTICLES ON SOCIOEMOTIONAL WEALTH IN FBs

Authors	No. of articles	Date period	Purpose/objective	Topical categories or themes identified
Nordin, Khalid, Ebrahim, and Samsudin (2020)	288	1960-2018	To review research focussing on FB's SEW in emerging economies	• SEW predominantly related to FB image, reputation and presence.
Araya-Castillo, Hernández-Perlines, Moraga and Ariza-Montes (2021)	501	1975-2019	To collect bibliometric information on research carried out to date on SEW and FBs	• Prominent keywords associated with SEW included performance and ownership.
Marques, Leitao, Ferreira, and Cavalcanti (2023)	218	2010-2021	To analyse existing SEW research as it relates to succession and governance in FBs	• Five SEW research clusters were identified: performance, leadership, governance, innovation, ownership and management.
Hernández-Perlines, Araya-Castillo, Millán-Toledo and Cisneros (2023)	1026	1975-2021	To carry out a bibliometric analysis on SEW research from the perspective of the FB	• Six clusters of research identified: general literature, value creation, family member involvement, ownership, management, family roles.

Corporate Social Responsibility (CSR)

The first review article on the topic of CSR was carried out by Melero-Polo and López-Pérez (2017) in 2017 and sought to establish the current state of research on CSR in the context of family businesses by reviewing 55 articles published from 1997 to 2017. Several other review

articles on CSR have been published since this initial 2017 review. Some of the more recent reviews (see Table 13) have specifically addressed topics such as the relationship between CSR and performance, the interrelatedness of CSR and ethics, as well as exploring the ownership aspect of CSR in family businesses. In their findings, the reviews noted that studies on CSR in family business were surprisingly sparse and that scholars differed in their views as to whether family businesses were more inclined to practice CSR than their non-family business counterparts.

The reviews highlighted that family businesses that engaged in CSR activities formed close relationships with stakeholders and could easily identify new opportunities. In addition, positive relationships were found between family business CSR and their reputation, brand and innovation over and above financial and social performance. Furthermore, the reviews identified that the relationship between CSR and ethics required greater exploration and that when implementing CSR, family businesses often saw a decline in their performance.

TABLE 13: REVIEW ARTICLES ON CORPORATE SOCIAL RESPONSIBILITY IN FBs

Authors	No. of articles	Date period	Purpose/objective	Topical categories or themes identified
Lv et al. (2020)	46	Up until 2019	To analyse the relationship between CSR and performance	• CSR was investigated in term of reputation, brand, innovation as well as financial and social performance.
Mariani, Al-Sultan and De Massis (2021)	168	2003-2020	To determine the most significant research on CSR in FBs	• Three key areas examined: sustainability, governance and family involvement.
Songini, Seddio and Faraudello (2021)	115	2003-2017	To analyse the state of research on CSR in FB	• The main themes in relation to CSR identified: stakeholders, disclosure, ownership, reputation, strategy, governance, SEW, performance.
Aghajani Afrozi, Yadolahi Farsi, Ahmadpour Dariani and Motevaseli (2022)	28	1997-2021	To assess the status of CSR publications in FBs	• Prior research focused on environmental performance indicators, industry, FB style and resource allocation.

PROPOSED FRAMEWORK FOR CATEGORING AFB RESEARCH

Using the frameworks of Yu et al. (2012) and Xi et al. (2015), well as the various topical clusters, categories and themes identified from recent SLRs, a framework for categorising

AFB research is proposed in Table 14. Each topical cluster is based on the cluster descriptions of Yu et al. (2012) and Xi et al. (2015) as well as various research categories and themes or streams of research identified within the review articles. Research themes are summarised in Table 14 and serve as guide to categorising research conducted on African family businesses within each topical cluster.

TABLE 14: A FRAMEWORK FOR CATEGORISING AFB RESEARCH - TOPICAL CLUSTERS AND RESEARCH THEMES

Cluster	Research themes	Source
Succession	• Succession planning • Succession (transition) process • Transition events • Professionalisation of management • Compensation • Knowledge management • Knowledge transfer • Training/mentoring successors • Survival (performance) • Gender • SEW • Leadership • Succession dynamics	Succession planning, transition process, survival (Xi et al., 2015)
		Succession planning, succession process, transition events, professionalisation of management, compensation (Yu et al., 2012)
		Socioemotional wealth (SEW), leadership, succession process, succession planning (Nave et al., 2022)
		Knowledge management, training/mentoring successors (Ge and Campopiano, 2022)
		Knowledge transfer (Baltazar et al., 2023)
		Gender (Cooper et al., 2023; Kubíček and Machek, 2019)
		Succession dynamics (Magrelli et al., 2022)
Governance	• Governance structures • Ownership • Decision-making processes • Management control • Control mechanisms • Governance policies and plans • Gender diversity • Human resources	Ownership, management control, decision-making, governance structures (Xi et al., 2015)
		Ownership, control mechanisms, decision-making/processes, governance structure, human resources, policies and plans (Yu et al., 2012)
		Governance forms/structures (Pu et al., 2022)
		Gender diversity in governance (Cooper et al., 2023)
Performance	• Financial performance • Overall performance • Social performance • Goal/outcome achievement • Profitability • Revenue • Survival and growth strategy • Resources and capabilities • CSR • Innovation	Resources, capabilities, performance, goal achievement (Xi et al., 2015)
		Overall performance success, financial performance, profitability, revenue, business outcomes, survival and growth strategy (Yu et al., 2012)
		Financial performance, social performance, corporate social responsibility (CSR), innovation (Lv et al., 2020).

TABLE 14: A FRAMEWORK FOR CATEGORISING AFB RESEARCH - TOPICAL CLUSTERS AND RESEARCH THEMES (continued)

Cluster	Research themes	Source
Family dynamics	• Relationships within family businesses • Family culture • Family business characteristics • Commitment to family businesses • Conflict within family businesses • Family values • Satisfaction within family businesses • Attitude of family business members • Obstacles and opportunities faced • Diversity in management structures • Family member roles • Gender issues • Family involvement in the business	Family culture (Xi et al., 2015)
		Relationships, family values, family business characteristics, satisfaction, commitment, conflict, role of spouse/copreneur, role of female family members, family involvement, attitude of family business members (Yu et al., 2012)
		Diversity in management structures, obstacles and opportunities (gender) (Nguyen et al., 2021)
Entrepreneurship	• Entrepreneurial motivation • Entrepreneurial orientation • Gender • Succession • Culture within family businesses • Parental role models • Family business characteristics • Family networks • Internationalisation • Heterogeneity	Gender, succession, culture, parental role models (Cardella et al., 2020)
		Gender, entrepreneurial motivation/orientation, business characteristics, family network, internationalisation, heterogeneity (Anwar et al., 2023)
Finance	• Financial performance • Shareholding • Compensation • Dividends and dividend policies • Governance within family businesses • SEW • Capital and financial structure • Investment and financial policies	Investment policies, financial structure (Yu et al., 2012)
		Governance, dividends, investment/financial policy, capital structure decision, financial performance, SEW (Quiddi and Habba, 2021)
		Shareholding, dividend policies, SEW (Molly and Michiels, 2022)
		Compensation (Michiels et al., 2022)

TABLE 14: A FRAMEWORK FOR CATEGORISING AFB RESEARCH - TOPICAL CLUSTERS AND RESEARCH THEMES (continued)

Cluster	Research themes	Source
Innovation	• Advances in innovation • Innovative behaviour • Innovation performance • Obstacles to innovation • Ability and willingness for family businesses to innovate • Impact of succession • Influence of internal and external factors on family business innovation. • Influence of family and firm factors on family business innovation • Types of innovation	Advances in innovation, internal factors, external factors (Aparicio et al., 2019)
		Family factors, firm factors (Suman and Das, 2020)
		Innovative behaviour, innovation performance, ability and willingness to innovate, types of innovation (Comin et al., 2022)
		Impact of succession, obstacles to innovation (Baltazar et al., 2023)
Internationalisation	• Diversification • Networks • International entrepreneurial orientation • Foreign market knowledge • Competitive advantage • Entry mode; Internationalisation strategy • Ownership • Residual contributions • Governance/board of directors • Entrepreneurship	Internationalisation strategy (Yu et al., 2012)
		Ownership, diversification, networks, international entrepreneurial orientation, residual contributions (Casprini et al., 2020)
		Governance, board of directors, foreign market knowledge, entrepreneurship, competitive advantage, entry mode (Alayo et al., 2021)
Reputation	• Trust • SEW • Social capital • Stakeholders • Identity of the family or family business • Effect of the family business's reputation on: Goals; Strategic behaviour; Shareholders and financial market consumer response; Business performance; Economic/non-economic goals	Effect on strategic behaviour, effect on shareholders and financial market, family identity, effect on consumer response and performance (Lizama et al., 2021)
		Reputation and trust, SEW, firm identity, social capital, stakeholders, economic/non-economic goals (Chaudhary et al., 2021)

TABLE 14: A FRAMEWORK FOR CATEGORISING AFB RESEARCH - TOPICAL CLUSTERS AND RESEARCH THEMES (continued)

Cluster	Research themes	Source
Socioemotional wealth	• Performance • Leadership • Governance • Innovation • Value creation • Ownership and management • Family member involvement • Family roles • Family business image and reputation • Family business presence	Performance, leadership, governance, innovation, ownership and management (Marques et al., 2023)
		Value creation, family member involvement, ownership, management, family roles (Hernández-Perlines et al., 2023)
		Family business image, reputation, presence (Nordin et al., 2020)
		Performance, ownership (Araya-Castillo et al., 2021)
Corporate social responsibility	• Sustainability • Governance • Stakeholders • Reputation • Strategy • Family involvement • Disclosure • Ownership • SEW • Social capital • Economic contribution • Entrepreneurship • Performance	Entrepreneurship, social capital, economic contribution (Yu et al., 2012)
		Sustainability, Governance, Family involvement (Mariani et al. 2021)
		Stakeholders, disclosure, ownership, reputation, strategy, governance, SEW, performance (Songini et al., 2021)
Ownership, leadership and management	• Ownership • Management • Management control • Shareholders • Control mechanisms • Strategy content.	Ownership, management, shareholders, management control (Xi et al., 2015)
		Ownership, control mechanisms, strategy content (Yu et al., 2012)

THEORETICAL AND PRACTICAL (MANAGERIAL) IMPLICATIONS

Given that AFB research is limited and regarded as substantially understudied (Asi et al., 2022; Ge and Campopiano, 2020; Acquaah and Eshun, 2016), and that such research needs to include a wider range and depth of topics (Acquaah and Eshun; 2016; Farrington and Jappie, 2016), a framework based on family business research done globally provides AFB scholars with a systematic and structured way to classify and analyse their work. It enables them to identify areas of interest globally so the future research they undertake can be aligned with global trends and interests. Research aligned with global trends and interests would add an African voice to the global discourse and increase chances of publication in high-quality family business journals.

The framework developed has theoretical implications in that it validates and expands on the frameworks of Yu et al. (2012) and Xi et al. (2015) and provides a more comprehensive tool for mapping the family business literature published to date. Furthermore, the framework not only clarifies existing research areas and but also identifies research gaps, enabling researchers investigate underexplored areas or those in need of more in-depth investigation. Research themes within the different topical clusters also highlights that family businesses do not exist in isolation but are influenced by numerous factors both internal (e.g., family dynamics and business strategy) and external (e.g., social and economic environment) to the family business (De las Heras-Rosas and Herrera, 2020; Payne, 2018; Xi et al., 2015).

From a practical perspective, the proposed framework categorising family business research also provides policymakers, educators, and practitioners with insights into the key challenges facing family businesses, providing them with a foundation for developing support for these businesses. This research is of particular importance to scholars researching family businesses in an African context as it provides an up-to-date synthesis of the literature, offering a structured overview of key topical research clusters, themes, gaps and underexplored areas for investigation in AFB research.

LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The study was limited by the databases and search criteria used, and only SLR articles published between 2018 and 2023 were analysed to identify topical clusters and research themes. As such several review articles would have been overlooked and, consequently, their topical clusters excluded from this study. Future research should consider including more databases such as JSTOR, Emerald Insight and ScienceDirect, which would allow researchers to cast a wider net and capture a more diverse set of studies. The use of backwards citation tracking could also have been used, which involves identifying articles from the reference lists of articles already included in the analyses that align with the current study's inclusion criteria. Another limitation of this study was its restriction to academic outputs being published in peer-reviewed journals only. By including a

broader range of outputs (e.g., doctoral theses, conference paper), future studies could present a more comprehensive overview of topical clusters investigated in family business research.

Future studies by AFB scholar should also go beyond just identifying topical clusters and focus more on summarising research conducted within each topical cluster. For example, a detailed SLR could be conducted for each cluster, where studies are critically analysed to summarise their findings, discuss their methodologies, and highlight their contributions to the field. This would provide a more comprehensive view of the research landscape within each topical area of family business research in Africa.

CONCLUSIONS

This study made a valuable contribution to the field of family business research, offering a synthesis of existing topics of enquiry. It enriches the global discourse on family businesses, provides practical recommendations for researchers and practitioners, and serves as a resource for categorising research and identifying gaps in the field. By addressing these gaps and broadening the scope of inquiry, researchers could further enrich the academic discourse on African family businesses and contribute to the development of this field of study. This study has laid a foundation for future studies that could help expand and deepen the understanding of family businesses within the African context. The framework also provides insights that could guide policies and strategies to enhance the sustainability and success of family businesses in Africa.

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ENTREPRENEURIAL EDUCATION PATHWAYS FOSTERING PASSION AND INTENTION AMONG YOUTHS IN SOUTH AFRICA

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ABSTRACT

Youth unemployment in South Africa remains a persistent challenge, prompting increased attention to entrepreneurship education as a strategic pathway to foster entrepreneurial passion and intention among youths. This study aims to explore how entrepreneurial education shapes entrepreneurial passion and intention among South African youth, focusing on tourism-related and non-tourism businesses. Data were collected from 400 purposefully selected youths within the King Cetshwayo District Municipality. Descriptive analysis was performed using IBM's SPSS (v29), while SmartPLS (v4.0.8.5) was used for partial least squares-structural equation modelling (PLS-SEM) to examine relationships between variables. The findings revealed a strong positive relationship between entrepreneurial education, passion and intention. Drawing from the theory of planned behaviour, the study contributes to policymakers and educators acknowledging the importance of psychological factors by re-theorising entrepreneurship models to include emotional drivers such as passion, resilience and willingness to take risks.

Keywords: entrepreneurial education; entrepreneurial intention; entrepreneurial passion; tourism-related and non-tourism businesses

INTRODUCTION

Entrepreneurship is increasingly recognised as more than a buzzword in academic and policy circles; it is a practical response to deep-rooted economic challenges. In South Africa, where youth unemployment remains alarmingly high, entrepreneurship is often framed as a viable route to economic inclusion and long-term sustainability (Munyo and Veiga, 2024; Drummond, Drummond and Rogerson, 2021). However, this optimistic narrative is not without its complexities. While entrepreneurship is known for its potential to generate employment and stimulate innovation, its accessibility, especially for youths, remains unequal and highly context-dependent (Mhlongo, Ntshangase and Ezeuduji, 2025a). Statistics South Africa (Stats SA) (2024) reveals that high unemployment rates inhibit entrepreneurial motivation, raising concerns about whether opportunity-driven entrepreneurship can truly thrive in such a constrained environment. Ahmed and Ahmed (2021) further highlight that entrepreneurial activity remains relatively low among youths in sub-

Saharan Africa, suggesting structural barriers, such as inadequate education and limited access to resources, are still at play. This is particularly concerning given that youth entrepreneurship, both in tourism and other sectors, has the potential to equip youths with the skills and competencies needed not only to survive but to lead change in their communities. Entrepreneurial education (ED) becomes a crucial factor.

Scholars such as Amin and Fajri (2024) and Iwu, Opute, Nchu, Eresia-Eke, Tengeh, Jaiyeoba, and Aliyu (2021) persuasively argue that ED plays a foundational role in fostering the intention to start a business. Yet, many of these arguments tend to assume a linear relationship between education and entrepreneurial outcomes, often overlooking the nuanced ways in which passion (as an emotional and motivational component, suggested by Amin and Fajri, 2024) interacts with formal training. Hence, this paper goes beyond the general assumption by exploring how ED shapes both entrepreneurial passion (EP) and intention among South African youths. While there is ongoing debate about whether entrepreneurs are born or made (Ntshangase and Ezeuduji, 2023), there seems to be consensus that entrepreneurship requires a specific set of skills and cognitive orientations, which can be nurtured through education (Neneh, 2022). Scholars such as Mhlongo *et al.* (2025a) point out that the relationship between EP and intention remains relatively underexplored, particularly in a comparative sectoral context. This oversight is problematic, as it leaves a gap in understanding how sector-specific factors (such as tourism's dependence on seasonality or infrastructure) could moderate or shape the education, passion and intention dynamic (Mhlongo, Ntshangase and Ezeuduji, 2024; Ntshangase and Ezeuduji, 2023; Nhleko and van der Westhuizen, 2022). However, existing research less often assesses how these constructs, such as ED, EP and entrepreneurial intention (EI) interact, especially across different sectors like tourism-related and non-tourism businesses. This study contributes to the existing literature by using the theory of planned behaviour (TPB) by Ajzen (1991) to examine these constructs, using the King Cetshwayo District Municipality (KCDM) as a case, contribute to theory (statistically validated through SEM) and the practical discourse on entrepreneurial development and economic empowerment of youths.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

South African youths face obstacles to entrepreneurial activity, attributed to the persistent economic challenges of the country (Mhlongo *et al.,* 2025b; Ntshangase, Ezeuduji and Ayanwale, 2024; Neneh, 2022; Drummond *et al.,* 2021). Different scholars (such as Ntshangase *et al*., 2024; Tokhirovna and Khasanovich, 2024; Booyens, Rogerson, Rogerson and Baum, 2022) discuss entrepreneurship as a crucial strategy for overcoming high levels of youth unemployment and driving inclusive economic development. According to Mhlongo, Ntshangase and Ezeuduji (2025b) and Wessels and Tseane-Gumbi (2022), South Africa has considerable potential to cater to a diverse array of entrepreneurial opportunities in both tourism-related and non-tourism-related sectors. However, reality on the ground reflects a stark contrast between potential and practice. Entrepreneurship, while often promoted as "a silver bullet" for economic transformation (Mhlongo *et*

al., 2025b; Booyens *et al.,* 2022), is not equally accessible to young people, especially those of marginalised communities (Ntshangase *et al*., 2024). Entrepreneurship can be viewed as a practical tool to support and maintain local economies; however, Wessels and Tseane-Gumbi (2022) argue that this perspective relies on the availability of enabling conditions such as quality education, supportive policies and accessible funding mechanisms. This paper argues that without these foundations, entrepreneurship risks becoming a rhetoric of self-reliance without the necessary systemic support.

From the literature reviewed, studies have not fully accounted for the influence of the ED, EP and EI relationship across tourism and non-tourism sectors. Ahmed and Ahmed (2021) note that despite the relatively low entrepreneurial activity resulting from limited access to resources, African youths do not necessarily lack entrepreneurial spirit. It is not passion that is lacking, but access to structured, targeted educational interventions that build real-world business competencies (Mhlongo *et al.,* 2025a, b). This gap between entrepreneurial passion and action highlights a broader issue. In addition to limited educational support, Booyens *et al.* (2022) suggest that South African youths face structural barriers such as insufficient government-backed learnerships and internships, inadequate funding opportunities and minimal involvement of businesses as active stakeholders in youth development. This is evident in the national student funding landscape, where entrepreneurial support is not tailored to the unique needs of aspiring student entrepreneurs. In South Africa, the funding model for young entrepreneurs is largely undifferentiated (Ntshangase *et al.,* 2024), treating them the same as any other applicant seeking business funding. As a result, young people with a higher level of EP and intention often struggle to access early-stage funding, mentorship or incubation support aligned with their educational journey, making it difficult for youths to translate their entrepreneurial aspirations into viable start-ups, even when the desire and drive exist (Ezeuduji, Mhlongo and Ntshangase, 2024; Nchu, Tengeh and Cronje, 2023; Ayeh, Bondzi-Simpson and Baah, 2022).

Higher education institutions, while increasingly integrating ED, often treat it as a supplementary rather than transformative element of the curriculum (Ntshangase *et al*., 2024). Nevertheless, scholars such as Iwu *et al.* (2021) argue that ED plays a significant role in stimulating an entrepreneurial mindset, while Neneh (2022) affirms that ED is essential for enhancing EP and the intention among youths. Taking Ajzen's (1991) TPB as a guide framework, the authors argue that an EP and intention to start a business are not spontaneous but are shaped by deliberate efforts to acquire relevant skills and knowledge (Uddin, Chowdhury, Hoque, Ahmad, Mamun and Uddin, 2022). In support of this, Neneh (2022) observes that people with strong EP are more likely to engage in business activities aligned with their personal and professional identities. In this light, EP for tourism or non-tourism ventures is not innate; it can be nurtured, cultivated and expanded through targeted education and contextual support. Many of these findings come from developed countries (such as Europe), with limited evidence from developing countries (such as South Africa), yet youths

in developing countries have a higher unemployment rate. This is confirmed by data showing that the unemployment rate among young people (those between the ages of 15 and 34) was 45.5 per cent (%) in the first quarter of 2024, compared to the national average of 32.9% (Stats SA, 2024).

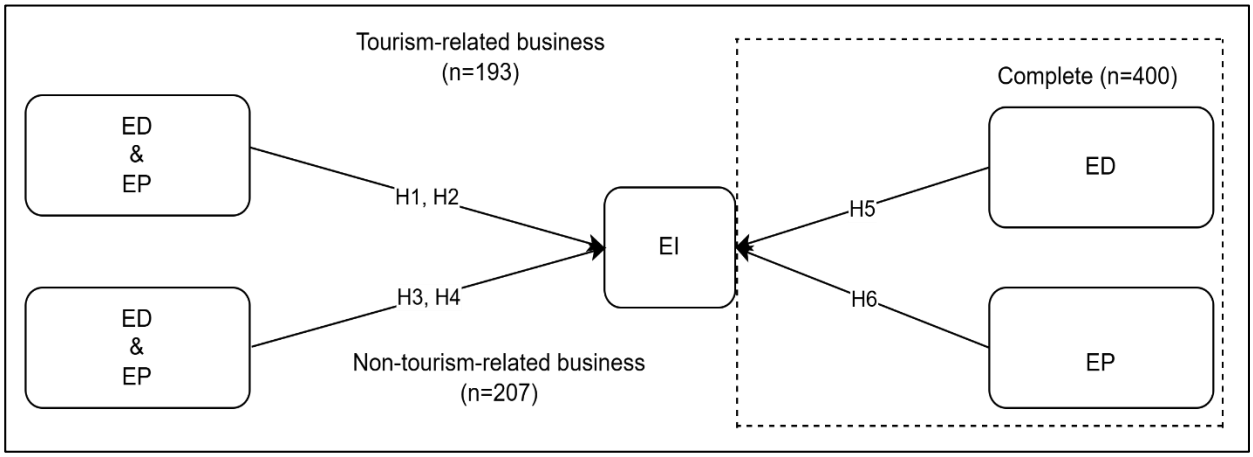
This paper, therefore, addresses a theoretical and contextual gap by assessing the influence of ED on youths EP and EI across tourism-related and non-tourism-related industries. By doing so, the study not only advances academic debate but also responds to national imperatives around youth unemployment and economic participation. It contributes to entrepreneurship theory and ongoing efforts to design more responsive and inclusive educational programmes aimed at the economic empowerment of South African youths. Based on the reviewed literature and the proposed conceptual framework (see Figure 1), the study examines the following hypotheses:

H1–H2: The effect of entrepreneurial education (ED) and entrepreneurial passion (EP) on entrepreneurial intention (EI) in tourism-related businesses.

H3–H4: The effect of ED and EP on EI in non-tourism-related businesses.

H5–H6: The overall effect of ED and EP on EI in both tourism-related and non-tourism-related businesses.

FIGURE 1: PROPOSED CONCEPTUAL MODEL



Source: Researchers' own conception

Notes: N= Sample size, ED = Entrepreneurial education, EI = Entrepreneurial intention, EP = Entrepreneurial passion

RESEARCH METHODOLOGY

This study followed a positivist paradigm, using a survey-based quantitative approach to test hypotheses and generalise findings from a broad youth sample (Ezeuduji *et al.,* 2024). The structured survey allowed for the collection of statistical data, presented in tables and percentages (Veal, 2018). Out of 580 purposively selected youth participants from King Cetshwayo District Municipality (KCDM), 400 responses were usable. KCDM was selected due to its mix of tourism-

related and non-tourism businesses, offering insight into entrepreneurship as a response to local socio-economic challenges. A non-probability sampling method was used since the entire population was not clearly defined (Veal, 2018).

Data analysis was carried out in two stages. First, IBM SPSS version 29 was used for descriptive statistics (IBM Corporation, 2022). Second, structural equation modelling (PLS-SEM) was performed using SmartPLS 4.0.8.5 to assess reliability, validity and the proposed structural relationships (Ringle, Wende and Becker, 2022). Discriminant validity was tested using the heterotrait-monotrait (HTMT) ratio and convergent validity was assessed by average variance extracted (AVE) (Franke and Sarstedt, 2019). The results confirmed that the data met the required validity standards. The following section presents key findings of the analysis.

FINDINGS

Surveyed respondents were from the local municipalities of uMhlathuze (66.2%) and uMfolozi (33.3%). Table 1 indicates that more females (56.2%) participated than males (43.8%) in the survey.

TABLE 1: DEMOGRAPHIC PROFILE AND ENTREPRENEURIAL INTERESTS OF YOUTH RESPONDENTS IN KCDM (N = 400)

Variable	Category	Percentage (%)
KCDM - Local municipalities	uMfolozi Local Municipality	33.3
	uMhlathuze Local Municipality	66.2
Gender	Male	43.8
	Female	56.2
Age group	18–25 years	71.5
	26–30 years	19.5
	31–35 years	9.0
Highest level of education	Non-western education	1.5
	Primary education	4.0
	Secondary education (Matric)	49.8
	Higher education (University/College/TVET)	44.7
Completed an entrepreneurship or tourism business course	Yes	57.5
	No	42.5
Willingness to own a business in the future	Yes	95.8
	No	4.2
Preferred business type (if willing to start a business)	Tourism-related	48.2
	Non-tourism-related	51.8

Source: Authors' fieldwork (2025)

Table 1 shows that more than 80% of the youth respondents have acquired secondary or tertiary education. The findings suggest that general education is not a substantial obstacle among youths within the two local municipalities. The observations confirmed by Mhlongo et al. (2025a) claim that South African youths have acquired the necessary education that influences their intention to start a business. From the data, it is evident that 95.8% of youths in the two local municipalities indicated their willingness to start a business, with 51.8% of youths intending to start a non-tourism-related business and 48.2% interested in starting a tourism-related business. In line with Ajzen's (1991)

TPB, youths in KCDM do not lack entrepreneurial intent, although an industry-related ED may be required for youths to successfully start a business.

Measurement model assessment

The study assessed the constructs' internal consistency and convergent validity using factor loadings (FL), Cronbach's Alpha (CA), composite reliability (CR) and average variance extracted (AVE). Tables 2 indicate that most item loadings met the recommended threshold of 0.60, except for ED1, ED2, ED3, ED4, ED5, ED9, EI9, EP9 and EP10. Low loadings throughout the dataset and both business type models (tourism-related and non-tourism-related) led to removing these entries (Hair, Hult, Ringle and Sarstedt, 2022). The CA and CR values were determined to be more than 0.70, while the AVE values were greater than the threshold value of 0.50 (Mhlongo *et al.*, 2024; Ayanwale, Molefi and Matsie, 2023), indicating positive results in terms of convergent validity and internal consistency. Thus, Table 2 suggests that the measurement model used is reliable.

TABLE 2: SUMMARY OF RELIABILITY AND CONVERGENT VALIDITY ASSESSMENT

Complete (N = 400)					
Indicators	**FL**	**CA**	**CR**	**AVE**	**VIF**
ED10	0.69	0.71	0.82	0.54	1.29
ED6	0.67				1.28
ED7	0.80				1.44
ED8	0.76				1.41
EI1	0.65	0.88	0.90	0.51	1.54
EI10	0.74				1.86
EI2	0.65				1.73
EI3	0.74				2.04
EI4	0.74				1.81
EI5	0.61				1.43
EI6	0.75				1.90
EI7	0.81				2.36
EI8	0.73				1.92
EP1	0.75	0.86	0.89	0.51	2.00
EP2	0.76				1.99
EP3	0.75				1.91
EP4	0.75				1.92
EP5	0.66				1.59
EP6	0.67				1.64
EP7	0.69				1.73
EP8	0.65				1.53

Notes: N = Sample size, ED = Entrepreneurial education, EI = Entrepreneurial intention, EP = Entrepreneurial passion, FL = Factor Loadings ≥ 0.60, CA = Cronbach's alpha ≥ 0.70, CR = Composite reliability ≥ 0.70, AVE ≥ 0.50, VIF ≤ 3.3

The dataset was assessed using the heterotrait-monotrait (HTMT) ratio to ensure discriminant validity. Table 3 indicates that there were no issues of discriminant validity as values were below the suggested threshold of 0.85 (Henseler, Ringle and Sarstedt, 2015), showing that the constructs were unique from each other with no substantial overlap between them.

TABLE 3: SUMMARY OF DISCRIMINANT ASSESSMENT: HETEROTRAIT-MONOTRAIT RATIO

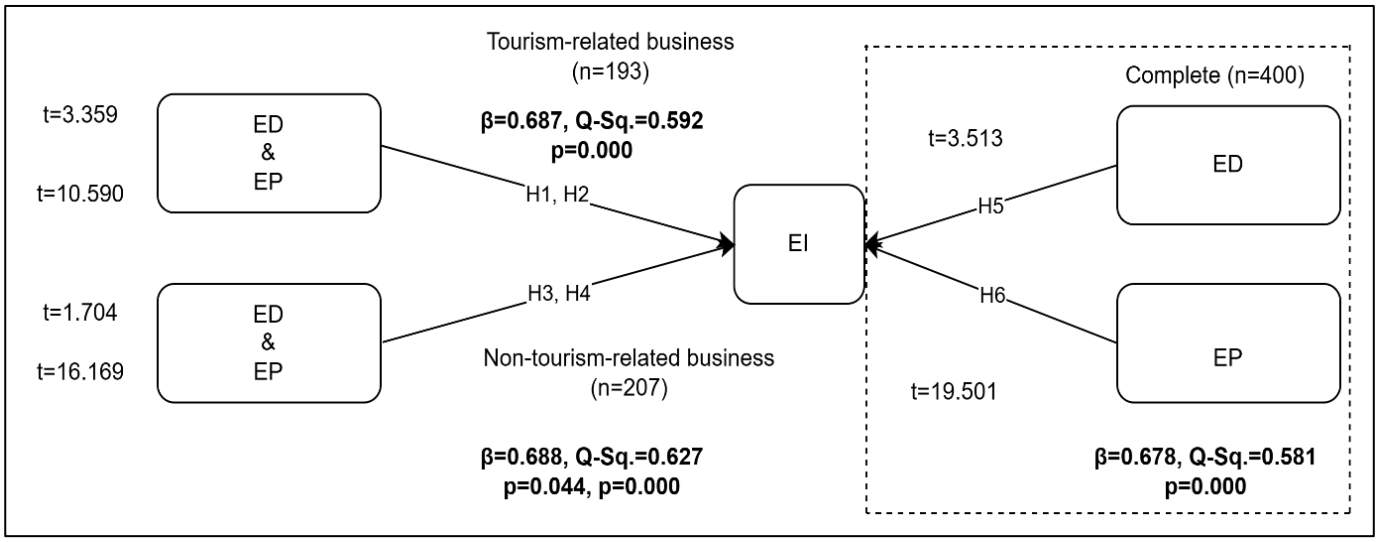
Complete (N = 400)				**Tourism-related businesses (N = 193)**				**Non-tourism-related businesses (N = 207)**			
	ED	**EI**	**EP**		**ED**	**EI**	**EP**		**ED**	**EI**	**EP**
ED				**ED**				**ED**			
EI	0.612			**EI**	0.771			**EI**	0.469		
EP	0.562	0.822		**EP**	0.704	0.825		**EP**	0.431	0.815	

Note: N = Sample size, ED = Entrepreneurial education, EI = Entrepreneurial intention, EP = Entrepreneurial passion, HTMT ≤ 0.85

Structural model assessment

A partial least squares structural equation modelling (PLS-SEM) was used to evaluate the effectiveness of the model, done using the three criteria: R-square (R^2), predictive relevance using Q-square (Q^2) value and path coefficients (Hair *et al.*, 2022). The R^2 evaluated the explanatory capacity of the model, while the Q^2 determines if the model is predictively relevant ($Q^2 > 0$ is desirable). Path coefficients should be substantial, and Q^2 values above zero show that the model has predictive validity. A model explanatory power value of 0.19, 0.33 or 0.67 is regarded as weak, moderate or strong, respectively. The study showed that the R^2 values for the endogenous variable, EI, were between 0.628-0.688 throughout the study samples, showing significant explanatory power (Hair, Ringle and Sarstedt, 2013). In Table 4, the endogenous constructs' Q^2 values were 0.581, indicating strong predictive relevance and being regarded as significant (Hair *et al.*, 2022).

FIGURE 2: VALIDATED MODEL - PATH COEFFICIENTS AND HYPOTHESES TESTING



Source: Researchers' own conception

Notes: N = Sample size, ED = Entrepreneurial education, EI = Entrepreneurial intention, EP = Entrepreneurial passion, Relationships are significant at $p < 0.05$, β = Beta weight coefficient, T = t-statistic> 1.645 (One-tail test), P = Probability value, SD = Standard deviation. R-sq.= R square; Q-sq.= Q-square

Figure 2 shows that ED has a significant positive effect on EI among youths who want to start tourism-related businesses in KCDM ($\beta = 0.148$, $t = 3.518$, $p < 0.05$), supporting H1. Each unit increase in ED leads to greater EI. Similarly, EP strongly predicts EI for tourism-related businesses ($\beta = 0.728$, $t = 19.501$, $p < 0.05$), with an increase in EP translating into a notable increase in intention, which confirms H2. For non-tourism-related businesses, ED also positively influences EI ($\beta = 0.088$, $t = 1.704$, $p < 0.05$), although the effect is smaller, supporting H3. Meanwhile, EP continues to show a strong and significant effect on EI ($\beta = 0.761$, $t = 16.169$, $p < 0.05$), reinforcing H4. When combining the full dataset, ED remains a significant driver of EI ($\beta = 0.148$, $t = 3.518$, $p < 0.05$), affirming H5 and aligning with previous studies (Mhlongo *et al.*, 2025a; Do Nguyen and Nguyen, 2023; Paray and Kumar, 2020). EP also maintains a strong, positive relationship with EI across both types of business ($\beta = 0.728$, $t = 19.501$, $p < 0.05$), supporting H6. These findings echo Ajzen's (1991) TPB and previous research, highlighting how knowledge, skills, attitude and passion shape youth entrepreneurship

DISCUSSIONS

The findings of the study offer strong empirical evidence supporting the critical role of ED and EP in predicting entrepreneurial intention among young people. Figure 2 demonstrates that ED significantly and positively impacts EI for youths aspiring to start tourism-related businesses ($\beta = 0.148$, $t = 3.518$, $p < 0.05$), confirming H1. While the effect size appears modest, the relationship is statistically robust, suggesting that even incremental improvements in entrepreneurial education

initiatives could produce measurable increases in entrepreneurial intention. However, the observed beta coefficient of 0.148 also raises critical questions about the depth and contextual relevance of current entrepreneurial education programmes. Traditional entrepreneurial education models, often rooted in Western pedagogical frameworks (e.g., Ayeh, Bondzi-Simpson and Baah, 2022), may not fully capture the local socio-economic realities and cultural aspirations of South African youths, particularly in rural and semi-urban settings like KCDM.

In contrast, the relationship between EP and EI for tourism-related businesses ($\beta = 0.728$, $t = 19.501$, $p < 0.05$) was notably stronger, indicating that entrepreneurial passion is a far more powerful driver of entrepreneurial intention than formal education. The magnitude of the beta coefficient suggests that emotional and intrinsic factors (such as enthusiasm, commitment, and personal identification with entrepreneurship) carry greater weight than educational inputs alone. The finding critiques earlier assumptions in the literature that often elevate education as the primary lever for fostering entrepreneurship (e.g., Ntshangase *et al.,* 2024), instead highlighting passion as a core psychological engine for entrepreneurial behaviour. It aligns with emerging scholarship that emphasises the emotional and motivational dimensions of entrepreneurship (Mhlongo *et al.,* 2025b).

Turning to non-tourism-related businesses, the results similarly reveal positive and statistically significant relationships between both ED ($\beta = 0.088$, $t = 1.704$) and EP ($\beta = 0.761$, $t = 16.169$) with EI. Yet, once again, the comparatively weak effect of ED prompts critical reflection. The beta coefficient for ED is even lower here (0.088) than for tourism-related businesses, suggesting that entrepreneurial education as currently delivered may have limited transformative power across diverse sectors. It implies that educational programs may be too generalised, lacking a sector-specific orientation that resonates with the unique ambitions and environmental realities of the youth. Future research should explore sector-specific entrepreneurial education interventions tailored for tourism, agriculture, information and communication technology and other locally relevant industries.

When considering the pooled dataset (tourism-related and non-tourism-related businesses combined), the relationship patterns persist, confirming the robustness of ED ($\beta = 0.148$) and EP ($\beta = 0.728$) as predictors of EI. The new insight emerging from the analysis is the consistency of entrepreneurial passion as a dominant predictor across sectors, reinforcing the view that passion, more than formal education, galvanises the entrepreneurial pursuits of the youths in KCDM. From the lens of Ajzen's (1991) TPB, the findings are theoretically sound: attitudes (influenced by passion) and perceived behavioural control (possibly influenced by education) predict intention. However, the dominance of passion over education suggests that TPB's assumption of rational decision-making might underplay the affective dimensions of entrepreneurship, especially in emerging economies. This calls for a re-theorisation or extension of TPB models to integrate emotional and motivational variables more explicitly. Moreover, while studies like Neneh (2022) and Zainuddin and Mukhtar (2022) confirm that education and passion matter, the strength and direction observed in the context

of KCDM appear to be more extreme, likely reflecting the urgent search of youths for economic survival amid the challenges of systemic unemployment in South Africa.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Recognising the limited role of formal education, there should be stronger investment in informal entrepreneurship ecosystems, including peer-to-peer learning networks, business communities and local mentorship groups. Policymakers and educators should acknowledge the importance of psychological factors by re-theorising entrepreneurship models to include emotional drivers such as passion, resilience and willingness to take risks. Furthermore, local government should collaborate with universities and TVET colleges to develop policies that incentivise youth entrepreneurship in tourism and non-tourism sectors, offering grants, seed funding and incubation support tailored to passionate youth entrepreneurs. This paper suggested that institutions should redesign ED programmes to integrate experiential learning models, emotional intelligence development and passion-building exercises. Curricula must be localised, incorporating case studies, success stories and opportunities within the regional economy (such as cultural and eco-tourism in KCDM) (Mhlongo *et al.*, 2025a). Beyond academic instruction, entrepreneurship support centres should create initiatives that nurture intrinsic motivation through mentorship programmes, entrepreneurship boot camps and motivational workshops. Exposure to real entrepreneurs and business environments through internships and community projects can help youths visualise themselves as business owners. This notion is supported by different scholars in tourism and non-tourism-related fields (Mhlongo et al., 2025b; Amin and Fajri, 2024; Ntshangase and Ezeuduji, 2023; Ayeh *et al.*, 2022; Iwu *et al.*, 2021).

CONCLUSION AND FUTURE RESEARCH

This study shows that both ED and EP influence of EI in KCDM on the youths, however, not equally. Education does have a positive effect, yet it is relatively small, suggesting that formal learning alone is not enough to drive youths toward entrepreneurship. In contrast, EP (driven by emotional commitment and personal motivation) was a strong predictor of EI in both tourism-related and non-tourism sectors. This highlights a gap in traditional education programmes that often focus more on technical skills than on building passion, creativity and self-belief. In rural and peri-urban KCDM areas, entrepreneurship is driven more by emotional and socio-cultural factors than by formal education alone. Future efforts must find a better balance between transferring knowledge and sparking real EP among youths. Future research could explore how community-driven initiatives, mentorship programmes, and local cultural factors strengthen EP among youths in rural and peri-urban areas. It would also be valuable to examine how digital platforms and technology can be leveraged to sustain this passion over time.

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EXAMINING SMALL BUSINESS SUCCESS IN THE RENEWABLE ENERGY INDUSTRY IN SOUTH AFRICA - AN EXPLORATORY STUDY

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ABSTRACT

The global transition towards renewable energy has presented significant opportunities for economic growth and environmental sustainability in South Africa. Small and medium enterprises (SMEs) in this industry face numerous challenges, which threaten their long-term success. Despite their critical role in driving job creation, there is insufficient knowledge regarding the specific performance indicators that can gauge SME success in this sector. This study seeks to bridge this knowledge gap by identifying key indicators for assessing SME success in South Africa's renewable energy industry. The Delphi technique and the Analytic Hierarchy Process was used to capture and interpret the data. The study finds the most critical indicators for SME success in the renewable energy sector to be attracting and retaining talent, understanding market dynamics, and access to capital. It concludes that SMEs must focus on enhancing their human capital, market awareness, and adaptability to thrive in a rapidly evolving industry.

Keywords: critical success factors; key indicators; renewable energy; South Africa

INTRODUCTION

The global trend towards renewable energy has gained profound momentum in recent years, driven by the need to address climate change, enhance energy security, and transition away from fossil fuels. (Woloski, 2006). The united nations defines renewable energy as "energy that is derived from natural sources that are replenished at a higher rate than they are consumed", and includes solar energy, wind energy, geothermal energy, hydropower, ocean energy and bioenergy as common sources of renewable energy (United Nations nd). The scientific consensus on climate change has prompted governments, businesses, and individuals to seek cleaner alternatives to reduce greenhouse gas emissions. International agreements like the Paris Agreement adopted in 2015, have set ambitious targets for countries to limit global warming, thereby spurring investment in renewable energy infrastructure and technology (Tolliver, Keely & Magani, 2020). As a result, many nations are implementing policies and incentives that promote the adoption of renewable energy sources, thereby accelerating their growth and integration into national energy systems, including South Africa (Davies, Swilling & Wlokas, 2018).

The renewable energy industry in South Africa is currently experiencing a period of exponential growth and transformation, driven by the country's commitment to diversifying its energy sources and achieving its sustainability goals. South Africa's updated nationally determined contributions registry (NDC) records the country's commitment to a fixed target for greenhouse gas emissions levels of 398-510 MtCO2e by 2025, and 350-420 MtCO2e by 2030, as well as a goal to reach net zero emissions by 2050 in its Low-Emission Development Strategy (RSA 2021).

The South African government has strategically focused on creating an enabling environment for the development and integration of these energy sources into the national grid. This shift aligns with global trends towards sustainable energy solutions, addressing both environmental concerns and the need for energy security. One of the key elements of South Africa's renewable energy strategy is the Integrated Report Plan (IRP), which outlines the country's long-term electricity generation goals (Petrovic & Morgoshes, 2023). The IRP aims to achieve a balanced energy mix, with a significant emphasis on increasing the share of renewables in the overall energy portfolio. As part of this strategy, the Renewable Energy Independent Power Producer Procurement Program (REIPPPP) has emerged as a cornerstone for facilitating private sector participation in the renewable energy market as opposed to total energy dependence on government or parastatal organizations (Davies *et al.,* 2018). This is in alignment with global calls for citizen participation in energy transitions, such as ways for individuals to participate in energy systems as agents of change or "participation in domestic energy technologies, energy communities, energy transition movements, and energy policy" (Wahlund & Palm, 2022). In advocating for more ambitious and stringent policy intervention to accelerate the transition to renewable energy technologies, Schmid and Lumsden (2023) show how the REIPPP, through mechanisms of largely positive interpretive and resource feedback, has increased the political feasibility of more ambitious, pro-renewable energy planning in the IRP. Launched in 2011, the REIPPPP has successfully attracted substantial investments by allowing independent power producers (IPPs) to compete for contracts to supply renewable energy to the grid. This competitive bidding process has resulted in significant cost reductions for renewable energy technologies, making them more economically viable and attractive for both developers and consumers (Davies *et al.,* 2018).

The success of the REIPPPP has led to the rapid expansion of solar and wind energy projects across the country. South Africa is endowed with abundant natural resources, making it one of the leading countries in Africa for renewable energy production (Davies *et al.,* 2018). The renewable energy sector has emerged as a major job creator, generating thousands of employment opportunities across various stages of project development, from design and construction to operation and maintenance. Government initiatives aimed at local procurement and community participation have further amplified job creation, particularly in historically disadvantaged communities. Small businesses are critical players in South Africa's renewable energy landscape, serving as catalysts for economic growth. These enterprises often specialise in installing and maintaining renewable

energy systems, such as solar panels and wind turbines, but they are also key to various other parts of the renewable energy value chain, such as as system designers, PV system component procurers, installers, and maintenance providers (Morris & Walwyn 2023) .

LITERATURE REVIEW AND PROBLEM INVESTIGATED

The push for renewable solutions has intensified, as demands for reducing greenhouse gas emissions, diversifying energy portfolios, and improving global energy security have all become urgent priorities (Woloski, 2006). International collaborations and changing regulatory frameworks with countries across the globe have resulted, requiring continuously refining institutional and legal mechanisms to foster the integration of renewable energy into national energy strategies (Xu *et al.,* 2019). Some studies on the success factors in the renewable energy projects, have suggested further exploration in other countries (Maqbool and Sudong 2018).

The substantial growth in South Africa's renewable energy sector presents small and medium enterprises (SMEs) with an opportunity to participate in the sector, through the provision of various services as required in the industry. However, SMEs have to overcome numerous obstacles that threaten their survival, sustainability, and potential for expansion (Eze & Lose, 2023). These challenges are diverse, including regulatory barriers, such as complex compliance requirements and shifting policy landscapes, which create uncertainty and complicate business planning and operations. Financial constraints are also significant, as many SMEs struggle to secure the capital needed to fund their projects and innovations; traditional lenders often view them as high-risk investments due to market volatility and the long payback periods typical of energy projects (Eze & Lose, 2023).

South Africa’s socio-economic context, which is marked by severe infrastructure deficits such as unreliable energy supply, inadequate transportation networks, and limited access to communication technology, pose further logistical and operational hurdles and provide additional challenges to SMEs (Cronje, Ndebele & Ansara, 2020). Policy uncertainties and inconsistent government support in the renewable sector add to this instability, deterring investments and slowing down project development (Binge & Boshoff, 2020). Together, these regulatory, financial, competitive, technological, and socio-economic factors illustrate the complex and challenging environment SMEs in South Africa’s renewable energy sector must navigate, highlighting the need for tailored strategies to support their long-term growth and sustainability.

The high failure rate of small businesses in the country, estimated to be between 70% and 80% in their early years, underscores the precarious nature of SME operations (Cant & Wiid, 2013). This sobering statistic highlights the need for a deeper understanding of the factors that contribute to SME success, especially in a sector as complex and rapidly evolving as renewable energy.

Existing business prediction models offer insights into company survival and success, but their applicability to SMEs in South Africa's renewable energy sector is limited. The Likelihood of

Liquidation (LOL) framework, developed by Rosslyn-Smith and Pretorius (2022), assesses a company's liabilities to determine its survival prospects during business rescue. While valuable for struggling businesses, the LOL framework lacks specificity for predicting small business success in the renewable energy sector, overlooking industry-specific challenges such as technological innovation and specialised financing needs.

Similarly, the Lussier prediction model, which uses 15 variables to forecast small business success or failure, provides general determinants of SME success. Some of these variables relate to demographic aspects such as age, education, as well as industry and management experience. Lussier & Pfeifer (2001), found that younger people have a greater chance of failing after starting a business than older people. Similarly, people with higher levels of education, with industry knowledge and prior management and marketing experience are less likely to fail than those who lack such education, knowledge and experience. Other factors influencing success or failure include the availability of sufficient capital, management practices such as good planning, sound record keeping and financial control, the use of professional business advisors, attracting and retaining quality employees, with the only real external factor relating to economic conditions, more specifically the economic conditions prevailing when the business was started The Lussier success model has been applied in various contexts and industries (Gyimah, P., Appiah, K.O. and Lussier, 2020; Lussier, Bandara and Marom, 2016; Marom and Lussier, 2014).

However, though useful for predicting failure versus success, the challenges in the local renewable energy industry requires industry specific guidelines and success factors, that captures the unique dynamics of South Africa's renewable energy sector, including government policies and the country's distinct socioeconomic context. Both the Lol and Lussier prediction models, while offering useful insights, require augmentation with industry-specific research and expert input to effectively forecast SME success in South Africa's renewable energy landscape.

In a study of key success factors for renewable energy (RE) projects in Pakistan, Maqbool and Sudong (2018) identified 41 significant success factors, which they classified in terms of five critical success factors (CSFs), namely communication factors, team factors, technical factors, organizational factors, and environmental factors. All 5 factors were found to have a significant positive effect on project success, with environmental factors having the highest correlation with project success. These findings were also supported in other studies (Maqbool, Rashid, Sultana, and Sudong, 2018; Maqbool, Deng, and Rashid, 2020).

Maqbool and Sudong (2018) described environmental factors as factors external to the project that had an influence on the success or failure of the project, and included factors such as the political situation, economic factors such as interest rates, the legal environment and clients or users external to the organisation. Rasool, Chin, Wang, Asghar, Khan and Zhou (2022) had similar findings, except for communication, which lacked a significant relationship, and organizational support, which was

confirmed as a vital mediator enhancing the relationships between CSFs team, technical and environmental factors. Alahdal, Abd Rahman, and Mosali, (2022) distinguished between economic and environmental factors, and found economy, environment, social factors and government support to be significantly related to project success, where their economy construct had the strongest relationship with RE project success. Here the construct economic factors was comprised of investment costs, operating and maintenance costs, R&D costs, production costs, and return on investment. The environmental factors construct of Alahdal *et al.,* (2022) was comprised of carbon dioxide emissions, air pollution, land use requirements, and ecosystem impacts. Factors influencing project success from other studies include stakeholders' satisfaction (SS) as a key mediating factor between the 5 CSFs identified above and project success Maqbool *et al.,* 2020).

Where the term entrepreneurial success was used, personality traits, access to finance, government support and supportive leadership positively and significantly impacted entrepreneurs' success, with three of these CSFs also being positively correlated with the CSF supportive leadership, the latter also positively mediating the relationship between the personality traits, access to finance, government support and the success of entrepreneurs (Hussain, Rasool, Xuetong, Asghar, and Alalshiekh, 2023). Supportive leadership is leadership that motivates and supports the employees, and in turn enhances the sustainable success of renewable energy projects; This support can also be in the form of emotional support, forgiveness, and gratitude displayed by the project leaders towards team members (Stollberger, Heras, Rofcanin, and Bosch, 2019; Zaman, Wang, Rasool, uz Zaman and Raza,2022).

Supportive leadership was also found to mediate between organizational, team and communication factors and sustainable project success (Zaman *et al.,* 2022). Whereas previous studies emphasized the direct relationship of team factors on project success, Zaman *et al.,* (2022) found that team factors did not show a significant relationship with sustainable project success, but that organizational, team, and communication factors positively and significantly affected supportive leadership. Strong group leadership, formal structures, network support, and long-term funds also featured prominently as CSF for community renewable energy in Thailand (Luangchosiri, Ogawa, Okumura, and Ishihara, 2021).

A study comparing thermal and renewable energy CSFs used 5 categories of comparison, namely project feasibility, project environment, the company, the principal contractor and the suppliers. Project feasibility looked at the necessity of the project to help determine possible project success, that entailed determining whether or not the solution the project offered addressed the key demand of the community, whether the project solution was acceptable in terms of service and cost, the level of economic development (which implied that regions enjoying higher levels of economic development were more likely to adopt the solution), the expected financial performance of the project in terms of profitability and its expected debt paying ability, (which would directly influence the company's ability to attract investors). Project environment, the second category identified,

included aspects such as the degree of stability within the political environment, the influence of economic factors such as currency exchange system, foreign currency policies, interest rates, credit management systems, the domestic capital market, credit rating and the legal environment. With regards to the company, success factors evaluated included the risk management skills and capacities of the project company. The company should also have sufficient in-house resources to help manage the risk, such as competent management personnel with project financing management skills. Contractor success factors refer to the financing capacity of the contractor, the qualifications and expertise in terms of business operation and project management ability, and skills and knowledge displayed by the contractor in the construction process. The reliability of project suppliers was a final category of evaluation, which looked at the risks associated with the supply of raw materials and main equipment. The management of credit to ensure a good relationship between purchaser and supplier also featured prominently in this category. Equipment supply limitations and fluctuating material costs could challenge the success and survival of the project, hence the significance of the ability to manage these threats (Zhao, Zuo, Zillante, and Wang, 2010).

What is evident from these studies, is that no uniform clustering and description of the various success factors exist, although some of the studies, where structural equation modelling (SEM) was used to compare the relationships between the constructs and project success, have provided reliable and validated success measures but in an environment different to that being assessed in this paper (Hussain *et al.,* 2023; Rassool *et al.,* 2022; Maqbool *et al.,* 2020;Maqbool *et al.,* 2018). SEM is a multivariate statistical framework that is used to model complex relationships between variables (Stein, Morris, Hall and Nock, 2017).

Give the local significance, importance, and global focus on sustainability and renewable energy, a pressing need to identify and analyse the specific factors that contribute to SME success in South Africa's renewable energy sector exists. While general business success models provide some insights, they do not fully capture the unique dynamics of this particular industry and national context. This study aims to bridge this knowledge gap by exploring the success indicators that are most relevant to SMEs operating in South Africa's renewable energy landscape. By doing so, it seeks to contribute to a more nuanced understanding of how small businesses can thrive in this vital and growing sector, ultimately supporting both the country's energy transition and its broader economic development goals.

RESEARCH OBJECTIVE

The primary objective of this study was to identify specific financial and non-financial performance indicators of SME success in the South African renewable energy industry. To address this objective, the secondary objectives formulated for this study, were to develop a tailored framework for assessing factors influencing business success in the renewable energy industry in South Africa; to analyse the challenges faced by SMEs operating in the South African renewable energy industry; to

understand the business environment of the South African renewable energy industry; to examine existing literature frameworks related to predicting small business success and to provide valuable insights for stakeholders in the renewable energy industry in South Africa .

RESEARCH METHODOLOGY

Contact with potential participants was made after university ethical clearance was granted on 24 May under project number 30543. Overall, eight participants, each being a seasoned professional holding a senior position in the renewable energy sector, participated in this study, with only four experts participating in each round of the study, due to the unavailability of all the experts at each round of the study. Two rounds of the Delphi technique were applied, which were followed by analytic hierarchy process interviews.

Several challenges were encountered during the data collection process, each requiring specific strategies to address: Some participants experienced delays in responding due to their busy schedules. Extended deadlines and follow-up reminders were employed to encourage timely responses and where participants failed to respond, other renewable industry experts were approached , which resulted in 4 experts participating in each round of analysis. Two approaches were applied to gather and analyse the data collected, namely the Delphi method and the Analytic Hierarchy Process (AHP).

The Delphi Method, developed by Brown, Cochran, and Dalkey (1969), harnesses the collective intelligence of experts to achieve consensus on complex issues, and was chosen for this research due to its structured and iterative nature (Rosslyn-Smith & Pretorius, 2022). Profillidis and Botzoris (2019) state that Delphi is in principle a qualitative method of forecasting, that may at times use quantitative criteria to test and ensure the validity and reliability of the method. In the context of this study, the Delphi method was used to identify, refine, and prioritise key performance indicators (KPIs) that were perceived to have the most significant impact on the success of SMEs in the renewable energy sector.

The first round of the multiple-round process (McPherson, Reese and Wendler 2018) involved soliciting input from a carefully selected panel of experts, each bringing extensive knowledge and experience in various aspects of the renewable energy industry. Experts were asked to identify and discuss the factors they deemed most influential in driving the success of SMEs in the sector. This process was conducted via the distribution of a detailed questionnaire to the carefully selected panel of experts and stakeholders in the renewable energy sector, and complemented by interviews with some of the experts who preferred a face-to-face session over answering the questionnaire. The questionnaire and interview aimed to identify and prioritise factors deemed critical for SME success. Participants were asked to identify these factors and provide detailed explanations. The questionnaire utilised a mix of open-ended and closed-ended questions. Open-ended questions

allowed for detailed, qualitative feedback, while closed-ended questions provided quantitative data that could be analysed for patterns and trends.

The results from this initial round were vital as they established a baseline for the rest of the research. Some of the questions in this round included: key performance indicators for evaluating the success of SMEs, key factors contribute most significantly to the success of small businesses, the main challenges small businesses face and how these impact their overall performance, industry standards or benchmarks that small businesses should adhere to in order to be successful, emerging trends or innovations and how might these impact SMEs success, strategies that have proven effective and perceived critical success factors for small businesses seeking to establish a sustainable presence in the renewable energy industry.

In the second round of the Delphi study, the preliminary KPIs identified in the first round had to be re-evaluated. During this phase, experts reviewed and reconsidered earlier responses in light of the group's overall feedback, with each expert's responses being applied with the aim of finding consensus on the most critical KPIs. The second round of the Delphi process resulted in a second round of indicators incorporating the views of the experts after being presented with the group's initial set of indicators.

Following the completion of the Delphi rounds, the research proceeded with the AHP. The AHP was used to prioritise and quantify the refined KPIs, providing a framework for assessing SME success within the renewable energy sector. AHP is a decision-making methodology that organises decision-making into a hierarchical framework consisting of a goal, criteria, and alternatives (Forman & Gass, 2001). The process begins with constructing this hierarchy, where the goal represents the ultimate objective, the criteria are the factors influencing the decision, and the alternatives are the assorted options being considered. The core of the AHP involves performing pairwise comparisons of the criteria and alternatives to establish their relative importance or preference (Forman & Gass, 2001). This is achieved through a comparison matrix, where each element is compared to every other element using a scale that typically ranges from 1 to 9. The comparisons generate a set of priority vectors, which are then used to determine the weights or priorities for each criterion and alternative.

AHP was implemented through a series of interviews with experts, who conducted the pairwise comparisons of the twenty identified indicators and assessed the relative importance of each indicator compared to the others on a scale of 1 to 9. This method allowed the experts to prioritise and rank the indicators based on their significance and relevance to assessing success and sustainability in South Africa's renewable energy sector. The pairwise comparison results were then used to calculate the weights and priorities of each indicator (Forman & Gass, 2001).

RESULTS

The participants in this study were seasoned professionals with experience in the renewable energy sector. The initial sample comprised four individuals holding senior positions in the renewable energy

sector for the first round of Delphi, and four additional participants took part in the second round of Delphi and four participants took part in the Analytic Hierarchy Process interviews. Of the participants, 87.5% were male, and 12.5% female. In terms of experience, the majority of the panel (75%) had over ten years of experience in the renewable energy industry, including 50% having over 15 years of involvement, and 37.5% of the experts having over 20 years of experience, illustrating long-term leadership and deep sector knowledge. 87.5% of the participants had held CEO positions, either as founders or executives of renewable energy companies, highlighting strong executive experience. Around 50% of the panel members had founded their own companies, with some having successfully sold their ventures, while 25% transitioned from leadership into advisory roles or consultancy work. Additionally, 12.5% of the experts experienced business failure but demonstrated resilience by founding new ventures in the same sector, emphasising adaptability and entrepreneurial spirit. Regarding field of expertise, 50% of the participants were involved in the servicing side of the sector, reflecting a focus on operations, maintenance, and support services. Another 25% were engaged in the equity financing dimension of the industry with an emphasis on investment and financial structuring within renewable energy projects. Of the remaining 25%, 12.5% were focused on training, specifically in building industry-specific skills and 12.5% of the experts were engaged in the manufacturing and installation side of the industry, particularly in producing renewable energy technologies and equipment, thereby highlighting the diverse range of activities that the panel collectively represented.

Delphi round one generated 32 indicators, which were thematically grouped and classified into eleven categories as displayed in table 1. These categories are financial stability, technological agility, regulatory compliance and advocacy, market awareness and competitive positioning, skilled human capital, operational efficiency, customer satisfaction and engagement, sustainability and environmental impact, strategic partnerships and alliances, market penetration and expansion and risk management.

TABLE 1: DELPHI ROUND 1 INDICATORS

Financial Stability		
1	Access to Capital	Funding to sustain operations and facilitating growth
2	Cash Flow Management	To meet operational expenses, challenges, for projects
3	Cost Control	Manage operational expenses processes efficiency
4	Revenue Growth	Ability to expand its customer base and increase sales
5	Return on Investment	Used to assess the profitability of investments
Technological Agility		
6	Innovation commitment	For competitiveness; meeting emerging market needs.
7	Technology Adaptability	Quickly adapt and integrate modern technologies
8	Technology Adoption	Adoption of advanced technologies – remain relevant
Regulatory Compliance and Advocacy		
9	Compliance management	To avoid legal issues and maintain operational integrity
10	Engage – policy impact	Participation in policy discussions and advocacy efforts
11	Regulatory Knowledge	To navigate complex regulatory landscapes and adapt

Market Awareness and Competitive Positioning		
12	Respond - Demand for RE	Market trends, customer preferences, and competition
13	Differentiation	Unique value proposition and competitive differentiation
14	Brand Positioning	A strong brand identity to gain a competitive edge
15	Customer Insights	Leveraging feedback to enhance customer satisfaction
Skilled Human Capital		
16	Attracting and Retaining talent	Skills and expertise to drive innovation and maintain high operational standards.
17	Training + Development	Know industry $_{trends}$ and technological advancements
18	Expertise in RE	Ability to address industry challenges and opportunities
Operational Efficiency		
19	Streamlined Processes	Enhances productivity and reduces operational costs
20	Quality Management	In products & services; less defects and returns
21	Cost Efficiency	Optimised operations improve overall profitability
22	Performance Metrics	monitor and enhance operational effectiveness & business performance
Customer Satisfaction and Engagement		
23	Customer retention rates	Insights into product satisfaction and long-term value
24	Feedback and Reviews	Gauge satisfaction and identify areas for improvement
Sustainability and Environmental Impact		
25	Environmental performance	Efforts to minimise negative environmental impact
26	Certification & Compliance	Evidence of commitment to standards & sustainability
Strategic Partnerships and Alliances		
27	Industry Collaboration	To enhance technological capabilities and market reach
28	JV and Alliances	To share resources, risks, and expertise.
Market Penetration and Expansion		
29	Geographic Reach	Expanding into new markets or regions; diversify revenue streams
30	Market Share	Relative to competitors; competitive & growth potential.
Risk Management		
31	Mitigation Strategies	To identify, assess, and manage several types of risks
32	Crisis Preparedness	Crisis management plans and protocols

Following the initial round, experts observed that many of the indicators were interconnected and after the second Delphi round reduced the 32 indicators to 20, thereby displaying a strategic decision to reflect less but more encompassing indicators. Revenue Growth, ROI and Cash Flow Management were merged as cash flow management, in alignment with expert opinions suggesting that a comprehensive economic assessment should consider both the growth of revenue and its impact on overall financial performance and liquidity.

Cost control and cost efficiency, the latter previously classified under operational efficiency, were combined into a single indicator termed cost efficiency, as experts argued that such a consolidation would provide a more comprehensive assessment of an organisation's financial health. This integration reflects effective cost management controls and ensures that spending contributes to overall efficiency and productivity.

Commitment to Innovation, Adaptability to Technology Changes, and Technology Adoption consolidated into a single indicator, Organisational Flexibility and Adaptability, to create a more streamlined assessment of an organisation's innovative and technological capabilities. Experts

recommended this consolidation based on the recognition that these indicators are interconnected and that a holistic measure of an organisation's adaptability provides a more comprehensive evaluation of its ability to thrive in a dynamic environment.

Market share, market awareness items and market penetration items were consolidated into Understanding Market Dynamics, whilst customer satisfaction items were merged and renamed client satisfaction. Sustainability and environmental impact items were merged and named compliance management to simplify the assessment of a company's adherence to regulatory and environmental standards. Risk management items were merged to form risk mitigation strategies, which encompass a wider range of practices aimed at identifying, assessing, and managing several types of risks, including financial, operational, and strategic risks. This broader category includes crisis management, preventive measures, and strategic planning to minimise potential risks. Project interval management, the ability to manage project timelines efficiently, was added to reflect management competencies that was not covered by the consolidated set of indicators. The final indicators are indicated in table 2.

The 20 indicators were then subjected to the analytic hierarchy process, resulting in the consolidated decision matrix.

FIGURE 1: CONSOLIDATED DECISION MATRIX

Indicator	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1	0.759836	2.340347	3.309751	1.42872	2	2.340347	0.903602	0.747674	0.840896	0.734889	1.07457	0.359304	2.828427	1.732051	0.73111	1.590541	0.302138	1.414214	2
2	1.316074	1	0.945742	1.495349	0.343295	2.140695	0.537285	2.020516	1.316074	2.691782	0.930605	2.114743	0.179095	1.480166	1.106682	1.414214	1.257433	0.680375	0.919323	0.930605
3	0.427287	1.057371	1	1.495349	0.759836	0.840896	0.840896	1	0.5	0.516973	0.513345	0.594604	1.573173	0.472871	0.782542	0.472871	1.565085	0.508133	3.833659	3.662842
4	0.302138	0.66874	0.66874	1	0.955443	0.594604	1.189207	0.759836	0.638943	1.807204	0.427287	0.594604	1.046635	1.277886	0.840896	1.257433	2.783158	2.514867	0.88914	1.565085
5	0.699927	2.912951	1.316074	1.046635	1	2	2.213364	2.378414	0.447214	0.427287	0.614788	1.106682	0.610474	0.869442	0.869442	1.189207	1.86121	1.414214	2.114743	2
6	0.5	0.467138	1.189207	1.681793	0.5	1	1.86121	1.189207	0.759836	1.414214	0.66874	1.565085	0.945742	2	2.140695	0.614788	1.86121	1.057371	0.869442	1.414214
7	0.427287	1.86121	1.189207	0.840896	0.451801	0.537285	1	1.565085	2.378414	2.892508	1.86121	0.467138	3.130169	1.257433	0.707107	1.565085	1	0.962195	0.365555	0.345721
8	1.106682	0.494923	1	1.316074	0.420448	0.840896	0.638943	1	2.059767	1.495349	2.114743	1.414214	1.106682	1.316074	1.414214	1.495349	1.565085	1.565085	0.66874	0.66874
9	1.337481	0.759836	2	1.565085	2.236068	1.316074	0.420448	0.485492	1	2.514867	1.451959	3.309751	0.983995	3.556559	1.456475	2.783158	2.828427	1.654875	1.106682	1.189207
10	1.189207	0.371501	1.934336	0.553341	2.340347	0.707107	0.345721	0.66874	0.397635	1	1.495349	1.565085	1.626577	1.86121	2.892508	1.414214	1.732051	1	0.903602	1.565085
11	1.36075	1.07457	1.948007	2.340347	1.626577	1.495349	0.537285	0.472871	0.688725	0.66874	1	2	0.773055	1.910886	1.367782	1	2.340347	1.565085	1.033946	2.659148
12	0.930605	0.472871	1.681793	1.681793	0.903602	0.638943	2.140695	0.707107	0.302138	0.638943	0.5	1	0.33437	1.86121	2.114743	1.565085	2	2.817313	1.257433	1.257433
13	2.783158	5.583629	0.635658	0.955443	1.638073	1.057371	0.319472	0.903602	1.016265	0.614788	1.293569	2.990698	1	1.778279	3.162278	1	0.438691	0.258487	1.189207	2
14	0.353553	0.6756	2.114743	0.782542	1.150163	0.5	0.795271	0.759836	0.281171	0.537285	0.523318	0.537285	0.562341	1	1.681793	2.114743	4.090623	1.480166	2.990698	3.130169
15	0.57735	0.903602	1.277886	1.189207	1.150163	0.467138	1.414214	0.707107	0.686589	0.345721	0.73111	0.472871	0.316228	0.594604	1	2.811707	1.377449	0.747674	1.277886	2.783158
16	1.367782	0.707107	2.114743	0.795271	0.840896	1.626577	0.638943	0.66874	0.359304	0.707107	1	0.638943	1	0.472871	0.355656	1	3.868673	1.880302	1.606857	1.565085
17	0.628717	0.795271	0.638943	0.359304	0.537285	0.537285	1	0.638943	0.353553	0.57735	0.427287	0.5	2.279507	0.244462	0.72598	0.258487	1	2.07858	2.514867	3.935979
18	3.309751	1.469778	1.96799	0.397635	0.707107	0.945742	1.03929	0.638943	0.604275	1	0.638943	0.354948	3.868673	0.6756	1.337481	0.53183	0.481098	1	0.66874	1.54611
19	0.707107	1.087757	0.260847	1.124683	0.472871	1.150163	2.735565	1.495349	0.903602	1.106682	0.967168	0.795271	0.840896	0.33437	0.782542	0.622333	0.397635	1.495349	1	1.244666
20	0.5	1.07457	0.273012	0.638943	0.5	0.707107	2.892508	1.495349	0.840896	0.638943	0.37606	0.795271	0.5	0.319472	0.359304	0.638943	0.254066	0.646784	0.803428	1

A key feature of the analytic hierarchy process, is its ability to check the consistency of the judgments made. The Online Software Tool for the Analytic Hierarchy Process developed by Goepel (2018) was used in the construction of the pairwise comparison matrix (figure 1), where the relative

importance of each indicator was compared to the rest of the indicators, after which priority vectors were calculated for each indicator.

The final weights of the indicators, which were derived from the priority vectors and represent the relative importance of each indicator in the decision-making process, are displayed in table 2, thereby providing a structured and expert-informed evaluation framework for the study. Table 2 displays the weighted indicators, which are displayed in a descending format.

TABLE 2: DECISION HIERARCHY RESULTS

No	Indicators	Priority indicators
1	Attracting and Retaining Talent	7.00%
2	Understanding Market Dynamics	6.40%
3	Access to Capital	5.70%
4	Compliance Management	5.60%
5	Management and Leadership	5.60%
6	Organisational Flexibility and Adaptability	5.50%
7	Cash Flow Management	5.20%
8	Training and Development of Expertise	5.20%
9	Regulatory Knowledge	5.10%
10	Supplier and Client Relationships	5.10%
11	Workplace Culture	5.00%
12	Process management	4.90%
13	Organisational Structure	4.80%
14	Cost Efficiency	4.60%
15	Return on Investment	4.40%
16	Payback Period	4.40%
17	Risk Mitigation Strategies	4.20%
18	Quality Management	4.10%
19	Client satisfaction	4.00%
20	Project Interval Management	3.20%
	TOTAL	100%

PRACTICAL IMPLICATIONS

Skilled and knowledgeable team members are critically important for the survival of businesses in the renewable energy industry, given the investment made based on the organisation's available capacity to deliver, hence SMEs in the renewable energy sector should prioritize attracting and retaining talent, and consider engaging in structured training programs and mentorship initiatives to enhance the skill set of employees, and hopefully retain their services through supportive leadership.

It is essential for SMEs to stay updated on market dynamics, emerging trends, and technological advancements as these aspects threated the survival and competitiveness of firms in the industry. Firms should engage in regular market analysis and industry-related conferences or workshops and use their networks to remain informed and able to position themselves strategically within the competitive landscape.

Improved financial stability is vital for SME success, both in ensuring a sufficient supply of capital for the duration of the projects undertaken as well as effectively managing its application of funding, and should adopt robust financial management practices, including effective cash flow forecasting and management, to ensure long term sustainability.

SMEs management and leadership should cultivate an organizational culture that encourages flexibility and quick adaptation to changes given the highly competitive and sometimes turbulent nature of the South African (renewable) energy industry, particularly when it comes to legislation and competing environmental interests, external to the firm.

THEORETICAL IMPLICATIONS

A contribution to the existing body is made by the identification of specific financial and non-financial performance indicators for SMEs in the renewable energy sector. By suggesting a new metric to measure small business success factors, this research invites further interrogation and debate on its findings.

This study also makes a contribution towards the perceived gap in literature on factors influencing the success of small businesses in the renewable energy industry, and offers results that partly support and supplement previous findings, offering additional factors to consider in future resrach in the field of renewable energy.

LIMITATIONS

Given the profile and level of engagement required from the experts in the industry, only eight experts participated in the study. However, given the exploratory nature of the study, the intention was not to generalise the funding to a population, but rather to get rich data which could be used for future research.

Expert selection bias is another limitation, as the study relied on seasoned professionals holding senior positions, meaning that the findings may reflect the views of a specific subset of the industry, and omit insights from other players who might have different insights but were unavailable when this study was undertaken.

This study is context and time specific, in that it was conducted in 2024 within the South African context. External factors did not feature prominently in this study, as the study was largely focussed at firm level, and it is acknowledged that rapid advancements in technology and shifts in policy within the renewable energy sector, could impact on the findings of this study and introduce new variables not previously considered. The study should thus be viewed with these limitations in mind, as it provides context to the findings.

CONCLUSIONS

The findings suggest that the success and sustainability of SMEs in South Africa's renewable energy sector are primarily driven by human capital (HC), an understanding of market dynamics, and financial stability, where access to capital remains an important factor. Internal organisational capabilities relating to management and leadership activities, as well as organisational flexibility and adaptability (OFA) that relates to the organisation's ability also ranked as highly important. Indicators related to financial performance, such as cst efficiency and return on investment, are considered important but secondary to internal organisational capabilities. These findings align with broader research on SMEs, which suggests that non-financial factors, such as team (HC), technical (OFA) and organisational factors (Maqbool *et al.,* 2020; Maqbool *et al.,* 2018); supportive leadership (Hussain *et al.,* 2023; Stollberger *et al.,* 2022, Zaman *et al.,* 2022,) and financial indicators such as access to and long term finance (Hussain *et al.,* 2023; Luangchosiri *et al.,* 2021). Supplier relations, which influences fluctuation material cost, identified as important by Zhao (2010), is rank 10th in terms of importance in table 2.

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SPATIAL FLUIDITY AND FIRM COMPETITIVENESS: UNPACKING THE NEXUS BETWEEN ENTREPRENEURIAL MOBILITY AND ECOSYSTEM DYNAMICS

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ABSTRACT

This study explores how entrepreneurial mobility across territories influences firm-level competitiveness, assessed through survival and export activity as proxies of global value chain integration. Drawing on a unique panel dataset of high-tech and knowledge-intensive ventures from the PIPE/FAPESP program in Brazil (2015–2020), we employ machine learning models to identify key predictors of firm performance. Findings reveal that territorial mobility enhances firm competitiveness, particularly when combined with high technological intensity, underscoring the role of spatial dynamics in entrepreneurial strategy. Additionally, ecosystem configurations—especially those involving institutional support and external demand—emerge as critical enablers of success. By integrating spatial mobility, technological intensity, and ecosystem elements, this research provides a micro-level perspective on how firms navigate fluid entrepreneurial ecosystems. Our results challenge static conceptions of ecosystems, emphasizing their relational and adaptive nature. Implications highlight the need for policies that promote cross-regional integration and recognize mobility as a strategic driver of innovation and resilience.

Keywords: Entrepreneurship; entrepreneurial ecosystems; machine learning; firm competitiveness

INTRODUCTION

Despite existing studies' emphasis on Entrepreneurial Ecosystems (EE) as geographical entities, recent studies argue that EE function as spatially fluid, multi-scalar networks that extend beyond administrative boundaries (Leendertse, Baggen, Mahdad, and Dolmans, 2025; Schäfer et al., 2024). However, entrepreneurship is increasingly perceived as a mobility-driven process (Sørensen AND Sharkey, 2014). There is a mismatch between EE research and entrepreneurship involving territorial flows. Few studies have addressed how EE spatiality interacts with firm-level competitive outcomes (Fischer, Salles-Filho, Zeitoum and Colugnati, 2022).

It is critical to understand how firms navigate and leverage resources in this spatially fluid understanding of EE to advance a more consistent appraisal of entrepreneurial processes. We analyze the role of entrepreneurial mobility in three measures of entrepreneurial competitiveness: firm survival, export activity, and integration in Global Value Chains. As part of this analysis, we examine entrepreneurial trajectories from cases associated with the Small Business Innovation Research Program (PIPE/FAPESP) in Brazil, an emerging entrepreneurial hub exhibiting both developing economy strengths and constraints.

Using the literature on entrepreneurial mobility and the EE approach, we provide a comprehensive framework for analyzing the competitive dynamics of new businesses and how spatial mobility plays a role. As per entrepreneurial mobility theory (Tran, Baruch and Bui, 2021). In contrast, the EE approach emphasizes the importance of institutional structures, resource accessibility, and cross-regional links in shaping entrepreneurial opportunities (Autio, Nambisan, Thomas and Wright, 2018; Fischer, Meissner, Vonortas and Guerrero, 2022). This study examines how entrepreneurial mobility across the territory impacts firm-level competitiveness by integrating these perspectives.

Prior studies have explored clustering effects, knowledge spillovers, and institutional support in EE (Fox, Muldoon and Davis, 2023; Stam and Van De Ven, 2021). However, understanding how mobility across different EE impacts securing critical resources and ensuring long-term sustainability remains a major challenge. Moreover, technological intensity modifies the relationship between entrepreneurial mobility and firm success, affecting how firms leverage spatial networks, access resources, and integrate into global value chains.

Technological intensity determines firms' ability to absorb, adapt, and capitalize on new market opportunities, while mobility enables them to navigate entrepreneurial ecosystems beyond geographic boundaries. Understanding this interaction in different spatial contexts is crucial for determining whether technology enhances or limits mobility benefits.

Therefore, this research seeks to answer the following key questions: (1) To what extent is entrepreneurial mobility across territories associated with higher levels of competitiveness (2) What role does technological intensity play in these dynamics? By employing a machine-learning-based approach, this study provides novel empirical insights into these dynamics, offering a more nuanced perspective on Entrepreneurial Ecosystems as adaptive, spatially-fluid structures (Fischer, Alves, Vonortas and Brown, 2024).

LITERATURE REVIEW AND PROBLEM INVESTIGATED

Entrepreneurship is increasingly conceptualized as a mobility-driven phenomenon, shaped by interactions between individual agency and contextual opportunity structures. Traditional research on professional mobility has emphasized transitions from employment to self-employment (Tran et al., 2021), while the entrepreneurial ecosystem (EE) literature has focused on the role of institutions, networks, and resource availability in fostering entrepreneurial activity (Autio et al., 2018; Fischer,

Meissner et al., 2022). Recent studies challenge the notion of EE as geographically bounded, proposing instead that they operate as spatially fluid, multi-scalar systems influenced by relational dynamics (Leendertse et al., 2025; Schäfer, Fischer, Rücker Schaeffer and Balestrin, 2024).

This emerging perspective highlights that entrepreneurial activity frequently transcends administrative boundaries, with entrepreneurs navigating across territories to access capital, infrastructure, and markets (Theodoraki and Catanzaro, 2022). Consequently, firm competitiveness depends not only on localized resources but also on the ability to engage with external linkages and knowledge flows (Xu, Yang, Liu, Newbert and Boal, 2023). Especially in less-developed ecosystems, where institutional and market weaknesses prevail, firms often rely on inter-regional mobility to overcome structural limitations (Stam and Van De Ven, 2021).

However, despite increased recognition of mobility and spatial dynamics in entrepreneurship, the intersection between entrepreneurial mobility and ecosystem spatiality remains underexplored. Existing studies have mostly addressed these domains separately: EE research often concentrates on regional clustering and institutional support (Belitski and Godley, 2020), while mobility studies center on career trajectories and micro-level decisions (Sørensen and Sharkey, 2014). There is limited empirical evidence on how mobility interacts with entrepreneurial ecosystems to shape firm-level outcomes such as survival and integration into global value chains.

The academic origins of entrepreneurs represent one notable dimension of mobility. Research shows that many entrepreneurs choose to establish ventures close to their alma mater due to existing social and institutional capital (Baltzopoulos and Broström, 2013). Yet, this "gravitational pull" may be overridden by broader spatial factors - including market size, urbanization, and productive structure - which often drive entrepreneurs toward more dynamic regions (Guerrero, Urbano, Fayolle, Klofsten, M. and Mian, 2016).

Crucially, the influence of technological intensity acts as a moderator in this process. Firms in high-tech sectors benefit more from proximity to research institutions and innovation infrastructure, whereas firms in low-tech sectors may prioritize cost-efficiency and logistical accessibility (Calcagnini, Favaretto, Giombini, Perugini and Rombaldoni, 2016). This suggests that spatial strategies are not uniform across sectors and that mobility's benefits are likely contingent upon technological requirements.

RESEARCH OBJECTIVES AND/OR HYPOTHESES

This study aims to deepen the understanding of how entrepreneurial mobility and technological intensity interact to shape firm-level competitiveness within spatially adaptive EE. Drawing on recent conceptual developments that portray EE as fluid, relational, and multi-scalar systems, this research investigates how firms strategically navigate geographic space to access resources, survive, and engage in global value chains. Although the role of mobility in entrepreneurship is increasingly

acknowledged, empirical studies remain scarce in analyzing how this mobility operates across different technological contexts and institutional environments.

The specific objectives of this study are threefold: (i) to assess the relationship between entrepreneurial mobility and firm competitiveness, measured through survival and export frequency; (ii) to examine whether this relationship is moderated by the technological intensity of the sector in which the firm operates; and (iii) to evaluate the explanatory power of machine learning models in predicting firm-level outcomes based on a combination of spatial, institutional, and organizational variables.

In light of these objectives and the theoretical insights reviewed, two main hypotheses are proposed.

H_1: Firms founded by entrepreneurs who relocate from their academic institutions to different regions exhibit higher survival rates and stronger integration into global value chains than those founded by non-mobile entrepreneurs.

H_2: The positive effect of entrepreneurial mobility on firm survival and global value chain integration is stronger in high-tech industries than in low-tech industries.

These hypotheses aim to advance a more granular understanding of the micro-foundations of spatial dynamics in entrepreneurship and inform policy strategies that seek to enhance territorial competitiveness through mobility and innovation.

RESEARCH METHODOLOGY

This analysis uses data from companies that participated in the Small Business Innovation Research Program (PIPE/FAPESP) to identify entrepreneurs and entrepreneurial firms. This program is managed by the São Paulo Research Foundation (FAPESP). PIPE was established in 1997, modeled after the U.S. Small Business Innovation Research (SBIR) program, with the goal of promoting entrepreneurial projects characterized by high knowledge intensity and innovative potential (Fischer, Salles-Filho, et al., 2022). Small (250 employees or fewer) ventures must apply; proposals must demonstrate adequate human capital; and projects must identify an opportunity for launching innovative products, processes, or services. Successful applications do not require academic degrees.

The State of São Paulo, Brazil, blends characteristics of developed and developing economies. As the richest state in Brazil, So Paulo generates 22.6% of the national GDP, but it also faces socio-economic challenges (IBGE, 2021). São Paulo's GDP reached USD 150 million in early 2024, an increase of 0.4%. Economic inequality, limited patent production, and bureaucracy hamper entrepreneurial growth despite the state's skilled workforce and strong regional innovation systems. Its dual reality of strong innovation and limited global competitiveness reflects its achievements and potential. World Bank Group ranks 138th out of 190 economies for ease of starting a business (World Bank Group, 2020).

The data set covers 2015 to 2020. Observations from 1997 to 2014 were excluded due to the unavailability of certain local economic development indicators. Multiple sources compiled 2,271 observations from 519 unique firms. Table 1 includes categorical and continuous variables. Various reliable sources were used to ensure analytical robustness.

TABLE 1: DATA DESCRIPTION

Input Variables		Description
Entrepreneur Ecosytems elements	**Talent**	It is the stock of entrepreneurial capacities of the territory, manifested by the quantity and quality of companies, entrepreneurs and leaders. Focus of the dimension: businesspeople, entrepreneurs and companies (source: ISDEL)
	Networks	Represented by formal and informal networks of entrepreneurs and companies, which come together to act collectively in favor of their interests. A good business network contributes to the protection and promotion of entrepreneurs and their businesses and facilitates dialogue with other actors in the region. Focus of the dimension: business networks. (source: ISDEL)
	Leadership	Refers to a common vision of the future built in a shared, participatory and democratic manner with the entire community and through a Strategic Economic Development Plan that unfolds a vision of the future. Focus of the dimension: the association between civil society, market and public authorities. (source: ISDEL)
	Institutions	This is the way in which each territory organizes its economic activities to generate income and wealth. Focus of the dimension: broader productive and institutional structure related to the development process. (source: ISDEL)
	Exogenous demand	The set of actions necessary for the territory to position itself externally in a competitive manner, contributing to the dynamization of its economy. Focus of the dimension: relations of each territory with the outside world. (source: ISDEL)
R&D Intensity	**RD intensity duration**	Total time expressed in months of R&D activity (sources: FINEP, FAPESP, BNDES, ANEEL and ANP)
	RD intensity budget	Total budget expressed in reais for R&D activities (sources: FINEP, FAPESP, BNDES, ANEEL and ANP)
	Knowledge mass patents	Number of patent application filings made by the organization per year, as determined by INPI (source: Opensense Platform)
Mobility	**Entrepreneurs mobility (MOB)**	Haversine formula to calculate the distance of the latitude/longitude of higher education institution where the entrepreneur graduated and the region where the venture is established. This data was logarithmized. (source: CNPq)
Target Variables		
Global Value Chains	**Exports Frequency**	A binary index is assigned as 1 if there is a presence of annual export frequency and 0 if there is an absence of annual export frequency for the period under analysis (source: Opensense Platform).
Survival	**Oganization Status**	A binary index is assigned as 1 if the firm is active and still operating and 0 if it has closed and no longer exists (source: Opensense Platform).
Meta Variable (Moderator)		
Technology Intensity	**Technology Intensity (TIB)**	It is calculated as a binary factor based on the association of firms' economic activity according to the OECD scale/Eurostat classification (high, mid-high, mid-low, low in technology intensity) and KIBS (Knowledge-Intensive Business Services) (sources: Opensense platform; Muller and Doloreux (2009).

Notes. FINEP - Funding Agency for Studies and Projects; FAPESP - São Paulo Research Foundation; BNDES - National Bank for Economic and Social Development; ANEEL - National Electric Energy Agency; ANP - National Agency of Petroleum, Natural Gas and Biofuels; INPI - National Institute of Industrial Property; CNPq - Conselho Nacional de Desenvolvimento Científico e Tecnológico; ISDEL - Sebrae Local Economic Development Index.

This study uses a panel dataset comprising 519 firms observed over 6 years (2015–2020), allowing longitudinal analysis of firm survival, entrepreneurial mobility, and global value chain integration. Pre- and post-pandemic shifts in entrepreneurial dynamics are captured in this timeframe. The dataset includes firms from 77 different locations, representing diverse regional economic environments, and entrepreneurs who graduated from 99 distinct locations, allowing an assessment of how spatial factors and academic backgrounds influence entrepreneurial mobility.

We use data from ISDEL, a well-established source of regional-level indicators on institutional support, innovation capacity, and economic development, to measure EE characteristics. Based on the DEL Approach, the Sebrae Local Economic Development Index (ISDEL) measures the development stage of Brazilian municipalities. It guides the design and evaluation of public policies and economic development initiatives. With a long-term strategic vision, ISDEL identifies key areas for intervention. They capture both localized and systemic EE effects, aligning with prior research on entrepreneurial clustering, knowledge spillovers, and firm competitiveness.

Furthermore, firm-level controls are incorporated to account for potential confounders. Among them are industry classifications by technological intensity and market regions, ensuring that observed effects are not solely a result of structural differences. This study integrates spatial, institutional, and firm-level variables to examine how entrepreneurial mobility shapes firm trajectory over time.

Using the Haversine formula, the Mobility variable estimates the distance between the entrepreneur's last degree earned at a higher education institution and the location of their business venture.

In machine learning, a meta-variable is a higher-level feature derived from existing input variables, often used to enhance model performance by capturing complex relationships, summarizing patterns, or integrating domain knowledge into the learning process. A meta variable was developed following the classification criteria established by the OECD and Eurostat to account for technological intensity. Economic sectors were assigned a score ranging from 0 to 4, where higher values indicate greater technological intensity. Firms were then categorized into two groups: technology-intensive and non-technology-intensive. Firms operating in high-technology (4) and medium-high-technology (3) sectors were classified as technology-intensive, while those in medium-low-technology (2), low-technology (1), or very-low-technology (0) sectors were classified as non-technology-intensive.

Looking at knowledge-intensive business services (KIBS) (Muller & Doloreux, 2009), an additional adjustment was made. Firms classified as technological KIBS (T-KIBS), such as IT services,

engineering, and R&D consulting, received an upward adjustment of one point in their technological classification. In contrast, professional KIBS (P-KIBS), including legal and accounting consultancy, retained their original classification without adjustment. To create a binary variable for technological intensity, firms with a final adjusted technological score of three or higher were classified as technology-intensive (1), while those scoring below this threshold were categorized as non-technology-intensive (0). This classification method allows for a more precise differentiation between highly innovative and technologically advanced firms and those operating in more traditional, less technology-driven sectors.

To deepen the analysis of technology intensity and its broader implications, we introduce an interaction variable capturing the moderation effect of technology intensity and mobility (TIBMOB). This variable accounts for the potential influence of the workforce or entrepreneurial mobility on the technological profile of ventures. Mobility, whether in the form of talent migration, inter-firm knowledge transfer, or cross-regional entrepreneurship, has been widely recognized as a key driver of innovation and technological advancement. By incorporating TIBMOB, we assess whether higher mobility levels amplify or mitigate the effects of technology intensity on venture outcomes. This allows us to examine whether technology-intensive firms derive greater benefits from mobility compared to their non-technology-intensive counterparts, contributing to a more nuanced understanding of how spatial and technological dynamics interact in shaping business performance. Table 2 reports the summary statistics of the variables.

TABLE 2: SUMMARY OF INPUT VARIABLES STATISTICS

Input Variables	Mean	Median	Dispersion	Minimum	Maximum
Talent	0.407	0.411	0.042	0.334	0.441
Networks	0.442	0.447	0.046	0.325	0.468
Leadership	0.428	0.431	0.039	0.337	0.458
Institutions	0.424	0.415	0.070	0.323	0.469
Exogenous demand	0.436	0.444	0.044	0.315	0.456
RD intensity duration	0.373	0.301	0.651	0.301	2.075
RD intensity budget	0.740	0.301	1.948	0.301	7.000
Knowledge mass patents	0.308	0.301	0.134	0.301	1.000
Entrepreneurs mobility (MOB)	1.561	1.524	0.631	0.337	4.266
TIBMOB	0.908	0.443	1.180	0.000	4.128

Notes: Dispersion refers to how data points in a dataset vary or spread out from the central value (such as the mean or median). It measures the distribution of values and helps understand the consistency or variability within the data. Min and Max are the lowest and highest values of the variables in the data set

This study uses Logistic Regression (LR), Random Forest (RF), and Gradient Boosting Machine (GBM) to analyze firm survival and global value chain integration. LR serves as a baseline model due to its interpretability and ability to estimate odds ratios for firm characteristics. However, its

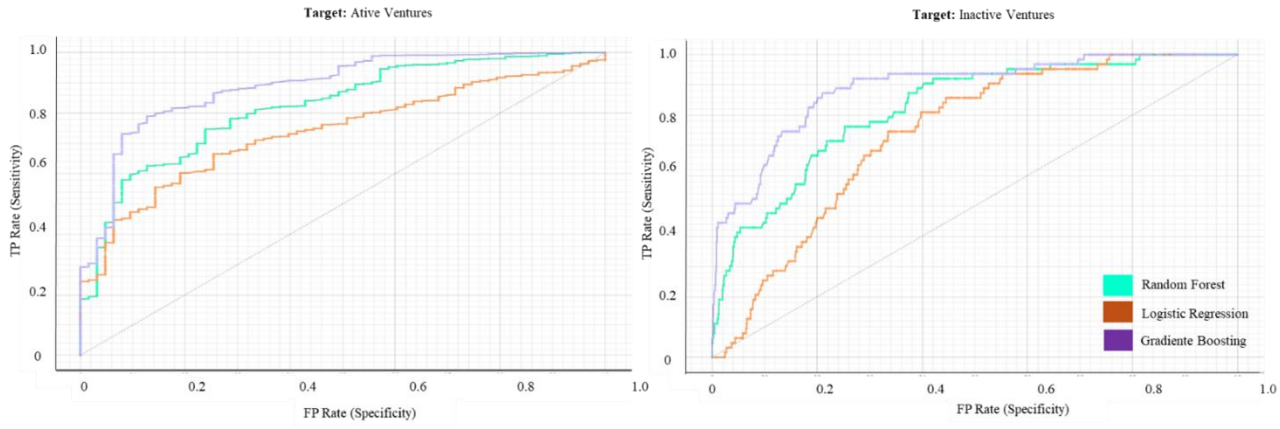
limitations in handling complex nonlinear relationships led to the inclusion of RF and GBM. RF is ideal for high-dimensional data, offering robust performance by aggregating decision trees and reducing variance. GBM enhances predictive accuracy by iteratively correcting errors, effectively capturing subtle patterns. While alternative models like Support Vector Machines (SVM) and Neural Networks (NN) were considered, they were excluded due to lower interpretability. The selected models balance predictive performance, computational efficiency, and interpretability. The input variables, outlined in Table 1, are filtered to improve model resilience and accuracy, reducing overfitting.

5. RESULTS/FINDINGS

5.1 Determinants of firms' survival

This section analyzes firm survival, with emphasis on the effects of entrepreneurial mobility (MOB) and its interaction with technological intensity (TIBMOB). Among the machine learning models applied, the Gradient Boosting Machine (GBM) achieved the highest predictive performance (AUC = 0.889; CA = 0.972), followed by the Random Forest (RF). Logistic Regression (LR) performed poorly, especially under feature-specific cross-validation, indicating the superiority of non-linear models in capturing the relationship between mobility, technology, and firm survival.

FIGURE 1: COMPARISON OF ROC CURVES ACROSS VARIOUS ML MODELS



Note. Stratified 10-fold Cross validation sampling technique

Feature importance rankings (Table 3) confirm MOB and TIBMOB as primary determinants of survival, followed by networks and institutional support. While internal innovation indicators (e.g., patents, R&D duration) had minimal influence, external adaptability and spatial resource access emerged as key factors. The relevance of TIBMOB varied across sampling strategies, suggesting its effect depends on contextual conditions.

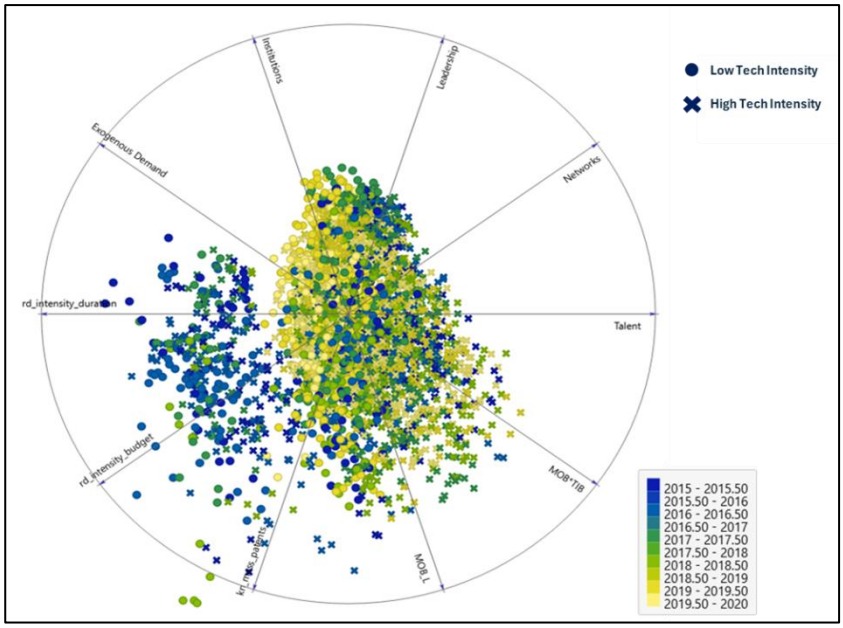
TABLE 3: RANK INPUT VARIABLES IMPORTANCE BY ML MODELS. TARGET VARIABLE: FIRM SURVIVAL

Input Variables	LR	Rank	GBM	Rank	RF	Rank	Median
Networks	0.657	4	15.149	3	0.155	3	3.7
TIBMOB	0.169	7	15.703	2	0.155	4	4.0
Exogenous demand	0.591	5	9.079	7	0.171	2	4.7
Entrepreneurs mobility (MOB)	0.112	8	24.846	1	0.147	5	4.7
Institutions	0.033	9	10.944	5	0.192	1	5.0
Talent	0.272	6	14.139	4	0.138	6	5.3
Knowledge mass patents	1.295	1	0.247	10	0.002	8	6.3
RD intensity budget	0.891	2	0.263	9	0.001	9	6.7
RD intensity duration	0.878	3	0.523	8	0.000	10	7.0
Leadership	0.025	10	9.106	6	0.039	7	7.7

Note: The table is sorted based on median rank

Figure 2 illustrates firms' temporal evolution from 2015 to 2020. Early-stage ventures focused on R&D, while mature firms prioritized spatial positioning, talent, and network integration. Over time, MOB and TIBMOB surpassed traditional ecosystem elements like networks in influence, highlighting the strategic role of mobility and technological alignment in survival outcomes.

FIGURE 2: TEMPORAL MAPPING OF FIRMS FROM ML ANALYSIS

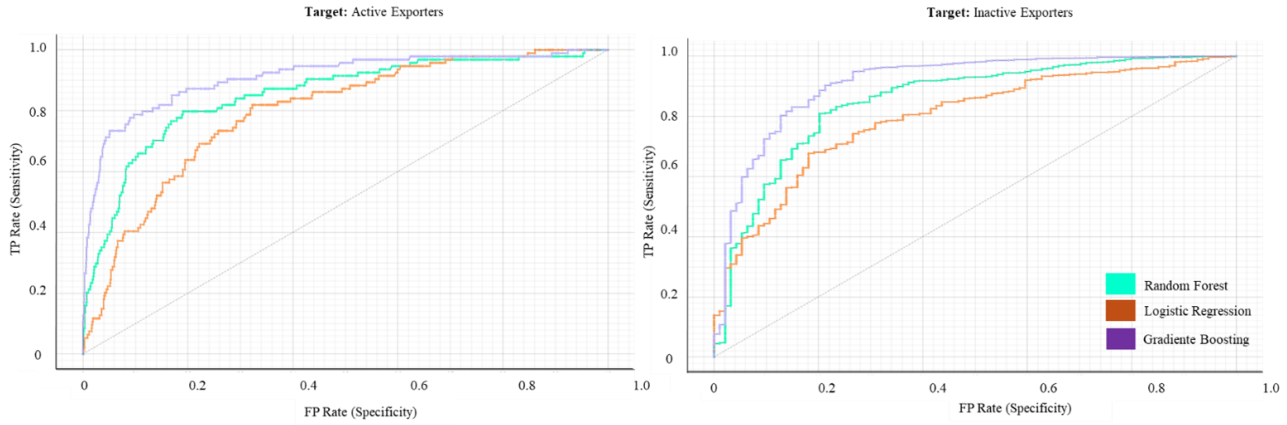


Note. This figure visualizes the positions of firms based on the importance of input variables derived from ML analysis, with colors representing different periods (2015-2020) and markers distinguishing between high-tech intensity firms (X) and no-tech intensity firms (●). The radial axes correspond to input variables influencing firm positioning over the years.

Determinants of global value chain integration in export frequency

This section investigates how entrepreneurial mobility (MOB) and technological intensity (TIBMOB) influence firms' integration into global value chains (GVC), using export frequency as a proxy. Among the machine learning models applied, the Gradient Boosting Machine (GBM) achieved the best performance (AUC = 0.911; CA = 0.963), followed by Random Forest (RF). Logistic Regression (LR) showed lower performance, particularly when cross-validation was based on technological intensity, suggesting that TIB alone is not a strong predictor of export behavior.

FIGURE 3: COMPARISON OF ROC CURVES ACROSS VARIOUS ML MODELS



Note: Stratified 10-fold Cross validation Sampling Technique.

Source: Authors own creation.

Variable importance analysis (Table 4) indicates that TIBMOB is the most consistent and influential factor in predicting export activity, followed closely by MOB. This reinforces the view that mobility—especially when combined with technological capabilities—is key to firms' global expansion. Other relevant predictors include exogenous demand, leadership, and networks. In contrast, traditional innovation indicators such as R&D budget, duration, and patents ranked low, challenging the assumption that internal innovation alone drives GVC integration.

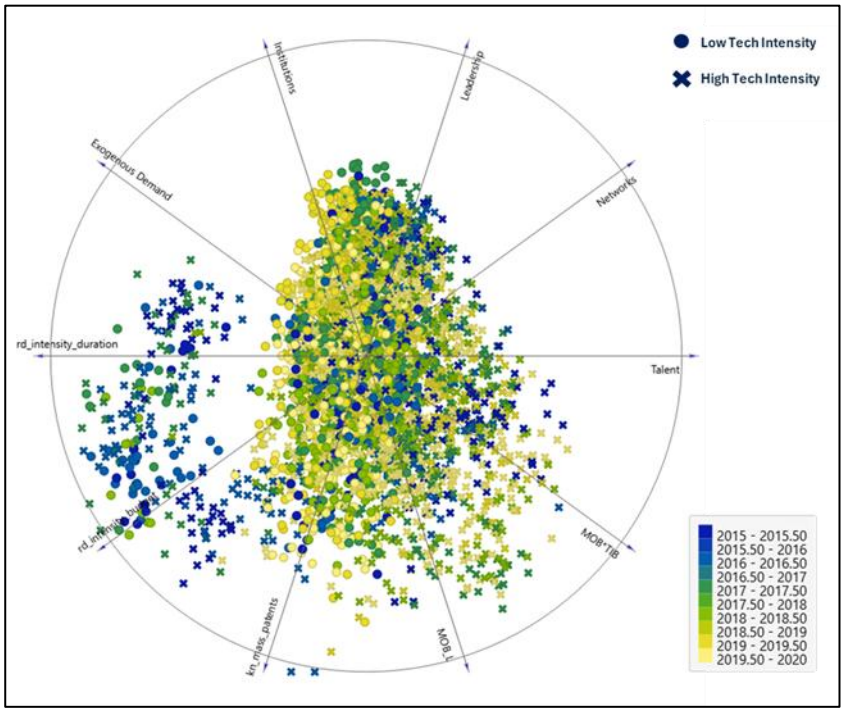
TABLE 4: RANK INPUT VARIABLES IMPORTANCE BY ML MODELS. TARGET VARIABLE: EXPORTS FREQUENCY

Input Variables	LR	Rank	GBM	Rank	RF	Rank	Median
TIBMOB	1.446	1	31.273	1	0.235	2	1.3
Entrepreneurs Mobility (MOB)	0.298	6	22.914	2	0.275	1	3.0
Talent	0.416	3	8.776	4	0.039	8	5.0
Networks	0.274	7	11.007	3	0.067	6	5.3
Knowledge mass patents	0.344	5	2.463	8	0.089	4	5.7
RD intensity budget	0.459	2	0.878	10	0.073	5	5.7
Leadership	0.166	9	6.594	7	0.114	3	6.3
Institutions	0.177	8	6.732	6	0.043	7	7.0
RD intensity duration	0.346	4	1.066	9	0.028	10	7.7
Exogenous demand	0.058	10	8.297	5	0.036	9	8.0

Note: The table is sorted based on median rank

Temporal mapping (Figure 4) reveals a pattern in which both high-tech and low-tech firms initially emphasize R&D and mobility. Over time, the focus shifts toward institutional frameworks and talent, especially for those that sustain export activity. The persistence of TIBMOB across timeframes suggests that resource mobilization and technological alignment remain critical throughout the firm's evolution.

FIGURE 4: TEMPORAL MAPPING OF FIRMS FROM ML ANALYSIS



Note. This figure visualizes the positions of firms based on the importance of input variables derived from ML analysis. The colors represent different periods (2015-2020), and markers distinguish between high-tech intensity firms (X) and non-tech intensity firms (●). The radial axes correspond to input variables influencing firm positioning over the years.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Entrepreneurial mobility (MOB) is central to firm survival and global value chain integration, as entrepreneurs actively seek territorial environments that best support their ventures. Rather than being passively shaped by location, entrepreneurs exercise agency in their relocation decisions, strategically positioning their businesses in entrepreneurial ecosystems (EE) that provide specialized resources, networks, and institutional support. This phenomenon is particularly pronounced in high-tech sectors, where firms require access to cutting-edge R&D infrastructure, knowledge spillovers, and skilled labor (Stam & Van De Ven, 2021). Entrepreneurs in technology-intensive industries are more likely to exhibit targeted mobility patterns, moving toward innovation hubs that maximize their

growth potential. Consequently, EE are not static or geographically bounded but instead evolve as firms relocate, aggregate, and reshape regional economic landscapes.

The spatial fluidity of EE is reinforced by the fact that entrepreneurs are not restricted by administrative or geographic boundaries, especially within macro-regions or economically integrated areas. High levels of mobility facilitate cross-regional knowledge diffusion, access to specialized financial markets, and integration into global networks (Schäfer et al., 2024). This perspective aligns with the notion that entrepreneurial ecosystems are relational structures, where firm success depends on external linkages, talent circulation, and the ability to navigate multiple spatial scales (Theodoraki & Catanzaro, 2022). The results indicate that firms with higher mobility and stronger technological intensity (TIBMOB) are more resilient, exhibit higher export frequency, and sustain competitive advantages over time. These findings support the view that MOB and TIBMOB jointly shape the adaptive capacity of firms, allowing them to capitalize on spatial opportunities within and beyond their immediate ecosystems (Fischer et al., 2024).

Since entrepreneurial mobility directly influences firm clustering and ecosystem composition, it also plays a key role in the trajectory of EE evolution. As firms relocate, they reshape the aggregated entrepreneurial output and knowledge flows within ecosystems, reinforcing the idea that EE develop as the sum of individual firm movements and strategic decisions (Xu et al., 2023). In high-tech industries, where the value-added composition is higher, mobility exerts an even stronger effect on EE development. Regions that attract technology-intensive firms benefit from positive spillover effects, increasing regional innovation capacity and strengthening the competitive positioning of the ecosystem as a whole. Conversely, regions unable to retain high-tech firms risk becoming "talent suppliers" rather than "innovation hosts," leading to potential economic stagnation and weakening their entrepreneurial fabric.

This analysis opens exciting avenues for future research on the determinants of entrepreneurial location decisions and the factors driving "footloose" versus locally embedded entrepreneurial behavior. Investigating why some entrepreneurs choose to remain in their home regions while others relocate can provide deeper insights into spatial opportunity structures, regulatory influences, and firm-specific strategic priorities. These dynamics also have critical policy implications, as governments and regional development agencies must determine whether to focus on attracting external talent, strengthening local entrepreneurial retention, or facilitating interregional knowledge flows. Understanding these patterns is essential for shaping policy interventions that enhance EE resilience, support firm survival, and foster globally competitive entrepreneurial environments.

CONCLUSIONS

This study enhances the understanding of EE spatiality by highlighting its dynamic and relational characteristics, influenced by mobility and technological intensity rather than fixed geographic boundaries. While regional EE structures impact firm behavior, navigating spatial linkages and

integrating into broader entrepreneurial networks is crucial for firm survival and global positioning. Although the study provides valuable insights, it has certain limitations because the cross-sectoral approach may not fully address industry-specific challenges. Future work could explore sector-specific variations in the relationship between spatial linkages, mobility, and technology, particularly in highly regulated sectors like healthcare or energy. Additionally, future studies should employ case studies, surveys, or longitudinal analyses to examine the microfoundations of spatial linkages, particularly in cases where entrepreneurs engage with multiple spatial scales without physically relocating their businesses. Understanding how firms integrate into regional, national, and global ecosystems remotely could provide valuable insights into non-relocational entrepreneurial mobility and its impact on firm survival and global value chain integration.

Moreover, researchers should explore how digital transformation, remote work, and virtual collaboration shape entrepreneurial success across different ecosystems. The rise of digital ecosystems and platform-based business models has enabled firms to access distant markets, talent, and investment networks without geographic proximity, challenging traditional assumptions about spatial embeddedness. Future research should investigate how entrepreneurs leverage digital infrastructure, virtual teams, and online knowledge-sharing networks to engage with and benefit from spatially dispersed EE. Understanding these dynamics could refine theoretical perspectives on entrepreneurial mobility, ecosystem evolution, and the changing nature of spatial linkages in the digital age.

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SUSTAINABLE GROWTH OF TAVERNS IN THE LIQUOR INDUSTRY: UNDERSTANDING THE ENABLERS

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ABSTRACT

This study investigates the enablers of taverns' sustainable growth within the South African liquor industry. The aim was to identify the enablers or aspects that contribute to the sustainable growth of these informal enterprises. Despite their contribution to the economy, many taverns struggle to sustain growth and survive over the long run. This qualitative study used a case study strategy to interview 12 tavern owners in Gqeberha. A semi-structured interview schedule was used. This paper considered the themes which emerged as findings from a thematic data analysis to delve into the enablers of taverns' sustainable growth. This study contributes by suggesting practical strategies linked to the enablers that could contribute to the economic, social and environmental impact, thus sustainable growth, of taverns. By focusing on these enablers an environment towards sustainability could be fostered for taverns, leading to their long-term survival and success, also contributing to the South African economy.

Keywords: enablers; liquor industry; sustainable growth; taverns

INTRODUCTION

This paper focuses on the enablers contributing to the sustainable growth of taverns in the liquor industry of Gqeberha. In South Africa, previous constraints on liquor sales and consumption led to the creation of taverns, which are liquor retail outlets operating in the informal environment of townships. The National Liquor Act 59 of 2003 was introduced to better govern the structures of the liquor industry and better regulate the industry (Nonyongo, 2019).

In 2019, the South African liquor industry was estimated to be around 3,4% (R173 billion) of South Africa's nominal Gross Domestic Product (GDP) (Burger, 2021). Here within, the informal liquor industry exists due to the high demand from informal residents who want access to liquor, especially within the proximity of their residences. Taverners noticed this high demand and effectively met the needs of the residents (Charman, Petersen and Piper, 2013:5), i.e., in townships. The informal liquor industry's market share (by volume) is more than the formal liquor industry, as approximately 90% of beer volume and 50% of wine volume sold annually occurs in the informal liquor industry (Nielsen, 2019). In 2015, it was estimated that South Africa had between 180 000 and 250 000 taverns

(Sustainable Livelihood Foundation, 2016). More recent statistics are unavailable since tavern research is limited. However, due to the growth in townships, it is estimated that the number of taverns in South Africa also increased over the last five years. With economic growth in South Africa slowing in 2022 and the forecasted GDP growth expected to remain below 2% in 2025, the growth will not address the country's growing socio-economic needs (Jeffrey, 2025; Rolland, Marais and Spangenberg, 2022).

The informal sector, where taverns operate, has a small but significant total share of employment of more than 4,5 million people. It makes up nearly one-third of the country's total employment and is estimated to contribute approximately 6% of its GDP (Rogan and Skinner, 2017:9; Statistics South Africa, 2021). Small Medium and Micro Enterprises (SMMEs) in the informal sector, such as taverns, must survive and grow, with SMMEs playing a critical role in the informal sector (Institute for Economic Justice, 2018). However, in Africa, SMMEs still face challenges that hinder their development and sustainable growth (Khoase, Derera, McArthur and Ndayizigamiye, 2020:135).

PROBLEM INVESTIGATED

In South Africa, SMMEs were recognised by the South African government in 1996 when they published the National Small Business Act 102 of 1996 (South Africa National Small Business Act). SMMEs were defined in this Act as separate and distinct enterprises owned by persons, operating within any sector or sub-sector within the economy, and falling within the Schedule criteria stipulated in the Act in terms of number of employees, annual turnover and asset value (National Small Business Act No. 102 of 1996). SMME business development is prioritised (Institute for Economic Justice, 2018) since SMMEs are important to the economy, for example SMMEs are vital in terms of job creation. However, research shows that South African SMMEs have the lowest sustainable growth rate in the world in terms of long-term survival (Masama, 2017), and thus the sustainable growth of taverns is also of concern. Research showed that three in every 10 informal SMME employees in South Africa are employed by taverns (Institute for Economic Justice, 2018). However, a broader study showed that taverns face numerous challenges (Coutsourides, 2024). Despite the critical role taverns play within the informal sector, more research needs to be conducted regarding how these SMMEs could mitigate challenges and therefore understand what could enable the sustainable growth of taverns. An enabler is thus an aspect, such as a factor or resource, that facilitates or accelerates development and progress.

By considering previous studies that were conducted in South Africa (see, for example, Saunders, 2005 as well as Schneider and Enste, 2000), it is evident that informal sector-related research often aims to examine enterprise failure. The need for further research into the growth of South Africa's informal sector was acknowledged by various authors (Charman et al., 2013; Neves and Du Toit, 2012; Skinner, 2006). Further research is needed due to the complexities associated with studying the informal sector and the limited availability of information. This study will, therefore, seek to gather

taverners' perceptions on what enables the sustainable growth of taverns in the Gqeberha liquor industry.

RESEARCH OBJECTIVE

The primary objective of this paper was to assess the *enablers of the sustainable growth of taverns within the Gqeberha liquor industry*. Therefore, it was important to understand the perceptions of tavern owners regarding their enterprises' growth and the aspects that foster or enable it.

LITERATURE REVIEW

Since this study is concerned with taverns' sustainable growth and the enablers thereof, this section elaborates on the nature of the informal sector, South African SMMEs specifically taverns, and sustainable growth.

The nature and role of the informal sector

The informal sector is seen as an economic sector with mainly untaxed enterprises that do not form part of the government's gross national product (GNP), as the government does not closely monitor this sector. The informal sector is prevalent in most developing countries (Ligthelm, van Wyk and De Jager, 2004; Verma, 2006). Most who trade in this sector are not there by choice but do so as they want to survive, due to the inability to find a job within the formal sector (Rakabe, 2020). Most enterprises in the informal sector are not regulated, registered, taxed, or socially protected, and provide no job security (Statistics South Africa, 2007). Informal enterprises are often described as having low-income streams and low levels of productivity; small turnovers and low levels of realised profits; small workplaces that are unsafe and unhealthy to work in; no job security, healthcare, provident funds and pensions (Statistics South Africa, 2012). However, despite these characteristics, the contribution of the South African informal sector towards employment, livelihood, and income for South Africa should not be underestimated (van Wyk and van Gaalen, 2021). Typical enterprises within the informal sector are taverns, spaza shops, car mechanics and street vendors, and most of these enterprises are poorly regulated and have poor social protection (Informal Economy, 2015).

Overview of Small Medium and Micro Enterprises and taverns

The Department of Trade and Industry (2015) (DTIC) states that the government regards SMMEs as a broad range of enterprises, including those formally registered and those operating in the informal sector. Taverns operate in urban areas promulgated as townships (Scheba and Turok, 2020:79). According to Petersen and Charman (2018:564) as well as Cant and Rabie (2018:229), township enterprises are considered informal because they generally lie outside the legal and institutional regulatory framework. Barring direct employment, township SMMEs, many of which are taverns, play a substantial role in fulfilling social protection and allowing business-to-business relationships between neighbours. SMMEs in townships are often overlooked as an important contributor to a country's economic growth and development (Cant and Rabie, 2018:227). SMMEs

operating within the liquor industry in townships are the main concern of this study. The liquor industry includes all enterprises involved in liquor manufacturing, distribution and sale. A tavern is a place (enterprise) whose main business is selling liquor, food, and various forms of entertainment that operate only within the informal liquor industry. Taverns are regulated by the DTIC and licensed by provincial authorities like the Eastern Cape Liquor Board (ECLB), whereas shebeens are viewed as unregulated and unlicensed. A tavern (part of the informal sector) is the equivalent of a bar found in the formal sector (Gauteng Liquor Board, 2003; Western Cape Government, 2016).

Sustainable growth and theoretical underpinning of the study

This study particularly focuses on the sustainable growth of taverns within the informal sector. Sustainability refers to the ability to maintain the status quo and to grow in the areas of economic, environmental and social impact (Ajmal, Khan, Hussain and Helo, 2017:9). Put another way, sustainable growth refers to the ability of an enterprise to increase its revenue and profit consistently over time while being socially responsible, environmentally conscious, and economically viable over the long term (Eccles, Ioannou and Serafeim, 2014:2835-2837). It involves achieving growth objectives while also considering the impact on stakeholders, the environment, and the overall well-being of society (Safdie, 2023). Sustainable growth also refers to an enterprise's ability to increase its profitability while simultaneously considering minimising its impact on the environment, society, and future generations, which involves balancing economic growth, social responsibility, and environmental stewardship (Spiliakos, 2018). Prominent theories of sustainable growth, such as Institutional Theory (DiMaggio and Powell, 1983), Diffusion of Innovation Theory (Rogers, 2003) and Stakeholder Theory (Freeman, 1984) offer valuable insights for SMMEs. These theories suggest that SMMEs sustainable growth could be shaped by considering the borders between enterprises and societies, by promoting and transferring innovation as well as by considering how to add value to all stakeholders (Fauzi and Sheng 2020; Freeman & Moutchnik, 2013; Tang, Park, Agarwal and Liu, 2020). By exploring the enablers of sustainable growth of SMMEs, the research seeks to understand how these enterprises can benefit from and contribute to sustainable growth practices, thereby establishing a crucial link between the growth of SMMEs and achieving sustainable growth.

RESEARCH METHODOLOGY

Table 1 shows the study's research design and methodology, according to the research onion by Saunders, Lewis and Thornhill (2019).

TABLE 1: RESEARCH DESIGN AND METHODOLOGY OF THE STUDY

No	Aspect and types/description	Application to study
1	**Research paradigm/philosophy:** Positivism; Critical realism; Interpretivism; Post-modernism; Pragmatism	*Interpretivism* Objective to find various perceptions on what enables the sustainable growth of taverns.
No	**Aspect and types/description**	**Application to study**
2	**Research approach**	*Descriptive research*

	Exploratory research; Descriptive research; Explanatory research		Describes the phenomenon of taverns and their sustainable growth.
3	**Approach to theory development** Deduction Abduction Induction		*Inductive research* Collected data using an interview schedule, studied and interpreted it, and formed an analysis by seeking patterns regarding enablers of sustainable growth for taverns.
4	**Research strategy:** Experiment; Survey; Archival research; Case study; Ethnography; Action research; Grounded theory; Narrative inquiry		*Case study* Interested in perceptions of participants (tavern owners) rather than general perceptions of other industry stakeholders.
5	**Methodological choice:** Mono/single method; Multi/mix method		*Mono-method* Qualitative research Rich/in-depth data obtained from 12 tavern owners through semi-structured interviews.
6	**Time horizon:** Cross-sectional study; Longitudinal study		*Cross-sectional study* Understanding perceptions on sustainable growth of taverns at a specific point in time.
7	**Techniques and procedures (data collection and analysis)**	Population	All Gqeberha tavern owners.
		Probability and non-probability sampling	*Non-probability sampling* *Convenience sampling* – based on accessibility and availability of tavern owners, 12 interviews were suitable as data saturation was reached. *Criterion sampling* – ➢ Own and work in a Gqeberha tavern with a valid liquor license. ➢ Be at least 35 years old (experienced taverners). ➢ Tavern operating for 10 years or more. ➢ Tavern registered with the Department of Trade, Industry and Competition.
		Data collection	*Secondary data collection*: ➢ Relevant books, journals and internet sources were consulted to conduct the literature review and to develop the interview schedule. *Primary data collection*: ➢ In-person semi-structured interviews. ➢ Data recorded through field notes and audio recordings.
		Data analysis	*Thematic analysis* Finding and examining common themes within the data. Focus of themes to be enablers of sustainable growth.
		Ethics	➢ Full ethical clearance ➢ Anonymity of participants. ➢ Confidential information. ➢ Voluntary participation and with-drawl. ➢ Letters: Consent and permission to access property.
Source: Researchers' construction			

EMPIRICAL FINDINGS

Sample description

Most participants were in the 41- to 50-year-old (33%) and 51- to 60-year-old (33%) age groups. Many taverns have been in operation for less than 15 years (84%) and it is concerning that only 16% of the taverns existed or survived for longer than 20 years. The majority of tavern owners received some formal industry training, however most of the participants indicated that they had no prior experience.

Enablers of the sustainable growth of taverns: Tavern owners' views

Based on the participants' perceptions, it was possible to understand the enablers of the sustainable growth of taverns. Some of these enablers are also supported by literature, for example, Bvuma and Marnewick (2020) as well as Santolin, Hameed, Urbinati and Lazzarotti (2023). The insights from the participants' responses are essential for achieving and maintaining sustainable growth in the informal sector, specifically among taverns. The twelve enablers of sustainable growth (see Figure 1) are derived from participants' perceptions and experiences, through their responses, and are discussed below.

FIGURE 1: ENABLERS OF SUSTAINABLE GROWTH OF TAVERNS



Source: Researchers' construction

Establish robust connections

Connections with the community are vital. This involvement creates a sense of belonging among customers, encourages repeat sales, boosts a tavern's reputation, as well as increases its customer base through enhanced loyalty. Nine participants emphasised their contributions to local

employment and community support, with more than 80% of employees hired locally. Participant 1 mentioned: "…*the contribution that I'm doing there, number one, people that are working there are from my neighbourhood… Whenever there's a funeral there, I cater for my neighbours…As a result, I don't have problems with my community there. They are the ones who are there to protect my business.* Participant 3 added: *"I give back to the community…"* This commitment ensures community support for the taverns and enhances their social impact.

Managing relationships with various stakeholders

Relationships with various stakeholders, such as employees, customers, suppliers, financial advisers and regulatory bodies, is crucial. Engaging stakeholders helps understand their needs and expectations, fostering a supportive environment. Participants discussed the importance of maintaining good relationships and involving stakeholders in their operations. Participant 3 stated: *"I give back to the community, it is important to have a good relationship with the community…"* Participant 12 gave another example: "*I was fortunate that my supplier was able to give me an advance in stock whenever there were hard times, and I paid them back."* Seventy-five per cent of the participants mentioned that they seek assistance by using some form of financial adviser. Additionally, ensuring a physically safe environment for stakeholders, also through relationship-building, is crucial for tavern sustainability. Participant 9 stated: *"We trying to support the police…"*

Access to external financing and leveraging

Obtaining external financing is critical for taverners, yet many participants highlighted the difficulties in obtaining loans due to the perceptions of risk. Participant 3 revealed: *"They call it a risky enterprise. That is why most of the companies don't give us credit…, we do have that problem of being excluded from credit facilities, especially in the banks."* Participant 6 stated: *"The bank has not given us a loan; it's not that the business is too risky."* They also indicated that leveraging personal capital sources significantly aids their taverns' financial stability. Specifically, Participant 11 mentioned: *"We have decided that we will be financing our own requirements…"*. According to Participant 9: *"We have overdrafts at the bank and loans on our properties. We own about six properties. So, we take money there, …where we can grow the business."*

Financial literacy and management skills

Skills linked to financial literacy and management are crucial for sustainable growth. Many participants outsourced financial management due to a lack of skills. Participant 2 admitted: *"I think I still need … to learn on that aspect, like budgeting and all that, and financial management."* Participants also revealed that those with financial knowledge managed their enterprises more effectively, but only two participants (17%) indicated that they have the necessary financial skills to manage an enterprise's finances and have in-house financial skills. Sound financial management would ensure efficient use of resources and enable taverns to navigate economic challenges.

Building resilience to external shocks

When shocks hit enterprises, such as COVID-19, readiness is vital for tavern sustainable growth. The pandemic highlighted the importance of having savings and financial buffers to withstand prolonged disruptions. Participant 2 revealed: "…*that sort of crippled us because I borrowed a lot of money from friends to meet those unseen expenses."* Participant 9 mentioned: *"That was a very dark period for us at that time…The stock will expire, and then we will lose all this money. That will cripple us as a business. What we did was have to do alternative things."* It is important to navigate economic downturns better and continue operations despite external pressures.

Implementing effective marketing and fostering innovation and adaptability

Proper marketing as well as innovation and adaptability are crucial for the growth of taverns. Participants noted that marketing of large liquor enterprises is crippling taverns' operations. Participant 1 mentioned: "*The liquor industry is destroying our businesses, townships to be precise. They sell combos and get-one-for-free type of marketing strategy."* Therefore, improved marketing efforts by taverns can boosts their visibility and attract new patrons. Simultaneously, remaining adaptable and open to new trends is essential for staying relevant in a competitive market.

Adequate infrastructure and support with government services

The sustainable growth of taverns requires adequate infrastructure and further support services from the government. During uncertain times this was regarded as even more important, and according to Participant 1: *"…didn't get any government support or relief programmes."* Participant 4 added: *"Our government failed us."* Some revealed how government support could and did assist them, and Participant 11 stated: *"The one for UIF, although it came late, helped a lot because I don't think we could have kept some of the employees if they were getting nothing at all."* Poor infrastructure, such as inadequate roads, drainage systems, and unreliable electricity, increases operational costs and hinders growth. Eleven of participants indicated that the government or municipalities failed to provide adequate support through municipal infrastructure quality. Participant 1 mentioned "…*in my operating street, the main issue we face is with the drainage. It's a recurring problem where our drains are blocked."* Further infrastructure problems are evident from Participant 9: *"The potholes — we can't even operate without forklifts. I've spent a lot of money to make sure that all the holes and all the electricity's with this Eskom thing that is loadshedding and stuff, we must stop operation sometimes."* Participant 2 revealed: "…*we take care of the drainage system in and around us ourselves. We don't wait for the municipality to come and clean the drainage system."* Participants emphasised the need for government support and reasonable regulations, noting challenges such as obtaining licenses. Compliance with health and safety standards, licensing requirements, and other regulations ensures that taverns operate smoothly without interruptions. However, Participant 12 stated: "*That's one of the policies and regulations that impacts us now. With regards to customers coming to buy, as I say, we, according to law, we can only help people that has a licence to buy bulk.*

But there are so a lot of people that show me their applications, … 13 months already they're waiting for their application. What do we do in that case as suppliers? We have to help the people, because if we don't help them, we're not going to make business and that's the impact … with the new regulation."

Crime prevention strategies

Half of the participants reported that they experienced a lot of crime near their taverns. Participant 11 stated: *"When it comes to crime, …there was a lot of crime. People couldn't even walk there without being robbed."* Participants 2 and 3 also mentioned: *"The crime aspect of it…"* and *"That affects the emotion of the customers that are inside…"* Participants thus highlighted the implementing crime prevention strategies to help create a secure environment for customers and employees. Ten participants actively implemented crime prevention strategies.

Diversifying revenue streams

Diverse revenue sources are essential for maximising income and reducing the risks associated with relying on a single source. By expanding their range of services and products, taverns can attract a wider variety of customers, increase overall revenue, and create a buffer against seasonal variations or economic downturns, ensuring more consistent enterprise performance. Based on the participants' activities and revenue ranges it was clear that some enhanced their income through diverse revenue sources, such as hosting events, operating adjacent spaza shops, as well as offering food (butchery sales) and braai facilities.

Embracing sustainable practices

The implementation of sustainable practices is increasingly important for attracting environmentally conscious customers and reducing costs. Participant 12 mentioned: "*In terms of recycling, the non-returnable bottles are packaged separately…And for waste management, I've got many bins."* Participant 10 stated: *"I use my electricity sparingly. Electricity consumption, efficiency conservation."* According to Participant 3: "…*by putting the JoJo, it also helps to save the water."*

Providing exceptional customer service and investing in staff training

Good customer service is key to enhancing customer experience and building loyalty. Well-trained staff who are courteous, attentive, and knowledgeable can impact customer satisfaction. Participants emphasised the need for this: "*I'm incorporating … the training that they offer."* Regular training programmes equip employees with the skills and knowledge needed to perform their roles effectively, ensuring that customers receive the best possible service and fostering a loyal customer base. In this regard, participants even stated that loadshedding damages appliances, which adds to overhead costs and hinders customer service as point-of-sale systems and refrigeration fail.

Building networks and partnerships

It is evident that networks and partnerships with other organisations are crucial for tavern sustainable growth. Participants noted the benefits of stokvels (informal saving clubs) in accumulating capital

and providing mutual support among tavern owners. Participant 6 stated: *"We are tavern owners, we do have a stokvel."* Participant 7 also revealed: "*I do have a group of stokvel with my guys. So, every week we're like give each other R10,000 a week and it rotates. You see, so we get about R90,000 … then it helps with building the stock in your tavern…"* Collaborating with other local enterprises can create synergies and open new growth opportunities, while networking with other industry role players provides valuable insights, resources, and support, helping the tavern innovate and stay competitive. Participant 9 shared an example of this: *"What I do is involve the taverns, ask them to explain to me their problems, and then give them advice regarding how to solve the problem. …I go to the outlets and see what they need for them to grow as well. So sometimes they will need a freezer for ice, and then I will supply the freezer for ice, or sometimes they will need painting on their walls just to make the look and feel of the business better, and then I will provide the paint for them ..."*

Focusing on these enablers requires the implementation of relevant recommendations in taverns within the informal liquor industry.

MANAGERIAL IMPLICATIONS

Table 2 presents the implications, through recommendations, applicable to each of the enablers of taverns' sustainable growth.

TABLE 2: RECOMMENDATIONS LINKED TO ENABLES OF TAVERN'S SUSTAINABLE GROWTH

No	Enabler	Recommendations
1	Establish robust connections	• Participate in community events and support local initiatives • Establish a mentorship programme to encourage peer learning among taverners and other informal traders
2	Managing relationships with various stakeholders	• Engage with informal trading leaders • Engage with police and other law enforcement organisations in the township to ensure good report and a mutual objective of a safe environment
3	Access to external financing and leveraging	• Form relationships with flexible financial institutions • Explore alternative funding sources like smaller financing firms or obtaining credit from wholesalers • Leverage personal capital and assets • Use personal savings, loans against properties and advances from suppliers
4	Financial literacy and management skills	• Upskill financial management abilities in terms of budgeting, financial planning, and maintaining accurate records
5	Building resilience to external shocks	• Conduct constant financial planning for unexpected events • Maintain financial reserves for unexpected financial challenges

6	Implementing effective marketing and fostering innovation and adaptability	• Employ a variety of marketing strategies, through different tools, such as by using social media platforms, local advertising, and promotional events • Continuously seek to innovate by introducing new products, updating menus, and creating unique experiences that cater to evolving customer preferences
7	Adequate infrastructure and support with government services	• Government should facilitate access to finance through grants, low interest loans and guarantee schemes • Training programmes to improve business (including financial) management skills could be provided to tavern owners by local education institutions or via online platforms • Government or businesses should provide support in the form of affordable internet access and essential utilities • Simplify the regulatory environment for taverns, for example the process of granting permits, and provide tax incentives • Involve informal trading leaders when granting permits, since they possess knowledge about the currently occupied- and required trading space in each township • Protect taverns against unfair competition and monopolies through policies
8	Crime prevention strategies	• Collaborate with community associations and local authorities to develop and enforce safety measures
9	Diversifying revenue streams	• Identify diverse revenue streams (in addition to liquor sales) by broadening offerings to include food services, hosting live entertainment, organising events, and selling merchandise
10	Embracing sustainable practices	• Adopt a variety of eco-friendly measures, including recycling, waste minimisation and the use of energy-efficient equipment • Engage in pollution prevention practices, such as proper waste disposal, reducing emissions, and maintaining cleanliness • Implement recycling initiatives, including separating and properly disposing of recyclable materials • Incorporate the use of energy-saving appliances and alternative energy sources • Especially in areas facing water scarcity, implement water conservation practices like rainwater harvesting and efficient water usage
11	Providing exceptional customer service and investing in staff training	• Invest in staff training and development to improve the quality of service delivery and operational efficiency
12	Building networks and partnerships	• Establish networks and support systems, such as stokvels • Negotiate with formal enterprises to provide goods on credit • The financial services industry could assist in establishing an informal traders' bank

Source: Researchers' construction

If taverns implement these recommendations, the enablers for their sustainable growth would be in place, and thus the long-term success of these enterprises could be enhanced.

CONCLUSION

This study aimed to assess the enablers of the sustainable growth of taverns in the Gqeberha liquor industry. The study investigated the enablers of sustainable growth based on the perceptions of tavern owners trading in the informal sector within a particular geographical area and time. Future research could consider taverns in other districts and provinces of South Africa to compare the enablers of sustainable growth in other influential townships where there may be differences in infrastructure, customers, and regulatory environments. In addition, the sustainable practices and strategies of taverns could evolve over time, and their long-term impact on taverns' viability and community welfare could be researched.

Despite these limitations, that make way for future research, the paper contributes to SMMEs in the informal sector. By focusing on the perceptions and experiences of tavern owners, this study sheds light on the enablers or aspects that contribute to these enterprises' sustainable growth. Specifically, the identified enablers for sustainable growth provide actionable insights and practical strategies that can enhance the viability and success of taverns. The study's contribution to a deeper understanding of these enablers could contribute to taverns' economic, social and environmental impact, thus their sustainable growth. The recommendations related to the enablers, presented in the study, offer a hopeful vision for the future, where taverns can thrive and continue to play a vital role in their communities and the economy through long-term survival and success. This research stands as a testament to the potential for growth and improvement within the informal sector, particularly among taverners within the liquor industry.

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THE IMPACT OF DELEGATION CHALLENGES ON SME PERFORMANCE IN SOUTH AFRICA: A LEADERSHIP AND ORGANIZATIONAL PERSPECTIVE

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ABSTRACT

Delegation is a vital managerial function that influences the operational effectiveness and strategic growth of Small and Medium Enterprises (SMEs). In South Africa, where SMEs are key to economic development and job creation, delegation-related leadership and organizational challenges can significantly impact performance. This study explores the effects of delegation challenges on SME performance from a leadership and organizational perspective using a qualitative design. Drawing on qualitative data from semi-structured interviews with SME owners and managers across diverse sectors, the research identifies key barriers to effective delegation, including trust deficits, skill gaps, and hierarchical rigidity. Data were gathered through in-depth interviews with 15 SMEs owner-managers and key staff across various industries. Thematic analysis revealed that ineffective delegation is driven by leadership insecurities, inadequate training, and rigid organizational structures. The findings reveal that a lack of effective delegation stems from leadership insecurities, insufficient training, and structural rigidity, which collectively hinder productivity, and staff empowerment. The findings reveal that poor delegation undermines operational efficiency, stifles innovation, and limits employee development, ultimately constraining business growth. The study contributes to the body of knowledge on SME sustainability by offering practical insights into how targeted leadership development and organizational restructuring can enhance delegation practices and improve overall performance.

Keywords: delegation; SME performance; South Africa; leadership challenges; organizational perspective

INTRODUCTION

Small and Medium Enterprises (SMEs) form the backbone of South Africa's economy, contributing significantly to employment, innovation, and GDP growth (Lloyd, 2002; Saah, 2021; Enaifoghe & Ramsuraj, 2023). Despite their crucial role, many South African SMEs face persistent operational and leadership challenges that hinder their sustainability and performance. One of the most pressing yet underexplored issues is the challenge of effective delegation to a fundamental leadership

function critical to operational efficiency, employee development, and organizational growth (Enaifoghe & Vezi-Magigaba, 2023). Delegation refers to the process by which leaders assign responsibility and authority to subordinates to carry out specific tasks while retaining overall accountability (Enaifoghe, 2023). In theory, delegation empowers employees, enhances decision-making, and enables leaders to focus on strategic priorities (Tsatsenko, 2020). However, in practice, many SME owner-managers in South Africa struggle with entrusting others due to factors such as a lack of managerial capacity, fear of losing control, inadequate training, and underdeveloped organizational structures (Muriithi, 2017; Enaifoghe, 2023). These delegation challenges can lead to micromanagement, employee disengagement, poor time management, and suboptimal performance outcomes.

Research indicates that the leadership style and delegation practices of SME owner-managers are strongly correlated with firm performance (Wang & Poutziouris, 2010; Amoah-Mensah & Darkwa, 2020). Autocratic or overly centralized leadership approaches, commonly observed in resource-constrained SMEs, often result in low employee motivation and missed opportunities for innovation and growth (Herrington & Kew, 2016). On the other hand, transformational and participative leadership styles, which promote trust and shared decision-making, have been associated with better delegation and higher organizational performance (O'Regan, Sims & Ghobadian, 2005; Oliveira, Escrivão Filho, Nagano & Ferraudo, 2015; Amoah-Mensah & Darkwa, 2020). However, the translation of such leadership theories into practical, sustainable delegation models within South African SMEs remains a gap in the literature. The organizational perspective further highlights how delegation is shaped by internal systems, communication structures, and human resource capacity (Dorasamy & Kikasu, 2024). Many South African SMEs operate in informal or semi-formal contexts where standardized procedures and performance monitoring systems are either weak or nonexistent (Mohd Sam, Tahir & Abu Bakar, 2012). This lack of organizational maturity complicates the delegation process, as tasks are not clearly defined, responsibilities are not well allocated, and feedback loops are ineffective ((Herrington & Kew, 2016). Furthermore, the high failure rate of SMEs in South Africa estimated at between 70% and 80% within the first five years points to the urgent need to examine leadership functions such as delegation as part of broader capacity-building efforts (Oliveira *et al*., 2015).

While several studies have examined SME leadership, few have focused specifically on the *delegation* dimension and how its challenges impact organizational performance in the South African context (Dzomonda, Fatoki & Oni, 2017; Beneke, Blampied, Dewar & Soriano, 2016). Mhlongo & Daya, 2023). Moreover, most research tends to generalize findings across different business sizes and sectors, without paying sufficient attention to the nuances of leadership practice in SMEs (Serfontein, 2010). This study, therefore, seeks to fill a critical gap by investigating the impact of delegation challenges on SME performance from both leadership and organizational perspectives. It aims to understand the causes of poor delegation, the effects on organizational outcomes such as

efficiency, innovation, and employee engagement, and the strategies that SME leaders can employ to delegate more effectively. By focusing on the South African SME sector, this study will contribute to both theoretical and practical understandings of leadership development in emerging economies. It will also offer actionable insights for SME owner-managers, policymakers, and support institutions working to improve business performance and sustainability in the country.

PROBLEM STATEMENT AND RATIONALE

Despite the acknowledged benefits of delegation, its implementation within South African SMEs remains inconsistent and problematic. Leadership in these enterprises is often overwhelmed by operational duties, limiting strategic focus and innovation. The persistent challenges around trust, capacity building, and communication impede the delegation process, thereby affecting performance. This research seeks to explore the impact of delegation challenges on SME performance in South Africa, with a specific focus on leadership behaviors and organizational structures that either facilitate or hinder effective delegation.

Small and Medium-sized Enterprises (SMEs) are widely recognized as key drivers of economic growth, job creation, and innovation in South Africa. However, their long-term sustainability remains a critical challenge. Recent studies estimate that 70% to 80% of South African SMEs fail within the first five years of operation, primarily due to internal management inefficiencies, including poor leadership practices and inadequate delegation of responsibilities. Delegation a core managerial function is often overlooked or poorly executed in SME contexts, where business owners typically assume multiple roles with limited support structures. This leads to operational bottlenecks, employee disengagement, and poor decision-making, which collectively undermine business performance and growth potential. Despite the centrality of delegation in effective leadership, limited empirical research exists on how delegation challenges manifest within South African SMEs and how they affect organizational performance. Addressing this gap is essential for developing practical interventions that can strengthen SME resilience and sustainability. In short, the inability to delegate effectively is a critical yet underexplored factor contributing to the high failure rate of SMEs in South Africa.

RESEARCH AIM

The aim of this study is to examine how delegation challenges influence the performance of SMEs in South Africa from a leadership and organizational perspective. The specific objectives are to:

Identify common delegation challenges faced by SME leaders.
Explore leadership practices that support or inhibit effective delegation.
Recommend strategies to improve delegation practices for enhanced SME performance.

Research Questions

(1) What are the key delegation challenges experienced by SME leaders in South Africa?

How do these challenges affect organizational performance and employee outcomes?

How can SMEs overcome delegation-related barriers to enhance performance?

LITERATURE REVIEW

Understanding Delegation in SMEs

Definition and Importance of Delegation

Delegation is a fundamental managerial function defined as the process by which authority and responsibility for specific tasks are transferred from a superior to a subordinate (Kafaji, 2020). This process enables managers to focus on strategic tasks while empowering employees to take ownership of operational activities. Effective delegation involves three core components: assigning responsibility, granting authority, and establishing accountability (Bouaynaya, 2020). These components create a structured framework for task execution that can lead to enhanced productivity, employee development, and organizational efficiency. From a human resource development perspective, delegation is not only a tool for workload distribution but also a critical mechanism for fostering employee engagement and competence. It provides subordinates with opportunities to develop decision-making capabilities, expand their skillsets, and gain confidence in their roles (Martin, McKelvie & Lumpkin, 2016). This developmental function is especially significant in dynamic business environments where agility and adaptability are essential. Moreover, research indicates that organizations that foster a culture of delegation tend to be more innovative and resilient (Mathebula & Barnard, 2020).

Delegation encourages knowledge sharing, creativity, and collaborative problem-solving, which are essential for navigating complex market environments. In sum, delegation is vital not only for optimizing managerial effectiveness but also for cultivating empowered and skilled human capital a key driver of sustained business performance. While the principles of delegation are applicable across all organizational types, their application in Small and Medium Enterprises (SMEs) presents unique considerations. SMEs in South Africa are characterized by flat hierarchies, limited specialization, and often centralized decision-making processes (van Wyk & Venter, 2023). These features influence how delegation is understood and practiced within such enterprises. In many SMEs, the owner-manager assumes multiple roles, including strategic leadership, financial management, and operational oversight (Mathebula & Barnard, 2020). This multitasking reality often leads to a reluctance to delegate, as owners may perceive delegation as a loss of control or fear that subordinates lack the capacity to handle responsibilities effectively (Bouaynaya, 2020).

Additionally, the informal nature of many South African SMEs means that formal structures for performance monitoring and task accountability may be underdeveloped, further complicating the delegation process. Nevertheless, effective delegation in SMEs is crucial for business scalability and sustainability. Studies have shown that SMEs that adopt systematic delegation practices are better

positioned to manage growth, reduce managerial burnout, and enhance employee satisfaction (Martin *et al*., 2016). Delegation enables SME leaders to focus on long-term strategy while entrusting day-to-day operations to competent team members a balance that is essential for navigating competitive markets. Moreover, South Africa's socio-economic environment with its emphasis on entrepreneurship for job creation and poverty alleviation places added pressure on SMEs to develop internal leadership pipelines (SEDA, 2023). In this context, delegation serves as a vital strategy for developing future leaders from within the organization, thereby ensuring continuity and resilience.

Delegation and Leadership Theory

Effective delegation is deeply intertwined with leadership. Delegation not only reflects a leader's ability to share authority and empower subordinates but also serves as a means through which leadership is enacted and distributed within organizations (Mirkhan, Omer, Ali, Hamza, Rashid & Nedunchezhian, 2024). Various leadership theories provide insights into how delegation is conceptualized, practiced, and perceived in different organizational settings, including SMEs. This section explores key leadership theories and their relevance to delegation processes.

Trait and Behavioral Theories of Leadership

Early leadership theories such as the Trait Theory focused on identifying inherent qualities that make individuals effective leaders. Traits such as confidence, integrity, and decisiveness were considered predictive of a leader's capacity to manage and delegate tasks successfully (Klein, Ziegert, Knight & Xiao, 2006). While this theory does not directly prescribe delegation practices, it implies that leaders with specific traits may be more predisposed to trust subordinates and share authority. Behavioral theories, in contrast, emphasize what leaders do rather than what traits they possess. Two dominant styles identified in these theories are task-oriented and relationship-oriented leadership. Task-oriented leaders tend to emphasize structure, roles, and performance, often delegating with strict oversight and control. Relationship-oriented leaders, on the other hand, prioritize trust, support, and employee development, which fosters a more empowering approach to delegation (Norris, Ghahremani & Lemoine, 2021). This theoretical lens is particularly relevant for SMEs, where the relational dynamic between the owner-manager and employees is often close and informal.

Situational and Contingency Leadership Theories

Situational leadership theory, developed by Khan, Bhat & Hussanie, (2017), argues that effective leadership and by extension, effective delegation depends on the readiness and maturity of the follower. According to this model, leaders must adapt their delegation strategies based on the subordinate's competence and commitment. For example, a highly competent but unmotivated employee may require participative delegation with motivational support, while a new employee may need directive leadership with limited delegation. Contingency theories, such as Fiedler's Contingency Model, also assert that there is no one-size-fits-all approach to leadership. The effectiveness of delegation is seen as contingent on factors such as the leader-member relationship,

task structure, and the leader's positional power (Fiedler, 2015). In SMEs, these variables are often fluid roles are multifunctional, power is centralized, and relationships are personalized requiring owner-managers to exercise flexible and situational judgment when delegating. These theories highlight that in SME environments, delegation must be tailored to the maturity, skill levels, and trustworthiness of the team, and the contextual demands of the organization.

Transformational leadership theory

Transformational leadership theory, articulated by Flynn, (2009), is highly relevant to the practice of delegation. Transformational leaders inspire and empower their followers by articulating a compelling vision, stimulating intellectual engagement, and providing individualized consideration. Delegation under this model is developmental and motivational it seeks to cultivate leadership capacity within the organization. Such leaders are more likely to delegate strategic tasks and decision-making authority, trusting that empowered employees will rise to the challenge. In contrast, transactional leadership is based on structured exchanges: tasks are delegated with clearly defined rewards or penalties. While this model allows for operational delegation, it may not foster deep trust or creativity, which can limit innovation and long-term employee development (Ayman & Lauritsen, 2018). In the context of SMEs, a purely transactional approach may result in short-term efficiency but hinder adaptability and succession planning. South African SMEs operating in volatile or uncertain environments may benefit more from transformational approaches, which promote innovation, autonomy, and resilience especially when owner-managers use delegation as a tool for leadership development and organizational learning.

Leader-Member Exchange (LMX) Theory

The Leader-Member Exchange (LMX) theory focuses on the quality of relationships between leaders and individual subordinates. It posits that leaders form unique dyadic relationships with each team member, and the quality of these relationships influences how responsibilities are delegated (Bauer, 2015). High-quality LMX relationships are characterized by mutual trust, respect, and obligation, facilitating greater delegation of complex and meaningful tasks. In contrast, low-quality LMX relationships often result in minimal delegation or routine task assignment. This theory is particularly salient for SMEs, where interpersonal relationships are more pronounced due to smaller team sizes and informal structures (Anand, Hu, Liden & Vidyarthi, 2011). In many South African SMEs, employees may work closely with owner-managers, leading to either strong or strained dyadic relationships that directly affect the extent and quality of delegation. LMX theory also implies that improving delegation practices in SMEs requires attention to relationship-building, inclusive communication, and equitable distribution of developmental opportunities.

Servant Leadership

Servant leadership, as introduced by Coetzer, Bussin and Geldenhuys, (2017), emphasizes the leader's role as a servant first prioritizing the growth and well-being of employees and communities.

Delegation within this framework is inherently developmental and ethical, reflecting the leader's trust in their team and commitment to collective empowerment. Servant leaders delegate not merely to reduce workload but to enhance employee capabilities and confidence. This leadership style aligns well with the cultural and social dynamics of many South African SMEs, especially those rooted in values of Ubuntu, which emphasize interconnectedness, mutual respect, and collective responsibility (Spears & Lawrence, 2001). Through servant leadership, delegation becomes a means of cultivating inclusive leadership practices and shared organizational ownership.

Organizational Structure and Delegation Dynamics in SMEs

Delegation does not occur in a vacuum; it is heavily influenced by the internal configuration of the organization. In small and medium-sized enterprises (SMEs), delegation dynamics are shaped by unique structural, cultural, and operational factors. SMEs are typically characterized by flat structures, centralized decision-making, and a lack of formalized policies, all of which influence how delegation occurs (Marín-Idárraga & Hurtado González, 2021). The informality in organizational structures can hinder the systematic assignment of roles and responsibilities, thereby affecting performance outcomes. According to Kovaçi, Tahiri, Bushi and Zhubi, (2021), in South African SMEs, organizational success is frequently dependent on the entrepreneur's personal involvement, which inadvertently limits delegation. This bottleneck undermines long-term growth by preventing operational scalability. This section critically examines how organizational structure, internal alignment, and organizational learning affect delegation in SMEs, especially in South Africa.

SMEs typically operate with flat organizational structures, characterized by fewer hierarchical levels, informal communication channels, and close-knit teams (Fu, Chang & Wu, 2001). This flatter design, while promoting agility and quick decision-making, often results in centralized control, where decision-making authority is concentrated in the hands of owner-managers or senior leaders (Kovaçi *et al*., 2021). In such environments, delegation may be underutilized due to the perceived risks associated with relinquishing control. Owner-managers, often driven by a strong personal investment in the enterprise, may prefer to "do it themselves" rather than entrust critical tasks to subordinates (Marín-Idárraga & Hurtado González, 2021). This tendency, although understandable, can lead to bottlenecks, overwork at the top, and underutilization of employee potential. Moreover, structural informality may blur lines of authority and accountability. However, when roles are well-delineated even within a flat structure delegation becomes more systematic and empowering. SMEs that maintained clearly articulated decision-making hierarchies, even within flexible teams, were better able to delegate responsibilities effectively and support employee initiative.

In SMEs, where formal training may be limited, on-the-job learning, coaching, and peer support become essential in preparing employees for delegated responsibilities. A culture of continuous learning ensures that employees remain adaptable and capable of managing increasingly complex tasks (Fu, Chang & Wu, 2001). This is particularly relevant in the South African SME landscape,

where skills shortages and education gaps often limit delegation effectiveness (Kovaçi *et al*., 2021). SMEs that invest in internal knowledge management systems (even informal ones such as shared folders, peer learning sessions, or regular team debriefs), are better able to ensure that knowledge is retained and transferred, thus supporting consistent delegation practices. This is especially vital in high-turnover or growing SMEs where institutional memory may otherwise be lost.

Barriers to Effective Delegation in the South African SME Context

Research reveals that SMEs in South Africa face distinct challenges in practicing effective delegation. These include a lack of skilled human capital, mistrust between owners and employees, and cultural attitudes towards authority and autonomy (Jere, Jere & Aspeling, 2015). Furthermore, limited access to training and development exacerbates the problem, as employees may lack the competence or confidence to take on delegated responsibilities (Dubihlela & Omoruyi, 2014). Leadership reluctance driven by fear of failure or loss of control also plays a central role in impeding delegation efforts. These challenges are deeply rooted in the broader structural, economic, and technological realities facing the sector. This study explores three major barriers that hinder effective delegation in South African SMEs, inadequate managerial competencies, resource constraints, and technological limitations. One of the most pressing barriers to effective delegation in South African SMEs is the lack of appropriate managerial competencies. Delegation requires more than merely assigning tasks; it demands the ability to identify suitable employees, communicate expectations clearly, monitor progress without micromanaging, and provide constructive feedback (Jobo & Phyllis, 2020). However, many SME owner-managers in South Africa operate with limited or no formal managerial training (Jere *et al*., 2015). This skills gap is particularly significant in emerging economies, where entrepreneurship is often driven by necessity rather than opportunity.

According to Phaladi, (2024), many South African SMEs are run by first-time entrepreneurs who lack foundational skills in leadership, planning, and supervision. These limitations impair their ability to design systems for structured delegation and to trust others with critical tasks. Furthermore, delegation is deeply tied to emotional intelligence, an area in which many managers fall short. Trust, empowerment, and letting go of control are emotional and psychological hurdles that are not easily overcome without self-awareness and interpersonal competence (Zondi, 2017). For instance, Enaifoghe, (2023) found that South African SME managers often exhibit a preference for control, which stems from both insecurity and fear of failure. Effective delegation today increasingly relies on digital tools and systems for communication, monitoring, collaboration, and performance tracking. However, in the South African SME context, technological underdevelopment continues to undermine these processes (Mabunda & Swarts, 2020).

In many SMEs, especially those in informal sectors or rural settings, access to reliable internet, modern software systems, and digital project management tools is limited. Effective delegation is a critical driver of operational efficiency, employee satisfaction, and overall business growth. However,

many SMEs, especially in South Africa, struggle with overcoming delegation barriers due to leadership limitations, resource constraints, and organizational inefficiencies. Addressing these challenges requires a multi-faceted approach. This section examines three key strategies for overcoming delegation challenges in SMEs: leadership development, process improvement, and technology adoption. Leadership development plays a central role in overcoming delegation challenges. Leaders within SMEs often face difficulties in delegating because of inadequate leadership and delegation skills. Training programs aimed at enhancing these skills can significantly improve delegation practices and, in turn, SME performance. Effective leaders must have a clear understanding of what tasks can be delegated and to whom, and be comfortable letting go of control. Leadership training programs that focus on delegation skills can teach managers how to match tasks with appropriate employees based on skills, experiences, and development goals. According to Van Eeden, Viviers and Venter (2004), the lack of leadership competence in delegation is a common challenge faced by SMEs in South Africa, especially in family-run businesses where leaders often take on too much. By educating managers on effective communication, trust-building, and decision-making, SMEs can cultivate leaders who are confident in their delegation decisions.

In addition to formal training programs, mentorship and coaching also play a crucial role in improving delegation. A mentor or coach can guide SME leaders in making strategic decisions about delegation, helping them identify areas where delegation is needed and how it can be done efficiently. According to Phaladi, (2024), mentorship programs in South African SMEs have been successful in developing leadership skills, particularly in delegating tasks and empowering employees. The development of leadership skills is particularly important in SMEs, where leaders often play a central role in every aspect of the business. As SMEs generally operate with limited management layers, empowering leaders with delegation skills ensures a more effective distribution of responsibilities across the workforce. As noted by Van Eeden *et al*., (2004) leadership development programs should emphasize the importance of trusting employees, empowering staff, and creating a culture of accountability.

RESEARCH METHODOLOGY

Research Design

This study employed a qualitative research design, guided by an interpretivist paradigm. The interpretivist approach was chosen because it allows for the exploration of the subjective experiences, perspectives, and meanings that SME owners and managers attach to delegation practices and their impact on organizational performance. A qualitative design enabled the researcher to delve deeply into the complex leadership and organizational dynamics associated with delegation in the South African SME context.

Research Approach

An exploratory case study approach was adopted to investigate the delegation challenges within South African SMEs. This approach is appropriate for examining phenomena that are not yet fully understood, particularly within real-life contexts. By focusing on SME owners and managers, the study sought to uncover patterns, behaviors, and barriers that influence delegation practices from a leadership and organizational viewpoint.

Population and Sampling

The target population consisted of SME owners and senior managers operating in various sectors across Gauteng provinces in South Africa. These provinces were selected due to their high concentration of SMEs. A purposive sampling technique was used to select participants who have relevant experience with delegation and strategic decision-making in SMEs. The inclusion criteria required that participants should be owners, co-owners, or top-level managers in an SME, have at least 3 years of experience in a leadership role, operate within the SME sector as defined by the National Small Business Act of South Africa. A total of 15 participants were selected to provide rich, diverse insights into the delegation challenges experienced in different industries (e.g., retail, manufacturing, and agriculture).

Data Collection

Semi-structured interviews served as the primary data collection method. Interviews allowed for flexibility while ensuring consistency across themes relevant to the research questions. An interview guide was developed, covering topics such as the nature and process of delegation in the SME, challenges experienced when delegating tasks, the perceived impact of these challenges on business performance, and strategies used to mitigate delegation issues. Each interview lasted approximately 45 to 60 minutes and was conducted either in-person or virtually, depending on participant availability and location. All interviews were audio-recorded with participant consent and transcribed verbatim for analysis.

Data Analysis

The data were analyzed using Thematic Analysis, following the six-phase framework developed by Braun and Clarke (2006), familiarization with the data through reading and re-reading transcripts, generating initial codes by identifying recurring ideas, searching for themes by grouping related codes, reviewing themes to ensure they accurately represented the data, defining and naming themes to capture the essence of each pattern, producing the report by integrating themes into the final research narrative. NVivo 12 software was used to assist in coding and organizing qualitative data for ease of analysis and traceability. To ensure credibility, member checking was employed where participants were given the opportunity to review interview summaries for accuracy. Transferability was supported through detailed descriptions of the context and participants. Dependability was ensured by maintaining an audit trail of decisions, interview guides, and coded

data. Confirmability was enhanced by reflexive journaling to reduce researcher bias and maintain objectivity.

Ethical Considerations

Ethical approval was obtained from the university of Johannesburg from the ethics clearance committee. Participants were informed of the purpose of the study, their right to withdraw at any point, and the measures taken to ensure confidentiality. Informed consent was obtained before data collection, and pseudonyms were used to protect identities.

Thematic Analysis

The thematic analysis of the data collected from 15 SME owners in South Africa revealed several key themes related to the challenges and impact of delegation on SME performance. The themes were identified from semi-structured interviews and focus group discussions, which explored leadership styles, delegation practices, organizational structure, and performance outcomes. Below are the key themes identified, along with the responses from SME owners.

TABLE 1: THE IMPACT OF DELEGATION CHALLENGES ON SME PERFORMANCE IN SOUTH AFRICA

Themes	Sub Themes
Trust and Leadership Styles	Lack of Trust in Employees Autocratic Leadership Style
Resource Constraints and Delegation	Financial Constraints Insufficient Training and Skill Development
Delegation and Organizational Structure	Informal Organizational Structures Ambiguity in Roles
Operational Inefficiencies and Decreased Productivity	Overloaded Management Reduced Employee Engagement and Morale Limited Innovation and Growth
Improving Leadership and Process Efficiency	Leadership Development and Training Process Streamlining Leveraging Technology

Source: Author Compilation 2025.

FINDINGS

Leadership and Delegation Challenges

Research Question: What are the main delegation challenges faced by SME owners in South Africa?

Theme: **Trust and Leadership Styles**

Sub-theme 1: Lack of Trust in Employees

"I find it difficult to delegate certain tasks because I worry the employees won't do it properly. I have had issues in the past where delegated tasks weren't completed to my standards." (Owner 1)

"As an SME owner, you end up doing most things yourself because you don't always trust your team to take on responsibility." (Owner 3)

A significant number of SME owners reported that **lack of trust** in employees is a key challenge that hinders effective delegation. Many owners expressed a tendency to hold onto tasks themselves because they feared employees would not perform at the same level of quality or efficiency. For instance:

Sub-theme 2: Autocratic Leadership Style

"I tend to be a bit of a control freak. I feel more comfortable handling the decisions myself rather than delegating them." (Owner 4).

Some SME owners described their leadership style as more **autocratic**, often taking full control over key decisions and operations. This style was reported to limit delegation, as owners often made decisions independently rather than involving their employees. One respondent stated:

Resource Constraints and Delegation

Research Question: How do resource constraints affect delegation practices in SMEs?

Theme: **Limited Resources**

Sub-theme 1: Financial Constraints

Many SME owners identified financial constraints as a significant barrier to delegation. Limited budgets prevent them from hiring additional staff or investing in technology to support delegation processes. One respondent shared:

"We just don’t have the resources to employ the number of staff that could take on some of these responsibilities. It becomes very hard to delegate when you have fewer hands on deck." (Owner 5)

Sub-theme 2: Insufficient Training and Skill Development

Several SME owners emphasized the lack of proper training as a barrier to effective delegation. With limited budgets, owners often cannot afford to invest in skills development for their employees. For instance:

"Our staff members are great, but they lack training in certain areas. Because of this, I hesitate to delegate tasks that require special skills." (Owner 2)

"The budget is tight, and we can't afford to provide the kind of training that would make delegation easier." (Owner 8)

Delegation and Organizational Structure

Research Question: How does the organizational structure in SMEs impact delegation practices?

Theme: **Flat Hierarchies and Informality**

Sub-theme 1: Informal Organizational Structures

Most SMEs in the study operated with flat hierarchies and informal structures, which contributed to both the challenges and opportunities of delegation. While some owners valued the flexibility of a flat structure, others found it hard to establish clear lines of responsibility. One owner explained:

"We don't have a formal structure in place, and sometimes this makes it difficult to assign clear responsibilities. People end up doing things that are outside of their role because there's no clear delegation process." (Owner 7)

Sub-theme 2: Ambiguity in Roles

Another recurring issue was the ambiguity in roles and responsibilities. Several owners reported that employees were unsure about their specific tasks, which often led to confusion and inefficiency. One SME owner commented:

"In a small business, everyone does a bit of everything. It's not always clear who is supposed to do what, which creates challenges in delegating effectively." (Owner 6)

Impact of Delegation Challenges on SME Performance

Research Question: How do delegation challenges affect SME performance in South Africa?

Theme: **Operational Inefficiencies and Decreased Productivity**

Sub-theme 1: Overloaded Management

Many SME owners reported feeling overloaded with tasks due to their reluctance to delegate. This led to operational inefficiencies and a slowdown in productivity. One owner shared:

"I'm doing too many things at once, and it's slowing down the overall operations of the business. I should be focusing on growing the business, not handling every little task." (Owner 10)

Sub-theme 2: Reduced Employee Engagement and Morale

A few owners noted that the failure to delegate impacted **employee morale** and **engagement**. Employees often felt disempowered and disengaged when they were not entrusted with important tasks. One respondent explained:

"When I don't delegate effectively, my team feels that they are not trusted to handle anything significant. It hurts their motivation." (Owner 12)

Sub-theme 3: Limited Innovation and Growth

Several owners pointed out that lack of delegation stifled innovation and growth, as leaders were bogged down by routine tasks and could not focus on strategic development. As one respondent shared:

"I am unable to innovate or think about growth because I am always stuck in day-to-day tasks. Delegation would free up time to focus on the big picture." (Owner 9)

Strategies for Overcoming Delegation Challenges

Research Question: What strategies can SMEs adopt to overcome delegation challenges?

Theme: **Improving Leadership and Process Efficiency**

Sub-theme 1: Leadership Development and Training

Most SME owners agreed that improving leadership and delegation skills was crucial for overcoming challenges. Many expressed the need for leadership training to enhance their delegation practices. One SME owner noted:

"We need more leadership training to learn how to delegate effectively. It's something we don't prioritize, but it's necessary for business growth." (Owner 14)

Sub-theme 2: Process Streamlining

Several owners indicated the need for better-defined delegation processes to ensure clarity in roles and tasks. Some suggested the adoption of standard operating procedures (SOPs) to guide task delegation. One participant mentioned:

"We need to streamline our processes so that delegating tasks is clear and consistent. Having procedures in place would make it easier." (Owner 13)

Sub-theme 3: Leveraging Technology

Some SME owners recognized the potential of technology in enhancing delegation by improving communication and task management. One SME owner stated:

"We need to invest in tools that can help us delegate more efficiently, like project management software. It would make things easier and more organized." (Owner 15)

The findings from the thematic analysis of interviews with 15 SME owners in South Africa highlight several key challenges in delegation, including lack of trust, resource constraints, and informal organizational structures. These issues impact operational efficiency, employee morale, and business growth. However, the study also identified potential strategies for overcoming these challenges, such as leadership development, process streamlining, and technology adoption. These findings hightlight the importance of effective delegation in improving SME performance and suggest that targeted interventions in leadership and organizational processes could help overcome delegation barriers.

DISCUSSION OF FINDINGS

This study aimed to explore the delegation challenges faced by SME owners in South Africa and their impact on business performance, focusing on the leadership and organizational perspectives. The thematic analysis of interviews with 15 SME owners provided insights into the complex nature of delegation within SMEs, particularly in the context of South Africa's unique business environment.

The findings from this study align with existing literature and contribute to the understanding of delegation practices in SMEs, shedding light on the barriers to effective delegation, the implications for business performance, and potential strategies for improvement. A recurring theme in the findings was the leadership style and its influence on delegation practices. The study found that trust issues were a significant barrier to delegation.

Many SME owners expressed reluctance to delegate important tasks, fearing that employees would not meet their standards. This aligns with Marlow and Patton, (2002) findings that managers often struggle to delegate due to a lack of trust in their team members. Autocratic leadership was also prevalent among the SME owners in the study, with many reporting that they preferred to maintain control over tasks rather than empower employees. Klein *et al*., (2006) Situational Leadership Theory suggests that leaders who adopt autocratic styles may struggle with delegation, particularly when the team members are not given the necessary authority to complete tasks autonomously. This finding highlights a significant challenge for SME owners, as it creates a leadership bottleneck that impedes organizational efficiency. While trust issues and leadership style were identified as barriers, it is important to note that the role of employee competence was also crucial. The lack of training and development for employees, identified as a barrier by several SME owners, further compounds the challenge of delegation. This is consistent with Latham and Norris *et al*., 2021), who emphasize the need for skill development to facilitate effective delegation and employee empowerment.

The findings emphasized the significant role that resource constraints, including financial and human resources, play in hindering delegation practices in SMEs. Limited resources were found to be a key barrier, with SME owners stating that they could not afford to hire additional staff or invest in the necessary training and technology to improve delegation practices. This finding resonates with Kovaçi *et al*., (2021), who argue that SMEs often face financial and staffing limitations, which constrain their ability to delegate effectively. Additionally, the lack of technology adoption was identified as a challenge. Many SME owners reported that inadequate technological infrastructure made communication and task management difficult, leading to inefficient delegation processes. The use of project management tools, communication platforms, and other digital solutions could streamline delegation processes, yet many SMEs were not leveraging these tools. Marín-Idárraga & Hurtado González, (2021) assert that technological limitations are particularly detrimental to SMEs, as they inhibit operational efficiency and hinder effective management.

Another significant theme that emerged from the findings was the impact of organizational structure on delegation practices. The study revealed that most SMEs operated with flat organizational structures, where roles and responsibilities were often ambiguous. While flat hierarchies provide flexibility and a less formal work environment, they can also lead to a lack of clarity regarding task ownership, creating challenges in delegation. Anand *et al*., (2011) theory on organizational structure suggests that SMEs with flat hierarchies often struggle to establish clear lines of authority and

responsibility, which impedes effective delegation. In contrast, the study also highlighted the potential benefits of role clarity and standard operating procedures (SOPs) in enhancing delegation. Establishing clear roles and responsibilities can reduce ambiguity and make it easier for SME owners to delegate tasks. DCoetzer *et al*., (2017), suggest that SMEs that define roles and processes tend to have better delegation outcomes, as employees know what is expected of them and are more empowered to take ownership of tasks.

The findings from the study indicate that poor delegation practices lead to several negative consequences for SMEs, including operational inefficiencies, decreased employee morale, and limited innovation and growth. SME owners reported feeling overwhelmed by the sheer volume of tasks they had to handle, which often led to delays and reduced productivity. This finding is consistent with (Fu, Chang & Wu, 2001) research, which suggests that when leaders fail to delegate effectively, it results in overburdened management and underperforming organizations. The study also highlighted the impact of poor delegation on employee morale. SME owners reported that employees felt disempowered and disengaged when they were not entrusted with important tasks. This finding aligns with Spears and Lawrence, (2001) Motivation-Hygiene Theory, which posits that employees seek opportunities for growth and responsibility. When delegation is not practiced effectively, employees may become frustrated, leading to higher turnover rates and reduced job satisfaction. Finally, the findings revealed that ineffective delegation stifles innovation and growth. Several SME owners acknowledged that by not delegating tasks to employees, they were unable to focus on strategic activities such as business development and innovation. Bauer, (2015) notes that when managers are bogged down with day-to-day operational tasks, they lack the time and energy to focus on long-term goals, limiting organizational growth.

The findings also suggest that SME owners recognize the need for strategies to improve delegation practices. Leadership development was identified as a critical area for improvement, with many owners expressing the need for training in delegation skills. This supports Ayman and Lauritsen, (2018) argument that leadership development programs are essential for improving delegation skills and overall organizational performance. In addition to leadership development, the study found that process improvement could help streamline delegation. The establishment of clear roles, responsibilities, and standard operating procedures (SOPs) was seen as a key strategy to overcome delegation challenges. This is in line with Marín-Idárraga & Hurtado González, (2021) views on organizational capability, which suggest that organizations need to develop clear, repeatable processes to enhance efficiency and delegation. Lastly, the adoption of technology was considered a critical factor in overcoming delegation barriers. Many SME owners acknowledged that the use of technology could significantly improve task management and communication, making it easier to delegate effectively. This finding resonates with Situby Khan *et al*., (2017) who argue that the strategic use of technology can greatly enhance organizational efficiency, including delegation practices. The discussion of the findings highlights several key barriers to effective delegation in

SMEs in South Africa, including leadership challenges, resource constraints, and the organizational structure. These barriers contribute to operational inefficiencies, decreased employee morale, and stunted growth. However, the study also offers valuable insights into potential strategies to overcome these challenges, including leadership development, process improvement, and the adoption of technology. These findings contribute to the growing body of literature on delegation in SMEs and provide practical recommendations for SME owners seeking to improve their delegation practices and overall business performance.

CONTRIBUTION OF THE STUDY

The study contributes significantly to both theory and practice. Theoretically, it expands existing delegation frameworks by integrating leadership theories and organizational structures specific to SMEs, offering a more contextualized approach to delegation. Practically, the study provides actionable recommendations for SME owners and managers to improve delegation through leadership development, process clarity, resource optimization, and cultural shifts. The practical implications, combined with the theoretical insights, offer a comprehensive roadmap for overcoming delegation challenges and improving SME performance in South Africa.

6.1 Theoretical Implications

The study on The Impact of Delegation Challenges on SME Performance in South Africa: A Leadership and Organizational Perspective provides several valuable theoretical contributions to the existing body of knowledge regarding delegation within small and medium enterprises (SMEs), leadership theories, and organizational dynamics. These contributions are particularly relevant in the South African context, where SMEs play a critical role in the economy but face unique challenges compared to larger organizations. One of the theoretical contributions of this study is its focus on delegation within the unique context of SMEs, which is often underrepresented in the existing delegation literature. Most delegation frameworks and theories are primarily based on large organizations or hierarchical structures. This study deepens our understanding of how flat organizational structures, commonly found in SMEs, influence the delegation process. It offers insights into how leadership styles in SMEs such as entrepreneurial and transformational leadership shape delegation practices, contrasting with traditional delegation models rooted in larger, more hierarchical firms.

The study proposes an expanded delegation model tailored to SMEs, where leadership influence, resource limitations, and organizational flatness play significant roles in delegation dynamics. It stresses the need for delegation frameworks that integrate relational and adaptive approaches, emphasizing trust, autonomy, and flexibility in decision-making processes. This study integrates leadership theories, particularly transformational leadership, with organizational structure theory to propose a comprehensive understanding of how leadership shapes delegation practices within

SMEs. It offers a nuanced perspective on how different leadership styles impact delegation within flat structures, challenging existing hierarchical models of delegation in large organizations. The study advances resource-based theory by introducing the concept of delegation as a resource in SMEs, emphasizing how resource constraints impact not only decision-making but also leadership's ability to delegate effectively. It proposes that delegation should be viewed as a dynamic capability that SMEs can develop despite resource limitations, challenging the conventional assumption that delegation is only possible in resource-rich environments.

6.2 Practical Implications

In terms of practical contributions, this study offers actionable insights for SME owners, managers, and policymakers in South Africa, where SMEs play an integral role in the national economy but face particular challenges due to structural constraints, skills gaps, and leadership dynamics. Based on the findings, a key practical implication is the need for leadership development programs focused on improving delegation skills. SME leaders must be equipped with the tools to delegate tasks effectively, overcome their reluctance to relinquish control, and empower their teams. Training should focus on trust-building, communication, role clarity, and empowering employees to take ownership of tasks and projects. The study recommends that South African SME owners and managers invest in leadership coaching programs that emphasize delegation as an integral leadership skill. Training should be targeted toward increasing leaders' confidence in delegating responsibilities while maintaining control over outcomes. SME leaders are encouraged to establish formalized delegation processes to promote role clarity. The development of SOPs and task management systems would ensure that employees are aware of their responsibilities, reducing misunderstandings and improving operational efficiency. SMEs should adopt cloud-based project management tools that facilitate task tracking and collaboration among employees. By integrating technology into delegation processes, SMEs can overcome some of the barriers posed by resource limitations and ensure that tasks are delegated and completed effectively. The study calls for SME leaders to promote a delegation-friendly culture by encouraging open communication and knowledge sharing. Leaders should be proactive in providing feedback, fostering employee autonomy, and encouraging innovation within their teams. Government agencies and industry bodies can play a significant role by offering financial incentives or subsidies for leadership training and the adoption of technology. Public-private partnerships can also provide SMEs with the necessary tools and knowledge to improve delegation practices.

CONCLUSION

The conclusion of the study provides a comprehensive understanding of how delegation practices, or the lack thereof, can significantly influence the performance and sustainability of small and medium enterprises (SMEs) in South Africa. This research highlights that, despite SMEs being integral to the South African economy, many face considerable barriers to effective delegation that

ultimately impact their operational efficiency, employee morale, and long-term growth potential. The findings of this study underscore that delegation is not merely a functional task but a critical leadership skill that requires deliberate effort and strategic thought. Leadership style, particularly transformational leadership, plays a pivotal role in fostering a delegation-friendly environment where trust, autonomy, and empowerment are integral to successful delegation processes. However, resource constraints, such as financial limitations and skills gaps, remain significant barriers that prevent effective delegation. The lack of structured processes and clear delegation frameworks also leads to inefficiencies and a decline in employee motivation.

From a theoretical perspective, this study contributes to existing leadership and organizational theories by providing a unique lens through which to examine delegation in resource-constrained environments. It proposes an integrated approach that combines leadership theory, organizational structure, and resource-based theory to better understand how SMEs in South Africa can overcome delegation challenges. This theoretical framework is specifically tailored to the realities of SME environments, where informal structures, limited resources, and dynamic leadership styles are the norm. From a practical perspective, the study offers actionable recommendations for SME owners and managers. These include leadership development programs to enhance delegation and decision-making skills, the establishment of clear delegation frameworks to ensure role clarity and task accountability, and the adoption of cost-effective technologies to streamline task management and improve communication. The research also suggests that fostering a delegation culture within SMEs, where employees are empowered and trusted with responsibility, can lead to improved employee morale and overall business performance.

In conclusion, the findings from this study suggest that effective delegation is a key driver of SME success in South Africa, but overcoming the challenges associated with delegation requires a combination of leadership, organizational processes, and strategic resource allocation. By addressing these barriers and implementing the recommended strategies, SME leaders can significantly improve their organizational performance, enhance employee satisfaction, and position their businesses for sustainable growth. The study offers a comprehensive roadmap for SME leaders seeking to optimize delegation practices and foster a more dynamic, efficient, and empowered workforce.

LIMITATIONS AND FUTURE RESEARCH

This study provides important insights into how delegation challenges influence the performance of small and medium-sized enterprises (SMEs) in South Africa from a leadership and organizational standpoint. However, several limitations should be acknowledged. First, the study employed a qualitative research design involving a limited number of SMEs, which may affect the transferability of the findings to all SME contexts in South Africa. The use of purposive sampling, while appropriate

for depth, may have excluded other relevant perspectives, particularly those from less formalized or rural enterprises.

Second, the data were primarily drawn from self-reported interviews with SME owners and managers, which could be influenced by personal biases or social desirability, potentially affecting the objectivity of the responses. Additionally, the study did not capture the views of employees or external stakeholders, which might have enriched the understanding of delegation dynamics within organizations. Third, the research focused mainly on internal leadership and organizational factors, without fully accounting for external influences such as economic volatility, policy constraints, or technological disruptions, all of which may also impact delegation practices and business performance.

Given these limitations, future research could benefit from adopting a mixed-methods approach, incorporating surveys or performance data to triangulate findings. Studies that include employees' perspectives would offer a more holistic view of delegation effectiveness. Moreover, comparative research across different industries, provinces, or countries would help contextualize the challenges identified. Longitudinal studies may also be useful in tracking how improvements in delegation practices influence performance outcomes over time.

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THE INFLUENCE OF AGE AND GENDER ON THE BUSINESS RISK OF SMALL BUSINESSES IN GQEBERHA, EASTERN CAPE, SOUTH AFRICA

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ABSTRACT

The age and gender of small business owners are some of the demographic variables that may influence business risk and its management. Small business owners of a given age and gender may manage risk differently or similarly depending on their generation. Therefore, it is worth considering two variables (age and gender) to ascertain whether they impact business risk. The extent to which age and gender impact how small business owners manage business risk is examined in this study, using statistical analysis data from small business owners in Gqeberha, Eastern Cape Province, South Africa. Due to its efficiency and ability to test hypotheses, a quantitative research approach was used in this study for data collection and analysis. The Pearson Product-Moment Correlation was utilised to test the correlation between the variables. The study found a moderate impact between age and business risk and a negligible impact between gender and business risk.

Keywords: risk; business risk; sustainability; operational risk; enterprise risk management

INTRODUCTION

Understanding the nature and types of business risks, setting up the process of identifying them will help managers to make more conscious and well-informed decisions (Polinkevych, Khovrak, Trynchuk, Klapkiv & Volynets, 2021). Managing business risk is a requirement and imperative brought about by business objectives of every business enterprise, because the business objectives are often threatened by business risk (Blunden & Thirlwell, 2013:10 &301). This is especially important for small businesses to manage business risk and ensure sustainability is achieved (Smit, 2012:151). Abotsi, Dake and Agyepong (2014) found that men were more likely to initiate risk management decisions than women, while Gorzeń-Mitka (2015:78) viewed women as less confident, less aggressive, more cautious, and easier to persuade when faced with decision-making on risks compared to men. Abotsi *et al*. (2014) also declared the null hypothesis on gender as: “men are more likely to undertake risk management decisions than females,” with the hypothesis failing to be rejected at the 1% level of significance. These studies highlight the view that substantial gender differences exist in risk management decisions.

Coming to age, De Acedo Lizárraga, De Acedo Baquedano and Cardelle-Elawar (2007) investigated whether gender and age differences affect decision making and their study found that age differences have a positive relationship with decision making. However, Abotsi *et al*. (2014) declared the null hypothesis that the age of a business owner has a positive relationship with risk management decisions. The empirical results, however, rejected that null hypothesis and found that age had no positive relationship with risk management decisions. Therefore, as businesses are moving into the digital era, with "new risks" such as cyber risk on the rise in South Africa (Ezeji, Olutola & Bello, 2018:97), investigating the influence of age and gender on the management of business risk seems to be necessary.

PROBLEM INVESTIGATED

Although small businesses play an important role in employment creation globally (Dhanah, 2017:10), about eighty percent (80%) of small businesses fail within one year in South Africa (Hewitt & Van Rensburg, 2020). One of the leading reasons for this failure is limited access to finance (Stiglitz, 2016), for capital expenditure and working capital (Naradda, Gamage, Ekanayake, Abeyrathne, Prasanna, Jayasundara & Rajapakshe, 2020:7). Financial institutions such as banks withhold funding for small businesses as they are viewed as high risk (Smit, 2012) and do not pro-actively manage business risk (Smit & Watkins, 2012), which is further exacerbated by lack on management skills and training (Mutezo, 2013). Studies confirm that small business owners employ and adopt risk management techniques reactively (Smit & Watkins, 2012:6324) and ineffectively (Smit, 2012:177 & 180). However, there is no consensus across studies regarding the impact of age and gender on risk perception (Wachinger, Renn & Kuhlicke, 2013), therefore, more empirical investigations are still required. Based on the above information, the question guiding this study is: How does age and gender of small business owners in Gqeberha, Eastern Cape, South Africa, influence their risk management decisions?

RESEARCH OBJECTIVES

The primary research objective of this study is to investigate the influence of age and gender on the business risk of small businesses in Gqeberha, Eastern Cape, South Africa. To achieve this primary objective, the study provides a comprehensive literature review of business owners' age and gender and the associated management of business risk. Thereafter, performing an empirical study to test the relationship between age, gender, and business risk.

LITERATURE REVIEW

Since the objective of the current study is to examine the influence of age and gender on the business risk of small businesses, the following sub-sections elaborate on these concepts.

Risk

The globally accepted definition of risk is “the effect of uncertainty on objectives,” according to ISO 31000 (2018). This definition unambiguously reflects two considerations about risk, being “the effect of uncertainty” and “on objectives” – which suggests whoever is faced with risk should at the very least be aware of these two areas. This definition is reduced to mathematical formulae as: Risk = Impact x Probability (Likelihood) of risk occurring, with both the right-hand side of the equation representing the “effect of uncertainty” part of the definition, and the product of the entire equation (Risk) being the effect on objectives (Lee, 2014).

As an example, the probability of an inexperienced forklift driver in a business causing an accident can reasonably be considered high and therefore deduced numerically by assigning the number 5 (with 5 being the highest probability compared to 1 being the lowest probability). Simultaneously, the impact from such an accident can reasonable be considered high, especially when involving human fatality, which again deduced numerically by assigning the number 5 for high impact compared to 1 for low impact. Therefore, the risk (product) from this example would be 5 x 5 = 25. In such a case, according to Smit (2012), a risk manager would then categorise risks using the “low-medium-high” barometer, whereby low risks are typically accepted and high risks are avoided, such as the inexperienced forklift driver in the example, assuming the score of 25 which represents the highest risk compared to medium impact, which could be 3 x 3 = 9 and low impact which could be 1 x 1 = 1. With this information, such a high score could easily be eliminated by hiring an experienced forklift driver.

Risk is always looked at in aggregation as opposed to a silo manner and is also communicated to stakeholders from an aggregated viewpoint (Smit, 2012). All of this is done within a set risk appetite framework, whereby all risks considered in aggregation are looked at through the organisational risk appetite lens (Blunden and Thirlwell, 2013). All the aggregated risks are considered whether they are within or outside that risk appetite threshold – with those within threshold (usually low and medium risks) accepted or controlled, and those outside (usually high risks) avoided (Smit, 2012). Risk is generally thought of along the lines of negative outcomes or consequences or threats, according to Aven (2016), whereas it is also about opportunities according to Smit (2012). Hence, risk and its management are a challenge to small businesses and consequently their sustainability due to internal managerial skills and know-how shortcomings on risk management (Smit, 2012; Smit & Watkins, 2012). It is for these reasons that the research on risk continues around human aspects of importance and whether these human aspects, in this study, age and gender, have an impact on risk, so that they are optimally managed to achieve business sustainability.

Business Risk

Business risk essentially is the business equity (value) risk of loss which emanates from the business operational activities, cost structures, product (or service) demand characteristics and intra-industry

competitive position (Jo & Na, 2012:441). The chief role of risk management is protection and maximisation of shareholder value as well as maintenance of enterprise sustainability (Valsamakis, Vivian & du Toit, 2010:7). The contemporary and preferred approach of managing business risk is the Enterprise Risk Management (ERM) framework, which is considered integrated, effective, and all-encompassing in nature (Smit, 2012:20 &104; Valsamakis *et al*., 2010:89). Business risk is also impacted by operational activities, therefore, ERM with its all-encompassing capabilities, is well suited to managing operational activities through operational risk awareness (Gatzert & Martin, 2015:48; Smit, 2012:107), including cost reduction, which is one of the variables affecting business risk.

Products (or services) demand characteristics and intra-industry competitive position are generally appraised using 'Strengths, Weaknesses, Opportunities, Threats' (SWOT) analysis (Wang, 2007:8). Therefore, to understand and manage business risk requires know-how of risk identification (Rostami, Sommerville, Wong & Lee, 2015), risk analysis techniques (Schoenfeld, 2013) and communication with stakeholders (Virglerova *et al*., 2020). The know-how also includes risk management process, which involves measuring and deciding (on which risks to accept, control, transfer and avoid – against business objectives), as well as resource allocation (Smit, 2012). The risk management process is part of ascertaining a business's unique risk profile (Valsamakis et. al., 2010:146), while the resource allocation includes human resources (of which the small business owners are a part of) in the actual managing of business risk. Once a risk profile is determined, a business risk appetite can then be ascertained and reduced into writing, thus into a policy to be implemented (Valsamakis et. al., 2010:147).

Human aspects on risk management include attitude, which is about values and behaviour, and which are collectively classified as culture (Smit, 2012; Blunden & Thirlwell, 2013), therefore, the culture permeates throughout the entire business to become the biggest enabler of business risk management (Smit, 2012). Hence, in addition to culture, human resources aspects such as enthusiasm (Fraser & Simkins, 2016), skills, expertise, as well as risk quantum require a tailored approach for small businesses (Rostami *et al*., 2015:91).

Age

For this study, age refers to humans aged 18 years and older. Wachinger *et al*. (2013) state that there is no consensus across studies regarding the impact of age on risk perception. Some studies have found that age has an influence on risk perception (Siegrist *et al*., 2005; De Acedo Lizárraga *et al*., 2007), while others found none or little influence (Abotsi *et al*., 2014). Sproten, Diener, Fiebach and Schwieren (2018) also conducted a study on the effect of age in decision making under uncertainty, and the study found that age does not influence decision making – and therefore age seems to be mediated by other factors such as education (Falkner & Hiebl, 2015). However, in a

study of the impact of CEO's age on the riskiness of corporate policies by Serfling (2013), a different view emerged from what is noted by Wachinger *et al*. (2013).

According to Serfling (2013), the riskiness of corporate policies is lowest when the CEOs are older and highest when they are younger, suggesting that the CEO's age does impact the riskiness of corporate policies. In small businesses, the owners are essentially CEOs of their businesses, effectively play all the main roles themselves such as strategic, operational, and administrative roles (Smit, 2012). Malgas (2021) conducted a study on the impact of age in the financial literacy of small business owners, and the study revealed that age has an impact on financial literacy, which in turn has an impact on SMEs financial performance, while Falkner and Hiebl (2015:142) also found that age does impact the small business's risk management. As Wachinger *et al*. (2013), states, there is no consensus across studies regarding the impact of age on risk, therefore, more empirical investigations are still required. Based on this background, the following hypothesis was put forward: *H^1: Age has a positive influence on business risk.*

Gender

For this study, gender refers to human male and female genders. Wachinger *et al*. (2013), found that on gender, like age, there is no consensus across studies regarding the impact of age on risk perception – while some studies have found that gender has an influence on risk perception (Olsen & Cox, 2001), especially with investment risks, other studies found none or little influence (Brown, Largey & McMullan, 2021). As revealed by Wachinger *et al*. (2013:1051), the risk perception is a key element of risk management. Rohrman (2008:2) argues that personal philosophies and risk features influence the way people appraise or evaluate risk – and by implication, manage risk. As such, Falkner and Hiebl (2015:142) discovered that personal attributes (including gender) play a role in small business (SME) risk management. From these studies, it is reasonable to conclude that personal attributes do play a role in business risk, how it is perceived, and consequently, how it is managed.

Consequently, Yang and del Carmen Triana (2019) claim that male-led small businesses are more likely to survive than those which are female-led. Gender, therefore, has an impact on business risk management (Falkner & Hiebl, 2015; Yang & del Carmen Triana, 2019). However, according to Malgas (2021), gender has no impact on financial literacy and in turn no impact on SMEs financial performance. Therefore, from a financial management point of view, financial risk, is part of business risk (Jo & Na, 2012) and a component of business survival. Hence, survival is the main reason that business risk management is undertaken to achieve business objectives and maintain shareholder value maximisation and sustainability (Valsamakis *et al*., 2010). Based on the contradictory views of these studies, more empirical investigations are still required on the influence of gender on business risk. Against this background the following hypothesis was put forward: H2: Gender has a positive impact on business risk.

RESEARCH DESIGN AND METHODOLOGY

The information about respondents, measuring instrument and statistical analysis performed as part of the study research design and methodology is provided in the following subsections.

Research design approach

The quantitative approach was chosen for its objectivity to prevent the researcher's personal biases from influencing the study conclusions (Taylor & Medina, 2011; Collis & Hussey, 2021). According to Opoku *et al*. (2016) the basis of the quantitative research approach is to predict and explain a phenomenon through high level of measurement and significance by utilising quantitative variables. McCusker and Gunaydin (2015) explain that after performing the data analysis, a hypothesis or hypotheses model can be developed and be tested using the appropriate statistical techniques as well as relationships explained using descriptive and inferential statistics.

Population, sampling and measuring instrument

The study population was all the small business owners in Gqeberha, Eastern Cape Province, South Africa. However, due to impossibility of reaching the entire population, a sample thereof was taken for the study. The total sample taken was 223 respondents, all of which were business owners of small businesses in operation for at least 2 years, and of the sample, 201 responses were completed in full, making 90% response rate.

Data collection, analysis and measuring instrument

Data was collected using a Likert-scale self-administered questionnaire. The respondents answered and completed the statements provided thereon. Validity of the measuring instrument was assessed. For the internal and external validity of the data, the relationship of independent variables to the dependent variable, strength of that relationship, correlation, regression, and hypothesis testing were utilised. The content and face validity of the questionnaire was met. Both inferential and descriptive statistics were utilised in data analysis process. The statistical analysis was performed using Statistica-10 Software program. To ascertain the presence, magnitude, and path of the of relationships between the variables being examined, the Pearson Product-Moment was utilised. It was determined how both the independent variables, Age (AG) and Gender (GE) influence the dependent variable, Business Risk (BR).

Every correlation's degree of statistical significance was also determined to ascertain the degree of confidence in each of the detected correlations. The observed small p values and statistical significance indicate that the variables under investigation are related. To apply a 95% confidence interval, a level of significance lower than 0.05 was required. The Pearson correlation analysis assesses the degree of relationship between linearly related variables, whereas regression analysis identifies the type of linear relationship that already exists. According to Isaac and Chikweru (2018), correlation coefficient 0 reflects no correlation, and above 0 up to below 0.4, correlation is low. The

correlation values from 0.4 to 0.6 reflect moderate correlation and greater than 0.6 reflects high correlation.

EMPIRICAL RESULTS

Demographic Information

The demographic information is provided below on Table 1, 2, and 3.

TABLE 1: AGE BREAKDOWN

Age Category	Frequency (N)	Percentage (%)
18 – 29 years	17	8,50
30 – 39 years	56	27,90
40 – 49 years	62	30,80
50 – 59 years	42	20,90
60 and above	24	11,90
Total	**201**	**100**

The largest group of respondents in the study were in the '40 – 49 years' age bracket at 30,80% of the total small business owners – and it is possible this group may reflect the general age composition in Gqeberha's small business community.

TABLE 2: GENDER BREAKDOWN

Age Category	Frequency (N)	Percentage (%)
Male	140	69,70
Female	61	30,30
Total	**201**	**100**

The largest gender group were males, making up 69,70% of the sampled small business owners in Gqeberha. Males were therefore more than double females.

TABLE 3: EDUCATION BREAKDOWN

Highest level of education	Frequency (N)	Percentage (%)
Masters	6	3.00
Honours	13	6.50
Degree	33	16.40
Diploma	40	19.90
Matric	76	37.80
Other	33	16.40
Total	**201**	**100**

The majority of the sampled respondents had Matric (Grade 12) education qualification at 37,80% - therefore a majority of these small business owners did not have any further education beyond Matric.

Dependent Variable – Business Risk

The dependent variable, Business Risk (BR), may be influenced by the two independent variables: Age (AG) and Gender (GE). To quantify the degree of influence that Age and Gender have on Business Risk, the conceptual model was developed.

Business Risk

Six distinct characteristics, which are listed in order of mean values, were utilised to measure the level of Business Risk: BR5 (4.00), BR6 (3.99), BR4 (3.98), BR2 (3.95), BR1 (3.94), and BR3 (3.64). The respondents indicate that business risk is managed fairly-well, based on the findings. In terms of their business risk management capability, over 50% of respondents agreed or strongly agreed, as shown in Table 4.

TABLE 4: BUSINESS RISK DISTRIBUTION

	BR 1	BR 2	BR 3	BR 4	BR 5	BR 6
1 (Strongly Disagree)	1,00 %	0,50 %	1,00 %	0,50 %	0,50 %	0,50 %
2	3,00 %	4,50 %	4,50 %	2,00 %	0,50 %	1,50 %
3	7,60 %	5,00 %	31,3 %	8,50 %	9,00 %	10,9 %
4	78,6 %	80,1 %	55,7 %	77,6 %	78,1 %	73,1 %
5 (Strongly Agree)	10,0 %	10,0 %	7,50 %	11,4 %	11,9 %	13,9 %
Mean (recorded)	3,94	3,95	3,64	3,98	4,00	3,99
Std. Dev.	0,617	0,610	0,729	0,570	0,524	0,596

TABLE 5: CORRELATION AND DESCRIPTIVES

	N	Min	Max	Mean	Std. Dev.		BR	AG	GE
BR	201	3,642	4,005	3,915	0,363	Pearson	1	0,545	0,286
						Sig 2 tail		0,000	0,000

The results show that respondents generally agreed that their small businesses managed business risk reasonably well based on the mean value, BR (3.915) as shown in Table 5.

Independent Variable – Age

Five distinct characteristics (AG1 through AG5) were utilised to ascertain the Age level of the small business owners. The majority of respondents (over 50%) agreed or strongly agreed as shown in Table 6.

TABLE 6: AGE DISTRIBUTION

	AG 1	AG 2	AG 3	AG 4	AG 5
1 (Strongly Disagree)	0,50 %	0,50 %	2,50 %	0,50 %	0,50 %
2	0,50 %	0,50 %	8,00 %	0,50 %	0,50 %
3	6,00 %	3,50 %	13,4 %	0,50 %	1,50 %
4	76,6 %	79,6 %	66,2 %	79,1 %	81,6 %
5 (Strongly Agree)	16,4 %	15,9 %	10,0 %	19,4 %	15,9 %
Mean (recorded)	4,08	4,10	4,18	4,16	4,12
Std. Dev.	0,533	0,500	0,539	0,488	0,475

TABLE 7: CORRELATION BETWEEN AGE AND BUSINESS RISK

	N	Min	Max	Mean	Std. Dev.		BR	AG	GE
AG	201	4,080	4,184	4,129	0,104	Pearson	0,545	1	0,261
						Sig 2 tail	0,000		0,000

Age has a moderate positive relationship with Business Risk, as shown by their correlation of 0.545 (Table 7). It is clear, however, from the insignificant p-value of less than 0.05, that Age does, in fact, impact Business Risk. Therefore, Age has a positive impact on Business Risk.

Independent Variable – Gender

Four distinct characteristics (GE1 through GE4) were utilised to ascertain the Age level of the small business owners. The majority of respondents (over 50%) agreed or strongly agreed as shown in Table 8.

TABLE 8: GENDER DISTRIBUTION

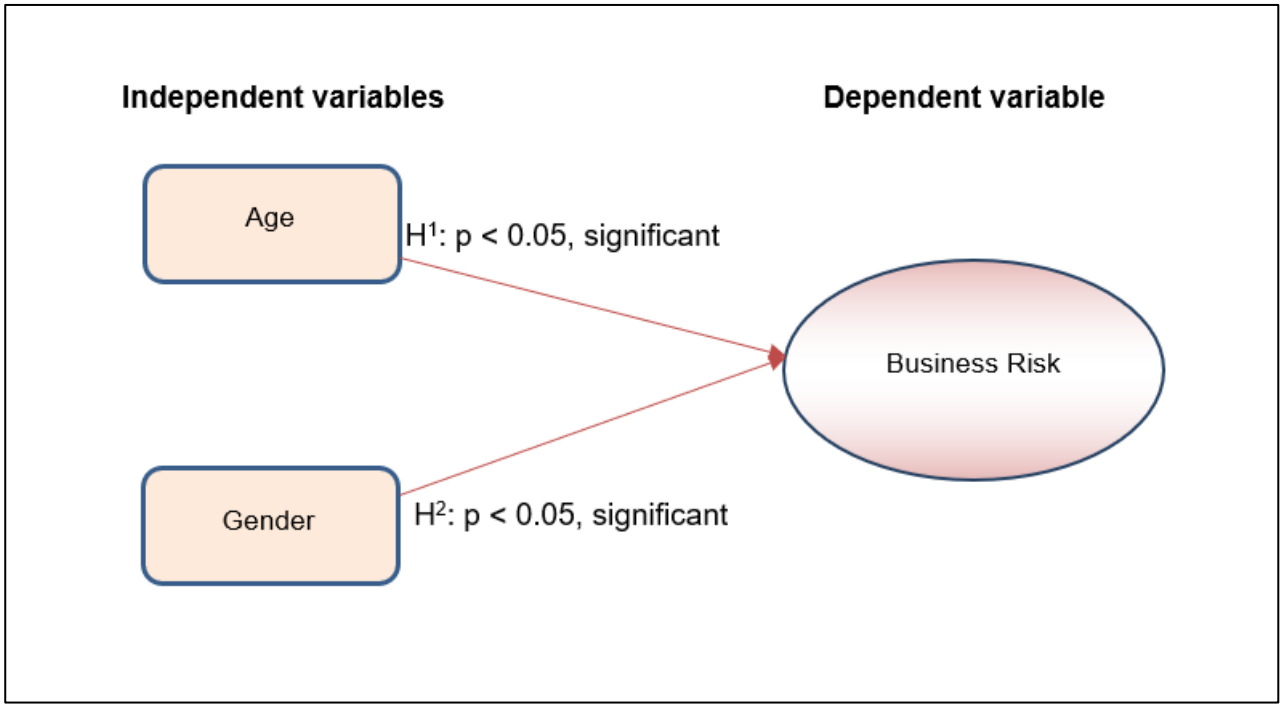
	GE 1	GE 2	GE 3	GE 4
1 (Strongly Disagree)	0,00 %	0,00 %	0,00 %	0,00 %
2	1,00 %	3,00 %	1,50 %	1,50 %
3	5,00 %	9,50 %	9,00 %	5,50 %
4	81,1 %	80,6 %	80,6 %	81,6 %
5 (Strongly Agree)	12,9 %	7,00 %	9,00 %	11,4 %
Mean (recorded)	4,06	3,92	3,97	4,03
Std. Dev.	0,465	0,527	0,489	0,479

TABLE 9: CORRELATION BETWEEN GENDER AND BUSINESS RISK

	N	Min	Max	Mean	Std. Dev.		BR	AG	GE
GE	201	3,915	4,060	3,994	0,144	Pearson	0,286	0,261	1
						Sig 2 tail	0,000	0,000	

Gender has a negligible positive relationship with Business Risk, as shown by their correlation of 0.286 (Table 9). Despite the negligible relationship, it is clear, however, from the insignificant p-value of less than 0.05 that Gender does, in fact, impact Business Risk. Therefore, Gender has a positive impact on Business Risk.

FIGURE 1: SUMMARY OF STATISTICALLY SIGNIFICANT RELATIONSHIPS



Source: Author's own construction

DISCUSSION AND MANAGERIAL IMPLICATIONS

Age and gender according to the body of literature result in differing outcomes, whereby in some studies both age and gender have an impact on business risk management, and in other studies there is no impact (Wachinger *et al*., 2013; Serfling 2013; Falkner & Hiebl, 2015; Brown *et al*., 2021). The other consideration to be noted are the "complementary" factors to age (such as education) – which is cited as a mediating factor on age by Falkner and Hiebl (2015) as well as Wachinger *et al*. (2013) – in other words, these authors are in essence making the assertion that with education, a small business owner's age can have a more meaningful impact on business risk. In the current study, the highest educational attainment of respondents at 37,80% is Matric. Therefore, furthering their education for example, through bespoke short courses especially on business risk (risk management) and business management (objectives), small business owners' age may have a stronger impact on business risk. A significant number of business owners (greater than 50% had no business risk management policies in existence or implemented), something further education could help with. Gender on the other hand has a less strong impact on business risk compared to age (unlike in the study by Abotsi *et al*. (2014:401) which found men to be more likely to undertake risk management) – this is despite men making up 69,70% of the respondents, a finding which at face value may suggest gender could have had a stronger impact. A further study could be based on a sample with a balanced inclusion between the genders, for example 50% males and 50% females, alternatively have a sample with more females than males to ascertain whether different results would emerge.

LIMITATIONS

The sample concentrated in Gqeberha only, and while it is quite an adequate sample size (201), for statistical analysis, a bigger sample, with a balanced number between the two genders could possibly give different results. Furthermore, a study that includes other factors such as education as a mediating variable between Age and Gender could possibly shed more light on the level of impact.

CONCLUSION

In conclusion, this study advances the field of management theory by examining several aspects related to business management, risk management, and personal factors influencing these areas. To achieve small business sustainability, the area of risk management requires an accurate diagnosis of the real factors behind challenges in this key sustainability topic so that effective solutions can be made available to small businesses. From the empirical results of this study, age and gender have a favourable impact on business risk in small businesses; however, other business sectors to be investigated may include, but are not limited to, the banking and non-banking sectors, insurers, accountants, business consultants, etc. Insurers, for example, may help with an "independent" and “fresh” approach to risk, to reduce the cost of risk.

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VALUES ENTRENCHMENT: ORGANISATIONAL STRATEGY FORMULATION AMONG INDIGENOUS BLACK SOUTH AFRICAN FAMILY BUSINESSES

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ABSTRACT

Scholars continue to argue that values significantly influence strategic decisions and behaviours, including the formulation of organisational strategy. Organisational strategy is important in setting the direction a family business takes as it navigates complex business environments and strives to ensure sustainability. Despite the importance of values and organisational strategies, limited research has focused on how values influence and shape the organisational strategy formulation among family businesses. Using seven indigenous Black South African family businesses and adopting a qualitative approach, our study uncovers the crucial role of values in organisational strategy formulation among family businesses. Our study reveals that values shape the vision and values statements as well as long-term decisions of family businesses. By doing so, we advance the role of values in driving strategic decision-making and objectives in family businesses. The study guides family business leaders and policymakers and supports organisations in leveraging indigenous values in strategic processes.

Keywords: family business, strategy formulation, values, values entrenchment

INTRODUCTION

Family businesses are regarded as the most ubiquitous form of organisation in any world economy and hold significant influence over the global economy (Birdthistle and Hales, 2023; Rovelli, Ferasso, De Massis and Kraus, 2022). While no database currently exists on family businesses in South Africa (Neneh and Welsh, 2025), these businesses are said to account for approximately 50 to 70 per cent of all businesses (Visser and Chiloane-Tsoka, 2014). Thus, they play a significant role in job creation and reducing the high unemployment rate (Meyer and Meyer, 2020; Nambiar, Sutherland and Scheepers, 2019), which, according to Statistics South Africa's quarterly labour force survey, was reported to be at 31.9 per cent in the last quarter of 2024 (Stats SA, 2025).

Since the end of Apartheid, a period during which the economic and social contributions of previously disenfranchised populations were restricted by legislation, indigenous Black African family businesses (IBAFBs) have entered the formal South African economy (Gomba and Kele, 2016). As a result, more IBAFBs are being developed, and there are presently numerous first-generation black-owned family businesses in South Africa. Several scholars (e.g., Baloyi and Khanyile, 2022; Van De Rheede, 2022) highlight that developing Black businesses and increasing their economic role, are

paramount to achieving inclusive economic growth and development. Some scholars (e.g., Ogbechie and Anetor, 2015) assert that for family businesses, including IBAFBs, to be successful and sustainable, founders and leaders should understand and entrench their values in the family business operations and strategic thinking. Similarly, Anggadwita, Profityo, Alamanda and Permatasari (2020) highlight that business-owning families who successfully entrench their values into the functions and operations of their businesses enjoy longevity and success over time.

Several scholars assert that what distinguishes family businesses from their non-family counterparts is the way their value sets uniquely guide their decision-making and act as pillars of strength in sustaining their business operations (Mikušová, Friedrich, Poláková and Linhart, 2024; Binz, Ferguson, Pieper and Astrachan, 2017). Indeed, family businesses are more deeply rooted in their values and cultures than non-family businesses are (Kupangwa, Farrington and Venter, 2023a; Rau, Schneider-Siebke and Günther, 2019). It is these values that guide founding leaders in terms of their family business's vision, decisions made, and strategies implemented (Yuan and Wu, 2018).

Studies on values, in the context of family businesses, have made advances in comparing the influence of values in family versus non-family businesses (e.g., Maung, Millar, Tang and Xu, 2020) and among different types of family businesses (Dou, Su and Wang, 2019). Recent studies (e.g., Kupangwa, Farrington and Venter, 2023b) have also examined the business values underlying the strategic decisions of family businesses and how these contribute to business outcomes, and ultimately, long-term survival. While the role of values in shaping business operations is well-acknowledged in family businesses (e.g., Sorenson and Milbrandt, 2023), little is known about how indigenous African values in particular shape the organisational strategy of IBAFBs. Organisational strategy, which involves long-term planning and decision-making processes that guide the vision and mission of the family business (Nordqvist and Melin, 2010), is often understood through either a Western or European managerial lens. This paper asserts that cultural values shape organisational strategy formulation and choices as much as economic considerations do.

Given the discussion above, our study aims to explore the role of values in influencing and shaping the organisational strategy of indigenous Black South African family businesses (IBSAFBs). Specifically, the main research question addressed in this study is: How do values influence and shape organisational strategy formulation among IBSAFBs? In the current study, an IBSAFB refers to a family business independently owned and managed by an indigenous Black South African(s), excluding South Africans from the Coloured and Indian population groups due to their cultural differences (du Plessis, Saccaggi and de Bruin., 2015). Using participants from IBSAFBs responds to various research calls (e.g., Agyapong and Acquaah, 2021; Ruf, Graffius, Wolf, Moog and Felden, 2021) advocating for more studies on indigenous African family businesses, in order to deepen our understanding of the richness, complexity, and diversity of values in such contexts. Our study's contributions are as follows: First, we respond to calls for further exploration of the nature and role of values as institutional logics in different institutional and cultural settings (Murithi, Vershinina and

Rodgers, 2020). In particular, we focus on the association between indigenous African cultural systems and organisational strategy and sustainability of IBSAFBs (Kupangwa, 2025). Second, our study sheds light on the role of values in influencing and shaping organisational strategy formulation in family businesses, supporting the development of more responsible, sustainable and future-oriented business strategies.

The subsequent sections of this paper are structured as follows: First, we provide a theoretical background to the study by examining the nature of values as organisational resources and the role of values in organisational strategy formulation in family businesses. Second, we outline the methodology adopted to address our research question. Following this, we present key empirical findings. Last, we discuss the conclusions, emphasising the study's theoretical and practical contributions, while providing limitations and how these could be addressed by future research.

THEORETICAL BACKGROUND

Values and resource-based view

The Resources-Based View (RBV) framework provides a comprehensive framework for understanding how businesses develop and sustain a competitive advantage (Idris, Hersugondo, Mahfud, Sugeng, Muhammad and Tumpal, 2025). The RBV emphasises the importance of identifying valuable, rare, inimitable, and non-substitutable resources as critical for achieving a competitive advantage (Seddon, 2014). Organisations, such as family businesses, can achieve superior performance by effectively utilising their unique resources, such as culture and values, which are often difficult for competitors to imitate or reproduce (Ding, Guo and Tsai, 2025). While much has been written about the importance of resources in the RBV framework, existing studies often focus on the tangible assets or financial outcomes of businesses (Idris *et al*., 2025). The cultural aspects, such as traditions and values in family businesses, remain underexplored despite their recognised importance in navigating the complexities of family business dynamics and management.

In the current study, we view values as unique, non-substitutable and intangible resources that are difficult to imitate by other business organisations (Tàpies and Fernández-Moya, 2012). We define values as beliefs about the importance of desirable goals that serve as standards and principles for evaluating human behaviour in a particular community or organisation (Schwartz, 2016), such as a family business. Recent studies on family business values acknowledge that values are a critical determinant of family business heterogeneity and family business behaviours (Kupangwa *et al*., 2023a; Yuan and Wu, 2018). As a result, values are regarded as the greatest resource of a family business, and distinct, powerful, nurtured values define how family businesses behave and operate (Tàpies and Fernández-Moya, 2012). Family business values and organisational strategy

Family businesses are often described as unique entities where the family and business systems are deeply intertwined (Mismetti, Del Bosco, Bettinelli and De Massis, 2025). One of the defining characteristics of family businesses is the centrality of values (Mikušová *et al*., 2024; Binz *et al*.,

2017), which influence how strategies are formulated and implemented (Yuan and Wu, 2018). Unlike non-family businesses, which often depend on formalised strategic planning mechanisms, family businesses typically anchor their strategic orientation in enduring and often implicit values (Zahra, Hayton and Salvato, 2004).

Broadly understood as enduring beliefs or principles that guide individual and collective behaviour (Rokeach, 1973), values in family businesses are often passed down through generations (Azizi, Bidgoli and Taheri, 2021). Family business founders and leaders strongly desire to preserve their family traditions, values, and culture (Baltazar, Ferreira and Hughes, 2025). These values shape the identity, vision, and purpose of the family business (Yuan and Wu, 2018; Neff, 2015). Examples of values include, long-term orientation, longevity, stewardship, integrity, community connections and trust (Iaia, Vrontis, Maizza, Fait, Scorrano and Cavallo, 2019; Miller and Le Breton-Miller, 2005), as well as continuous learning, partnerships, business sustainability, innovation and business traditions (Kupangwa *et al*., 2023b). Yuan and Wu (2018) contend that values, as mutual expectations and shared norms, may influence what is significant to the family business, how the family business defines situations, and what actions the family business chooses to undertake. As the foundation for business continuity, values provide the underlying influence and strength upon which strong family business leadership depends (Dana and Smyrnios, 2010).

Values are considered foundational in managing a family business in an institutional setting (Kupangwa *et al*., 2023a), as the family's value system drives the key decisions in family business strategy (Prince, 2016; Ceja, Agulles and Tàpies, 2010). These values are personal and have a profound impact on the ability to motivate and encourage employees to act in ways that are in line with the vision of the family business (Ardyan, Sutrisno and Padmawidjaja, 2023). Ceja *et al*. (2010) further state that the strategy and practices of a family business are mostly consistent with their values, as they are the principles that guide actions. Values help individuals to establish behavioural patterns or norms and adhere to long-term objectives, which drive the development of strategies and contribute to business success (Ardyan *et al*., 2023; Kupangwa *et al*., 2023b). Authors, such as Saini and Sengupta (2016), highlight that decisions in family businesses are made according to family-oriented values, which see business decisions being subordinated to family needs. Similarly, Lampel, Bhalla and Ramachandran (2017) posit that enterprising families will always want to protect the long-term interests of the family, hence the need to influence key strategic decisions in the family business. Family interests are discussed in family meetings, ensuring that values are incorporated into the goals and objectives of the organisation (Tàpies and Fernández-Moya, 2012).

While a good strategy is an instrument for achieving high performance and preserving success (Rožman, Tominc and Štrukelj, 2023; Farida and Setiawan, 2022), the strategic planning of family businesses differs from that of non-family businesses mainly because of the influence of values on the strategy of the business (Ward, 1988). Strategy formulation in a family business is viewed as a very personal process, often reflecting the desires of the founder and the family (Ward, 1988).

Strategic planning in family businesses enhances the business' ability to share both long-term and short-term decisions and value orientations, which are crucial to the success and continuity of the business (Ward, 1988). Some scholars (e.g., Kragl, Palermo, Xi and Block, 2023; Armadans, Parada and Anguera, 2021) assert that due to their non-economic goals, strategic family business decisions are often related to the family's social interactions and the shared family vision. Therefore, the interaction between the family and the family business is influential in formulating family business strategies (Mikušová *et al*., 2024), which are deeply rooted in values (Kupangwa *et al*., 2023b). In family businesses, the family influences the management and governance of the business, and family-oriented businesses tend to incorporate family-related functions into the strategic decision-making of the business (Basco, 2014).

METHODOLOGY

This study adopts an interpretivist paradigm and employs a multiple, descriptive case study design to explore how family business values influence the organisational strategy formulation among IBSAFBs. The choice of an interpretive paradigm aligns with Denison's (1996) perspective, which suggests that a social constructionist lens is most appropriate for examining cultural phenomena, as it enables an appreciation of the distinct characteristics of individual social contexts. Furthermore, the selected research design addresses the call by scholars, such as Fletcher, De Massis and Nordqvist (2016), who highlight the need for more qualitative studies in family business research to generate novel theoretical insights, given their current underrepresentation in the field.

Case selection

The sample for this study comprised seven IBSAFBs, selected based on the following criteria: (i) the business self-identifies as a family business, (ii) family members are actively involved in the core operations and hold at least 50 per cent of the voting rights or shares, (iii) the family is engaged in at least one actively operating business (as opposed to being passive shareholders or investors), and (iv) the business demonstrates transgenerational intent, reflecting a desire to transfer ownership and leadership to the next generation. The concept of "*information power*" guided the determination of sample size, which suggests that the more relevant and richer the information provided by participants, the fewer cases are required (Malterud, Siersma and Guassora, 2016). Considering the study's purpose, the targeted and specific nature of the sample, reliance on established theoretical frameworks, the depth and quality of interview data, and the chosen analytical approach, a small sample of seven cases was deemed sufficient due to its high information power. Table 1 presents detailed profiles of the participants and the businesses included in the study.

TABLE 1: DESCRIPTION OF EACH CASE

Case	Founded	Industry	Family business category	Number of employees	Number of active family members
A	1973	Petroleum & gas	Medium-sized	240	4
B	1974	Funeral services	Small-sized	12	2
C	1980	Funeral services	Medium-sized	75	5
D	1981	Laundromat	Small-sized	28	2
E	1981	Fashion & clothing	Small-sized	15	2
F	2002	Marketing	Small-sized	10	3
G	2005	Logistics	Medium-sized	115	3

Source: Authors' construction

Data collection

Our study utilised semi-structured interviews involving 17 key participants drawn from the family and the family business. Interview durations ranged from 30 to 265 minutes (see Table 2). Participants were selected based on their roles, which included: senior family business members such as founders or family elders; the current controlling owner or Chief Executive Officer (CEO); a family member from a different generation actively working in the business; a non-active family member; or a non-family member with at least five years of involvement in the business. The interviews gathered data on participants' demographic backgrounds and the history of their family businesses. Additionally, questions focused on the entrenchment of values and their influence on family business strategy formulation. For example, participants were asked: (i) How are values reflected in the family business identity? (ii) In what ways are values embedded in the vision and values statements of IBSAFBs? and (iii) How do values influence the long-term strategic decisions of IBSAFBs?

TABLE 2: PARTICIPANTS DETAILS

Case	Participant	Relation	Generation	Business position	Tenure (Years)	Interview duration (Minutes)
A	P1	Founder	1st	Retired	45	33
	P2	Granddaughter	3rd	Operations Manager	5	125
B	P3	Son	2nd	CEO	24	168
	P4	Non-family employee	n/a	Office Manager	22	100
	P5	Grandson	3rd	Employee	5	96
C	P6	Daughter	2nd	Employee	25	133
	P7	Daughter	2nd	Non-active member	11	130
	P8	Non-family employee	n/a	Operations Manager	40	102
D	P9	Daughter	2nd	CEO	6	86
	P10	Non-family employee	n/a	Operations Manager	10	65
E	P11	Daughter	2nd	CEO	9	265
F	P12	Founder	1st	CEO	21	135

	P13	Daughter	2nd	Manager	8	120
	P14	Non-family employee	n/a	Employee	5	60
G	P15	Founder	1st	CEO	16	120
	P16	Son	2nd	Branch Manager	5	120
	P17	Non-family employee	n/a	Financial Manager	11	90
Total duration (minutes)						**1948**

n/a = not applicable
Source: Authors' construction

Before data collection, we obtained ethics approval from our university's Research Ethics Committee (Human), under reference number H19-BES-BMA-004. We also sought permission from the respective gatekeepers of the family businesses to access, recruit, and involve participants in the study. Identified participants received an invitation letter and informed consent form via email and were assured of confidentiality, privacy, and their right to withdraw from the study at any stage.

Data analysis and coding

To examine how values shape the family business strategy formulation among IBSAFBS, we applied the six-phase reflexive thematic analysis approach outlined by Braun and Clarke (2021) and Braun, Clarke, Hayfield, and Terry (2019). The first phase involved transcribing the audio-recorded interviews verbatim into Microsoft Word documents, while simultaneously taking note of particularly striking or relevant information. This transcription process allowed us to thoroughly familiarise ourselves with the data through active reading and immersion. In the second phase, we generated initial codes by employing a combination of deductive and inductive coding strategies, using various types and phases of coding to categorise data into meaningful units (Bengtsson, 2016). During the third phase, we identified recurring patterns and extracted significant meanings from the codes, marking the beginning of theme development (Terry, Hayfield, Clarke and Braun, 2017). We then grouped related codes into preliminary themes and began defining their characteristics. In the fourth phase, we reviewed and refined these initial themes by examining the coherence of code patterns and ensuring clarity and consistency in meaning. This involved an iterative analysis aimed at reducing redundancy and resolving ambiguities. In the fifth phase, we further developed and articulated each theme to construct a coherent narrative that addressed the study's research question. Finally, in the sixth phase, we integrated all our analytic outputs, including themes, field notes, and coding reflections, into a cohesive report that presented a concise and insightful account of the story conveyed by the data (Braun and Clarke, 2021).

FINDINGS

Our study demonstrates that the IBSAFBs' strategy formulation is influenced by the values that the founders and next-generation leaders desire to have in their businesses. How this influence occurs is described in terms of two closely related sub-themes that were developed from the data coding and analysis, namely vision and values statements, and long-term business decisions.

Vision and values statements

Our study shows that values are central to formulating the vision statements of the participating family business. During the site visits and interviews, we observed that most of the participating family businesses have formal vision and values statements, which are displayed on the walls of offices and the business websites. For example, in Case B, the vision and values statements are displayed on the office walls to emphasise the symbolic and practical importance of publicly displaying the family business's vision and values. For the internal business stakeholders, such a display reinforces the family business's identity and standards among employees. Externally, it reassures customers, community members, and other visitors of the business's legitimacy, which helps build trust and credibility. For example, Participant 3 explained the vision of his funeral parlour business, saying: "*Our vision is to be* [the] *most reliable service provider. We don't want to be the biggest, but we want people to know that they can rely on us during their grief*." For Participant 15, the incorporation of values into the vision statements is important as it allows him, as the founder, to promote the core values of the family business. He says: "*I do incorporate values into all that* [vision statements]. *We have got an executive committee – I meet with my executive committee every month.* […] *We go through what went wrong, whatever that went wrong, where we were out of line with our values*."

Our findings show that in most of the participating family businesses, the vision statements are formulated using words that describe the values of the family business (See Table 3). Words that are commonly used are customers, service and excellence, suggesting that the words contained in the vision statements are customer-centric in nature. This finding is in line with the great value that these businesses place on their customers, by providing quality products and services and promoting excellence in what they do. As indicated on the business website of Case D: "*Our team of experienced staff and managers pay attention to detail, giving our customers a personal and superior experience. We take our customers as seriously as we take our business.*"

We also found that the values statements of the family businesses in our study are formulated using words that describe the values of the family business. Like the vision statements, it is evident from Table 4 that the words describing the values statements are also customer-centric in nature. Words such as respect, customer service, friendly, corporate citizen, and warmth describe how the family businesses act and interact with customers as the primary business stakeholders. For example, one of the participants explains: "*We have built relationships – so, I think that's why some of our customers have stayed for so long because of the relationships we've built. I guess it comes with trust*." Furthermore, words relating to customer focus (customer, service, quality, excellence), ethical behaviour (honesty, sincerity, fairness, dependable, professional, ethics, trust), and *Ubuntu* (respect, dignity) describe the nature of the values that influence and shape the values statements of the participating family businesses. Our study found that formalised values are also incorporated and displayed on communication platforms, such as business websites. Some family businesses have

formalised their values and use them to promote their organisational identity. Using these values as part of their promotion material plays an important role in highlighting to stakeholders what the family business stands for. For example, Case B displays its core values on the business website, including sincerity, dignity, quality, and support.

Long-term business decisions

We found that as part of influencing and shaping the business strategy formulation of the participating family businesses, they consult their values when making long-term business decisions, such as those relating to business restructuring and strategic partnerships. Case F provides a good example. For more than 20 years, the long-term strategic focus of Case F has not changed, whereas Participant 12 felt it was time for a change. At the time of the interviews and site visits, Case F was in the process of restructuring to reflect a new vision that Participant 12 and her daughter have for their family business. This restructuring involved, among others, changing the family business's name, reducing the number of employees, and changing from being a provider of Fast-Moving Consumer Goods (FMCG) to being a stokvel media group. These long-term business decisions have all been influenced and shaped by the value placed on the sustainability of the family business. Participant 12 explains: "*This* [old business name] *is going to die now because this, it's limiting in terms of what we have been doing for the past 20 years. I have now come up with a bigger version of that. We are actually a media company – a stokvel media group. Where we will not only be engaging with stokvels on face to face,* [but] *we will have a digital platform, we will have a magazine which is a media,* [and] *my vision is stokvel TV, to have a stokvel TV that's my vision*." Similarly, Participant 9 explains how, in 2018, the value placed on the sustainability of the family business influenced and shaped her long-term decision on whether to continue with the business or not. She states: "*The respect and the trust and integrity and commitment* [as values] *were critical when I came here last year, because I was sent to shut it down basically, because nobody was here. So, I was sent to disinvest, and I looked at it and I said, no ways, guys*."

The value placed on the sustainability of the family business and its employees stopped Participant 9 from closing the business. The sustainability of the family business as a business value is also evident in their commitment towards implementing the long-term business strategy. Participant 9 further explains: "*So, the commitment side for me is we have a strategy, business strategy, we developed, we agreed on it – yes, it's not cast in stone, but we review every year. We can't be diverting this business strategy every two months or every month*." Values also shape the organisational strategy formulation of the family business by influencing the choice of strategic partnerships. For example, in the case of Case C funeral Parlour, the value of business sustainability (of the family business) is identified as influencing the choice of Old Mutual (funeral underwriter) as a strategic partner. Participant 8 acknowledges the benefits that they and their customers enjoy because of this strategic partnership. It is through this partnership that their revenue stream has become more secure, and their business has grown. He comments: "*So, now it increases our volume*

of customers, because Old Mutual is mostly government employees, and also in the private sector. But those things add up to [customer service] – *other people will say 'No, Old Mutual has done this for us', whereas we know that at least that is a kickback that we are getting from one partnership.*"

The influence of values on the family business strategy formulation of the participating businesses in relation to the choice of strategic partnership is also evident through how values influence decisions. In Case E Traditional Clothing, the value entrepreneurship is identified as influencing the choice of City 2's local municipality as a strategic partner. Participant 11 narrates how she partnered with the local municipality in City 2 after identifying an opportunity to expand her traditional clothing in a new city. She comments: "*The branch* [in City 2] *was opened for the local government – I partnered with City 2 municipality in 2018. We opened a second outlet by the beach – the beachfront in City 2* […] *because they were dealing with me, they just said listen here – people are not looking after this outlet* […] *but we want you to take over and run this place because for us as the municipality we know nothing about arts and craft you understand. So, you bring your products and then you can take it over from here*."

Values and organisational strategy formulation

The findings of our study demonstrate that values influence both the vision and values statements, as well as long-term decisions of the family business, and in doing so influence the formulation of their organisational strategy. We also found that founders and next-generation leaders use a combination of personal, family, cultural, and business values when formulating this strategy. These categories of values are commonly identified in the literature (Kupangwa *et al*., 2023b; Iaia *et al*., 2019; Lampel *et al*., 2017; Tàpies and Fernández-Moya, 2012; Miller and Le Breton-Miller, 2005). The values that influence and shape the participating family business's strategy formulation are summarised in Table 5. These values are evident in the vision and values statements and in the quotes by family members narrating their long-term decision-making processes and thinking.

TABLE 3: WORDS IN VISION STATEMENTS

Case	Formal vision statement	Informal vision statement	Words describing values
A	"*Case A Holdings is committed to sustainable business practices, as we seek to identify and respond to the financial and societal issues that have a material bearing on our capacity to create value in the communities that we operate in*."	Does not have an informal vision statement.	Commitment, sustainability, and community.
B	"*Case B is here to help you with all funeral services from removing the body from the home, hospital or police mortuary to digging and preparation of the gravesite. We also offer additional services and products from selling of coffins to insurance covers*."	"*Our vision is to be* [the] *most reliable service provider. We don't want to be the biggest, but we want people to know that they can rely on us during their grief*" (Participant 3).	Reliability and customer service.
C	Does not have a formal vision statement.	To be the best and most efficient funeral service provider based in the township locations of Black communities (Researchers' understanding) "*Case C funeral parlour is the leading funeral home in City 4, providing a wide range of funeral plans and burial services*" (Case C Website).	Efficiency, community, leadership, and customer service.
D	"[To] *serve, grow, and be successful in our chosen area of business*." "*To be your preferred service provider in the laundry and dry-cleaning industry*."	Does not have an informal vision statement.	Serving others, customer service, growth, and success.
E	Does not have a formal vision statement.	To provide quality traditional clothing to the community while maintaining isiXhosa culture (Researchers' understanding)	Quality, traditions, community, and culture.
F	"*Offering* […] *support keys to unlock the stokvel market. We care about growing your brand within the stokvel market*."	Does not have an informal vision statement.	Caring and growth.
G	"*The founding vision was, and continues to be, to offer customers a broad spectrum of logistics services that will honour the principles of excellence, efficiency and productivity*." "*We are a leading logistics company offering all key services needed to move goods efficiently and securely*."	Does not have an informal vision statement.	Customers, customer service, excellence, efficiency, and productivity.

Source: Authors' construction

TABLE 4: WORDS IN VALUES STATEMENTS (CONT.)

Case	Formal values statement	Informal values statement	Words describing values
A	"*At Case A Holdings our corporate values are the standards of excellence we strive to achieve as a successful business and responsible corporate citizen. The values we strive to embody are: Integrity, Ownership, Performance, Empowered, Teamwork. The goal of adding value in a balanced manner is our driving force. As such, we pursue all our business with honesty and fairness*." "*At Case A Holdings we strive to always operate in accordance with good business ethics and in a safe and environmentally responsible way, not simply to comply with legislation, but because it is the right thing to do. Ethical considerations and our corporate values inform all our business decisions*."	"*Because with Case A Holdings it is empowerment, integrity, performance, teamwork and ownership. For me, performance, it still falls under what we believe is hard work. So, integrity goes hand in hand with respect. So, we share the same values with the franchisor. So, we easily blended in*" (Participant 2).	Empowerment, integrity, performance, teamwork, ownership, hard work, respect, achievement, corporate citizenship, responsibility, excellence, fairness, honesty, ethics, value creation.
B	"*Case B funeral parlour services was born out of a sincere desire to provide a quality funeral service to those who cannot afford the service of more expensive undertakers*." "*Case B funeral parlour service portfolio involves the provision of a professional, dignified funeral service to families or individuals who have lost a loved one*." "*We are dependable when you are in need of funeral services. Offering you convenient, quality and reliable services that are available at affordable prices*." "*We vow to offer adequate support that one may require in times of sorrow*."	Does not have an informal values statement.	Sincerity, dignity, quality, support, dependability, customer service, warmth, professionalism, and convenience.
C	Does not have a formal values statement.	Does not have an informal values statement.	
D	Values for Case D Group are listed as "*respect, customer service excellence, consistent delivery, friendly and committed*."	Does not have an informal values statement.	Respect, customer service, excellence, consistency, friendliness, warmth, and commitment.
E	Does not have a formal values statement.	The business is committed to celebrating African culture by making proudly African fashion and accessories. With love for African crafts, the business wants to shine bright like African diamonds. (Researchers' understanding)	African culture and African pride.

TABLE 4: WORDS IN VALUES STATEMENTS (CONT.)

Case	Formal values statement	Informal values statement	Words describing values
F	"*We are passionate about stokvels as a marketing segment*." "*Our unique strategic knowledge and understanding of stokvels in diverse areas allow us to identify opportunities and roll out value-creating campaigns for our clients*."	Does not have an informal values statement.	Passionate, opportunity identification, customer service, and value creation.
G	"*We pride ourselves in contributing to the economy through job creation and ensuring affordable and accessible services to our customers in order to positively contribute to their bottom line* [...] *As a growing brand, we are fully committed to a high standard of quality service*." "*In order to maintain these standards, Case G Investments is committed to: A client-focused culture of service delivery, a culture of innovation and continuous improvement, an environment that fosters leadership and staff development, and sustainable customer relationships based on trust and integrity*."	Does not have an informal values statement.	Commitment, quality customer service, affordable services, innovation, continuous improvement, trust, integrity, leadership, customer, and employee development.

Source: Authors' construction

TABLE 5 :VALUES INFLUENCING FAMILY BUSINESS STRATEGY FORMULATION

Organisational strategy aspect	Values entrenched			
	Personal values	**Family values**	**Cultural values**	**Business values**
Vision and values statements	• Hard work • Commitment • Passion • Entrepreneurship • Benevolence	• Respect • Honesty • Integrity • Hard work • Trust • Family business involvement • Family business continuity	• Humanness • Respect	• Customer focus • Customer service • Community • Teamwork • Professionalism • Respect • Fairness • Honesty • Integrity • Reliability • Accountability
Long-term decisions	• Commitment	• Family business involvement • Family business continuity	-	• Employee personal development and empowerment • Continuous learning • Business sustainability • Innovation and creativity (Entrepreneurship)

Source: Authors' construction

DISCUSSION

Our findings show how the values of the family business, through a combination of personal, family, cultural, and business values, influence and shape its organisational strategy formulation, through influencing both the vision and values statements, as well as the long-term decisions made (restructuring and strategic partnerships). It is through this influence that the values are entrenched in the value system of the family business. The findings also show that the organisational strategy formulation of the participating family businesses is influenced and shaped by those values that the founders and next-generation leaders desire to have upheld by their family businesses. Our study concurs with the literature in that values guide the vision of the family business and its long-term decisions (Yuan and Wu, 2018) because, in institutional settings, values serve as foundational elements that guide the operations and long-term continuity of family businesses (Kupangwa *et al.*, 2023a). Personal, family, cultural and business values were found to be central to formulating (wording) the vision and values statements of the participating family businesses. Worth noting is that the values identified in these statements are mostly related to being customer-focused, behaving ethically, and having *Ubuntu*. For some, these statements promote their organisational identity and highlight what their family businesses stand for. Our finding corresponds with the literature (Yuan and Wu, 2018; Ceja *et al*., 2010), which reports that values play a significant role in shaping the vision of the family business. It is suggested that family businesses tend to favour strategic orientations built around customer relationships over those built on market transactions (Heino, Tuominen and Jussila, 2020). In a recent study by Schweiger, Matzler, Hautz and De Massis (2024), which examines the performance-aspiration gap and strategic change in family businesses, it is noted that the strategic direction of family businesses is less influenced by purely economic values, suggesting a greater focus on strategic stability than in non-family business counterparts. We further show that family businesses consult their values when making long-term business decisions. Values found to be consulted by them mostly relate to the sustainability and family business continuity, as well as innovation and creativity, continuous learning, and commitment. It is through influencing the long-term business decisions that these values are entrenched in the value system of the family business. The findings of this study are supported by Prince (2016), who contends that decision-making in most family businesses is based on the values of the founder and their business-owning families. Several authors assert that values influence strategic business decisions (Panda, 2022) and support the organisation in adapting to external environmental changes while formulating strategies to remain competitive (Linnenluecke and Griffiths, 2010).

CONTRIBUTIONS AND IMPLICATIONS

Our study's contributions are as follows: First, by investigating the role of values in formulating organisational strategies, we advance the need to have a shared organisational vision and mission for the members of the family business. Values are used in creating a shared family and business vision, as they bring unity and enable family business members to have common goals, visions and missions that will inspire them to manifest the organisational strategy collectively and individually (Hubler, 2009). Heino *et al*. (2020) assert that business families that foster cohesive organisational communities desire to have values embedded in the family businesses and that these values are reflected in all their behaviours and actions. Therefore, our study helps us understand how family businesses can align their strategy with embedded family business values and ensure shared organisational strategies among different family business stakeholders. Second, our study responds to several calls on the need to investigate the nature and role of values in family businesses (Murithi *et al*., 2020; Binz *et al*., 2017). Investigating the role of values in family businesses helps us shed light on the role of values in influencing and shaping organisational strategy formulation in family businesses, supporting the development of more responsible, sustainable and future-oriented business strategies. Values shape not only the outcomes of strategic planning but also the way in which strategic decisions are made. Therefore, by embedding values in the strategic planning outcomes and decision-making processes can be seen as a non-imitable organisational resource for family businesses, providing a formidable foundation through which leaders could nurture the development of well-articulated, sustainable and future-oriented business strategies. Last, we respond to calls for further exploration on the nature and role of values as institutional logics in other institutional and cultural settings (Murithi *et al*., 2020), specifically investigating the association of indigenous African cultural systems and organisational strategy and sustainability of indigenous African family businesses (Kupangwa, 2025). While much research exists on values in family businesses in general (e.g., Maung *et al*., 2020; Rau *et al*., 2019), research on the role of values in an indigenous African family business context is scarce, with most research being conducted in Western and European countries (Kupangwa *et al*., 2023a). Using the indigenous African context for our study provides a fertile ground to fully capture the richness, complexity and diversity of entrepreneurial activities in the African context (Agyapong and Acquaah, 2021).

Our study also offers practical implications for family business owners, advisors, and policymakers. First, understanding the role of values and how these values shape the strategic direction of the business helps family business practitioners to align strategic goals with the business-owning family's vision, beliefs, and long-term endeavours. In their recent study, Mismetti *et al.* (2025) argue that conflicts often exist in family businesses due to interwoven relationships and a lack of a clear and shared family vision among members, threatening the family legacy and business sustainability. Therefore, we recommend that family business practitioners develop strategies that reflect both family expectations and business

objectives, promoting internal cohesion and minimising conflicts. For example, family business practitioners can embed values at every organisational level, from vision to execution, ensuring that strategic goals are coherent with the business-owning family's identity, aspirations, and legacy. During strategy formulation, family business leaders can explicitly map strategic objectives to the owning family's core value sets.

Second, since many family businesses operate on deeply embedded but informal value sets, we encourage business leaders to make these values explicit through strategic investigation, which can help professionalise decision-making processes without losing the family essence. Consistent with the recommendation of Kupangwa *et al*. (2023b), it is imperative for founders and leaders to explicitly articulate the values they wish to instil in their family businesses, ensuring their integration into all aspects of strategy crafting, execution, and monitoring, as well as long-term business orientation. Business leaders can document their values in vision and values statements, family constitutions, or strategic plans, which can help promote clarity on the value sets espoused for both family and non-family stakeholders. Third, in accordance with Martínez *et al*. (2019), we recommend that business leaders leverage family business values to strategically position both the family business and its brand identity in the marketplace. This approach can foster competitive differentiation and strengthen brand recognition, particularly among other family-owned and non-family-owned organisations. For instance, values such as customer focus, benevolence, community, respect, integrity, and reliability can be articulated as a unique value proposition that resonates with key stakeholders, including customers, suppliers, and local communities. By embedding these values into the brand narrative, family businesses can cultivate trust-based relationships and long-term stakeholder loyalty.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Our study has notable limitations that pave the way for future research. First, our study was cross-sectional in nature, which may have prevented us from fully investigating the nature of family business strategy formulation in detail. We believe that, in the future, utilising a longitudinal design would assist in gaining more insights into the nature and process of family business strategy formulation, examining how strategies are developed in family businesses. Furthermore, while the strategic formulation process involves several key components, our study focused on two components, namely vision and values statements, as well as long-term business decisions; we did not investigate how values shaped resource allocation and the family business strategy implementation and evaluation. Therefore, future studies should investigate other strategy formulation elements, such as how values shape the other business strategy formulation components (e.g., succession planning, organisational marketing, resource planning and allocation, as well as investment and financial decisions). Furthermore, our study did not investigate how values influenced the strategic environment assessment of family businesses, which helps business organisations to analyse business and economic environmental opportunities and

threats that define the strategic goals of businesses (Benzaghta, Elwalda, Mousa, Erkan and Rahman, 2021). Another limitation lies in its focus on small and medium-sized family businesses, which may restrict the breadth and complexity of strategy formulation practices observed. For example, our participants did not have mission statements or purpose statements, which we could have enhanced our analysis and findings. As noted by Mashingaidze, Phiri, and Bomani (2021), strategic decisions in small and medium-sized enterprises often differ from those in larger firms due to the latter's more complex governance structures, which demand greater managerial oversight (Hernaus, Vuksic and Štemberger, 2016). Future research could generate deeper insights by exploring how values influence both the content and process of strategy formulation in large family businesses and how these value-driven processes evolve to shape their long-term strategic direction.

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WILLINGNESS TO COLLABORATE BETWEEN LOCAL AND IMMIGRANT ENTREPRENEURS IN SOSHANGUVE: A BRAVE FRONTIER OF MANAGEMENT

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ABSTRACT

This study investigates the dynamics of collaboration between local and immigrant entrepreneurs in Soshanguve, South Africa, within a context marked by socioeconomic tension, cultural diversity, and competition for limited market resources. Recognizing challenges such as perceived unfair competition, language barriers, and xenophobia, the research explores how structured mentorship and knowledge exchange programs can facilitate inclusive entrepreneurial ecosystems. A quantitative research design was adopted, utilizing survey responses from 272 entrepreneurs. Data were analysed through descriptive statistics, reliability testing using Cronbach's Alpha, and correlation analysis to examine relationships between collaboration readiness and perceived benefits. Findings reveal a high willingness among both groups to engage in collaborative efforts, particularly where mutual gains in business growth, innovation, and operational resilience are perceived. Despite significant challenges, the study emphasizes that fostering mutual respect, intercultural dialogue, and joint training initiatives can enhance trust, enable entrepreneurial skills transfer, and contribute meaningfully to economic integration and sustainable township development in South Africa.

Keywords: entrepreneurs; immigrant; barriers; collaborate

INTRODUCTION

South Africa, a major destination for intra-African migration, has seen a growing influx of immigrants over the past two decades. Many engage in entrepreneurship for survival and upward mobility, especially in township economies like Soshanguve, which reflect the socio-economic complexities of post-apartheid urban margins (Pooe and Soni, 2015). These areas remain shaped by historical exclusion, limiting local entrepreneurs' access to finance, markets, and institutional support (Binns and Nel, 2002; Meyer and Gifford, 2017). In contrast, immigrant entrepreneurs often utilize transnational networks, family labor, and frugality to gain

market footholds. While they enhance consumer choice and economic vitality (Charman *et al*., 2012), their presence can trigger perceptions of unfair competition and cultural threat, sometimes resulting in xenophobic violence (Landau, 2012; Harris, 2002). Entrepreneurship is a recognized driver of innovation and inclusive growth (GEM, 2019), and collaborative models offer potential for skills exchange, resource sharing, and social cohesion (Chesbrough, 2003; Kobia and Sikalieh, 2010). However, trust deficits, stereotypes, and institutional barriers remain obstacles to cooperation (Batjargal, 2007; Pooe and Soni, 2015). This study explores the willingness of local and immigrant entrepreneurs in Soshanguve to collaborate, examines structural and relational barriers, and considers mentorship as a strategy to build inclusive entrepreneurial ecosystems (Putnam, 2000; Portes, 1998).

LITERATURE REVIEW AND PROBLEM INVESTIGATED

Entrepreneurship in South Africa

Entrepreneurship is a key driver of economic growth, job creation, and poverty alleviation, especially in developing economies like South Africa (Herrington *et al*., 2017). Despite various policy efforts and support programs, the country still shows relatively low levels of entrepreneurial activity compared to global standards, as highlighted in Global Entrepreneurship Monitor (GEM) reports. Structural challenges such as limited access to finance, inadequate education, and regulatory barriers hinder entrepreneurial growth (Fatoki and Asah, 2011; Urban, 2010).

In South Africa's township economies, the informal sector dominates, with micro and small enterprises operating under significant constraints. Township entrepreneurs navigate saturated markets, weak infrastructure, and limited access to growth opportunities (Charman *et al*., 2012). However, these areas remain vital for grassroots development, particularly where formal employment is scarce. Local entrepreneurs often face intense competition and lack the strategic capacity and networks for long-term sustainability.

Migration and Immigrant Entrepreneurship

South Africa is a major migration hub, attracting immigrants from sub-Saharan Africa, many of whom start businesses in informal economic spaces. Immigrant entrepreneurs, particularly from Zimbabwe, Nigeria, Somalia, and Ethiopia, exhibit resilience and adaptability, employing strategies like cost minimization, collective purchasing, family labor, and customer-focused services (Crush *et al*., 2015).

Studies highlight the economic contributions of immigrant entrepreneurs in South Africa, diversifying goods and services, creating jobs, and developing local supply chains (Peberdy, 2016; Tawodzera, 2019). However, their success has sometimes caused resentment among

local entrepreneurs, who perceive them as unfair competitors with access to informal support networks and better supply chain management.

Barriers to Collaboration

Collaboration between local and immigrant entrepreneurs is often hindered by socio-cultural and structural barriers. Xenophobia, cultural misunderstandings, stereotyping, and mistrust impede business partnerships (Moyo and Zanker, 2020). Research highlights language barriers, differing value systems, and entrepreneurial orientations as key obstacles to cooperation (Chiloane-Tsoka and Mmako, 2014). Concerns about security, unfair pricing, and unequal access to capital also increase tensions. Additionally, institutional barriers, such as unclear immigration policies and limited support for mixed-ownership ventures, fragment entrepreneurial ecosystems.

Social Capital and Entrepreneurial Integration

Social capital, the resources within networks (Putnam, 2000; Lin, 2001), is crucial for business growth, knowledge exchange, and opportunity identification. Bonding, bridging, and linking social capital foster collaborative entrepreneurship. In township contexts, bridging social capital between local and immigrant entrepreneurs can drive innovation and shared prosperity (Ratten, 2014). Mentorship programs, business incubators, and cooperative models can facilitate learning and market access. International case studies from Kenya, Ghana, and Brazil show that mentorship, peer networks, and inclusive policies can bridge ethnic or national divides in entrepreneurship.

The Problem Investigated

Despite growing recognition of immigrant entrepreneurs' roles in township economies, tensions persist. A lack of structured collaboration in places like Soshanguve limits opportunities for skills development, market growth, and resilience. Perceptions of unfair competition and mistrust hinder economic synergies. This study addresses a gap by examining the willingness of local and immigrant entrepreneurs in Soshanguve to collaborate, identifying barriers, and evaluating mentorship programs as a means to foster inclusive partnerships. The findings offer insights for policymakers, practitioners, and researchers on enhancing township entrepreneurship.

RESEARCH OBJECTIVES AND HYPOTHESES

Primary Objective

This study aims to assess the willingness of local and immigrant entrepreneurs in Soshanguve to engage in collaborative business practices. It explores whether such collaboration is viewed as a strategic path to economic sustainability, community integration, and shared prosperity.

The analysis is grounded in theories of social capital, resource dependency, and intergroup contact, which emphasize the roles of trust, perceived benefits, and institutional contexts in shaping collaboration.

Secondary Objectives

To support the main goal, the study outlines the following secondary objectives:• Assess the extent of skills transfer between local and immigrant entrepreneurs in township economies, focusing on both formal and informal learning.• Identify key barriers—social, economic, cultural, and regulatory—that hinder collaboration, including xenophobia and institutional exclusion.• Explore context-specific strategies like mentorship, joint ventures, and shared workspaces to promote collaboration and inclusive entrepreneurial ecosystems.

These objectives aim to inform debates on inclusive development, the informal economy, and migration in African urban settings.

Hypotheses

Drawing from literature and theory, the study advances these testable hypotheses:

- H_1: Both local and immigrant entrepreneurs increasingly show willingness to collaborate in township economies.
- H_2: Skills transfer between the two groups enhances innovation and adaptability in the informal sector.
- H_3: Despite systemic barriers, both groups demonstrate resilience and continue to grow their enterprises.

These hypotheses will be tested using quantitative methods such as correlation, regression, and factor analysis to validate findings and inform academic discussions on entrepreneurship and migration.

RESEARCH METHODOLOGY

This section outlines the research philosophy, design, sampling strategy, data collection methods, and analytical techniques employed to investigate entrepreneurial collaboration dynamics between local and immigrant entrepreneurs in Soshanguve, Ward 29. The methodology was guided by a pragmatist paradigm, aligning with the study's applied orientation toward understanding real-world entrepreneurial interactions and designing actionable recommendations.

Research Design

The study employs a quantitative research design, using a descriptive survey to collect data on collaboration willingness, skills transfer, and perceived barriers among entrepreneurs. This approach enables identification of patterns and relationships for broader generalization (Creswell & Creswell, 2018). A quantitative method ensures objective measurement and empirical testing of intergroup dynamics, focusing on observable indicators of trust and social capital.

Sampling and Data Collection

The target population comprised active small and micro-enterprise (SME) owners operating in Soshanguve's Ward 29, encompassing both South African nationals and immigrant entrepreneurs. A **multi-stage, non-probability sampling approach** was adopted, combining **purposive sampling**—to ensure inclusion of both local and foreign-owned businesses—and **snowball sampling**, which enabled access to hard-to-reach immigrant entrepreneurs through established networks. This dual strategy enhanced the representativeness and inclusivity of the sample while accommodating contextual realities of informal enterprise environments.

A total of **272 entrepreneurs** participated in the study. Data were collected using a **structured, pre-tested questionnaire**, which included both closed-ended Likert-scale items and demographic questions. The questionnaire was administered in both **digital (Google Forms)** and **paper-based formats**, ensuring accessibility and mitigating digital exclusion. Data collection occurred over a four-week period, with the assistance of trained research assistants fluent in multiple local languages.

Instrument Validity and Reliability

To ensure the rigour of the measurement instrument, **face and content validity** were verified through consultations with subject-matter experts in entrepreneurship, sociology, and statistics. Pilot testing was conducted with 15 entrepreneurs, resulting in minor modifications to wording and layout for clarity and cultural appropriateness.

Construct validity was established through **Exploratory Factor Analysis (EFA)** using Principal Component Analysis (PCA) with Varimax rotation. Factors with eigenvalues greater than 1 were retained, and items with factor loadings below 0.5 were excluded to maintain internal consistency. **Cronbach's alpha coefficients** were computed for each subscale, yielding values above the acceptable threshold of 0.7, indicating high reliability of the constructs measured (Nunnally and Bernstein, 1994).

Data Analysis Techniques

The quantitative data were processed and analyzed using **IBM SPSS Statistics version 27**. Descriptive statistics (frequencies, means, standard deviations) were computed to profile respondents and summarize variable distributions. Inferential statistics were used to test relationships between constructs:

- **Pearson correlation analysis** assessed associations between perceived collaboration benefits and willingness to collaborate.
- **Chi-square tests of independence** examined categorical associations between demographic variables (e.g., nationality) and collaboration attitudes.
- **Factor analysis**, as noted above, was employed to uncover latent dimensions of entrepreneurial skills transfer.
- The **normality of data** was assessed using skewness and kurtosis values, while homogeneity of variances was tested using Levene's test to determine the suitability of parametric techniques.

All statistical tests were interpreted at a **95% confidence level**, with p-values of less than 0.05 considered statistically significant.

RESULTS AND FINDINGS

This section presents the empirical outcomes derived from a structured survey administered to 272 entrepreneurs operating in Soshanguve, Gauteng Province, South Africa. The results are organized thematically in alignment with the study's objectives. Each subsection offers a robust interpretation of the data, with appropriate theoretical anchoring to enhance the explanatory depth.

Demographic and Entrepreneurial Profiles

The demographic data offer insights into the entrepreneurial landscape of the township. Among 272 respondents, 71.3% were local South Africans and 28.7% immigrants, reflecting regional migration patterns into South Africa's informal economy (Peberdy, 2016). Most participants were aged 30–39 (34.9%), consistent with youth-driven entrepreneurship in Sub-Saharan Africa (Chigunta, 2017). The gender split was fairly balanced—55.2% male and 44.8% female—indicating progress in gender inclusion. Educational levels were modest, with 61% holding only secondary education and 23% with post-secondary qualifications, supporting the view that entrepreneurship here is largely necessity-driven (Naudé, 2011).

Business Characteristics

The structure of the enterprises highlighted key features of township economies. Most (66.5%) operated in the retail sector—selling groceries, clothing, and electronics—indicating limited diversification and saturation in low-barrier industries. About 15.7% were service-based (e.g., hair salons, internet cafés, repairs), with the rest in informal manufacturing and mobile vending. Access to finance was a major issue: half of the businesses relied solely on personal savings, and only 12% had received formal business training or institutional support. This reflects the persistent "missing middle" financing gap, where informal businesses struggle to access credit due to a lack of collateral or formal documentation (Beck & Demirgüç-Kunt, 2006).

Willingness to Collaborate

A key finding was the high willingness to collaborate across demographic and national boundaries. Over 50.7% of respondents were positive about collaboration (30.1% strongly agreed; 20.6% agreed), motivated by resource pooling, market expansion, and mutual learning. Immigrant entrepreneurs (58%) were more willing than locals (48%), aligning with Putnam's (2000) view that marginalized groups value bridging social capital for integration.

Correlation analysis revealed a moderate-to-strong positive relationship between perceived benefits and willingness to collaborate (Pearson $r = 0.512$, $p < 0.01$). This supports utility-maximization theory in entrepreneurial decision-making (Aldrich & Zimmer, 1986), indicating that entrepreneurs who view collaboration as beneficial for profitability and risk reduction are more likely to engage in it.

Entrepreneurial Skills Transfer

Skills and knowledge exchange emerged as a salient domain of interaction between local and immigrant entrepreneurs. Sixty-four percent of participants endorsed the notion that cross-cultural entrepreneurial collaboration can foster mutual learning. Immigrant entrepreneurs were frequently lauded for their innovative supply chain strategies, bulk purchasing models, and informal credit systems, while local entrepreneurs brought expertise in navigating South Africa's regulatory framework, understanding local consumer preferences, and engaging municipal authorities.

Exploratory factor analysis revealed two distinct latent dimensions underpinning skills transfer:

- **Operational Efficiency**: This dimension encompassed competencies such as inventory control, cost minimization strategies, product diversification, and waste reduction.
- **Market Navigation**: This included customer segmentation, relationship marketing, social media branding, and responsiveness to local cultural trends.

These dimensions suggest that entrepreneurial collaboration is not merely transactional but holds the potential to create synergistic value—a concept central to dynamic capabilities theory (Teece, Pisano, and Shuen, 1997). By leveraging complementary assets, cross-cultural entrepreneurial dyads may achieve superior performance and resilience in volatile township markets.

Barriers to Collaboration

Despite the high willingness to collaborate, four dominant categories of barriers were identified, each rooted in deeper socio-political and institutional challenges.

Cultural and Language Differences

Approximately 64% of respondents agreed or strongly agreed that language barriers and divergent business etiquette impaired trust and effective communication. Qualitative data suggested recurring tensions over negotiation styles, time orientation, and customer service expectations. This aligns with intergroup contact theory (Allport, 1954), which posits that intercultural encounters may reinforce rather than reduce prejudices without equal status and shared goals.

Xenophobia and Safety Concerns

A substantial 84.9% cited xenophobic attacks, theft, and extortion as deterrents to collaboration. Immigrant entrepreneurs recounted experiences of police harassment, looting, and systemic exclusion. This corroborates existing studies on the precarious position of foreign-owned informal businesses in South Africa (Crush and Tawodzera, 2014) and underscores the influence of hostile socio-political environments on economic behavior.

Lack of Trust

Trust deficits emerged as a central theme. Fifty-seven percent of local entrepreneurs harbored suspicions about immigrants' pricing tactics, tax compliance, and loyalty to local networks. Conversely, immigrants perceived locals as exclusionary and resistant to partnerships. This mutual distrust inhibits information sharing and joint ventures, both of which are necessary for sustained collaboration and innovation.

Policy and Regulatory Constraints

Both local and immigrant entrepreneurs reported bureaucratic inertia in business registration, licensing, and accessing development programs. Immigrants, in particular, faced discriminatory treatment in municipal enforcement practices, which often rendered their businesses "informal" by default. These findings affirm arguments in institutional theory (North, 1990), which highlight how poorly designed or inconsistently implemented policies can hinder economic inclusion.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

This section articulates key implications for entrepreneurial development stakeholders, including policymakers, development agencies, entrepreneurial support organizations, and the entrepreneurs themselves. Grounded in the empirical findings and supported by established theoretical frameworks, the recommendations aim to foster sustainable collaboration and mutual growth between local and immigrant entrepreneurs in South African townships.

Enhancing Entrepreneurial Collaboration

The study's findings underscore a high latent willingness to collaborate among township entrepreneurs, tempered by socio-cultural and structural barriers. To transform this potential into practice, the following managerial interventions are proposed:

Establish Local Entrepreneurial Exchange Platforms

It is imperative to develop structured forums—such as bi-monthly collaboration circles, business roundtables, or shared marketplace initiatives—where local and immigrant entrepreneurs can interact. These platforms, coordinated by local business chambers or municipal enterprise units, should aim to:

- Facilitate business-to-business (B2B) networking.
- Promote knowledge sharing and co-innovation.
- Build trust and dismantle prejudices through continuous intergroup engagement.

This recommendation aligns with Putnam's (2000) notion of "bridging social capital," which emphasizes the role of cross-cutting ties in building inclusive economic communities.

Promote Joint Ventures and Cooperative Models

Government and NGOs can encourage the formation of cooperative business models—particularly in high-density retail sectors—where local and immigrant entrepreneurs pool capital, share risks, and co-own distribution networks. Research shows that such collectivist models enhance bargaining power and operational resilience (Develtere, Pollet and Wanyama, 2008).

Special incentives, such as tax breaks or procurement prioritization, could be provided to businesses that register as collaborative enterprises or cooperatives with multi-ethnic ownership structures.

Building Entrepreneurial Capacities and Skills Transfer Mechanisms

The mutually acknowledged benefit of knowledge and skills exchange provides a unique entry point for skills development and innovation diffusion.

Tailored Entrepreneurial Education Programs

Stakeholders such as the Small Enterprise Development Agency (SEDA), Sector Education and Training Authorities (SETAs), and private business schools should co-design entrepreneurial development programs that:

- Integrate local knowledge (e.g., regulatory literacy, cultural fluency) and immigrant expertise (e.g., procurement efficiency, informal credit systems).
- Offer bilingual or multilingual training content to accommodate linguistic diversity.
- Emphasize experiential and peer-learning pedagogies.

These programs should draw on constructivist adult learning theories (Knowles, Holton, & Swanson, 2015), recognizing that adults learn best when training content is contextualized and participatory.

Mentorship and Apprenticeship Exchanges

Establish a formal mentorship initiative where experienced immigrant entrepreneurs mentor younger or emerging local entrepreneurs, and vice versa. This bidirectional model fosters cross-learning while embedding social integration into economic interactions. Business incubation hubs in townships should be capacitated to manage and monitor such programs.

Addressing Xenophobia and Building Trust Ecosystems

Given that xenophobic tensions and trust deficits emerged as major inhibitors to collaboration, a multidimensional response is required:

Community Sensitization and Dialogue

Social cohesion interventions should be embedded within economic development programs. Civil society actors, religious institutions, and schools must be mobilized to lead anti-xenophobia campaigns and intercultural dialogue. These should highlight the economic contributions of immigrants and debunk prevailing myths.

Drawing from Allport's (1954) Contact Hypothesis, such programs must ensure:

- Equal status of participants.
- Institutional support.
- Cooperative rather than competitive interactions.

Local Business Code of Ethics and Mediation Councils

Township business associations should co-create a localized **Business Code of Ethics**, endorsed by both local and immigrant traders. This should include conflict resolution protocols, customer service standards, and fair pricing guidelines.

Further, informal “business mediation councils” can be established to resolve disputes and mediate conflicts before they escalate into violence. Such institutions enhance institutional trust and reduce reliance on politicized policing or vigilantism.

Reforming Policy and Regulatory Frameworks

A recurring theme in the data was the exclusionary nature of policy frameworks, particularly for immigrant entrepreneurs. To address this:

Inclusive Business Formalization Strategies

Municipalities must revise business registration procedures to accommodate low-income entrepreneurs, including immigrants. This entails:

- Simplifying documentation requirements.
- Offering low-cost or mobile registration units in townships.
- Recognizing alternative forms of identification (e.g., asylum seeker permits).

Formalization should be framed not merely as a compliance mechanism, but as a gateway to market access, finance, and legal protection.

Data-Driven and Evidence-Based Policy

Finally, regular township entrepreneurship surveys must be institutionalized at the municipal level. This would provide granular data on challenges, progress, and the efficacy of interventions. Evidence-based policymaking ensures responsiveness and reduces political scapegoating of immigrant communities during periods of economic stress.

CONCLUSION

The managerial implications and recommendations advanced in this section highlight that fostering collaborative entrepreneurship in townships requires a systems-level approach. This includes enabling institutions, cultural integration, business model innovation, and responsive policy frameworks. Stakeholders must move beyond reactive interventions to build a resilient and inclusive township economy grounded in trust, diversity, and shared prosperity.

CONCLUSION AND SUGGESTIONS FOR FURTHER RESEARCH

Conclusion

This study examined the perceptions of local and immigrant entrepreneurs regarding collaboration opportunities in South African townships through qualitative in-depth interviews. Findings indicate that both groups recognize the economic benefits of collaboration, such as knowledge exchange and market access, but face socio-cultural and structural barriers, including trust issues, xenophobia, and exclusionary policies.

Theoretically, the study contributes to transnational entrepreneurship and informal economy literature by highlighting how social identity, institutional environments, and power imbalances influence entrepreneurial interactions in marginalized urban areas. Practically, it offers a framework for policy and managerial recommendations focused on multi-stakeholder collaboration, trust-building, and inclusive reform, valuable for local governments, development agencies, and business support organizations working to enhance township economies and foster peaceful coexistence among diverse entrepreneurs.

Suggestions for Further Research

In light of the scope and limitations of the current study, several avenues for future scholarly inquiry are proposed:

Comparative Case Studies Across Provinces

Future research should consider comparative analyses across different provinces or metropolitan areas in South Africa to capture the heterogeneity of township entrepreneurial ecosystems. For instance, collaboration dynamics in Gauteng townships may differ significantly from those in KwaZulu-Natal or Western Cape due to varying socio-political histories, migration patterns, and institutional responses.

Quantitative Assessments of Collaboration Outcomes

While this study adopted a qualitative approach to understand perceptions and lived experiences, subsequent studies could employ quantitative methods to measure the economic and social outcomes of entrepreneurial collaborations. Indicators might include profitability, employment creation, innovation rates, and customer satisfaction among businesses engaged in cross-cultural partnerships.

Longitudinal Studies on Trust and Social Capital Development

Given the centrality of trust in fostering sustainable collaboration, longitudinal research could track the evolution of trust and social capital among local and immigrant entrepreneurs over time. This would offer insights into how trust is built, eroded, or restored in high-risk informal market settings.

Gender and Youth Perspectives

Future studies should disaggregate findings by gender and age to understand how women and youth—both local and immigrant—experience and navigate entrepreneurial collaboration. This would illuminate intersectional challenges and support the design of more inclusive support programs.

Role of Technology and Digital Platforms

There is a growing interest in how digital tools, such as mobile money, online marketplaces, and social media, can facilitate collaboration and reduce transaction costs. Research is needed to explore how digital technologies can serve as enablers or barriers in township entrepreneurial partnerships.

Post-Conflict and Migration Studies Lens

Lastly, scholars may benefit from engaging with migration studies, conflict transformation, and peacebuilding literature to deepen the understanding of xenophobia as not only a political phenomenon but also an economic one with direct consequences for entrepreneurial development.

Closing Remarks

The economic future of South Africa's townships depends not only on the ingenuity of their entrepreneurs but also on their ability to collaborate across cultural and national boundaries. This study has illuminated both the promise and the perils of such collaboration. It is now incumbent upon researchers, practitioners, and policymakers to act decisively in shaping inclusive and just entrepreneurial ecosystems where diversity is seen as an asset, not a threat.

FUTURE RESEARCH DIRECTIONS

Future research could delve deeper into the long-term impacts of collaboration between local and immigrant entrepreneurs on economic development and social cohesion. Additionally, comparative studies Additionally, comparative studies across different townships and regions in South Africa would provide insights into regional variations in collaboration dynamics.

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TRACK 5: GENERAL AND STRATEGIC MANAGEMENT (INCLUDING MANAGEMENT EDUCATION

AN ALTERNATIVE TO WORK-LIFE BALANCE: ATTAINING LIFE-WORK BALANCE WITH LOAD SHEDDING

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ABSTRACT

The aim of this study was to explore the coping strategies of households amid electricity load shedding. The study looks at how to attain a life-work balance as opposed to the more researched work-life balance challenges to manage South African Eskom power shedding. Adopting a qualitative methodology, eleven working household members in Pine Haven, Bloemfontein, were interviewed utilising systematic random sampling to identify each until saturation was reached. Thematic analysis of the interviews revealed that load shedding disrupted home and leisure having a knock-on effect creating life-work imbalances. Coping strategies included home management schedule adjustments, alternative energy sources, and stress management. The study contributes to mitigation strategies households can adopt proactively planning home activities around the availed load shedding schedules to still be able to manage homelife and be productive in the workplace. Given Eskom's intermittent electricity supply continues to affect households, this study contributes new knowledge on life-work balance.

Keywords: load shedding; life-work balance; South Africa; work-life balance

INTRODUCTION

South Africa (SA) has an electricity access rate of approximately 84.7%, yet 58% of its population experiences energy poverty, negatively impacting health, well-being, and income generation (Taylor & Valodia, 2023). Energy poverty is linked to both affordability and access to electricity and load shedding in SA has significantly affected both economic and non-economic aspects of daily life. The Media Online (2023) states that nearly 50% of people leave home earlier and return later due to traffic disruptions caused by non-functional traffic lights, reducing time for non-economic activities and affecting work-life balance and productivity. This power disruption also impacts travel behaviour for both workers and their children. Moore (2022) found that employees often arrive late or miss work due to alarms not going off and limited transport options in the dark, with increased safety risks and stress about family

welfare. Additionally, 40% of participants reported that their children's education suffered, as they could not study or complete homework during power outages (The Media Online, 2023). Load shedding also influenced consumer behaviour, with 75% of South Africans buying less food to avoid spoilage and changing the types of meals prepared. Furthermore, 74% experienced damage to at least one appliance, and 31% noted negative impacts on home-based businesses (The Media Online, 2023), supporting Taylor and Valodia's (2023) findings that load shedding hampers income-generating activities. Therefore, load shedding—controlled power cuts due to demand exceeding supply—disrupts daily activities such as bathing, cooking, and drinking, contribute to energy poverty and hindering progress toward the Sustainable Development Goal (SDG) 7, which aims for universal access to sustainable energy (United Nations, 2015). Eskom, responsible for generating 90% of SA's electricity (Eskom, 2021), has implemented load shedding since 2007/2008, with outages reaching stage 6 in 2021 and increasing significantly in 2022 (Govender & Nkosi, 2022). In that year alone, SA experienced 205 days of load shedding, which escalated to 335 days of load shedding in 2023 (Allan Gray, 2024). Despite the subsiding of load shedding to approximately 91 days in 2024 (Eskom, 2024), the challenge of power cuts remains in SA, as seen by the immediate implementation of stage 6 load shedding on 23 February 2025 (Business Tech, 2025). While research exists on general consumer perceptions of load shedding (Jele, 2023; Hlengwa & Tembe, 2022), there is limited analysis of how employed household members in the Free State province cope with its effects (Erero, 2023). This study addresses that gap by examining the impact of load shedding on life-work balance, finances, and psychological well-being, along with current and future mitigation strategies as power cuts intensified between 2019 and 2023. Load shedding significantly disrupts citizens home lives. For example, consumers adjust shopping habits to prevent food spoilage due to unreliable refrigeration, while frequent power outages damage household appliances, leading to costly replacements. Also, traffic congestion from non-functioning traffic lights prolongs getting to work commutes, and power-dependent tasks such as computer-based work, face delays. These disruptions contribute to a growing imbalance between home responsibilities and work obligations. The research objective was to explore load shedding mitigation strategies by households implemented to circumvent the negative socio-economic effect of load shedding on their life-work balance.

PROBLEM STATEMENT AND RESEARCH OBJECTIVE

Despite the widespread impact of load shedding on daily life, limited research exists on its effects on household management in terms of life-work balance. The problem this study examined was how load shedding influences life-work balance in selected Free State households, from the perspective of an employed household member. By exploring this, the

research posits that power disruptions impinge on personal well-being and ultimately work performance.

LITERATURE REVIEW – UNDERLYING THEORY

Work-life balance as explained by Kishore and Roopavathi, (2021) and Chan, Teh, and Wong, (2023) is the amount of time one spends on family responsibilities compared to the amount of time doing one's work. Boiarintseva, Kelliher, and Richardson (2019) emphasize that balance requires restricting one domain to be able to allocate time to the other. However, limited studies focus on the load shedding coping strategies of working householders and any subsequent effect on work. Relevant theories considered were: understanding what explains household resilience as the capacity of a system to absorb shocks, maintain its core functions and adapt to new circumstances (Macmillan *et al*., 2023); Self-Determination Theory (SDT) (Abdulrahman, Fotiadis, & Spyridou, 2019) which explores how social contexts influence well-being by either supporting or hindering needs. When fulfilled, household members could experience self-determination, improving well-being and work-life balance; Conflict Theory explains how work and home life become incompatible, as seen in Zambian women who lost leisure time due to load shedding (Kunda-Wamuwi & Umar, 2019); the Conservation of Resources Theory similarly highlights how energy spent on essential tasks reduces resources for home life (Nair & Kaushik, 2020); while Border Theory describes the overlap between work and home, such as extended commutes due to traffic disruptions from load shedding, further blurring boundaries (Nair & Kaushik, 2020); and Social Identity Theory which examines how individuals' feel life stops during load shedding, restricting autonomy and affecting perceived balance (Dworzanowski-Venter, 2023)

The impact of load shedding on households: Electricity is used by every stakeholder in SA, which includes the public sector, the private sector and households. At a macroeconomic level, Meyer and Neethling (2023) state that the availability of electricity is critical for economic growth in SA. The output level in the economy also depends on the energy produced and the type of technology used. However, the study also showed that household demand for electricity only increased if electricity production increased (Meyer & Neethling, 2023). Therefore, it seems that there is a bi-directional effect between electricity production and household electricity demand. The social impact of load shedding can be considerable. Environmentally, load shedding might contribute towards the efforts to mitigate climate change as less electricity, which is mainly produced through coal in SA, is created (Africa Check, 2023). In turn, this has an influence on future generations' health and welfare in a social context. The continuously interrupted power supply also leads to social challenges such as time loss, safety risks, health risks and environmental degradation effects (as dirtier fuel choices are made). The time loss factor was also confirmed by The Media Online (2023),

which found that load shedding leads to more time spent on travelling to work and less time for leisure activities. This time loss leads to a life-work imbalance. Furthermore, the safety element was confirmed by Eco Flow (2023), which found that the crime rate during the week increased as a result of load shedding. Additionally, Bohlmann and Inglesi-Lotz (2021) confirm that more access to electricity leads to cleaner fuel choices among low-income households and a reduction in the use of fuels such as wood and paraffin, which are detrimental to health and lead to loss of time which could be spent being economically productive. Therefore, access to electricity supports the energy stacking concept in that stakeholders will use cleaner electricity if they can access it so that households make cleaner fuel choices, which supports good health and time spent on productive activities, which can be linked to improved life-work balance. Dworzanowski-Venter (2023) found that load shedding causes psychological distress, with participants reporting that life halts during outages. It creates widespread anxiety, affecting both individuals and society, which worsens when power is not restored on time. Participants also reported anger and emotional dysregulation, leading to anxiety and depression (Dworzanowski-Venter, 2023). Abdulrahman *et al*. (2019) found that psychological autonomy—self-governance and control over one's life—positively affects well-being and work-life balance. Load shedding disrupts this autonomy, preventing individuals from making decisions during outages and acting as a mediator between load shedding and life-work imbalance. Psychological autonomy, competence, and relatedness are essential needs (Abdulrahman *et al*., 2019). A loss of autonomy reduces psychological competence—the ability to adapt and exert control—harming well-being and work-life balance. Lie and Saraswati (2020) confirm this link, showing that diminished autonomy and competence negatively impact overall well-being. The effects of electrical power on life and subsequently work are clearly seen in Table 1 that highlights its impact in two countries (SA and Zambia) that experience electrical outages. The table is compiled from research undertaken in 2023 (SA) and 2019 (Zambia).

TABLE 1 SOCIO-ECONOMIC IMPACT OF LOAD SHEDDING ON HOUSEHOLDS IN SOUTH AFRICA AND ZAMBIA

Affected Items	**South Africa**	**Zambia**
Electrical equipment	74% of participants experienced damage to at least one electrical appliance.	11.8% of households experienced damage to electrical appliances.
Food	75% bought less food to avoid food wastage.	21.5% of households had spoiled food which resulted in wastage; therefore, less food bought.
	Change in food type bought to accommodate load shedding.	More trips to supermarkets to buy perishable food – money waste and misallocation.

	More take aways bought due to load shedding – misallocation of financial resources.	
Crime	Increased crime rates during the week (3.2%) and on weekends (8%).	19.4% of households experienced an increase in crime rates during load shedding.
Studies	40% of participants stated that their children's educational outcomes deteriorated.	Disruption of night studies and higher education; the educational outcomes of children in areas with less load shedding vs more load shedding is visible.
Business	31% of participants had their home-operated businesses disrupted.	17.2% of households had reduced business operations.
		Increased operational costs for businesses such as butcheries, where perishable meat has to be bought daily.
Water	N/A	3.2% of households experienced an interruption of water supply
		Women had the additional task to find water from alternative sources.
Entertainment	N/A	Reduced entertainment/more alcohol drinking.
Relationships	52% of participants stated they spent more quality time during load shedding.	Better quality time spent between a married couple.
Life-work balance	50% of the participants left home earlier and arrived later at home.	Women took longer to prepare cooked meals and struggled to nurse babies at night.
		Reduced operating time for businesses such as butcheries.
Health	N/A	Regression towards dirtier fuel choices such as charcoal – carbon monoxide risks.
		Infants who fell ill at night could not be assisted at clinics.
Finances	More costs associated with buying take aways, extra security measures, replacing damaged electrical appliances and buying alternative energy sources.	Additional costs associated with buying perishable food more frequently and more operational costs for businesses such as butcheries.

Source: Adapted from The Media Online (2023); Kunda-Wamuwi and Umar (2019)

RESEARCH DESIGN AND METHODOLOGY

This research philosophy adopted was that of interpretivism and an epistemology that suggests reality is socially constructed, as it aims to understand the effects of load shedding and life-work balance through the participants' experiences (Alharahsheh & Pius, 2020). A qualitative methodology was adopted allowing for rich, narrated data that reflects human experiences from one-one-one interviews undertaken with the researcher (King & Stahl, 2020). A spatially based systematic sampling technique (De Vos, Strydom, Fouche, & Delport, 2005) was used where every 5th participant was selected after the first random choice by the researcher. Households connected to the Eskom electric-power grid and with an employed member were recruited in the Pine Haven suburb, Bloemfontein as inclusion criteria. Thematic

analysis was used to analyse research findings. Ethical approval was obtained from the University of the Free State General/Human Research Ethics Committee (GHREC) before the fieldwork began (Ethical Clearance Number UFS-HSD 2024/0484). Participants signed a participant consent form during the recruitment phase. The researcher visited 17 houses and 11 were interviewed who had at least 1 household member employed or self-employed. Saturation was reached at 11 interviews. Interviews were conducted at participants' homes to ensure a comfortable environment for them, and audio recorded on the researcher's cellphone to ensure accurate data transcription after each interview. The interview schedule consisted of nine questions and the interview times ranged between 15 to 39 minutes. Data was analyzed thematically using an inductive approach, identifying patterns and themes from the responses (Xu & Zammit, 2020; Azungah, 2018). Participant anonymity was ensured by assigning pseudonyms H1-H11 in reporting. As the study focused on a specific location it is not broadly generalisable. Trustworthiness in reporting was supported by providing contextual detail and clarifying assumptions.

FINDINGS AND INTERPRETATION

This section discusses the findings based on the interviews conducted with the 11 participants, and the interpretation thereof collectively. The participants are represented by pseudonyms H1 to H11.

When asked about the participants' general experience of load shedding in 2023:
Two patterns emerged from the discussion with the participants: (i) inconvenience and (ii) financial loss. Nine, or 82% of the participants, described how load shedding resulted in disruption and inconvenience in various ways. For example, H2 stated the following inconvenience caused by load shedding.

H2: "*If it [load shedding] comes around about 4 o'clock, I have to wake up earlier than 4 o'clock, meaning it disturbs my routine. When I come back from work also, it affects me like when I'm supposed to cook at 5 o'clock, then I have to wait maybe until 6 o'clock when the electricity comes back. [inconvenience].*" Table 2 summarises all the participants' views concerning household activities which weren't affected by load shedding, activities which were disrupted and their associated strategies to over these disturbances. For the majority of participants, load shedding hampered their household activities, how they prepare for work, and how they get to work as well as diminishing their leisure time. Furthermore, when asked what coping strategies they applied within their households, the participants stated (i) waking up earlier to prepare for the day, (ii) reading, (iii) gardening, (iv) sleeping, (v) walking and (vi) charging cellphones in anticipation of load shedding or (vii) going elsewhere during the load shedding period, amongst other strategies (see Table 2). H1 stood out amongst the

participants as he bought renewable energy sources as a strategy, which highlights the affordability constraint as the other participants desired these sources but could not afford them.

TABLE 2: HOUSEHOLD ACTIVITIES AFFECTED DURING LOAD SHEDDING

During load shedding		
Which household activities continued normally	**Which household activities were disrupted**	**Coping strategies**
(i) Doing children's homework (H2)	(i) Cooking (H1, H2, H4, H5, H7, H9 & H11)	(i) Gas stove, solar geyser & rooftop solar (H1)
(ii) Sleeping (H2, H8 & H9)	(ii) Refrigerating food & medication (H1, H4, H7 & H9)	(ii) Wake up earlier than usual to prepare for the day (H2)
(iii) Working from home (H1)	(iii) Doing laundry (H2 & H6)	(iii) Plan activities according to the load shedding schedule (H3, H7, H9 & H10)
(iv) Heating water (for those with gas geysers) (H4)	(iv) Ironing clothes (H4 - Q1)	(iv) Eat cold food (H4)
(v) Lighting (for those with LED lights with back up batteries) (H4)	(v) Cleaning the house e.g. using the vacuum cleaner (H2 & H5)	(v) Buy take aways (H4, H10 & H11)
(vi) Cleaning (if you only use soap and water) (H9 & H11)	(vi) Heating water for bathing (H1, H6, H8 & H9)	(vi) Wait for load shedding to end (H4)
(vii) Cooking if you work around the load shedding schedule (H7)	(vii) Studying (H5)	(vii) Read (H5)
(viii) Using the phone for entertainment if it is fully charged (H9 & H10)	(viii) Relaxing at home, e.g. watching TV or using the music system (H1, H7 & H8)	(viii) Gardening (H6)
(ix) Relaxing if the power bank is used for the router (H10)		(ix) Keep busy with girls, smoking or drinking (H6); (x) Walking (H6); (xi) Not coping but has accepted (H8); (xii) Charge the phone (H9); (xiii) Go elsewhere (H9); (xiii) Go elsewhere (H9); (xiv) Sleep early (H10); (xv) Cook early (H10).

Source: Researcher's compilation, 2024

Time and life-work balance: When asked how load shedding affected the time dedicated towards work, the main patterns that emerged among those who were affected were that they (i) had to reschedule the activities according to the load shedding schedule, (ii) had unmet deadlines, (iii) could not prepare for tomorrow's work, (iv) had to wake up earlier than usual, (v) had to work overtime and (vi) experienced interrupted side hustles. These findings confirm that load shedding makes the execution of simple tasks harder (The Media Online, 2023; Kunda-Wawuwi & Umar, 2019) and hinders progressive economic activities that might benefit

the country and province socioeconomically (The Media Online, 2023; Taylor & Valodia, 2023). Concerning life-work balance, load shedding seems to prolong the number of hours in a day dedicated towards work and work-related activities, which leaves less time for time dedicated towards household activities and leisure activities. These are some of the verbatim answers given by some participants concerning load shedding's effect on household activities, work-related activities and leisure.

H1: *"Load shedding actually delays everything that you do at home, at work, anywhere you go."*

H6: *"I have to stay at work and now it's taking my time at home now. Now I can't go home ... I can't cook, there's no electricity. The duration of the day for me becomes a bit lesser than normal because of the load shedding."*

H2: "*When I want to watch soccer games, maybe rugby or the World Cup, I can't watch it because load shedding is here."*

Finances: When asked how load shedding affected them financially, only H10 was unaffected financially by load shedding. The rest of the participants stated the following negative impact of power cuts on their finances: (i) buying alternative sources of energy such as gas and their instruments, (ii) fixing and/or replacing broken appliances, (iii) buying protective appliances to prevent electrical appliances from breaking, (iv) food wastage and (v) buying takeaways. These are some of their verbatim views.

H2: "*Now I'm planning to buy a generator. It's another expense. If I buy a generator, I have to buy fuel. That's another extra financial cost. It's going to drain me a lot. [buying alternative sources of energy such as gas and their instruments]".*

H3: "*My first TV broke...The first and the second one [fixing and/or replacing broken appliances]".*

Existing coping strategies: Participants applied various coping strategies to lessen load shedding's impact. H6, H7, and H9 used the load-shedding schedule to plan household activities, while H3 planned work trips accordingly. Dworzanowski-Venter (2023) found that proactive households experienced fewer psychological shocks, aligning with Mutumbi, Ruwanza and Thondhlana (2022), who recommended behavioural changes to mitigate load shedding. A common strategy was using gas and gas-powered equipment, cited by H1, H4, and H8 (27%). Additionally, H6, H9, and H11 (27%) relied on regressive methods, such as paraffin (H6, H11) or cooking outdoors with "*potjiekos*" (H9). These strategies confirm the energy stacking concept, as Bohlmann and Inglesi-Lotz (2021) found that load shedding forces some households down the energy ladder.

Desired Future mitigation strategies: When asked which future mitigation strategies they desire to have to circumvent the effects of load sheddingH5, H6, H8, H9 and H10 indicated that they would like to install rooftop solar, as affirmed by Acutt (2023), Hafeez Hamayun, and Hanif (2021) and Chabala *et al*. (2021). Furthermore, H1 and H11 (18%) stated that they would like to buy generators as alternative sources of energy, while H4 desires to buy a gas stove as a solution. Contrariwise, while H6 also named rooftop solar as a desirable alternative source of energy, he equally wanted to return to using "*antique*" tools such as coal stove and paraffin lamps to navigate his everyday life, which might be showing that he is not necessarily inclined to any source of energy (good or not good), as long as he has backup energy. Lastly, seven participants (64%) stated that affordability is a hindrance in attaining alternative sources of energy.

H9: *"I have seen some of my neighbours installing solar, not me. It's expensive, not everybody can afford that. They will tell you that they bought [the solar panelling] for about R15 000. And still tell you that machine is only for the light and TV. You still can't cook. You can't switch on a geyser. It's only for the light and TV or maybe a fridge. And it's R12 000 to R15 000. I've seen them doing that. I could not afford that … Affordability. We do not have that. Most middle-class, remember, things, prices of everything have been going up. Load shedding, again, you must add. Load shedding is also the cause of the price increases of other things*."

Additionally, H6 and H8 (18%) indicated that they would like the government to do its job in ending load shedding.

Proposed theoretical model for load shedding and life-work balance

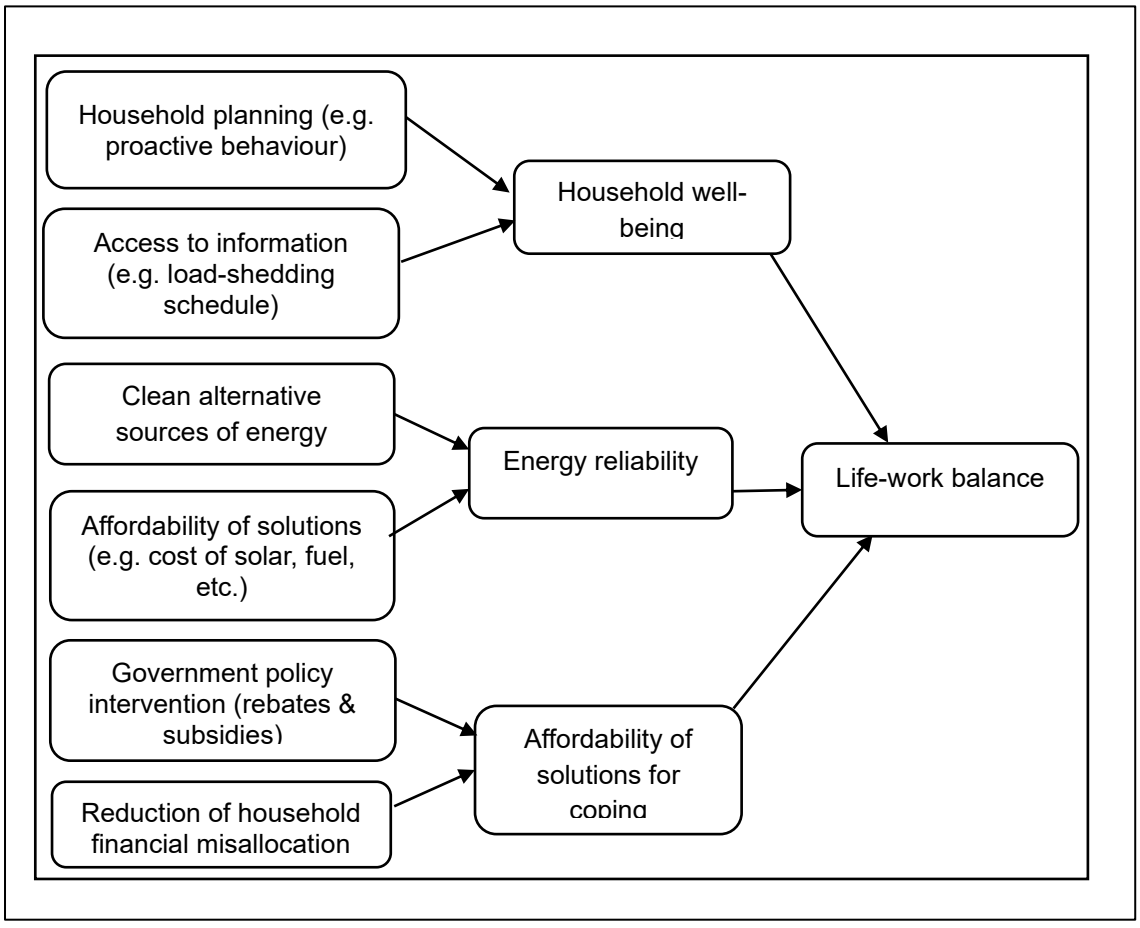
This section provides a proposed theoretical model for load shedding and life-work balance. Morgan (2018: 4) defines models as "systematic depictions of the relationships among a set of concepts" and explains that models are built on the themes that emanate from the research study's findings. Garvey and Jones (2021) describe a model as a theoretical framework, which can be perceived as a map towards finding a particular treasury, by following pathways (relationships) through landmarks (concepts). Therefore, a theoretical framework can be described as a model that depicts a relationship between concepts or themes. Furthermore, Morgan (2018) advocates that models can be included as an endpoint to the analysis and interpretation of data. In this study, a theoretical model is a hypothetical representation of life or a part of it and is used to explain, predict or understand relationships. The proposed research theoretical model (Figure 1) is derived from these research findings highlighting how these affect life-work balance.

CONCLUSIONS AND RECOMMENDATIONS

This section presents Conclusion 1 and Recommendation 1 which are based on the existing strategies applied by the participants of the study to circumvent the negative effects of load shedding on their life-work balance, whilst Conclusion 2 and Recommendation 2 are based on the future mitigation strategies desired by the participants to reduce the negative impact of load shedding on their everyday lives and life-work balance.

Conclusion 1: Load shedding does affect the life-work balance of the participants. It disrupts the fulfilment of household activities by delaying the start of these activities. Furthermore, load shedding also shortens the day, which makes the time allocated for leisure shorter and prolongs the time allocated for work and work-related activities. In short, it creates conflict between the three domains of life-work balance, necessitating mitigation strategies that households can apply to reduce the negative effects of load shedding on their everyday lives. Hence, the participants of this study gave several strategies they applied to negate the negative effects of load shedding.

FIGURE 1: PROPOSED CONCEPTUAL MODEL FOR LOAD SHEDDING AND LIFE-WORK BALANCE



Source: Researcher's compilation, 2024

Load shedding brought inconvenience to the participants' lives, as it contributed to energy poverty through limited access to electricity. Given that many household activities such as bathing, cooking, watching television, studying and working at home require electricity, most participants had to find means to ensure that these household activities continue. Recommendation 1: The participants of this study gave several strategies that can be applied to circumvent the negative effects of load shedding on their households. They mentioned:

(i) Using the load-shedding schedule to plan their household activities, and planning work trips and scheduling meetings with clients when there is no load shedding.

(ii) Buying protective appliances such as surge plugs to protect the electrical appliances, particularly from the higher electrical surge experienced when electricity returns after load shedding.

(iii) Using gas and gas equipment as alternative sources of energy.

(iv) Using regressive methods and sources such as paraffin and cooking outside.

(v) Buying less food which requires being frozen.

(vi) Buying rooftop solar systems.

(vii) Waiting five to 10 minutes after the electricity has returned after load shedding before switching electrical appliances back on to protect them from electrical surges.

(viii) Undertaking healthy activities during load shedding such as walking, lifting weights and letting kids play outside.

Conclusion 2: Only one household among the participants installed the rooftop solar. It is a solution that is desired by most participants; however, affordability remains the main stumbling in procuring it, given how expensive rooftop solar packages are. Even those who desired to procure generators still indicated that they are expensive, particularly due to the fuel that is required to run the generators. Furthermore, participants indicated that they would like the South African government to address and remove factors that directly and indirectly contribute towards the existence and continuation of load shedding. Lastly, one participant indicated that he would still like to use antique tools such as a coal stove, a chrome sad iron and paraffin lamps to navigate his everyday life. While chrome sad irons can be used with gas stoves, the use of coal stoves and paraffin lamps points to a greater challenge for some people desiring to regress on the energy ladder to cope with load shedding. Overall, these solutions are intended to overcome energy poverty caused by load shedding, which will allow the everyday activities of household members to continue, leading to life-work balance.

Recommendation 2: The main mitigation strategies households seek to counter the negative effects of load shedding include (i) rooftop solar, (ii) generators, (iii) gas, and (iv) government intervention.

Many participants desire rooftop solar but cannot afford it, similarly with diesel generators. Solutions to affordability could include extending government rebates beyond a year, providing long-term payment options, or using stokvels to collectively fund solar purchases.

CONTRIBUTIONS OF THIS STUDY

This section briefly outlines the theoretical contribution, practical contribution and policy-related contribution of the study.

Theoretical contribution: The theoretical contribution of this study lies in its introduction of a life-work balance perspective—rather than the traditional work-life balance—in understanding the impact of load shedding on households. It proposes a new model linking load shedding to disruptions in life domains that, in turn, affect work performance. Additionally, the study offers a foundation for developing new theories around energy crises and their influence on household dynamics and productivity.

Practical contribution: The research findings show how unduly distressed citizens are when they have to manage life at home before getting to work. Equally so, household's existing and future coping strategies display resilience, which can be considered by other households in different regions facing the same challenge. For example, strategies such as utilising the load shedding schedule to plan daily activities and using clean alternative energy sources. Government intervention is crucial, given that most electricity is state-controlled. Therefore, the practical contribution of this study lies in its provision of firsthand household perspectives and coping strategies on the effects of load shedding in SA, offering valuable insights to other households, the government, policymakers, and Eskom. It highlights real-life challenges and practical solutions desired by communities, filling gaps in existing policies and strategies.

Policy-related contribution: Government intervention is crucial, given that most electricity is state-controlled. The findings recommend greater collaboration among government departments, such as the Department of Human Settlements and Eskom, particularly in planning for low-cost housing to align electricity supply with household demand. It also emphasizes the importance of making the transition to renewable energy more accessible, suggesting that the government increase solar-related incentives and work with monetary policy to enable low-interest loans for clean energy investments. Furthermore, the study addresses the broader impact of load shedding on household well-being, work productivity, and life-work balance—factors crucial to policy development. In summary, solutions should

focus on balancing supply and demand, incentivizing renewable energy adoption, and ensuring a firm commitment to ending load shedding.

LIMITATIONS OF THE STUDY

This study has two limitations: the use of systematic random sampling targeting households with at least one working member excluded unemployed households, which may have offered different perspectives concerning their experience and mitigation strategies; the availability of recent, relevant literature focusing specifically on life-work balance and load shedding was limited, restricting the scope of the literature review.

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EFFECT OF TECHNICAL COMPETENCIES OF WOMEN IN CORE MINING ACTIVITIES ON TEAM OPERATIONAL PERFORMANCE IN SOUTH AFRICA

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ABSTRACT

The objective of this study was to establish the relationship between the technical competencies of women in the core mining activities and team operational performance in the South African mining industry. A gold-mining company in South Africa was selected for this study and 15 interview participants were chosen based on their discipline being a core mining activity. Thematic analysis was used to analyse the collected data and the common themes were concluded. The findings of this study highlighted that the issue of inclusion of women in the core mining activities is not a matter of the technical competencies of women, but rather the lack of exposure of women in the technical environment. The technical competencies required to thrive in core mining activities are problem-solving skills, decision-making skills, delegation of tasks, listening and communication and knowledge of risk and safety management, planning, task scheduling, people management, and team collaboration and cohesion.

Keywords: inclusion; technical competence; team operational performance

INTRODUCTION

The historic perception of mining in general as an environment that is masculine in nature has led to the lack of involvement of women in the industry. In South Africa prior to 1994, women were also prohibited from the underground workings and from core mining activities such as drilling, blasting and material handling (Kansake *et al*., 2021). Women were only given the right to work underground when the Mines Health and Safety Act of 1996 was enforced (Van Vuuren *et al*., 2021).

Women in the South African mining industry make up only 11% of the total workforce despite the legislature that was enforced to increase the number of women in this male-dominated industry (Ledwaba & Nkomo, 2021). The South African mining company's organograms include women at various levels in the organisation ranging from women in managerial

positions to women in the lower levels who do the actual hands-on work in the underground working environments (Ledwaba & Nkomo, 2021).

Women are still underrepresented at all levels and due to socially constructed perceptions of women in such a harsh industry, the incorporation of women in South African mines is still not fully supported (Ledwaba & Nkomo, 2021).

This paper seeks to establish the relationship between the technical competence of women in the core mining activities and team operational performance using the management theory of diversity in the workplace and inclusion of women as a basis for this study.

RESEARCH OBJECTIVES

The objective of this research study is to establish what is the current perception of women in the South African mining industry, identify the core skills required in the core mining activities and the impact of the inclusion of women in the team, and whether the technical competence of women affects team operational performance in the core mining activities.

LITERATURE REVIEW

Background to Diversity and Inclusion

Diversity in the workplace is a term used to describe the differences between individuals within an organisation and how these differences may affect an individual's performance within the organisation. Inclusion in the workplace refers to how accepted the underrepresented groups feel within the organisation and the degree to which these underrepresented groups are valued for their distinctiveness (Morfaki & Morfaki, 2022).

An organisation with an inclusive atmosphere preserves a "speak up" culture and appreciates "out of the box" ideas and thinking (Chaudhry *et al*., 2021).

Diversity within an organisation can refer to several types of diversity, however the focus of this paper will be on gender diversity, which supports gender inclusion (Farndale *et al*., 2015). Gender inclusion refers to the inclusion of women in positions that were traditionally occupied by men based on the preconceptions of women in a male-dominated industry (Farndale *et al*., 2015).

Inclusion of Women in the Mining Industry

The inclusion of women in the mining industry worldwide has shared a common constraint: the harsh nature of the work environment at mines in general. However, recent mining legislation in South Africa caters for the inclusion of women in core mining activities with the aim of remedying the previous disparities and shortcomings (Botha & Cronjé, 2015).

Research has noted that the management of mining houses faces the challenge of integrating women into core mining activities due to male perceptions of women in this harsh environment. There is a prevalent belief that the inclusion of women affects the productivity of mines due to females having much less physical strength than males, which would lead to production delays. In addition, there is a view that the pregnancy factor puts a strain on teams when the women in the teams have to go on maternity leave, leading to less team productivity (Botha, 2016).

Inclusion initiatives are dependent on the mindset of organisational leadership to promote the inclusion of women in the mining industry by driving the changes in the organisation that are necessary for the inclusion of women (Miyen & April, 2022).

“Inclusion is one of being involved in the process of creating societies and organisations in which all people, irrespective of their diversity, can prosper and progress and it is about creating empowering environments of difference, where people can be themselves, comfortably contributing their full selves and all the ways in which they differ from others, and respecting others without making it difficult for others to be their full selves” (April, 2012).

The definition that applies to this research paper is most closely linked to the definition of “inclusion [being] the extent to which employees believe their organizations engage in efforts to involve all employees in the mission and operation of the organization with respect to their individual talents (Shore *et al*., 2011).

The skills that women bring to the table in a diverse workforce have shown to complement men’s skills since women are good at supporting others, listening and communicating, which contributes to the improvement in health and safety statistics in the mining industry (Fältholm & Norberg, 2017).

Perceptions of Women in the Mining Industry

Related Research Question: What is the current perception of the inclusion of women in the mining industry?

Even though the inclusion of women in mining is a priority for the diversification of the workforce, discussions reveal that women are perceived as being problematic to the industry due to the nature of women in the household conflicting with the dangerous nature of the mining environment (Norberg & Fältholm, 2018).

Organisations’ inclusivity action plans often seek to change women rather than changing the work environments that disadvantage women in their career progression. It has been noted that the perspective of a female’s career path is rooted in social contexts that “push-out” women in the workplace (Kossek *et al*., 2017).

Sheryl Sandburg, who was in a technical and male-dominated career, encourages women to "lean in" at the workplace and make themselves heard with confidence and find their seat at tables that were traditionally occupied by men, as this will add to an inclusive work environment (Bledsoe, 2014).

The inclusion of women in mining industries in Mongolia has been noted to have had a significant impact on decision-making due to the unique perspective that women bring to the table in the form of their comprehensive approach in the decision-making skills (Ochir *et al*., 2023).

Factors that lead to the lack of women in mining include the hazardous environment, safety of women, physical requirements, gender prejudice and secluded workplace locations (Kansake *et al*., 2021). One of the adaptive strategies applied by women in the mining industry is a behavioural strategy comprised of solution-focused actions, which are carefully chosen strategically as a way for women to compensate for their lack of physical ability and are used as a mechanism to help women qualify to be in such an environment and earn their male counterparts' respect (Van Vuuren *et al*., 2021).

Research also shows that only 9% of women who work in the mining environment in South Africa hold managerial or professional positions and that the rest of the women work as general workers. The main challenge facing women in the South African mining industry was found to be the lack of career advancement (Kaggwa, 2020).

The literature review for this study will seek to establish the relationship between the technical competencies of women in the mining industry and team operational performance.

Organisational Performance

Related Research Question: How do the technical competencies of women in the core mining activities affect team operational performance?

The relationship between women leaders and organisational performance depends on whether the culture within the organisation is a conducive one for women (Hoobler *et al*., 2018). Women in leadership positions bring a different dynamic to the business environment due to the unique skills that women have. Through these unique attributes women are able to influence a firm's performance (Hoobler *et al*., 2018).

The glass ceiling is the invisible barrier that exists preventing women from climbing up the corporate ladder. The glass escalator refers to the fast-tracking of men to the top in a female-dominated profession (Ryan *et al*., 2007).

Haslam *et al*. (2010) argue that the link between women in leadership positions and the performance of an organisation can been seen such that the poor performance of a firm has

led to the appointment of women in leadership positions rather than poor performance in firms resulting from women in leadership positions (Haslam *et al*., 2010). A number of issues arise when women are appointed in leadership roles, such as the competence level of women, career path prospects, gender prejudices regarding role suitability and the dynamics of preconception and discrimination (Haslam *et al*., 2010).

Studies show that the following issues have been examined: the effect of women directors on financial performance, organisational strategy, reputation of an organisation, and processes of the board (Kirsch, 2018).

Higher firm performance will increase the likelihood of firms to increase the number of women employees by adopting policies and procedures to retain women in management positions (Schwab *et al*., 2016).

The relationship between female directorship in an organisation and firm performance has been explored with the finding that women bring a renewed perspective to company boards, which differs from the old boys' club of having men only as directors (Bennouri *et al*., 2018).

Ferreira (2015) suggests that "[w]hen discussing policies that promote women in business, it is better to focus on potential benefits to society that go far beyond narrow measures of firm profitability". A greater quantitative impact has been seen on high-performance firms with female directors than low-performing firms (Conyon & He, 2017).

The mining industry in South Africa is a high-risk environment and for mining houses to remain competitive in the industry they must comply with the Mines Health and Safety Act and regulations. Effective supervisory skills by line management are directly related to high safety performance targets, which closely tie into organisational performance in the mining industry (Prinsloo & Hofmeyr, 2022).

Technical Competencies of Women

Related Research Questions: What technical competencies are required in the core mining activities and what is the impact of having women in the team?

The gender prejudices of women in engineering still exists and the technical competence of women in these core mining activities is still questionable, which could be the reason for the under-representation of women and the exit of women in these technically inclined careers (Schmitt, 2021).

Technical ability or technical competence in mining projects is crucial since mining projects in all disciplines have to be theorised, established, planned, executed, functioned and closed (Stacey *et al*., 2008). Technical competence is referred to as an individual having the following abilities: problem-solving skills and practical engineering skills (Male *et al*., 2011).

All engineering-related occupations in the core mining activities require technical competencies, with academic knowledge, management skills and engineering principles as a priority (Motsoeneng *et al*., 2015).

A study for an underground coal mine to determine the type of technical competence that was needed to have a significant impact on safety statistics in the mining environment concluded that it was necessary to have subject-matter expert knowledge to adequately perform tasks, knowledge of safety management, and the ability to transfer this knowledge and give instructions to subordinates (Martyka, 2014).

Employees at the middle and higher supervisor level should also have the technical competence to make effective decisions and the ability to solve problems. In addition, they should have organisational skills such as planning, effective delegation of tasks and efficient management of resources such as labour (Martyka, 2014).

For supervisors to achieve good safety statistics, they need technical competence, which includes a good knowledge of the safety procedures, policies and rules (Martyka, 2014). The core competencies related to safety levels in mines are the technical knowledge related to proper execution of tasks and good knowledge of the safety rules pertaining to the high-risk environments (Martyka, 2014).

A socially constructed stereotype associated with engineering, a core mining activity, is that an engineer is a man with a high technical ability who is conversant with mathematics but lacking in social and human interaction skills. In contrast, women are seen as non-technical and but emotionally intelligent, which enables them to handle social and human interactions (Hatmaker, 2012).

Gender prejudices associated with women in engineering still exist and the technical competence of women in these core mining activities is still questioned. This could be the reason for the under-representation of women and the exit of women in these technically inclined careers (Schmitt, 2021).

Team Operational Performance (TOP)

Related Research Question: How do the technical competencies of women in the core mining activities affect team operational performance?

A team's performance can be defined according to its ability to create innovative solutions and is closely linked to an organisation's success (Silberg *et al*., 2021). Team performance is more than just the number of people on a team but more about the collective orientation and the behaviour of individual team members. The team's performance is improved by the individual

contributions of each team member in terms of their individual abilities and skills (Silberg *et al*., 2021).

A team's operational performance is affected by issues such as negative team member behaviour, and the critical trait that hinders a team's performance is the team members' ability to adapt into a team (Lee *et al*., 2013).

Operational performance is based on the ability of a firm to find more effective ways of doing things, thus increasing their operational efficiency (Santa *et al*., 2010). Operational performance in teams results from the ability of team members to add value to a team and the ability of each team member to achieve the key deliverables within the specified time constraints. Hence, the teams operational performance refers to the ability of a team to innovate and make effective use of its resources to ensure that the organisation performs better than its stakeholders (Santa *et al*., 2010).

Team performance is measured by a team's ability to have the adequate skills composition and the right team connectivity to enable the team to be successful (Dorn *et al*., 2011).

A study done in India to establish the reason for the increase in the employability of women showed that women have strong multi-tasking skills and exceptional behavioural competencies together with technical competencies, namely decision making, self-management, problem solving and analytical abilities (Tiwari, 2016).

Relation between Technical Competencies of Women and Team Operational Performance

The technical competencies required by teams in general were summarised as an individual having problem-solving skills, knowledge of risk and safety management, delegation of tasks, decision-making skills, and listening and communication skills.

Men and women require the above-mentioned skill-set in order to thrive in any of the core mining activities in the South African mining industry.

This study will address any additional skills that may be required that were not mentioned in the literature.

This study will also seek to answer the relation between the technical competencies of women and its effect on team operational performance in the South African industry in the core mining activities.

RESEARCH METHODOLOGY

The study will adopt the qualitative data collection method due to the non-numerical nature of the research topic. Qualitative research is used when the views of an individual's experience are required on a certain topic (Scalcău, 2021). This method was also chosen due to the small sample size of only 15 participants and the data collected had to be from experienced professionals in the core mining activities within the gold mining industry in South Africa.

The research model will be limited to a gold-mining company in South Africa. This will comprise the primary data collection over the various divisions of the gold-mining company based in the various provinces in South Africa. This mine was chosen due to the availability of the sample population. The participants are readily available to participate in this research.

Judgemental sampling will be used for the qualitative research (Farrugia, 2019). The sample size chosen for this research is 15 individual interviews. The research will be conducted and the data collected from departmental-level heads and the levels below in the core mining activities of mining, engineering, metallurgy and safety in the mining industry to determine the perceived effect that women have in the mining industry. Judgemental sampling will be applied as the individual participants have been deliberately chosen based on the belief that the most information will be gained from the chosen sample.

Data collected in this research study will be analysed using a technique called thematic analysis in an attempt to create meaning from the data.

RESEARCH FINDINGS/RESULTS

Findings – Research Question 1: *What is the current perception of the inclusion of women in the South African mining industry?*

There are three notable limiting factors that were established from the interview responses. These considerably hinder women's career trajectory in the mining industry.

The first limiting factor was the fact that women are still very much doubted in terms of their ability to succeed in such an environment due to the cultural mindset of some individuals who have a very "diminished view" of a woman's ability in a technical environment.

The second limiting factor was the fact that women in the industry, especially on the lower levels, are limited in terms of their physical capability and is it said that men have the physical strength required for the mining environment. The physical skill required in terms of the

technical engineering trades such as boiler making, which require heavy lifting of steel, has been shown to be a common concern regarding women in the industry.

The third limiting factor was centred around the “family planning” aspect pertaining to women when they leave the workplace for long periods for maternity leave. The issue isn’t one of incompetence but rather the fact that when women go on maternity leave it often results in a loss of team continuity since there isn’t always a suitable replacement.

Findings – Research Question 2: *What technical competencies are required in the core mining activities and what is the impact of having women in the team?*

The technical skills required in the core mining activities on the mine were highlighted as being good communication skills, problem-solving skills, planning and task scheduling, people management, and team collaboration and cohesion.

Including women in teams had a positive impact, highlighting that women bring a different dynamic to the mining industry with their attention to detail, strong communication and listening skills, innovative skills, faster processing time for tasks and multitasking ability.

Technical qualification was highlighted as being important to qualify for the core mining activities. However, more importantly, it was pointed out that the ability to translate the theoretical knowledge practically in the field by solving practical problems is a technical skill that is required.

It was highlighted that women in the industry need more exposure to the technical environment for their skills to be developed in the industry. Some participants felt that women bring the same skill sets as men to the industry.

Findings – Research Question 3: *How do the technical competencies of women in the core mining activities affect team operational performance?*

Women have good decision-making skills and are able to impact team operational performance positively due to their empathetic nature. However, women’s lack of exposure to the technical environment negatively impacts their decision-making ability since they tend to take longer when making decisions due to the lack of experience in the field.

The delegation of tasks by women has a positive effect on team operational performance, which is evident in the mining safety statistics that show a significant reduction in safety-related incidents.

Women have excellent listening and communication skills and are better able to transfer knowledge and instructions to team members. This has a positive impact on team operational performance.

Women are more risk averse than men and tend to take fewer risks than men, which has a positive impact on team operational performance in the mining industry as evidenced by the positive safety statistics in women-led teams. Conclusion and Recommendations

CONCLUSION

Perceptions of women in the mining industry

The perception that women bring a uniqueness to the mining industry due to their attention to detail and innovative and creative ways of thinking is in line with previous studies by Ochir *et al*. (2023) and Bennouri *et al*. (2018). It is also perceived that simply increasing the women in mining statistics to meet the numbers is inadequate to promote the inclusion of women in the mining industry. The finding from this study that has not been mentioned in previous literature revealed that managers must be deliberate about inclusion initiatives in the mining industry by identifying women with technical competencies who are keen to prove themselves in the industry and selecting them for roles in core mining activities.

The cultural stereotypes of women that undermine women's ability in the mining industry in South Africa are aligned to work in previous studies by Barkhuizen *et al*. (2022) and Kansake *et al*. (2021). The technical competencies of women are still doubted in the mining industry due to the historical preconception of women being physically constrained and the negative effect that women have on team operational performance when they have to go on maternity leave, which forms part of their family planning.

Technical skills required in the mining industry and the impact of having women in the team

The technical skills required by individuals in the core mining activities are problem solving, listening and communication skills, delegation of tasks, decision-making skills, and knowledge of risk and safety management, all of which were identified in previous studies by Martyka (2014). Having technical qualifications is a key requirement for team members to qualify for a role in the core mining activities, as identified in studies by Motsoeneng *et al*. (2015). The technical skills that were identified from the collected data are planning and task scheduling, people management, and team collaboration and cohesion.

\The finding of this study is that women's technical skills need to be developed by ensuring that women spend more time on practical exposure in the technical field since this will ensure

women's success in the technical industry of mining. Women need sufficient exposure in the field to develop their technical competencies in the core mining activities, which will have a positive effect on team operational performance.

Effect of the technical competencies of women on team operational performance

The technical competencies of women, which translate to the technical skills of problem solving, decision making, knowledge of risk and safety management, delegation of tasks, and listening and communication skills, are comparable to those of men and no significant difference has been noted when compared to those of men. Women are able to solve problems, make adequate decisions, effectively delegate tasks, and they are seen to have excellent listening and communication skills. Literature on diversity and inclusion by Fältholm and Norburg (2017) reveal that the listening and communication skills of women also have a positive impact on safety statistics in the mining industry. This was also a common finding in the collected data from interview participants.

This study has found that women are more risk-averse due to their attention to detail, making a positive contribution to team operational performance in the mining industry since significant improvements in safety statistics have been noted in women-led teams in the mining industry. The literature review for this study on technical skills and technical competencies showed no evidence of this finding and this can be viewed as an interesting finding of this study due to this unique technical ability being displayed by women in the field.

PRACTICAL MANAGERIAL IMPLICATIONS

The practical implications are for managers to start being more deliberate about identifying women with the technical competencies in the organisation and these women should be considered should vacancies arise in any one of the core mining activities. Management should also ensure that women are given the same training experience in the technical environment as their male counterparts. Increasing women in teams will greatly benefit the organisation in achieving its goals due to the technical competencies that women bring which adds to the overall team operational performance.

RECOMMENDATIONS FOR MINING HOUSES

It is recommended that leaders at South African gold-mining houses should encourage the deliberate identification of women who are driven and have an outstanding technical ability, and these women should be earmarked for vacant positions that were previously occupied by men. These women should only be given these vacancies based on their technical skills which

qualify them for the role and not simply to change the statistical figures relating to women in mining in South Africa.

It is also recommended that attention is given to the training experience for the core mining activities of engineering, mining, safety and metallurgy. Mining houses need to ensure that women are given the same training experience as that given to men to expose them to the technical environment. Women should not be shielded in any way from getting the full technical exposure in the practical environment since this hampers their technical competencies.

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EXPERIENCES OF THE EFFECT OF THE TRANSITION TO A HYBRID WORKING MODEL ON THE ORGANISATIONAL CULTURE AND EMPLOYEE WELL-BEING

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ABSTRACT

Employees' experiences of transitioning to a hybrid working model could affect their well-being. The shift to a hybrid working model has affected Organisational structures, communication, and work routines, influencing employee well-being. This paper explores how employees experience and adapt to the transition, focusing on their well-being. Using qualitative data from employees who moved to hybrid work, key themes emerged: the importance of structured routines for stability and productivity; challenges in adapting due to unclear policies and inconsistent support; and the role of resilience in adjusting to new expectations, digital tools, and performance demands. Findings suggest that while hybrid work offers flexibility, it also creates challenges such as stress from connectivity, blurred work-life boundaries, and reduced social interaction. Employees with structured routines and Organisational support reported better well-being. This paper informs the dissertation on hybrid work models by offering insights into how policy clarity and support can enhance employee well-being.

Keywords: hybrid work; employee well-being; organisational culture; employee experiences

INTRODUCTION

While research on hybrid work is expanding globally, there remains limited empirical evidence on how this shift impacts employee well-being in South African non-governmental organisations (NGOs). This study addresses that gap by examining both cultural and well-being dimensions of the transition.

This research evaluates the effect of the hybrid work model on employees' well-being at an NGO with a healthcare focus (Organisation A – ORG A) within the Free State Province of South Africa. ORG A began as an Organisation fighting the HIV/AIDS crisis long before implementing a hybrid work model when the pandemic forced its operational survival.

Scholars such as Nurunnabi *et al*. (2020) argue that COVID-19 forced organisations to adopt innovative work solutions, often leading to structural and cultural changes. Spicer (2020) highlights how pandemic-induced changes required resilience but sometimes resulted in workplace challenges such as extended work hours, reduced social interactions, and a shift in professional dynamics.

Organisational culture plays a key role in shaping employee experiences because it defines behavioural norms, communication styles, and the level of trust within the workplace, which directly influence engagement, adaptation, and well-being (Muscalu, 2014; Hofstede, 1998; Coldwell, 2019).

The implementation of flexible work arrangements let employees shape their work hours, which boosted performance, yet this necessitated drawing separation lines between their professional tasks and personal engagements (Weideman & Hofmeyr, 2020). At ORG A, employees experience two opposing realities with flexibility as their main benefit alongside intensified work stressors, work-life balance issues and job stability doubts. This research evaluates the experiences of NGO employees of hybrid work arrangements and employee well-being to find an equilibrium.

LITERATURE REVIEW

The literature review examines how organisational culture can transform NGO performance outcomes and employee well-being. Recent studies (Kniffin *et al*., 2021; Demirhan & Bulgur, 2023; Wels *et al*., 2023) have also underscored the complexity of maintaining morale, communication, and health in hybrid contexts. For NGOs that work within changing resource-scarce operational settings, the internal culture can create conditions to support workforce health and work drive alongside Organisational output. The review discusses fundamental concepts about Organisational culture with its dimensions, and its importance in a Non-Governmental Organisation (NGO). Therefore, this research examines employee well-being changes after the pandemic when hybrid working was introduced in the workplace setting.

Studies such as Akanksha and Arun (2020) and Nakrošienė *et al*. (2019) show that remote and hybrid work create both autonomy and strain, requiring deliberate organisational interventions. Additional research by Kossek *et al*. (2014) and Kirpik (2020) highlights the role of wellness support systems and recognition practices in sustaining employee satisfaction.

Overview of the transition to hybrid working models

The COVID-19 pandemic changed workplace dynamics, accelerating the shift to remote and hybrid work models. While the hybrid model provided flexibility and increased productivity for some, it also led to frustration and decreased performance for others. Rudnicka *et al*. (2020) added that governments promoted social distancing measures, forcing many employees to adapt to working arrangements such as working from home (WFH).

According to Sulaiman and Effendi (2022), WFH, one of the flexible work styles, enables employees to perform tasks remotely, supported by digital communication technologies, with both benefits, such as improved work quality and higher compensation, as well as drawbacks, including job displacement and mental health challenges (Coldwell, 2019).

Hang and Minsook (2023) reported that post-pandemic, Organisations recognised the advantages of hybrid work, including cost savings, health benefits, and increased employee satisfaction.

However, successful implementation requires addressing virtual interaction challenges and maintaining a strong Organisational culture.

Organisational culture and its significance

Organisational culture is a cohesive system of shared values, beliefs, and behaviours within an Organisation. The seminal work by Shein (1981;1985;1990) links culture to basic assumptions and norms that have evolved, becoming a part of the Organisation's legacy. Aligned with the work of Shein (1990), Muscalu (2014) describes Organisational culture as a set of dominant values communicated through symbols, while Hofstede (1998) emphasised the essence of how things are collectively done. Such a shared culture affects Organisational performance and employee well-being by influencing expectations, norms, and work dynamics. According to Coldwell (2019), a strong Organisational culture fosters engagement, while a misaligned culture can lead to stress and disengagement.

The effects of Organisational culture and hybrid work arrangements on employee well-being

The COVID-19 pandemic fast-tracked hybrid work, leading to changes in work settings. At the same time, remote work brought the advantages of flexibility (Demirhan & Bulgur, 2023), social isolation, and reduced teamwork, blurring professional and personal time (Wels *et al*., 2023). Though employees gain autonomy at work, they may face psychological distress unless Organisations implement appropriate support strategies.

An Organisation that promotes a strong culture creates employee connections that result in employee engagement, leading to improved well-being. Ficarra *et al*. (2020) and Coldwell (2019) highlight the influence of Organisational cultural change on employee satisfaction and motivation, a relationship affecting employee well-being (Taylor *et al*.,2023), boosting productivity and creativity. Breevaart and Bakker (2018) and Zhou *et al*. (2019) state that well-being is essential for effective employee engagement, sustainability, and delivering performance outcomes.

Despite these benefits, studies by Akanksha and Arun (2020) show that remote work conditions make it hard to distinguish work-related activities from personal time, resulting in work-life tensions (Nakrošienė *et al*., 2019).

In NGOs with hybrid working arrangements, promoting employee well-being needs a diversified strategy that considers the unique challenges posed by the coexistence of remote and on-site work settings. Mer and Srivastava (2023) state that Organisations increasingly invest in artificial intelligence (AI) to enhance employee engagement in remote work post-pandemic conditions. AI can facilitate quality of work life by enhancing inclusion and communication, which improves working conditions and reduces attrition rates.

Promoting well-being amidst hybrid work arrangements within a changed Organisation

Hybrid work requires arrangements that will create a supportive and inclusive culture. Knight (2020) highlights that managers need to support their teams through socially distanced office interactions and one-on-one video calls with remote workers, implying that open and inclusive communication is crucial for creating a positive culture using actions such as developing protocols, virtual communication tools, well-defined goals, equality among all members and preventing workplace exhaustion while encouraging team involvement.

Positive Organisational culture changes cannot only boost employee involvement throughout the Organisation but also create more motivated employees when Organisational values and goals match those of their employees. A research paper by Ficarra *et al*. (2020) demonstrates how stability, employee happiness, and empathy contribute to well-being. Organisations dedicated to work-life balance, workplace flexibility and wellness support systems allow workers to control their time usage through adaptable scheduling, while meeting their professional and individual requirements (Kossek *et al*.,2014). Ficarra *et al*. (2020) also emphasise a work environment that values open communication, appreciation, career prospects and support to disengaged employees, resulting in a positive culture. This can lead to reduced stress, as employees in collaborative environments are less likely to suffer from burnout.

The relationship between Organisational culture, hybrid work, and employee well-being is complex yet crucial. A strong culture enhances employee engagement, while poorly managed cultural dynamics can lead to stress and disengagement. Should NGOs be able to adapt to evolving work environments, foster a positive culture and prioritise well-being, their long-term sustainability and effectiveness may remain.

THEORETICAL FRAMEWORK

The overarching theory employed for this paper is the Self-Determination Theory (SDT) to view how employees of an NGO experienced the effect of the transition to a hybrid working model on the Organisational culture and the employees' well-being.

Self-Determination Theory (SDT)

SDT focuses on what truly drives people from within. It highlights that employees thrive when three fundamental psychological needs are met:

- Competence, which is the confidence in one's ability to perform tasks effectively.
- Autonomy, meaning having a sense of control and ownership over one's work.
- Relatedness is feeling connected and valued within a team (Deci & Ryan, 2012).

When an Organisation undergoes cultural changes, these needs can be nurtured or neglected. Employees who feel empowered, supported, and included are more likely to remain engaged and motivated. On the other hand, if changes create uncertainty, restrict independence, or weaken social connections, job satisfaction may decline. According to Deci *et al*. (2017), well-being is strongly linked to how well these psychological needs are met. In the NGO sector, where passion and purpose drive work, it is especially important to cultivate a culture that supports autonomy, competence, and meaningful relationships. By blending SET and SDT, this paper takes a deeper look at how shifts in Organisational culture affect employees on a human level, going beyond policy changes to explore the emotional and psychological impact of workplace transformation.

PROBLEM

Traditional work environments suffered critical disruption from the COVID-19 pandemic, which motivated Organisations to implement hybrid working models. The hybrid work models provided companies with operational flexibility. Yet, they negatively impacted employee wellness and how work affected their personal lives, as well as their engagement and social interactions at their jobs.

Literature shows that employee well-being is heavily influenced by Organisational culture. Organisational culture is an important determinant of behaviour in Organisations. In this regard, Coldwell (2019) and Ficarra *et al*. (2020) found that Organisational culture changes impacted employees' well-being. Thus, this implies that a strong Organisational culture can foster a feeling of community and promote employee engagement and satisfaction, leading to improved well-being.

The problem was that ORG A encountered numerous difficulties during the COVID-19 pandemic, resulting in a changed Organisational culture that may have changed to accommodate the "new normal". The problem is that the NGO needed to gain insight into how the changing Organisational culture affected employee well-being after transitioning to a hybrid working mode.

RESEARCH AIM

This paper explores how employees experienced the transition to hybrid work and how these experiences impacted their well-being. It also considers how shifts in Organisational culture, management practices, and work expectations influence employees' ability to adapt. Understanding these effects is essential for improving management strategies and workplace policies to support employee well-being in a post-pandemic work environment.

RESEARCH QUESTION AND OBJECTIVES

Primary research question

How did the change to a hybrid work model affect the Organisational culture and employee well-being at an NGO ORG A) post-COVID-19?

Research objectives

To achieve the above aim, the following objectives were formulated:

- To identify and explore the fundamental constructs that underlie Organisational culture and employee well-being when dealing with rapid changes.
- To explore the experiences of NGO employees regarding the effect of the shift to a hybrid working model on the Organisational culture and employee well-being post-COVID-19.
- To gain insight into the employee experiences to inform management decisions to foster a sound Organisational culture and enhance employee well-being in a hybrid working model context.

RESEARCH METHODOLOGY AND DESIGN

The investigation utilised a qualitative methodology to study employee adaptation to the hybrid work model and the effect on well-being at an NGO through case study research. Qualitative research methods were chosen because they enable researchers to understand how employees experienced the shift to hybrid working arrangements, which quantitative methods struggle to reveal. This case study approach was suitable because it delivered detailed findings about one changing Organisation: ORG A. Participants could freely share their experiences as the study did not impose preconceived themes. From the perspective of an interpretive paradigm, the researcher accepted both the realities of the participants and their understanding of how the changes influenced their well-being.

Sampling

For this paper, purposive sampling was used - a method that allowed intentional selection of participants with relevant experiences rather than random (Bryman *et al*., 2021). The goal was to engage employees with firsthand experience with Organisational culture changes brought about by COVID-19, particularly those who had to adapt to a hybrid work model at ORG A. To ensure meaningful insights, the paper focused on management-level employees who had been with the Organisation before the pandemic and continued in their roles afterwards. There were 23 eligible managers in the Free State, and an open invitation was sent via email. The first 15 respondents who consented were included in the research. This approach made it possible to gather rich, real-world perspectives from individuals who had navigated the challenges of the shifting workplace dynamics, ensuring a deeper understanding of how Organisational culture evolved in response to the hybrid work model and how it affected their well-being.

Data collection

The data was collected using semi-structured interviews, allowing participants to speak freely while the researcher guided discussions using a flexible interview protocol aligned with the study's objectives. Virtual interviews lasting 45–60 minutes provided accessibility to participants while enabling in-depth exploration of their experiences. A diverse range of participants was selected using criteria considering their position, time spent, and involvement with the hybrid work system.

Data analysis

A thematic analysis, according to Braun and Clarke's (2006) framework, was used to discover patterns in employee experiences during data analysis. The researcher began by familiarising herself with the data and then generated initial codes that led to theme identification and subsequent refinement into integrated findings. The analysis followed an inductive approach because it allowed genuine thematic discovery instead of forcing researchers to impose predetermined categories. The research achieved data saturation after conducting interviews beyond the point where new key themes failed to appear. Member checking served as a trustworthiness enhancement method, allowing participants to examine and authorise the initial research findings.

TRUSTWORTHINESS AND RIGOUR

The study applied Creswell and Poth's (2018) qualitative research criteria for credibility, transferability, dependability, and confirmability. The researcher enhanced credibility by involving participants who experienced the changes to hybrid conditions and their effect on their well-being. The researcher further combined multiple data sources and conducted member checking with the participants to eliminate misinterpretations of the data. The research included extensive context descriptions, allowing other Organisations to transfer the findings to their Organisations if applicable. The research team established dependability by making their entire process method transparent from start to finish. The study's confirmability was preserved through peer reviews of the research report and the thick description of the researcher's choices.

ETHICAL CONSIDERATIONS

Ethical clearance was obtained from the relevant university ethics review board before data collection, ensuring compliance with national and institutional standards for low-risk human research. Participants were fully informed about the study’s purpose, procedures, risks, and their rights before giving written consent. Confidentiality was maintained by assigning pseudonyms and securely storing data. The following ethical measures were taken to mitigate the potential risks of this low-risk study.

Consent and voluntary participation

Before consent, participants were fully informed about the study's purpose, procedures, potential risks, and confidentiality. Each participant received a written consent letter outlining their rights, including the freedom to ask questions, refuse participation, or withdraw at any time without consequences. Voluntary participation was a key ethical principle in this study. Participants were assured that their involvement was entirely their choice, free from coercion or pressure. The researcher emphasised their right to withdraw at any stage, with the guarantee that any collected data would be destroyed and excluded from the study. This approach ensured that all participants made informed and independent decisions about their involvement.

Confidentiality and anonymity

Ensuring participant confidentiality and anonymity was a priority in this study. Bryman *et al*. (2021) noted that a signed confidentiality agreement clarified the types of sensitive information the researcher could access and what could or could not be disclosed in the final research report. All collected data was securely stored on an encrypted cloud platform to prevent unauthorised access, and participants' identities were protected throughout the study. To maintain anonymity, participants were assigned pseudonyms that had no connection to their real names, professions, or any identifiable traits. Only pseudonyms were used throughout the research process, including in transcripts and reports. Any identifying details, such as names, were carefully removed during data processing.

Beneficence and protection from harm

The study prioritised the mitigation of risks such as emotional distress and confidentiality breaches while ensuring anonymity and the participant's understanding that the benefits of the study outweigh the potential risks of the study. Ethical guidelines (NEAC, 2021) were followed to protect participants' well-being. Those experiencing distress were offered counselling at no cost. Fairness and respect were upheld by ensuring a safe and supportive research environment.

RESULTS AND DISCUSSION

The research sought to understand how employees' real-life experiences were when they adopted a hybrid work model during and after the COVID-19 pandemic. The data represents the themes from other scholarly materials. This research adopts qualitative writing techniques, presenting participants with direct quotations to demonstrate primary paper outcomes. This paper uses Hofstede's (1998, 2011) cultural dimensions and Weideman & Hofmeyrr's (2020) self-management principles in hybrid work alongside Organisational culture and well-being theories to ground its discussion.

Employee experiences of the transition to a hybrid work model

Implementing work routines emerged as a necessary tool for employees to manage their situation. Structured work routines emerged as one main theme from the research because the NGO wanted to maintain employee productivity alongside wellness preservation. The participants expressed that initially, their work routines were severely affected by the hybrid work transition, which they experienced as disorder and a loss of sense of control.

It was clear that employees who developed work schedules developed the ability to shift to a new "work mode" with ease. Participant 5 explained that the initial work approach involved shifting between the bed and the office; however, their habits shifted since then. "*My daily routine began with taking a morning bath like I would for office work, followed by sitting in comfort and continuing work tasks*." Weideman and Hofmeyrrer (2020) supported the perspective that a flexible work environment and self-management lead to improved employee well-being. Those workers who planned their work hours independently demonstrated better stability and productivity during their

daily workflow. Workers who created an organised structure faced fewer work-life integration boundaries. Establishing routine practices within hybrid work environments enabled employees to regain control, thereby reducing their stress levels and improving their general well-being.

Loss of human interaction and social connectivity

Despite the benefits of flexibility, the loss of daily office interactions significantly affected employee well-being. Participant 10 noted: "*I missed human interaction and the routine of going to the office, but I adapted by recognising the benefits of hybrid work and using the time saved for personal development.*" These highlight a key trade-off: while hybrid work increases autonomy, it can also reduce opportunities for informal peer support and collaboration, which are crucial for well-being. The lack of daily social interactions was a well-being concern, requiring Organisations to explore ways to foster virtual community-building strategies. As Kirpik (2020) mentioned, employees often assess the acknowledgement and rewards they receive for their efforts and contributions. Undervaluation or a lack of reciprocity from their Organisation may result in dissatisfaction and disengagement.

Challenges affecting employee well-being in hybrid work:

- Digital overload and communication fatigue

Remote work necessitated employees to depend more on digital communication platforms, including WhatsApp, Zoom, and email. Though these communication tools improved communication, they also created new sources of work-related pressure despite helping employees boost their productivity. Workers developed notification exhaustion and new demands to maintain constant availability, which created a breakdown of their work-life segregation. The participants indicated a need for communication-specific hybrid work protocols to establish a fair distribution of responsibilities. The participants mentioned *"There was a constant flow of messages from different channels, which led to anxiety,"* and *"I felt emotionally drained by the pressure always to be available and keep up with the barrage of messages.* Muscalu (2014) also emphasised that hybrid work environments can contribute to employee stress and that established communication protocols can help employees handle expectations properly, thus preventing burnout and employee dissatisfaction. An unregulated hybrid work policy can lead to unacceptable variations between departments, which requires standardised directions for enhancing both worker well-being and fairness.

Coping mechanisms and organisational support

Employees need Organisational support to cope with the pressures brought by the hybrid working conditions, such as:

- The role of leadership in employee adaptation

Leadership played a substantial role in shaping how employees adapted to the hybrid model. Participants indicated that support from management influenced their experience of well-being during the transition, by making statements such as "*the transition caused inconsistencies in support across departments*." This finding aligns with research on psychological safety in Organisations (Weideman & Hofmeyrr, 2020), suggesting that employees thrive in environments where leadership provides clear guidance and support. Departments with proactive leadership experienced smoother transitions, while those lacking managerial involvement reported higher stress and uncertainty. The participants were clear that leadership engagement and transparent hybrid work policies were critical for ensuring a smooth transition and minimising stress-related well-being concerns.

- Enhancing resilience and employee adaptation

The transition to a hybrid working model indicated that in ORG A, support was needed to adapt and build resilience. Adapting quickly and maintaining resilience during challenging times is Organisational operations. It was mentioned that "*the shift was rapid, and our Organisation had to adapt to external changes within a short period*". These rapid changes affected employees' feelings about their work and overall well-being. However, the participants indicated that though they had to adapt to new verification processes and data management systems, they benefited from the Organisation's ability to navigate challenges, strengthening trust and a sense of security.

Knowing that the Organisation could address and adapt to changes effectively made the employees feel more secure, which was crucial for their well-being, stating that "*where there was a need to adapt to new processes and systems, ORG A invested in new tools* ", which required the employees to learning and adapt. This mutual effort benefited both sides: *"the Organisation remained efficient, and employees gained new skills, boosting their confidence and well-being."*

This reciprocal relationship helped build a sense of reliability and trust, which were essential for maintaining employee well-being while becoming resilient. " As *we required new skills, we started to feel competent and in control of our work, becoming more resilient to deal with challenges.*"

Gaining autonomy and developing a feeling of having control over their work is aligned with the self-determination theory, where employees experience a sense of accomplishment and overall well-being.

Adaptability and resilience often focus on individual strengths, but they also build a sense of community within the Organisation. Seeing that their colleagues and leaders are resilient helps employees to feel more connected to their team, fostering a sense of belonging that is vital for morale and well-being.

- Emotional and psychosocial support

Emotional and psychosocial support was critical to fostering a sense of connection within the Organisation. While some support was available, the feedback suggested that it was not always easy to access or as effective as possible, but not entirely. One of the participants mentioned, *"Initially, there was a constant flow of messages from different channels, which added to my anxiety; however, this improved with time as work arrangements and procedures were ironed out*."

Despite ORG A's significant strides in supporting employees during the shift to remote work, they could have put in more effort to understand employees' needs better and take meaningful steps to enhance their support systems. These systems would have improved employee well-being and strengthened the Organisation's overall culture. It was mentioned that "*just like us, ORG A also struggled to understand our feelings – we were all struggling a bit, which hampered our well-being*." Another participant felt that initially, ORG A might've "*missed opportunities to foster bonds and ensure equitable support across departments."*

KEY FINDINGS

- Employees initially struggled with routine disruption, but those who established structured work habits adapted better.
- Loss of social interaction, digital communication fatigue, and unclear hybrid work policies negatively affected their well-being.
- Structured work routines, leadership support, and autonomy in adapting to hybrid work improved well-being.
- Employees adapted to new digital systems, remained productive, and developed confidence in managing hybrid work independently.

MANAGEMENT RECOMMENDATIONS

The key findings informed the management recommendations to enhance the Organisational culture and employee well-being while ensuring productivity when implementing a hybrid work model. The theoretical contribution lay in extending Self-Determination Theory into the NGO hybrid work context, demonstrating how competence, autonomy, and relatedness are mediated by organisational culture during disruptive change. The findings bridge a gap in hybrid work literature by providing empirical insights from a South African healthcare-focused NGO.

The following recommendations are proposed:

Establish clear and fair hybrid work policies

A lack of well-defined guidelines, together with inconsistent implementation methods, creates workplace uncertainty for staff members; the proposed action plan deals with this issue:

- The Organisation needs to create an established hybrid work policy that explains when workers need to be present, their tasks, and performance targets.
- All departments need standardised rules for remote work, communication procedures, and performance requirements to make decisions equitably.
- The Organisation must periodically assess its policies, using employee opinions and operational requirements, to make ongoing updates.

Strengthen leadership and managerial support

Employees find it difficult to adjust their work processes because management provides different levels of support to different teams, yet these recommendations can work:

- Managers should receive hybrid leadership training that emphasises clear remote communication, emotional intelligence, and daily performance evaluation techniques.
- The Organisation should implement organised wellness meetings allowing leaders to talk with their workforce about workloads, wellness status, and development requirements.
- The Organisation can build trust through employee empowerment and measurable goal-centred accountability to grant employees autonomy.

Improve work-life balance to prevent burnout

Employees are currently stressed by the lack of separation between their professional responsibilities and personal activities. These steps should be followed to reach a work-life balance:

- Organisations should establish "Right to Disconnect" rules which limit work communication after business hours.
- The company should enable adjustable shift schedules, which let workers arrange their work hours according to their best productivity times.
- The Organisation should launch employee well-being initiatives, including various mental health programs, virtual wellness events, and ergonomic home office setup information.

Enhance social connection and team collaboration

This paper showed that employees miss daily in-person interactions, reducing engagement and team cohesion. To cover these gaps, the following recommendations can be followed:

- Implement virtual and hybrid team-building activities to strengthen team dynamics and morale.
- Redesign office spaces to encourage meaningful in-person collaboration when employees are on-site.
- Introduce peer mentorship programs to maintain a sense of community and support employees working remotely.

Provide training on hybrid work best practices

One of the problems identified is that employees struggle with self-discipline, time management, and digital collaboration tools, so the Organisations can:

- Offer training sessions on self-management, digital collaboration tools, and effective remote work strategies.
- Develop a knowledge-sharing platform where employees can access best practices and share productivity tips.
- Provide technical support to ensure employees have the right tools and resources to work efficiently from home.

Monitor, evaluate, and continuously improve hybrid work strategies

Hybrid work challenges evolve, requiring ongoing adjustments; therefore, the Organisation can:

- Conduct regular employee feedback surveys to assess well-being, job satisfaction, and hybrid work challenges.
- Use data analytics to track hybrid teams' productivity, engagement, and absenteeism trends.
- Adapt strategies based on insights from feedback, ensuring continuous improvement in hybrid work arrangements.

CONCLUSION

This paper highlighted the need for NGOs to shape their Organisational culture to align with hybrid work demands to enhance employee well-being. The research confirmed that a strong and committed Organisational culture should sustain a resultant shift of this kind. The literature and participants' responses emphasised that clear communication, supportive leadership, mental health support, and inclusivity are crucial elements in fostering a positive work environment. The hybrid model introduced both opportunities and challenges. While the flexibility of remote work improved productivity and work-life balance for some, it also raised feelings of isolation and blurred boundaries between personal and professional life. All the respondents and some sources have emphasised that these challenges can be surmounted if hybrid working conditions are designed to consider all the connections, equity, and wellness to balance out the various complexities. By tailoring strategies, enhancing digital skills, and ensuring a conducive culture, NGOs will foster a sense of worth among their employees.

This study was limited to a single case study of one NGO in the Free State Province, which may reduce the generalizability of findings to other sectors or regions. The reliance on self-reported interview data introduces potential recall or social desirability bias. Future research should employ mixed-method approaches and include multiple organisations for comparative analysis. Future

research could explore empirical studies on the long-term impacts of hybrid work on employee well-being.

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EXPLORING INTERNAL RISK-REPORTING PRACTICES IN A SOUTH AFRICAN PETROCHEMICAL COMPANY

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ABSTRACT

Literature on risk-reporting practices exists and seems to primarily focus on external risk reporting compared to internal risk reporting for organisational decision-making. This study explores under-researched internal risk reporting within South Africa's petrochemical industry. The objectives were to: (i) identify recommended internal risk-reporting practices outlined in the existing literature, (ii) compare and contrast internal risk-reporting practices observed in the petrochemical organisation under study with those outlined in the literature, and (iii) propose recommendations to improve internal risk-reporting practices in the petrochemical organisation under study. This qualitative research study involved: (i) a literature review, highlighting key themes for internal risk reporting, (ii) semi-structured interviews with senior leaders providing recommendations on internal risk-reporting practices, and (iii) a focus group validating the themes and recommendations. The study results support improvements for organisational decision-making and provide a foundation for an internal risk-reporting framework. Study insights may apply across industries, encouraging wider internal risk-reporting research.

Keywords: risk reporting; internal risk reporting; risk-reporting practices; internal risk-reporting practices; risk reporting framework

INTRODUCTION

Effective risk reporting is essential for communicating risk information to stakeholders and has become a key principle in corporate governance (Vandemaele, Vergauwen & Michiels, 2009; Young, 2015). Epstein and Rejc (2006) argue that risk reporting is most effective when it impacts decision-making by turning risks into opportunities and rewards, ultimately enhancing shareholder value. Academic research has emphasised the importance of risk reporting for informed decision-making (Branson, 2015; Douglas, Cromie, Leva, & Balfe, 2014; Epstein & Rejc, 2006; Woods, 2010). The primary objective of communicating risks is crucial in the risk management process, ensuring that risk information is appropriately disclosed and serves as a basis for decision-making throughout the different tiers of an organisation (Woods, 2010). Cornell (2003) argues that the organisation's board of directors is unable to discharge its statutory duties and maximise shareholder value in the absence of effective internal risk reporting. The demand for effective risk management and internal risk

reporting is likely to persist, given that complex risks continue to emerge, influencing the information needs of management and the board of directors (Beasley & Branson, 2023).

Existing literature on risk-reporting practices seems to focus primarily on external public disclosure reports rather than those formulated for internal organisational use and decision-making (Elshandidy, Fraser, & Hussainey, 2015; Mazumder & Hossain, 2018). Furthermore, industry guidance on internal risk-reporting practices exists within the banking industry and is particularly relevant to financial services institutions but not to the petrochemical industry. There is seemingly a gap in the literature on internal risk-reporting practices within the petrochemical industry, as academic literature on internal risk-reporting guidance or standards in the petrochemical industry is scarce, particularly in the South African context. This scarcity creates a shortcoming in the understanding and development of comprehensive internal risk reporting. To address this gap, it is necessary to identify which risk information should be reported internally, which aligns with the concept of an "information gap" between stakeholder expectations and actual risk-reporting practices (Said Mokhtar & Mellett, 2013). The present study, therefore, explored internal risk-reporting practices of a South African petrochemical company. The research questions of the study were: (i) What are the recommended internal risk-reporting practices outlined in the literature? (ii) How do internal risk-reporting practices within the petrochemical organisation under study compare to practices recommended in the literature? (iii) How can internal risk-reporting practices of the petrochemical organisation under study be improved?

To address the research questions, a qualitative research approach was adopted, comprising a literature review, semi-structured interviews, a comparative analysis, and a focus group discussion. The literature review facilitated the development of a literature-based internal risk-reporting codebook. Given the scarcity of literature on internal risk reporting within the petrochemical industry, pertinent industry-wide risk reporting guidelines were examined.

BACKGROUND

Literature-based codebook

ISO:31000 (2018) emphasises the importance of reporting on the risk management process, including its essential components, which informed the identification of relevant themes within the literature-based codebook. Young (2015) argues that establishing risk-reporting criteria should reflect a comprehensive risk management process as the foundation of effective risk reporting. The development of the literature-based thematic codebook helped answer the first research question relating to the identification of the recommended internal risk-reporting practices according to the literature. Table 1 summarises the detailed literature review by identifying internal risk-reporting themes. Furthermore, these themes have been applied within the comparative analysis on the coding from the literature review and those from the responses from interview participants, to form an initial internal risk-reporting framework or guideline for the organisation under study.

TABLE 1: LITERATURE-BASED THEMATIC CODEBOOK ON INTERNAL RISK REPORTING

Theme	Description	Example of participant quotations	Source
Risk background	Risk information covering the **scope** (strategic, operational, functional, project-based), **context** (internal and external risk environment), **criteria** (risk appetite and tolerance), and application of **integrated thinking** (holistic and aligned view) concerning the risk	"Cover the full spectrum of strategic, operational, compliance and financial risks, and provide a balanced insight into each risk category." "The context of reported risks must be appropriately explained." "Risk reports should include information on internal and external operational risk losses." "it is imperative that internal and external loss data should be reliable and accurate." "While it may be impossible to measure risk appetite, managers should know whether the firm is becoming more risk-averse or more risk-seeking." "Therefore, integrated thinking may help managers to build a more holistic view (as opposed to a silo-view) of the company and to employ information that is originally owned by other functions."	Van Manen and de Groot (2004) Epstein and Rejc (2006) Young (2015) Young (2019) Singleton-Green and Hodgkinson (2011) Mio *et al.* (2016)
Risk assessment	Details of **risk identification** (material risks) and assignment of **ownership** (risk owners), **risk analysis** (understanding the nature of the risk and scenarios), and **risk evaluation** processes (determining the risk level or rating based on materiality) followed in assessing risk	"Highlighting key uncertainties." "Risk reporting mechanisms should indicate accountability and ownership of risks." "Risk information should be assessed by the board of directors and be approved before distribution to stakeholders." "We propose that disclosure is enriched by the way the expected impact of disclosed risks is qualified and quantified." "Reporting communicates the overall level of risk and highlights key trends or exceptions that may require particular attention."	Thompson and Bloom (2000) Young (2015) Young (2019) Beretta and Bozzolan (2004) Young (2015)
Risk response	The selected **treatment options** and **mitigation strategies** applied in addressing the risk	"Discussing each option (including the option of doing nothing) ease of implementation, likelihood of success in reducing risk, and expected effectiveness for reducing risk." "Describe for each risk the response, how the risk is accepted, mitigated, transferred or managed."	Thompson and Bloom (2000) Van Manen and de Groot (2004)
Risk monitoring	Process applied in **tracking and reviewing** the risks (including business performance measures and risk indicators) associated with the monitoring and management of the risk	"Most companies keep track of losses; however, they are defined (e.g. fines, lawsuits, product returns). This is useful information for Enterprise Risk Management (ERM), especially as key risk indicators of future trends." "Managers often pay insufficient attention to leading and non-financial indicators, and this might limit the benefits they receive."	Fraser and Simkins (2016) Mio *et al.* (2016)

Strategic opportunities	Risk information focusing on **strategic opportunities** that may exist for taking on identified risk or effectively managing the particular risk (future-focused perspective)	"Corporations are encouraged to embrace entrepreneurial risks and pursue risk-bearing strategic opportunities" "It seems natural to incorporate a discussion of risks into any disclosure of the firm's plans and prospects. This would also give an opportunity to discuss opportunities as well as risks."	Brodeur *et al.* (2010) Singleton-Green and Hodgkinson (2011)
Risk process improvement	Activities to **improve the risk management process** and apply **learnings** from risk events	"Risk reports must also include recommendations for the intended internal audiences." "With the benefit of lessons learned, hopefully, they will be better prepared for the next shock, whenever it comes and whatever the cause."	Epstein and Rejc (2006) Brodeur *et al.* (2010)

Concluding remarks on the reviewed literature

Risk reporting is widely recognised in academic literature as an essential part of the risk management process. However, most literature focuses on external public risk disclosure rather than internal risk reporting aimed at enhancing organisational risk decision-making. While industries such as banking have specific guidance, research on internal risk reporting remains scarce, especially within the South African petrochemical industry, which is the focus of this study. Stakeholder expectations significantly influence the type of risk information that should be reported on, leading to an information gap. The limited guidance on internal risk reporting revealed a shortcoming in understanding what risk information should be reported on in the internal risk report of the organisation under study. The existing literature provided useful information in analysing the study data to develop an initial framework or guideline for effective internal risk reporting.

METHOD

Research approach

This is a qualitative study based on a literature review, interviews, a comparative analysis, and a focus group discussion. The present study objectives were to: (i) identify recommended internal risk-reporting practices outlined in the existing literature; (ii) compare and contrast internal risk-reporting practices observed in the petrochemical organisation under study with those documented in the literature; and (iii) propose recommendations to improve internal risk-reporting practices in the petrochemical organisation under study. In alignment with the study objectives, the following data collection techniques are discussed in the next section of the study: (i) literature review; (i) participant interviews; and (iii) focus group discussion. The study aims to provide practical suggestions, to be considered for internal risk-reporting, to inform decision-making.

Data collection and analysis

Literature review

Snyder (2019) defines a literature review as "a more or less systematic way of collecting and synthesizing previous research". She further explains that a literature review unites findings from various empirical sources, enabling it to explore research questions with depth and rigour beyond

what a single study can provide. For this study, a literature review was conducted as a secondary data collection method and found useful as it allowed for the evaluation of existing research and best practices related to internal risk-reporting practices. As part of the literature review, the identified themes represent a broader unit of information formulated using the codes. Therefore, the study data used the codes from the codebooks to create the themes relating to internal risk reporting. The literature-based codebook was used as a framework or guideline, applying framework analysis, to analyse interview data as described within the background section of this study. Framework analysis involved a comparative approach to thematic analysis, utilising an organised framework of themes derived from the data and confirming identified themes for validity within the data. This method was useful as it facilitated cross-sectional analysis through a blend of data description and abstraction to classify, define, and interpret key patterns or themes related to the phenomenon under study (Goldsmith, 2021).

Interviews

Primary data was gathered using semi-structured interviews. The interviews allowed for the exploration of participants' perspectives, experiences, and opinions in greater depth, uncovering nuanced insights on internal risk-reporting practices within the organisation under study. In analysing the interview data, thematic analysis was employed to develop the interview codebook. Guest, MacQueen and Namey (2012) explain thematic analysis as a qualitative research method focusing on interpreting data to identify and describe emerging themes. Roberts, Dowell and Nie (2019) explain thematic analysis as a simple approach to hermeneutic (interpretation of language – written or spoken) content analysis, a type of analysis intended for non-numerical data. Thematic analysis serves as a pattern recognition method in content analysis, where themes that emerge from the data, form the basis for categorisation and analysis (Roberts *et al.*, 2019) – in summary, studying patterns to derive meaning.

Thematic analysis was found useful to apply in this study as it helped the researcher to categorise large bodies of data concerning subjective perspectives, experiences, and opinions of participants. Internal risk-reporting practices themes extracted from the interview data were compared to internal risk-reporting practices themes identified from the literature. A comparative analysis was conducted to identify and explain similarities and differences in themes from the two data sources, as recommended by Pickvance (2001). The outcome of the comparative analysis was the development of an interview-based thematic codebook. In addition, themes derived from the interview data led to the identification of recommended improvement actions within the internal risk-reporting practices of the organisation to guide risk decision-making. The target population consisted of approximately 800 senior leaders in the petrochemical organisation under study. However, the figure is subject to change due to an organisational streamlining process of senior leadership positions at the time of this study. Senior leadership is typically represented by the three tiers of leadership categories

namely, Senior Vice Presidents, Vice Presidents, and Senior Managers. They are the recipients or users of risk reports, and decision-making typically happens at these levels.

A non-probability purposive sampling method was used to select interview participants, enabling the researcher to gather relevant information within the constraints of time and resources. Purposive sampling involves intentionally choosing participants who can provide specific and comprehensive insights related to the study's purpose (Acharya, Prakash, Saxena, & Nigam, 2013; Guarte & Barrios, 2006). The rationale for employing purposive sampling in the study was to enhance the alignment of the sample with the research objectives (Campbell, Greenwood, Prior, Shearer, Walkem, Young, Bywaters, & Walker, 2020). An initial sample of 10 participants was chosen. When data saturation was not achieved, the sample was expanded to 20 participants. O'reilly and Parker (2013) argue that sample size should not be fixed, but aligned with the adequacy and value of information being sought while being transparent in how data saturation is achieved. Saturation, marked by redundancy in responses, was reached by the 17th interview, meaning that no new themes emerged after that interview. Table 2 provides the details of the specific study questions covered within the interviews.

TABLE 2: STUDY-SPECIFIC QUESTIONS ASKED DURING THE INTERVIEWS

No	Study-specific questions
1	What risk information do you believe is essential to be reported within an internal risk report to inform decision-making and what are your reasons for choosing them?
2	What is your understanding of the role of integrated thinking in the context of an internal risk report, and how do you think it contributes to the report's effectiveness?
3	What relationship, if any, do you perceive between an organisation's reduced profitability and increased internal risk disclosure, and how do you think this relationship impacts decision-making?
4	What recommendations do you have, if any, for enhancing future risk reports within the organisation, and what benefits do you think these changes would bring?

As the interviews were one-on-one discussions and confidentiality was agreed upon per the signed informed consent forms, participants felt more comfortable to openly share and participate in the discussions without feeling vulnerable. The interviewee's right to withdraw from the study and their right to answer or refuse to answer any questions was emphasised during the interviews. The responses from the interviews were analysed using thematic analysis, drawing on framework analysis. The study data was coded using the literature-based codebook as a guide, noting that thematic analysis as a qualitative data analysis method was used to identify, analyse, and report patterns, themes, and meanings within the qualitative data. This was executed in alignment with the research objectives.

Focus group discussion

A validation process was executed, focusing on the results of the interview data. Four members of the Group Risk Leadership team participated in a focus group discussion, resulting in the full

population being sampled. The validation involved engaging participants to review the interview results. Gill and Baillie (2018) contend that focus groups serve as a valuable tool for investigating collective perspectives, enabling the generation of alternative insights. Thompson and Bloom (2000) suggest that the use of focus groups could assist in the identification of information required for informed decision-making. Given that this study focuses on internal risk reporting informing decision-making, the use of a focus group to validate the findings of the interview data was found useful. The goal of the focus group was to foster clarification and mutual learning by exploring the perspectives and opinions of interview participants. The focus group was conducted after consent to participate was received from participants. The discussion was held face-to-face and took approximately 2.5 hours during which the researcher acted as facilitator in the session. The outcome was the development of a remedial action plan to improve the internal risk reporting practice of the petrochemical organisation under study. The remedial actions were endorsed by the organisation's Head of Enterprise Risk Management, representing agreement with the outcomes of the study.

Data management and retention

The interviews and focus group discussions were audio-recorded by the researcher using an electronic voice recording device and transcribed using an electronic transcribing tool (Otter). The researcher reviewed the transcriptions (read and re-read) to ensure the accuracy of the study information. Care was taken to delete these recordings after the information had been transcribed by the researcher, as described in the Informed Consent Form. Ethical considerations and confidentiality were duly followed in removing identifiable company, interviewee, or focus group participant details. No personal or organisational identifiable information was used in the research study. The interview and focus group data have been analysed and reported anonymously.

RESULTS AND DISCUSSION

This section presents a summary of the study's findings, offering pertinent evidence to address the research objectives and help respond to the research questions.

Phase 1: Literature review

The literature review in this study assisted in obtaining a comprehensive understanding of the subject of internal risk reporting from the literature and allowed the researcher to assess gaps in the literature on internal risk-reporting practices. The outcome of the literature review was the development of the literature-based thematic codebook on internal risk reporting, as described in Table 1.

Phase 2: Interview results and comparative analysis

This phase encompasses the insights gathered from participant interviews and the outcomes of the comparative analysis – the internal risk-reporting themes from the literature review were compared to themes derived from the interview data. The results of this comparative analysis led to the development of the interview-based thematic codebook, described in Table 3. In addition, Table 3 provides examples of participant quotations linked to the internal risk-reporting themes from the

interview data. A summary of participant responses for each internal risk-reporting theme, highlighted below, systematically integrates the findings from the comparative analysis. This analysis helped address the research question by comparing the internal risk-reporting practices found in the literature with those in the organisation. Table 4 outlines suggested participant recommendations for improving the organisation's internal risk-reporting practices, aligned with themes from the interview-based thematic codebook. The internal risk-reporting practices detailed in Table 3, and the recommended improvements in Table 4, provided the basis for the Phase 3 focus group discussion.

TABLE 3: INTERVIEW-BASED THEMATIC CODEBOOK ON INTERNAL RISK-REPORTING

Theme	Description	Participant quotations
Risk background	Risk information covering the **scope** (strategic, operational, functional, project-based), **context** (internal and external risk environment), **criteria** (risk appetite and tolerance) and application of **integrated thinking** (holistic and aligned view) concerning the risk	PR1 – "Making sure that people really understand what it is that we want to achieve is critical...If people don't understand the why, they don't necessarily give it the attention that it should actually receive." PR4 – "Looking at what the different timeframes are short, medium, and long term…understand how things impact our strategy instead of the other way around." PR13 – "What I also think is important is to also look at the context within which you know, these risks can arise." PR11 – "When you scan the internal and external environment, we need to be proactive enough to understand what are the emerging risks that are also material…also to understand what's happening in other industries that may impact us." PR12 – "And I think there it also needs to report against what is our appetite." PR4 – "I think integrated thinking is the key to making sure you look at an entity's risks and opportunities and what's material to it from a holistic perspective
Risk assessment	Details of **risk identification** (material risks) and assignment of **ownership** (risk owners), **risk analysis** (understanding the nature of the risk and scenarios) and **risk evaluation** processes (determining the risk level or rating based on materiality) followed in assessing risk	PR11 – "The thing that I see that needs to be reported firstly, from a priority perspective, you really want to focus on the material risks to the organisation...risk owners must understand their work in relation to the business strategy." PR19 – "But I mean anything that, that is a risk of eroding shareholder value...anything that, that puts you at risk of losing shareholder value, destroying

		shareholder value, or a change in shareholder value." PR3 – "I think, definitely the top risks and those need to be quantified...I think one needs to go hand in glove with scenario processes." PR6 – "However, that risk must be appropriately analysed to be related to the thing that the organisation is interested in." PR9 – "What impact will it have on the business and the consequences…so that decision-makers can then understand almost the cost benefit, risk, and impact to make a decision." PR17 – "How are those top risks actually performing and are they sitting at, at a really high residual level."
Risk response	The selected **treatment options** and **mitigation strategies** applied in addressing the risk	PR7 – "What is your response...what are we doing and what is our playbook to respond to it...sometimes I felt like we were, you know, we designed and implemented controls or risk management, but you know, are they truly operating effectively?" PR11 – "We can't just highlight a challenge and then hope for the best; we have to highlight the challenge and what are we doing about it.'" PR13 – "How the risks can be mitigated...it enables the decision-maker to make an informed decision on how best to manage the risk."
Risk monitoring	Process applied in **tracking and reviewing** the risks (including business performance measures and risk indicators) associated with the monitoring and management of the risk	PR2 – "How do we measure if we were successful?" PR17 – "How are those top risks actually performing...checking whether that landscape is actually changing or is things the same?" PR18 – "I think from an internal perspective, that those early indicators that says things are going south is also quite important."
Strategic opportunities	Risk information focusing on **strategic opportunities** that may exist for taking on identified risk or effectively managing the particular risk (future-focused perspective)	PR4 – "One critique that I have about our risk process is that it is very shallow on opportunities...I think there is a link and I think if you are doing it in a way where risks and opportunities are identified, it should impact decision-making." PR13 – "So it's got to be very purposeful risk reporting, in my view, very purposeful and

		balanced, giving positive things, both positive and negative, opportunities and risks, always." PR19 – "What is the risk and then what is important for me, as well, is the opportunities...if you only focus on the risk side of things, then you are actually unclear about what are you trading against on the opportunity side."
Risk process improvement	Activities to **improve the risk management process** and apply **learnings** from risk events	PR3 – "I think we should have been agile...we should have been always saying, how do we improve this?" PR11 – "I think the learning or the capacity to learn from previous incidents whether its safety, health or environmental related or not, there's a big gap in terms of trying to embed learning to prevent repeat findings...I think the reason why we are repeating the mistakes is we are not learning effectively."

PR1 to PR20 represent the unique participant identifiers used within this study.

TABLE 4: INTERVIEW RESULTS – PARTICIPANT RECOMMENDATIONS TO IMPROVE THE INTERNAL RISK-REPORTING PRACTICES OF THE ORGANISATION RESEARCHED

No	Theme	Interview-based recommendations
1	Risk background	**Stakeholder engagements** – Ensure transparency of the internal risk report to key stakeholders
		Technology adoption – Utilise technology to model risk scenarios
		Integrated risk reporting – Reporting of risk information in an integrated manner
		(iv) Risk scope and content – Prioritise internal risks under organisational control and reassess the purpose, focus, complexity, and length of the internal risk report
2	Risk assessment	**(i) Prioritisation of risk** – Ensure escalation of risks that matter (impact to the organisation)
		(ii) Risk analysis – Enhance reporting on plausible risk scenarios and apply risk quantification in the assessment of the impact of risks
3	Risk response	**Risk mitigation** – Highlight management interventions and action plans
4	Risk monitoring	**Risk performance** – Incorporation of business performance measures (leading and lagging indicators) to enhance reporting practices
5	Strategic opportunities	**Future-focused perspective** – Reporting on strategic opportunities identified within the internal and external landscape
6	Risk process improvement	**Embed learning** – Sharing of learnings (from prior risk events) and adoption of improvements in the risk management process

All 20 participants shared their perspectives regarding essential risk information for inclusion in the organisation's internal risk reporting. Every participant highlighted the importance of integrated thinking and further offered suggestions for enhancing the organisation's internal risk-reporting practices. In summary, the recommendations concentrated on the following 11 focus areas: stakeholder engagement, technology adoption, integrated risk reporting, risk scope and content, prioritisation of risk, risk analysis, risk mitigation, risk performance, future-focused perspective, and embed learnings. From the comparative analysis of the literature and interview data, no new internal risk-reporting themes were identified. Notably, this absence of new themes from the interviews was unexpected, highlighting the comprehensiveness of the literature-developed themes as per Table 1.

Phase 3: Focus group results

A summary of the interview results incorporating participants' recommendations for improving internal risk-reporting practices was presented to the focus group. The Group Risk Management Leadership team validated the literature-based themes and participants' recommendations. This led to discussions on specific remedial actions to address gaps revealed in Phase 2. Table 5 outlines

the focus group's validation results on the themes and participant recommendations. A 'Y' means 'Yes', indicating agreement with comments, while an 'N' means 'No' and indicates the converse.

TABLE 5: FOCUS GROUP VALIDATION RESULTS

Theme	Interview-based recommendations	Comments	Participant agreement with recommendations (Yes/No)			
			1	**2**	**3**	**4**
Risk background	**(i) Stakeholder engagements**	Overall, recommendations relating to risk background were accepted except for integrated reporting and risk scope.	Y	Y	Y	Y
	(ii) Technology adoption		Y	Y	Y	Y
	(iii) Integrated risk reporting		N	N	N	N
	(iv) Risk scope		N	N	N	N
	(v) Risk content		Y	Y	Y	Y
Risk assessment	**(i) Prioritisation of risk**	Participants agreed with the recommendations to improve the risk assessment theme.	Y	Y	Y	Y
	(ii) Risk analysis		Y	Y	Y	Y
Risk response	**Risk mitigation**	Participants agreed with the recommendations to improve the risk response theme.	Y	Y	Y	Y
Risk monitoring	**Risk performance**	Participants agreed with the recommendations to improve the risk monitoring theme.	Y	Y	Y	Y
Strategic opportunities	**Future-focused perspective**	Although full agreement was not obtained, a remedial action plan was advised.	N	Y	Y	Y
Risk process improvement	**Embed learnings**	Participants did not agree with all aspects of the suggested improvements. The improvement of learning has been incorporated into the remedial action plan.	N	N	N	Y

All four Group Risk Management Leadership team members concurred with the identified literature-based internal risk-reporting themes. However, there was no unanimous agreement on all recommendations from interview participants. The divergences within the risk background theme pertained to the following recommendations: (i) initiating the reporting of risk information in an integrated manner; and (ii) prioritising the reporting of internal risks (scope) under organisational

control. The focus group confirmed that the disagreements stemmed from the fact that these suggested improvements were already incorporated into the organisation's internal risk-reporting practices. Likewise, the disagreement noted within the strategic opportunities theme related to one focus group participant's comment that reporting on strategic opportunities would be more effectively communicated through integration with the strategy function's business report. This report provides a quarterly status update on strategic focus areas for the organisation. Finally, the disagreements within the risk process improvement theme related to improvements being reported through the annual group risk game plan or risk execution plan rather than within the internal risk report. Subsequently, the focus group agreed on the implementation of remedial actions, as described in Table 6, to address the participant recommendations.

TABLE 6: REMEDIAL ACTIONS TO ADDRESS INTERVIEW-BASED RECOMMENDATIONS

Theme	Interview-based recommendations	Remedial actions
Risk background	**Stakeholder engagements**	Review and update the stakeholder mapping to ensure adequate identification of key stakeholders per reporting type (strategy, operations, functions, projects). Disseminate the internal risk report to key stakeholders to facilitate engagements on relevant sections of the report, where visibility was previously lacking.
	Technology adoption	Assess available internal and external technology tools to model risk scenarios effectively.
	Risk content	Review the existing content of the internal risk report to enhance its purpose, structure, simplicity, focus, and length.
Risk assessment	**Prioritisation of risk**	Review the standard format of risk information from the operating model entities and provide adequate guidance on risk escalation protocols to ensure that material risks are being reported within the internal risk report.
	Risk analysis	Strategic risk scenarios are to be developed and included in the internal risk report. The action should be aligned with the assessment of relevant technology tools (refer to technology adoption action). Commence the process to quantify the risk impact through a two-phased approach: • Phase 1 – Develop a risk quantification reference document to guide the considerations and application of risk quantification. • Phase 2 – Align risk quantification rollout for the organisation with the risk matrix update process.
Risk response	**Risk mitigation**	Review the risk responses included within the internal risk report to enhance the efficacy of responses and align responses with the organisation's combined assurance principles.

Risk monitoring	**Risk performance**	Include the strategic business performance measures (leading and lagging indicators) within the internal risk report with a focus on indicators linked to the performance of controls.
Strategic opportunities	**Future-focused perspective**	Assess and implement an appropriate fit-for-purpose tool and methodology that will enable the quantification of risk impact considering risk and opportunities. Assess and agree on the most appropriate reporting process and channel for reporting strategic opportunities to key stakeholders.
Risk process improvement	**Embed learnings**	Risk process improvement actions are to be communicated via the group risk game plan (risk execution plan). Learnings from prior risk events to be incorporated into the internal risk-reporting practices of the organisation. This action is also systems-dependent (refer to technology adoption action).

The objective of the focus group discussion was to validate the identified internal risk-reporting themes and recommendations from interview participants. Although all four participants concurred with the internal risk-reporting themes, not all recommendations from interview participants were agreed upon. It was noted that reasons for disagreement were not attributed to the validity of the improvement actions. Rather, the suggestions had either already been incorporated into internal risk reporting or were deemed more appropriate for communication through other channels. One significant outcome of this study was the immediate focus of the Group Risk Leadership team to devise a remedial action plan to address suggested improvements. This plan was endorsed by the organisation's Head of Enterprise Risk Management, indicating agreement with the study findings. Consequently, implementation of the remedial action plan commenced with the assignment of ownership and due dates for each action in the remediation plan.

CONCLUSION

This study utilised a qualitative research approach to explore internal risk-reporting practices within a South African petrochemical company. Data collection methods were a literature review, semi-structured interviews and a focus group. The objectives of the study were to: (i) identify recommended internal risk-reporting practices outlined in the existing literature, (ii) compare and contrast internal risk-reporting practices observed in the petrochemical organisation under study with those outlined in the literature, and (iii) propose recommendations to improve internal risk-reporting practices in the petrochemical organisation under study. The study identified and compared themes and subthemes from literature and semi-structured interviews. Interestingly, the lack of novel themes emerging from interview participants was unexpected, accentuating the comprehensiveness of literature-developed themes. The findings suggest that the organisation under study requires improvements in stakeholder engagement, technology adoption, risk content, risk prioritisation, risk analysis, risk mitigation, risk performance, future-focused perspective, and embedment of learning.

These recommendations were validated in a focus group, and a remedial action plan was outlined under six risk reporting themes: risk background, risk assessment, risk response, risk monitoring, strategic opportunities, and risk process improvements. The results support decision-making improvements within the organisation and provide a foundation for an internal risk-reporting framework. Although the study focused on a single South African petrochemical company and was limited in scope, time and sample selection, which may impact the depth of the study, the insights gathered could be useful across various industries and regions. The study encourages researchers to refine a comprehensive scope of risk information to be included within the internal risk-reporting practices of an organisation and calls for additional research in other industries and regions to contribute to further development of an internal risk-reporting framework. This study contributes to the standardisation and refinement of internal risk-reporting practices, supporting the development of more effective risk governance globally.

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NAVIGATING 4IR PARADOXES IN SOUTH AFRICAN UNIVERSITIES: RETHINKING MANAGEMENT EDUCATION

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ABSTRACT

The rapid rise of Fourth Industrial Revolution (4IR) technologies presents South African universities with both opportunities and challenges. This systematic literature review analyses 68 publications (2018–2024) to examine paradoxes emerging from 4IR-driven curriculum transformation. Technologies such as AI, IoT, and big data are reshaping higher education, revealing six key tensions: *innovation versus stability, access versus exclusion, employability versus education, technology versus pedagogy, lifelong learning versus credentialing, and local versus global*. These interdependent tensions reflect the broader puzzle of navigating educational change in a dynamic and unequal society. For management education, this calls for agile curricula, hybrid pedagogies, stronger industry partnerships, and a commitment to ethical leadership. Rather than resolving contradictions, universities must embrace them as catalysts for sustainable transformation. Future research should examine how South African management programmes are responding to these challenges in curriculum design, teaching strategies, and graduate readiness.

Keywords: fourth industrial revolution (4IR); management education; curriculum reform; South Africa; workforce readiness; systematic review

INTRODUCTION

The Fourth Industrial Revolution (4IR) presents a paradox for higher education. While digital technologies such as artificial intelligence (AI), robotics, the Internet of Things (IoT), blockchain, and augmented or virtual reality (AR/VR) create unprecedented opportunities for innovation, they simultaneously disrupt established educational models and deepen existing inequalities (Fataar, 2020; Lubinga, Maramura and Masiya, 2023; Mhlanga and Moloi, 2020). As 4IR reshapes industries, social structures, and economic systems, universities must grapple with the competing demands of adaptation and stability, technological progress and educational equity, and global competitiveness and local relevance (Carrim, 2022; Smith and Lewis, 2011). These tensions raise fundamental questions about the purpose and structure of higher education in an era defined by rapid and often unpredictable technological change.

In South Africa, this paradox is particularly pronounced. While the potential of 4IR technologies to drive economic growth, foster digital transformation, and expand access to knowledge is widely acknowledged, systemic barriers including resource constraints, infrastructure gaps, and persistent

educational inequalities continue to hinder the full realisation of these benefits (Alabi and Mutula, 2022; Hlobo, Moloi and Mhlanga, 2021; Yende, 2021). Historically Disadvantaged Institutions (HDIs) in particular, face the challenge of engaging with 4IR while managing the legacies of past inequities (Kayembe, 2019). While automation threatens to displace certain types of work, it also demands new skill sets that higher education institutions (HEIs) must develop within increasingly constrained environments (Saba and Ngepah, 2024; Sukdeo and Mothilall, 2023). This dual reality highlights the need for universities to navigate paradoxical tensions rather than seeking simple solutions to complex problems (Smith and Lewis, 2011).

The urgency of curriculum transformation is thus not merely a matter of updating content to incorporate new technologies. It involves managing contradictory forces: preparing students for a volatile job market while fostering long-term intellectual growth, embedding digital tools while preserving critical pedagogical traditions, and balancing global 4IR demands with the local realities of South Africa's social and economic landscape (Harmse and Wadee, 2019; Maisiri, Darwish and Van Dyk, 2019; Sehlako, Chibambo and Divala, 2023). Without intentional efforts to address these paradoxes, 4IR-driven transformation risks widening educational and economic divides, leaving historically marginalised communities even further behind (Lubinga, Maramura and Masiya, 2023).

This paper contributes to the management education discourse by systematically reviewing the literature to explore how South African higher education institutions are navigating the complex tensions introduced by the 4IR. These tensions reflect the core tenets of paradox theory (Smith and Lewis, 2011; Lewis and Smith, 2014), which posits that contradictory, yet interdependent elements are intrinsic to complex systems. Within the context of 4IR-driven curriculum reform in South African higher education, recognising, embracing, and working through such tensions offers a pathway to fostering innovative and sustainable approaches to rethinking management education. Therefore, this study is guided by a paradox theory lens, through which it addresses two interrelated research questions:

1. How are 4IR technologies transforming South African higher education, and what tensions are emerging in the process of curriculum reform?
2. How can paradox theory help interpret these tensions, and what are the specific implications for rethinking management education in the 4IR context?

The paper begins by introducing paradox theory as the conceptual lens underpinning the study, highlighting its value in interpreting the interdependent tensions shaping curriculum transformation in the 4IR era.

THEORETICAL PERSPECTIVE

To examine the complexities of 4IR-driven curriculum transformation in South African universities, this study draws on paradox theory as articulated by Smith and Lewis (2011) and refined in

subsequent work (Lewis and Smith, 2014). Paradox theory provides a valuable framework for understanding the persistent, interdependent tensions that emerge when institutions are required to pursue competing demands simultaneously, such as fostering innovation while maintaining stability, or expanding digital access while avoiding exclusion (Lubinga *et al*., 2023; Oke and Fernandes, 2020). These tensions are not temporary dilemmas to be resolved, but rather enduring contradictions that must be navigated, embraced, and worked through over time (Smith and Lewis, 2011).

Paradoxes in organisational life are often grouped into four meta-categories: *performing, organising, belonging, and learning*. These categories sensitise researchers to the nature of the competing demands institutions face in dynamic environments like those shaped by the 4IR (Lewis and Smith, 2014). *Performing paradoxes* emerge when organisations are pulled between competing goals or outcomes. In the context of higher education, this includes balancing the pursuit of workforce relevance with the preservation of broader educational missions such as critical thinking and social responsibility (Carrim, 2022; Fataar, 2020). *Organising paradoxes* involve tensions between flexibility and control, decentralisation and integration, or innovation and stability. Curriculum reform under 4IR pressures requires agile responses to emerging technologies, yet these reforms must still operate within structured academic systems and regulatory constraints (Masinde and Soux, 2020; Singaram *et al*., 2023). *Belonging paradoxes* relate to identity and inclusion. As universities adopt globalised 4IR technologies, they must also remain responsive to the needs of local contexts, diverse student populations, and historically marginalised communities (Chauke *et al*., 2024; Sehlako *et al*., 2023). *Learning paradoxes* surface when institutions must simultaneously preserve existing knowledge and practices while embracing experimentation, unlearning, and renewal (Kishore *et al*., 2022; Moloi and Salawu, 2024). These tensions are especially salient in contexts that demand both traditional degree structures and modular, adaptive learning pathways suited to lifelong learning.

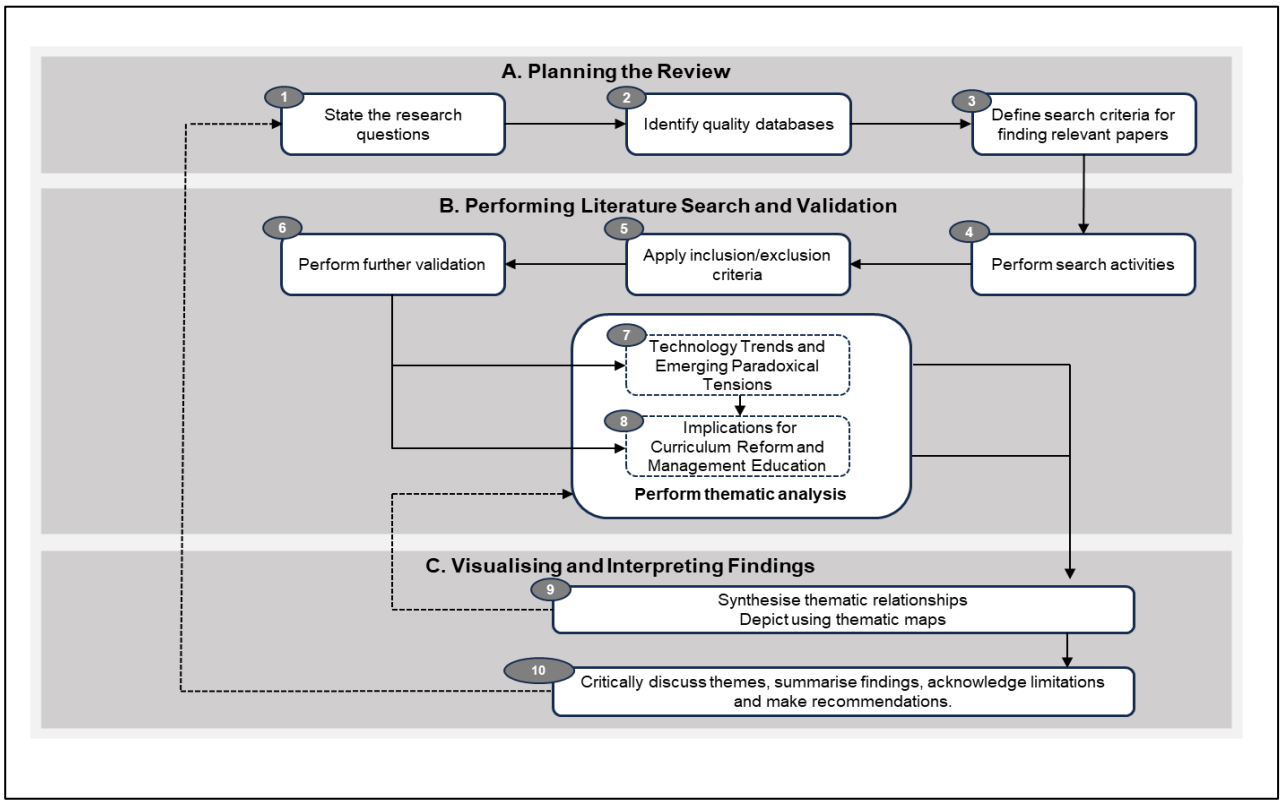
These paradox categories are not mutually exclusive. Tensions often cut across domains, with a single paradox reflecting interrelated challenges of performing, organising, and belonging (Smith and Lewis, 2011). Paradox theory, therefore, offers a dynamic and integrative lens for exploring how South African universities, particularly in the management education space, are navigating 4IR disruption. Rather than seeking resolution, this lens encourages inquiry into how institutions accept, manage, and even leverage these tensions as generative forces for sustainable transformation (Lewis and Smith, 2014).

RESEARCH METHODS AND DESIGN

This study employed a systematic literature review (SLR), guided by an adapted PRISMA framework (see Figure 1), to investigate how 4IR technologies are reshaping curriculum in South Africa's higher education sector. This framework often needs adaptation to suit different study contexts. For example, it requires modifications when applied to fields such as education or technology (e.g., 4IR curriculum reforms), especially if the review focuses on qualitative analysis, bibliometrics, or mixed methods rather than traditional meta-analyses (Page et. al, 2020). To ensure theoretical rigour and

relevance, this review followed best practices for conducting structured literature reviews in management research, as outlined by Webster and Watson (2002).

FIGURE 1: ADAPTED PRISMA MODEL FOR 4IR TECHNOLOGY AND CURRICULUM IMPACT REVIEW



The review followed three phases: planning, literature search and validation, and thematic synthesis. Databases including Scopus, Web of Science, ERIC, and IEEE Xplore were searched for publications from 2018 to 2024, using terms such as “4IR,” “digital skills,” “AI,” and “South Africa.” After duplicate removal and two rounds of screening using defined inclusion and exclusion criteria, 68 articles were selected for analysis. Atlas.ti software supported both content and thematic analysis. Content analysis was used to identify and visualise frequently occurring terms and noun phrases that reflected the literature’s emphasis on technological change and skills development (Harwood and Garry, 2003).

Thematic analysis enabled a deeper interpretive reading of the literature. This phase followed the structured and flexible approach outlined by Braun and Clarke (2006), which facilitates the identification of patterns across qualitative data while allowing for theoretical sensitivity. In this study, paradox theory was applied as a sensitising lens to guide the thematic coding, supporting the identification of persistent interdependent tensions within the data. These tensions informed the development of six key paradoxes that frame curriculum reform as a balancing act between competing demands, such as *innovation versus stability* or *employability versus education*. The application of paradox theory enabled a deeper understanding of how universities must navigate complexity in their response to 4IR disruption.

Ethical Considerations

This study complied with all ethical standards for academic research. It was based exclusively on publicly available literature and did not involve human or animal participants.

RESULTS

Content Analysis

Out of 68 publications analysed, 68% were journal articles, while 32% were conference papers. The trend suggests that scholars in South Africa are contributing substantially to the academic dialogue on 4IR through journal publications, although conference presentations also play a significant role in sharing preliminary findings and fostering scholarly discussions. Our content analysis highlighted a growing scholarly interest in 4IR research among South African academics. The number of publications fluctuated over the years, peaking at 15 in 2023, with 2020 and 2022 each recording 13 publications, and 2019 and 2021 reporting 11 publications each. By mid-2024, seven publications were identified, reflecting partial data as the SLR began in mid-2024.

The distribution of publications related to 4IR in Table 1 spans various academic disciplines. Many publications (30%) are from the field of Education, highlighting its significant focus on 4IR research. Industrial Engineering accounts for 6% of the publications, while Business/Technology, Engineering/Education, Information Management, Psychology, Public Administration, Technology, and Accounting/Education each contributes 3% or less. A substantial portion of the publications (45%) falls into the “Other” category, indicating a wide range of interdisciplinary research areas contributing to the 4IR discourse.

TABLE 1: ACADEMIC DISCIPLINE DISTRIBUTION IN 4IR-RELATED RESEARCH

Academic Discipline	Count	%
Education	21	**30%**
Industrial Engineering	4	**6%**
Business/Technology	2	**3%**
Engineering/Education	2	**3%**
Information Management	2	**3%**
Psychology	2	**3%**
Public Administration	2	**3%**
Technology	2	**3%**
Accounting/Education	1	**1%**
Other	30	**45%**

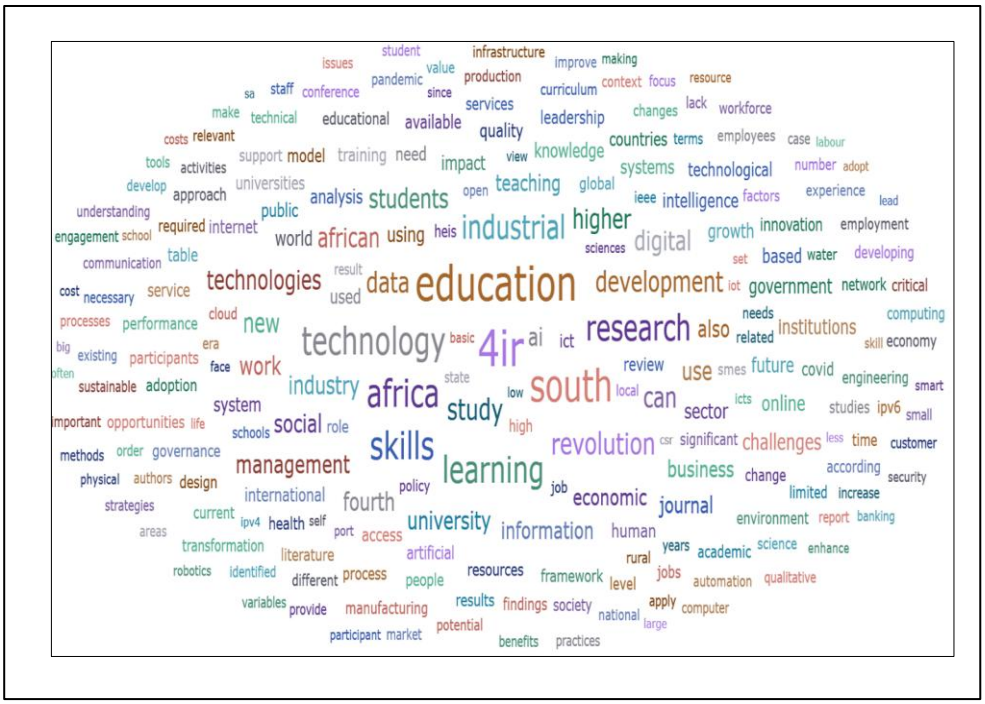
“Other” encompasses a wide range of single entries from diverse disciplines such as Business Information Systems, Computational Science, Construction/Development Studies, and Theology, indicating a rich and varied exploration of 4IR across highly specialised fields. The inclusion of disciplines such as business, engineering, and public administration further highlights the collaborative and cross-sectoral approach required to address 4IR challenges.

Thematic Analysis

The shift towards 4IR-driven higher education in South Africa presents a range of paradoxes, persistent, interdependent tensions that cannot be instantly resolved but must be continuously navigated. Drawing on paradox theory and the meta-categories of performing, organising, belonging, and learning (Smith and Lewis, 2011; Lewis and Smith, 2014), this section unpacks six key paradoxes that emerged from the literature, each revealing how universities are caught between competing demands in their pursuit of sustainable transformation.

Following the final count of articles, as illustrated in the PRISMA diagram (see Figure 1), a detailed data mapping process was conducted using a structured spreadsheet to organise and categorise the extracted data. Thereafter, the study employed thematic analysis as the primary method for systematically identifying, analysing, and reporting patterns within the dataset. To support the identification of key themes that emerged during the analysis, a word cloud was generated as a visual tool to highlight frequently occurring concepts and terms within the reviewed literature as seen in Figure 2. The subsequent subsections present the tensions inherent in curriculum design.

FIGURE 2: CODE ANALYSIS


education
technology
4ir
africa
south
research
learning
skills
development
data
industrial
higher
digital
technologies
university
information
revolution
challenges
management
fourth
economic
business
journal
innovation
government
institutions
students
teaching
knowledge
leadership
curriculum
quality
services
impact
analysis
public
african
world
work
industry
system
social
study
can
use
future
covid
engineering
online
sector
new
ai
ict
also
related
needs
computing
economy
skill
smart
small
customer
security
limited
increase
according
change
time
less
significant
csr
role
schools
high
low
state
local
review
smes
icts
studies
ipv6
international
policy
job
strategies
current
ipv4
health
self
port
access
areas
transformation
literature
artificial
robotics
identified
different
process
people
resources
framework
level
rural
jobs
automation
qualitative
years
academic
science
enhance
environment
report
banking
human
variables
provide
manufacturing
results
findings
society
national
apply
computer
large
participant
market
potential
benefits
practices
methods
order
governance
physical
authors
design
important
opportunities
life
sustainable
adoption
existing
participants
face
big
often
processes
performance
cloud
cost
necessary
service
communication
table
engagement
school
required
internet
understanding
develop
approach
universities
tools
activities
support
model
training
need
view
knowledge
countries
terms
employees
case
labour
systems
technological
number
adopt
open
global
ieee
intelligence
factors
experience
lead
sciences
growth
employment
based
water
developing
set
iot
network
critical
used
result
basic
review
use
smes
future
covid
engineering
online
sector
icts
studies
ipv6
small
customer
security
limited
increase
according
change
time
less
significant
csr
challenges
revolution
business
journal
economic
job
policy
fourth
international
university
information
human
years
academic
science
enhance
rural
jobs
automation
qualitative
environment
report
banking
resources
framework
level
results
findings
society
national
apply
computer
large
potential
benefits
practices
participant
market
variables
provide
manufacturing
process
people
artificial
literature
transformation
areas
current
ipv4
health
self
port
access
strategies
design
authors
physical
methods
order
governance
management
skills
learning
system
social
role
schools
high
study
africa
industry
work
face
sustainable
adoption
existing
participants
era
big
often
processes
performance
cloud
new
technology
4ir
ai
ict
research
also
related
needs
computing
economy
skill
institutions
cost
necessary
service
communication
table
engagement
school
required
internet
understanding
develop
approach
universities
tools
activities
support
model
training
need
view
knowledge
countries
terms
employees
case
labour
systems
technological
number
adopt
open
global
ieee
intelligence
factors
experience
lead
sciences
growth
employment
based
water
developing
set
iot
network
critical
used
result
data
education
development
technologies
university
information
revolution
challenges
management
fourth
economic
business
journal
innovation
government
institutions
students
teaching
knowledge
leadership
curriculum
quality
services
impact
analysis
public
african
world
work
industry
system
social
study
can
use
future
covid
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online
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ict
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needs
computing
economy
skill
smart

DHE, etc.) often act as counterforces, limiting the speed of change (Carrim, 2022; Fataar, 2020; Maponya and Naidoo, 2023). This tension reflects a performing paradox. Universities must innovate to meet new demands while sustaining the stability needed for credibility, funding, and governance. The paradox also manifests in organising terms, where change initiatives often conflict with entrenched policies and accreditation standards. For example, several studies highlight how curriculum redesign efforts are stymied by rigid institutional processes or misalignment between academic and policy priorities (Fataar, 2020; Lubinga, Maramura and Masiya, 2023; Masinde and Soux, 2020; Mtotywa *et al*., 2024). The literature further suggests that innovation is often driven by individual champions rather than systemic support, making efforts unsustainable over time (Singaram, Mayer and Oosthuizen, 2023).

The Access versus Exclusion Paradox

While digital technologies offer new modalities for learning, they also risk reinforcing inequality. Although online platforms, MOOCs, and AI-enhanced teaching can increase access to high-quality education, these advances often presume baseline digital infrastructure, stable internet access, and digital literacy, resources not evenly distributed across South Africa (Mhlanga and Moloi, 2020; Lubinga, Maramura and Masiya, 2023; Yende, 2021). The paradox sits squarely within belonging, as it raises issues of inclusion and exclusion in who gets to benefit from 4IR transformation. Research points to deep digital divides between urban and rural learners, as well as between elite and historically disadvantaged institutions (Mtotywa *et al*., 2024; Sehlako, Chibambo and Divala, 2023; Yende, 2021). For students in HDIs, issues such as unreliable electricity, high data costs, and lack of devices inhibit participation in digitally mediated learning environments. From an organising perspective, this also requires a rethinking of resource allocation, support systems, and institutional responsibilities to avoid widening the participation gap under the guise of innovation.

The Employability versus Education Paradox

There is increasing pressure on universities to align graduate attributes with the demands of the 4IR labour market, focusing on skills such as coding, data analytics, and systems thinking. At the same time, there is concern that an overemphasis on employability could undermine the broader developmental and civic missions of higher education (Carrim, 2022; Fataar, 2020). This is a performing paradox, as institutions must deliver both career-relevant education and foster critical, reflective, and socially conscious graduates. Several studies reveal tensions between departments and faculties about the extent to which curricula should focus on immediate workplace demands versus longer-term intellectual and ethical development (Carrim, 2022; Landsberg and Van Den Berg, 2023). Moreover, learning is implicated here, particularly in debates over how to embed transversal competencies, such as collaboration, critical thinking, and adaptability, within increasingly technical curricula. Transversal competencies prepare students not only for current employment but also for responsible citizenship, ethical leadership, and lifelong adaptability in a changing world. While curriculum reform emphasises employability and 4IR skills, concerns persist

that broader intellectual and ethical education may be marginalised. A number of articles call for integrated models that combine disciplinary depth with work-integrated learning and civic engagement (Borrageiro and Mennega, 2023; Obioha and van Zyl, 2022; Safodien, 2021).

The Technology versus Pedagogy Paradox

Technological tools such as AI tutors, adaptive learning systems, and VR simulations offer new ways to personalise and scale learning (Borrageiro and Mennega, 2023; Chauke *et al*., 2024). However, these same tools can marginalise the relational, dialogic, and developmental dimensions of pedagogy (Carrim, 2022; Chauke *et al*., 2024; Donald, Bophelo and Rivalani, 2023; Masinde and Soux, 2020; Olaitan and Mavuso, 2022). This paradox is rooted in learning, where the challenge is not just about access to content but about the quality and depth of engagement. Lecturers often express uncertainty about how to maintain meaningful interaction in digitally augmented classrooms, especially when institutional support for digital pedagogy is inconsistent. The organising dimension of this paradox is also evident in institutional investments that prioritise technology infrastructure over staff training or pedagogical innovation (Lubinga, Maramura and Masiya, 2023; Moloi and Salawu, 2024; Telukdarie and Munsamy, 2019). Literature from both local and global contexts suggests that the success of educational technology hinges less on the tool itself and more on the pedagogical strategy behind it. The integration of AI and digital learning tools has challenged traditional pedagogy, raising questions about the role of human-centred teaching (Chauke *et al*., 2024; Donald, Bophelo and Rivalani, 2023; Telukdarie and Munsamy, 2019).

The Lifelong Learning versus Credential Paradox

There is a growing demand for short-form, skills-based learning pathways that allow working professionals to re-skill or up-skill throughout their careers. However, many South African universities still operate within rigid, linear models of degree progression that do not accommodate flexible, modular, or micro-credential approaches. The demand for continuous reskilling contrasts with rigid degree structures, highlighting the need for flexible, modular learning pathways (Kishore, Pretorius and Chattopadhyay, 2022; Maisiri, Darwish and Van Dyk, 2019; Olaitan and Mavuso, 2022). This is a learning and organising paradox. Institutions must support lifelong learning in dynamic labour markets while maintaining academic quality and coherence. Some institutions have begun to experiment with stackable credentials or professional certificates, but these often remain peripheral to mainstream academic offerings. Some researchers argue that while there is strong policy rhetoric around flexibility, few institutional mechanisms currently exist to enable lifelong learners to enter, exit, and re-enter formal programmes with ease (Moloi and Salawu, 2024).

The Local versus Global Paradox

South African universities face increasing pressure to align with global 4IR benchmarks, including international rankings, technology standards, and competitive graduate attributes. While aligning with international standards is important, universities must also prioritise local contexts, values and inequalities (Mamphiswana and Sinha, 2019; Mbiza and Sinha, 2023; Sutherland, 2020). Yet, this

global orientation can marginalise local needs, knowledge systems, and languages. This paradox speaks deeply to belonging and performing. Institutions are caught between aspirations for global prestige and mandates for social transformation. The literature suggests that curricula often reflect Northern epistemologies and are poorly aligned with local socio-economic challenges. For example, AI ethics may be taught using Western frameworks, with little engagement with African philosophical traditions (Fataar, 2020). Addressing this paradox requires inclusive curriculum strategies that elevate indigenous knowledge, linguistic diversity, and socio-political context, while still enabling students to compete globally (Carrim, 2022; Fataar, 2020).

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The six paradoxes identified in this study emphasise the need for context-sensitive strategies that support curriculum innovation while navigating institutional complexity. The key implications and actionable recommendations to guide management educators, curriculum designers, and institutional leaders in developing 4IR-responsive programmes that are both globally relevant and locally inclusive are provided below. These implications and recommendations align with the paradoxes identified in the 'Results' section, which are further situated within the four meta-categories outlined in the 'Theoretical Perspective' section. They are intended to provide faculties, business schools, and departments with actionable strategies to build agile, inclusive, and future-ready management curricula:

- **The Innovation versus Stability Paradox** ─ A key implication is the need for *curriculum agility and responsiveness*. In the face of rapid technological advancement, management education must be designed to keep pace with evolving industry demands without compromising foundational disciplinary depth. It is recommended that institutions develop curricula that are flexible, regularly updated, and capable of integrating new technologies such as artificial intelligence and data analytics, while maintaining core management principles (Chhatria *et al*., 2024; Ledley & Holt, 2014; Mashiyi and Baleni, 2023; Menon & Castrillón, 2019).
- **The Access versus Exclusion Paradox** ─ Simultaneously, *equity-centred digital transformation* must be prioritised. As digital learning becomes more prevalent, the risk of excluding students from under-resourced communities increases. Institutions should work to expand digital access by investing in infrastructure, addressing financial constraints, and promoting digital literacy, particularly in historically disadvantaged contexts (Akinlar & Kucuksuleymanoglu, 2025; Mhlanga & Moloi, 2020).
- **The Employability versus Education Paradox** ─ To further align with industry expectations, *collaboration with industry and experiential learning opportunities* should be embedded within the curriculum. This includes internships, live case studies, and problem-based learning that allow students to engage with real-world challenges. These strategies help bridge the gap between theory and practice, hence improving graduate employability and applied competence

(Carrim, 2022; Fathizadeh, 2017).

- **The Technology versus Pedagogy Paradox** ─ The shift to digital modes of learning also underscores the importance of *blended pedagogies and human-centred design*. While technology can enhance learning experiences, it must be applied thoughtfully. Combining innovations such as AI and virtual reality with relational, dialogic teaching practices helps foster critical thinking and inclusive student engagement (Kumar *et al*., 2023; Masinde & Soux, 2020).
- **The Lifelong Learning versus Credential Paradox** ─ Another critical implication is the necessity of supporting *lifelong learning pathways*. In a volatile and continuously evolving job market, learners must be equipped to upskill and reskill throughout their careers. Institutions can address this by offering modular, flexible qualifications, including micro-credentials and stackable learning options that facilitate continuous professional development (Myller, 2024; Olaitan & Mavuso, 2022).
- **The Local versus Global Paradox** ─ Finally, to balance global relevance with local context, management curricula should promote *localised and ethical global competence*. Embedding indigenous knowledge systems, local case studies, and ethical reasoning ensures that graduates are not only globally competent but also sensitive to their local environments and societal needs (Chabaya & Chabaya, 2023; Mamphiswana & Sinha, 2019; Tan, 2024).

Together, these practical implications and recommendations present a strategic framework for reimagining management education. They invite institutional leaders and educators to adopt inclusive, adaptive, and ethically grounded approaches to curriculum design that meet the demands of the 4IR while remaining attentive to diverse learner contexts and realities.

CONCLUSION

This systematic review examined the paradoxes emerging from curriculum transformation in response to the 4IR within South African universities, with a particular focus on the implications for management education. The review identified six persistent and interrelated tensions: innovation versus stability, access versus exclusion, employability versus education, technology versus pedagogy, lifelong learning versus credentialing, and local versus global. These findings reveal the complex and competing demands that universities must navigate in adapting to 4IR disruptions. For management education, these paradoxes highlight the need for curricular models that are both adaptive and grounded, responsive to technological change while remaining rooted in ethical, contextualised, and socially engaged learning. Institutions are called to foster curriculum agility without compromising academic quality, adopt hybrid pedagogical approaches that combine digital tools with human-centred learning, and strengthen collaborative partnerships with industry. These strategies are essential for preparing graduates who can think critically, act ethically, and lead effectively in increasingly complex, data-driven, and uncertain environments. Rather than treating these paradoxes as problems to eliminate, they should be viewed as dynamic tensions that can drive

innovation, inclusion, and institutional resilience. This paradox mindset offers a valuable framework for universities aiming to reimagine management education that is both locally responsive and globally competitive. Future research should investigate how South African management education programmes are responding to these 4IR paradoxes to build resilient, opportunity-driven, and sustainable curricula.

One of the study's primary limitations is the potential selection bias in the literature review due to its restricted scope from 2019 to 2024. The timeframe may have excluded valuable foundational studies from the past. Additionally, the study's focus was primarily on local scholars and papers concerning the South African context, which may limit the generalisability of the findings. Future research should aim to incorporate a broader range of international perspectives and studies to provide a more comprehensive understanding of global best practices and innovations in 4IR education. Nevertheless, the trend suggests a growing scholarly interest and research activity in the field of 4IR in South Africa, reflecting the increasing importance of this topic in academic and policy discussions

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TRANSFORMING STUDENT ENGAGEMENT AND LEARNING THROUGH THE IMPLEMENTATION OF GAMIFICATION: AN EXPLORATORY STUDY

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ABSTRACT

This exploratory study examines associations between gamification and student engagement in a first-year management course at an Australian university. Amidst growing concerns about student disengagement in traditional educational settings, gamification has emerged as a promising instructional approach. This preliminary investigation implemented gamified tutorial activities and game elements like points and leaderboards during weeks 5-8 of the semester. The descriptive study included pre- and post-implementation surveys using the Higher Education Student Engagement Scale (HESES), the Gameful Experience Questionnaire (GAMEFULQUEST), and the Questionnaire on Motivation for Cooperative Learning Strategies (CMELAC). Data from 665 students (410 pre-implementation and 255 post-implementation) were analysed using descriptive statistics and independent samples t-tests to explore potential associations. Initial findings suggest improvements in cognitive engagement and social engagement with teachers following gamification. These preliminary findings indicate that gamification may be associated with specific aspects of student engagement, though the nature and extent of these relationships require further investigation.

Keywords: gamification; student engagement; exploratory study; higher education

INTRODUCTION

Management education often fails to engage students effectively, with traditional lecture and tutorial formats proving tedious and disconnected from real-world experience (Lindorff and McKeown, 2013; Gosling and Mintzberg, 2006). Students' lack of interest in learning poses a significant challenge for educators (Zichermann and Cunningham, 2011). Gamification has emerged as a potential approach to address this disengagement. Gamification involves applying game-like elements (such as points, badges, and leaderboards) to non-game contexts, using mechanics, aesthetics, and game thinking to engage people and promote learning (Kapp, 2012). It is the "use of game design elements in non-game contexts" (Dicheva *et al*., 2015).

As an emerging instructional approach, gamification has shown promising associations with student outcomes. Studies have reported potential connections with increased motivation, engagement, and information retention amongst students (Qiao *et al*., 2022; Raju *et al*., 2021). Gamified systems provide immediate feedback and may foster a growth mindset (Dichev and Dicheva, 2017). They create a relaxed atmosphere where students feel safe to take risks, potentially reducing anxiety and encouraging participation (Bouchrika *et al*., 2021; Sanchez *et al*., 2020). Gamification may be particularly relevant for demotivated and disengaged students. Its applications extend beyond education to areas such as business, marketing and wellness (Dicheva *et al*., 2015). However, there is a scarcity of scientific studies on gamification in management education. Existing research lacks robust conclusions and scope, highlighting the need for further investigation (Silva *et al*., 2019).

This exploratory study examines potential associations between gamification and student engagement in a first-year managerial communication course. The purpose of this preliminary investigation is to explore relationships between gamified learning elements and various dimensions of student engagement. This descriptive study aims to document initial observations of student responses following the introduction of game-like elements in educational contexts.

LITERATURE REVIEW

Gamification and academic performance

Research has consistently shown a positive relationship between student engagement and various learning outcomes, including academic performance (Zhoc and Webster, 2019). Understanding how gamification may be associated with academic performance can help educators design more effective learning experiences. Bai *et al*. (2020) conducted a meta-analysis that examined 24 quantitative studies investigating potential relationships between gamification and academic performance, finding an overall significant medium association suggesting gamification may be connected to increased students' academic performance. They highlight three potential reasons for this association - gamification's ability to promote goal-setting, its ability to fulfil the student's need for recognition, and its ability to provide feedback on the student's performance. Researchers also argue that gamification elements (such as points, badges and leaderboards) may improve student motivation to engage more deeply with the material, which could be associated with better learning outcomes (García-López *et al*., 2023; Tsay *et al*., 2018; Dicheva *et al*., 2015). Gamification may increase engagement through several mechanisms.

Academic engagement

Gamification may enhance academic engagement by incorporating game elements that motivate students to participate actively in learning activities. For instance, the use of points, badges, and leaderboards might encourage students to attend classes, complete assignments, and engage with course materials (Seaborn and Fels, 2015). Academic engagement refers to observable behaviours directly related to the learning process, such as class attendance, preparation for class, and persistence (Zhoc *et al*., 2019). It is essential for achieving the minimum threshold level of learning and is linked to higher academic achievement. However, the associations between gamification and academic engagement can vary based on context and individual differences. Some studies suggest that whilst gamification may initially boost motivation, it may not always be associated with sustained academic engagement or improved academic performance (Seaborn and Fels, 2015).

Cognitive engagement

Cognitive engagement, defined as the psychological investment in learning and understanding complex ideas, is crucial for academic success. It requires students to be intellectually inspired beyond minimum study requirements (Zhoc *et al*., 2019). Gamification may be associated with increased cognitive engagement by encouraging deeper understanding of complex concepts. Game mechanics might stimulate critical thinking and problem-solving skills, as students strategise and apply knowledge in gamified environments (Sanchez *et al*., 2020; Ding *et al*., 2018).

Gamified learning often incorporates complex problems or real-world scenarios that may promote higher order thinking skills and content connections (Alt, 2023). Additionally, gamification might foster metacognitive skills by encouraging reflection on thinking processes (García-López *et al*., 2023). It provides immediate feedback, potentially allowing students to evaluate and adjust their strategies critically. This process may enhance critical thinking and promote adaptive learning approaches (García-López *et al*., 2023).

Social engagement with teacher

Gamified learning environments may also enhance social engagement with teachers by creating more interactive and dynamic classroom experiences. Teachers can use gamification to provide immediate feedback and recognition, which might strengthen the student-teacher relationship, potentially fostering a supportive learning atmosphere (Seaborn and Fels, 2015). Social engagement refers to the interaction with teaching staff, which takes place in the institution.

Social engagement with peers

Gamification may foster healthy competition and collaboration, possibly encourage excellence whilst building community (Raju *et al*., 2021; Bouchrika *et al*., 2021). Group challenges and team activities might enhance student interaction, potentially creating a more connected learning environment (Zhoc *et al*., 2019). Collaborative gamified designs may promote positive learning behaviours as students work towards shared goals (Alsawaier, 2017). However, the associations with academic performance can be mixed. Whilst social engagement through gamification might enhance learning, it may also reduce individual study time, potentially influencing GPA (Zhoc *et al*., 2019).

Affective engagement

Gamification may positively influence affective engagement by making learning more enjoyable and motivating. Affective engagement relates to a level of emotional response characterised by feelings of involvement in the institution as a place and a set of activities worth pursuing (Finn and Zimmer, 2012). The incorporation of game elements might be associated with increased interest and enjoyment in learning activities, which are crucial for emotional investment in education (Ding *et al*., 2018; Alsaweir, 2017). Studies have suggested that when students feel a sense of achievement through gamified elements, their overall satisfaction with the learning experience may increase, which could be associated with higher levels of affective engagement (Seaborn and Fels, 2015).

Motivation

An area of research that emerges from the literature is the potential relationship between gamification and student motivation. Various studies have reported possible correlations between the use of gamified elements, such as leaderboards, badges, and points, and motivation levels in students (Dicheva *et al*., 2015; Hamari *et al*., 2014). Gamification may tap into intrinsic motivating factors, such as autonomy, competence, and relatedness by providing students with meaningful challenges, instant feedback, and a sense of accomplishment. By further exploring the mechanisms through which gamification might enhance student motivation, researchers can develop more effective gamified approaches and tailor them to individual student needs, potentially leading to improved learning outcomes (Landers *et al*., 2017).

Self-Determination theory

Self-Determination Theory (SDT) is widely used to explain how gamification might foster engagement in education (Silva *et al*., 2020). SDT posits three basic psychological needs for motivation and engagement: autonomy, competence, and relatedness (Ryan and Deci, 2002). Gamification may satisfy these needs - autonomy: badges and points might give students

control over their learning; competence: leaderboards may allow students to gauge their performance against peers; relatedness: storylines could create shared experiences, potentially fostering connection. For example, a hero's adventure storyline might provide a sense of relatedness by creating a shared experience for all participants (Frost *et al*., 2015). Research demonstrates SDT's applicability across cultures, with the fulfilment of these psychological needs potentially correlating with achievement (Nalipay *et al*., 2020). By addressing these fundamental needs, gamification may enhance student motivation and engagement in educational settings.

Gameful experience

Högberg *et al*. (2019) distinguishes between game experience and gameful experience. Game experience involves emotions, perceptions, thoughts, behaviours in traditional gaming contexts (Ermi and Mäyrä, 2005). Gameful experience, however, refers to motivational affordances integrated into non-game contexts, aiming to evoke game-like experiences whilst extending into real-world behaviours and interactions (Högberg *et al*., 2019). Gameful experiences often target specific outcomes like increased engagement with learning materials or class participation. Understanding these experiences helps in designing potentially effective gamification strategies for meaningful behaviour change, unlike traditional game experiences (Högberg *et al*., 2019).

There are seven aspects to gameful experience according to Högberg *et al*. (2019) which include: 1. accomplishment - drive for successful performance, goal achievement, and progress; 2. challenge - perception of tasks difficulty; 3. competition - experience of competing against others or oneself; 4. guided - feeling supported guided through the gamified experience; 5. immersion - depth of engagement and focus; 6. playfulness - enjoyment and fun associated with the experience; 7. social experience - social interactions and connections within the gamified system.

METHODOLOGY

Research design

This study employed an exploratory descriptive design to examine potential associations between gamification implementation and student engagement measures. The research utilised a pre-post observational approach to document changes in student responses following the introduction of gamified elements. This design does not allow for causal inferences, as multiple factors could account for observed changes, including natural semester progression and increased familiarity with course content.

The study was conducted in the first-year Managerial Communication (MGF1100) unit at a large Australian University. Ethics approval was obtained from the University Human Research Ethics Committee (Project ID: 39370). Gamification elements were introduced during weeks 5-8 of the semester. These elements included conditional activities and progress bars integrated within the Moodle learning management system. Point-based team competitions were established, encouraging collaborative learning amongst student groups. In-class challenges were designed to apply specific managerial communication concepts that students had learned during each week. Leaderboard displays were maintained throughout the implementation period, with end-of-semester recognition provided to high-performing teams. The top team for the semester received prizes and had their photograph taken and displayed in Moodle.

Data collection

Pre-implementation surveys were administered in week 4 via email invitation to all enrolled students. Post-implementation surveys were distributed in week 8 using the same method. All enrolled students were invited to participate voluntarily in both survey rounds. No control group was included in this preliminary investigation, representing a significant limitation in the study design.

Three validated instruments were employed to gather comprehensive data on student experiences. The Higher Education Student Engagement Scale (HESES) consists of 28 items distributed across 5 subscales measuring different dimensions of student engagement (Zhoc *et al*. 2019). The Gameful Experience Questionnaire (GAMEFULQUEST) comprises 56 items across 7 dimensions, specifically designed to assess accomplishment, challenge, competition, guided experience, immersion, playfulness, and social experience within gamified contexts (Högberg *et al*., 2019). The Questionnaire on Motivation for Cooperative Learning Strategies (CMELAC) includes 16 questions designed to assess various aspects of motivation and learning (Manzano-León *et al*., 2021). Internal consistency was assessed using Cronbach's alpha: HESES ($\alpha = 0.905$), GAMEFULQUEST ($\alpha = 0.972$), and CMELAC ($\alpha = 0.931$), indicating high reliability across all instruments.

Data analysis

Descriptive analysis involved calculating means, standard deviations, and frequency distributions for all measured variables to provide a comprehensive overview of student responses. Comparative analysis utilised independent samples t-tests to explore differences between pre- and post-implementation responses. These comparisons are exploratory in nature and do not establish causation, as the research design lacks the experimental controls necessary for causal inference. Qualitative analysis was conducted through thematic

examination of student reflections. Students were asked to provide honest evaluations of their gamification experience, with assessment criteria emphasising the value of thoughtful and critical reflection rather than purely positive responses.

RESULTS AND DISCUSSION

A total of 665 students provided survey responses: 410 students (62%) completed the pre-implementation survey, and 255 students (38%) completed the post-implementation survey. The reduction in response rate may reflect typical semester attrition patterns, though specific reasons for non-participation were not assessed. Around 35% of the pre-test respondents were first year, 34% were second year, 23% third year, 8% fourth year and the rest were fifth year students. In the post test, there were an equal number of first- and second-year respondents (35% each), 24% third years, 6% fourth years.

Exploratory comparisons: Student engagement

Independent samples t-tests were conducted to explore potential differences between pre- and post-implementation responses. These analyses are exploratory and do not establish causal relationships. Levene's test was performed to determine homogeneity of variances due to unequal sample sizes (Field, 2024). Results indicated that both groups were sufficiently normal for t-test analysis. For all engagement variables, Levene's test showed equal population variances ($p > .05$).

TABLE 1: COMPARISON OF PRE- AND POST-GAMIFICATION ON STUDENT ENGAGEMENT

Variables	Levene's F	Sig.	t-test	df	*p*
Academic Engagement	.069	.793	-1.165	632	.244
Cognitive Engagement	.424	.515	-2.798	639	.005
Social Engagement with Teachers	.085	.771	-3.037	634	.002
Social Engagement with Peers	2.249	.134	-1.574	632	.116
Affective Engagement	.165	.684	-.898	632	.369

Academic Engagement: Exploratory analysis suggests minimal differences between the two groups, the pre-implementation ($M = 41.28$, $SD = 6.18$) and post-implementation group ($M = 41.87$, $SD = 6.21$). The 95% confidence interval of the difference between means ranged from [-1.58299 to -.40391] and did not indicate a meaningful difference between the means of the sample. The results show that for only one item under this variable (I usually come to class

having completed readings or assignments), there was a notable difference in the means (Mean Pre = 4.64; Mean Post = 4.88) between the two groups.

Cognitive Engagement: Students reported higher scores following gamification implementation (M = 19.12 vs. 18.08), suggesting possible associations with intellectual satisfaction and motivation to study. The 95% confidence interval of the difference between means ranged from [-1.76831 to -.30992]. The results show that there were notable differences in the means between the groups on three of the four items. These questions include: I enjoy the intellectual challenge of courses I am studying (Mean Pre = 4.87; Mean Post = 5.09); I get a lot of satisfaction from studying (Mean Pre = 4.38; Mean Post = 4.68), and I am usually motivated to study (Mean Pre = 4.05; Mean Post = 4.40). On all the items, the post implementation group had a higher mean score for all questions.

Social Engagement with Teachers: Post-implementation scores were higher (M = 20.19 vs. 19.09), indicating students may have perceived increased support and feedback from instructors. The 95% confidence interval of the difference between means ranged from [-1.80898 to -.38836]. The results show that there were notable differences in the means between the groups on all items. These questions include: Staff make a real effort to understand difficulties I may have in my work (Mean Pre = 4.62; Mean Post = 4.94); Academic staff take an interest in my progress (Mean Pre = 4.47; Mean Post = 4.74); Teaching staff usually give helpful feedback on my progress (Mean Pre = 4.80; Mean Post = 5.12); and Staff are usually available to discuss my work (Mean Pre = 5.19; Mean Post = 5.49). On all the items, the post implementation group had a higher mean score for all questions.

Social Engagement with Peers: Exploratory analysis suggests minimal differences between the two groups, the pre-implementation (M = 31.82, SD = 9.53) and post-implementation group (M = 33.09, SD = 10.41). The 95% confidence interval of the difference between means ranged from [-2.86196 to -.31506]. The results show that there was a difference in the means between the groups on only one item: I am involved in university extracurricular activities (Mean Pre = 2.84; Mean Post = 3.25).

Affective Engagement: Minimal differences were observed between the two groups, the pre-implementation (M = 18.40, SD = 5.52) and post-implementation group (M = 18.79, SD = 5.37). The 95% confidence interval of the difference between means ranged from [-1.23646 to -.46024].

Thematic analysis of student reflections

Thematic analysis of student reflections provided insight into potential associations between gamification and various aspects of engagement. The results are categorised into academic

engagement, cognitive engagement, social engagement, and affective engagement, aligning with the literature findings.

Students reflected positively on potential associations between gamification and their academic engagement. They noted the use of the points and leaderboards may have motivated them to attend classes regularly, complete assignments and participate actively in learning activities. One group noted, "Competition and rewards… were helpful in motivating and boosting our engagements and efforts… the marshmallow challenge utilised the healthy competition system… These rewards and competitiveness provide a sense of achievement and incentivise continued participation (T8 G1)." This aligns with research suggesting that gamification elements may be associated with increased motivation and engagement in academic settings (Zhoc *et al*., 2019; Seaborn and Fels, 2015).

Cognitive engagement involves the investment in learning tasks that require higher order thinking. Participants reported that gamification may have facilitated active learning and critical thinking - "Gamification places learners in active scenario-based roles, encouraging them to apply, adapt, and critically appraise academic principles in context. This active participation potentially promotes a deeper, more layered understanding (T11 G4)." This supports the notion that gamification might require students to use higher order thinking skills (Sanchez *et al*., 2020; Ding *et al*., 2018).

Gamification also appeared to be associated with enhanced engagement with the teacher. One team remarked, "The gamification elements allowed for more dynamic interactions with our instructor, who provided immediate feedback and recognition... This made the learning process more engaging but also helped build a stronger student-teacher relationship (T3 G2)." This highlights the potential role of gamification in creating a supportive learning environment, where teachers actively engage with students, give timely feedback and foster an interactive classroom (Seaborn and Fels, 2015).

The importance of teamwork and collaboration was a recurring theme. One group reflected, "Through teamwork, the gamification activities allowed us to actively see where we failed or succeeded in our use of collaboration and communication (T3 G5)", suggesting gamification may foster social engagement between peers whilst competition encouraged students to perform better (Raju *et al*., 2021; Bouchrika *et al*., 2021). A group notes, "When individuals are pitted against each other in a friendly contest… this competitive edge potentially fosters a heightened level of engagement as participants strive to outperform one another (T5 G2)."

Participants expressed that gamification may have improved affective engagement and made learning more enjoyable and less stressful. One group pointed out, "The inherent enjoyment of gamified activities motivated us to invest time and effort in mastering managerial

communication concepts (T3 G6)." The gamified elements of the activities appeared to be associated with increased enjoyment and learning (Ding *et al*., 2018; Seaborn and Fels, 2015).

Gameful experience analysis

The analysis of the GAMEFULQUEST also yielded notable results across all seven dimensions.

TABLE 2: COMPARISON OF PRE- AND POST-GAMIFICATION ON GAMEFUL EXPERIENCE

Variables	Levene's F	Sig.	t-test	df	*p*
Accomplishment	.515	.473	-4,574	619	.001
Challenge	.004	.950	-4.555	615	.001
Competition	16.721	.001	-11.129	613	.001
Guided	.555	.457	-3.998	606	.001
Immersion	.832	.362	-7.810	604	.001
Playfulness	.159	.691	-8.135	604	.001
Social experience	.595	.441	-5.463	606	.001

Regarding the variable accomplishment, exploratory analysis suggests potential differences between the two groups. The 95% confidence interval of the difference between means ranged from [-4.55257 to -1.81770] and did indicate a difference between the means of the sample. The results show that there were notable differences in the means between the groups on all eight items.

On the variable challenge, exploratory analysis suggests potential differences between the two groups. The 95% confidence interval of the difference between means ranged from [-4.83270 to -1.92272] and did indicate a difference between the means of the sample. The results show that there were notable differences in the means between the groups on all eight items.

On the variable competition, exploratory analysis suggests potential differences between the two groups. The 95% confidence interval of the difference between means ranged from [-10.06137 to -7.04307] and did indicate a difference between the means of the sample. The results show that there were notable differences in the means between the groups on all items. Similar patterns were observed across guided, immersion, playfulness, and social experience dimensions, with post-implementation groups consistently reporting higher scores across all measured items.

TABLE 3: COMPARISON OF PRE- AND POST-GAMIFICATION ON MOTIVATION VARIABLE

Variables	Levene's F	Sig.	t-test	df	*p*
Motivation	.827	.364	-7.172	581	.001

Following implementation, we observed potential differences between the two groups. The 95% confidence interval of the difference between means ranged from [-7.18483 to -4.20399] and did indicate a difference between the means of the sample.

TABLE 4: COMPARISON OF PRE- AND POST-GAMIFICATION ON MOTIVATION ITEMS

Item	Levene's F	Sig.	t-test	df	*p*
In general, I have enjoyed the activities	.006	.940	-6.51	607	<.001
I would repeat these types of activities	3.927	.048	-7.32	606	<.001
I have felt motivated	.260	.610	-6.06	606	<.001
I improved my knowledge of the subject	3.297	.070	-2.69	601	<.001
My interest in the subject has increased	.151	.697	-5.72	604	<.001
This activity format has been appropriate to check my knowledge of the subject	3.532	.061	-3.80	598	<.001
Helped me identify my weaknesses in the subject	4.884	.027	-4.01	597	<.001
It helped me understand the content of the subject	1.323	.251	-4.82	596	<.001
With these types of activities, I learn more than in traditional classes	.245	.621	-6.43	596	<.001
I feel like I was able to connect with my teammates to learn	1.415	.235	-4.407	597	<.001
I learned from my classmates during the activity	.341	.559	-4.953	598	<.001
I found the game elements fun	1.187	.276	-6.762	604	<.001
The game elements have motivated me to carry out the activity	.785	.376	-5.115	604	<.001
While doing the activities, I was not aware of what was happening around me	.072	.789	-6.638	604	<.001
I felt capable of carrying out the proposed activities	2.715	.100	-5.063	602	<.001
I found the activities comforting and valuable to me	.001	.981	-5.236	603	<.001

On all items, there was a notable difference between the pre- and post-implementation groups with the mean being higher in the post-implementation group. The results suggest a potential positive association between gamification and student motivation across all 16 items measured.

Referring to Table 5 below, the data shows a noticeable pattern in quiz performance during and after the gamification period (weeks 5-8). The average quiz scores appeared to increase from around 77-78% in weeks 3-4 to 81-84% during the gamified weeks (5-8). This pattern was maintained in subsequent weeks, with scores remaining in the 83-86% range. Additionally, there was a general increase in the number of students completing the quizzes during the gamified period.

TABLE 5: QUIZ RESULTS ACROSS THE 10 WEEKS (GAMIFICATION IN WEEKS 5 – 8)

Quiz/week number	Completed	Mean score (%)	Std Dev (%)	Skewness	Kurtosis
Quiz 3	218	78	13	-0.53	0.15
Quiz 4	211	77	15	-0.34	-0.52

Quiz 5	189	84	13	-0.97	1.34
Quiz 6	220	83	18	-0.35	-0.37
Quiz 7	219	81	15	-1.13	2.01
Quiz 8	205	84	13	-0.67	-0.04
Quiz 9	198	83	15	-0.94	0.54
Quiz 10	177	83	16	-1.09	0.92
Quiz 11	176	86	15	-1.62	4.20
Quiz 12	164	85	15	-1.43	2.72

INTERPRETATION OF PRELIMINARY FINDINGS

This exploratory study provides initial observations regarding potential associations between gamification implementation and student engagement dimensions. The findings should be interpreted cautiously given the descriptive nature of the research design. Students reported higher cognitive engagement scores following gamification implementation, particularly in areas of intellectual satisfaction and motivation to study. This aligns with theoretical expectations that game elements might enhance psychological investment in learning. However, multiple alternative explanations exist for these observations, including natural semester progression and increased familiarity with course expectations.

The observed increase in social engagement with teachers may reflect the interactive nature of gamified activities, which required increased instructor involvement in providing feedback and recognition. Alternatively, this could represent general improvement in student-teacher relationships over the semester course. The minimal differences observed in academic engagement, peer engagement, and affective engagement suggest that if gamification associations exist, they may be selective rather than comprehensive. This finding warrants further investigation with more rigorous research designs.

Limitations

This exploratory design has several important limitations that must be acknowledged. The absence of a control group prevents the isolation of gamification associations from other factors that may influence student engagement throughout the semester. Potential confounding from semester progression and maturation effects cannot be ruled out, as students naturally become more familiar with course expectations and content over time. Self-selection bias in survey completion may have influenced results, as participation was voluntary and response rates differed between pre- and post-implementation periods. The lack of randomisation or experimental controls further limits the ability to attribute observed changes to the gamification elements rather than other concurrent factors.

Future research and implications

Implementing randomised controlled investigations with appropriate comparison groups represents essential next steps. Longitudinal studies could assess sustainability of any observed relationships over extended timeframes. Multi-institutional investigations across diverse contexts would enhance generalisability assessment. Mixed-methodology approaches incorporating more comprehensive qualitative analysis could provide deeper insights. Dose-response relationship exploration with varying gamification intensity levels could clarify optimal implementation approaches.

Whilst these preliminary observations cannot establish causation, they suggest gaming implementation may associate with specific engagement aspects. Educators considering gamification should focus on elements enhancing cognitive engagement and instructor-student interaction quality. Systematic evaluation incorporating appropriate control groups should accompany any implementation efforts. Gamification should be considered as one element within broader engagement strategies rather than standalone solutions. Both intended and unintended consequences require systematic monitoring throughout implementation periods.

CONCLUSION

This exploratory study provides preliminary evidence suggesting potential associations between gamification and specific dimensions of student engagement. Whilst the findings are encouraging, rigorous experimental research is needed to establish causal relationships and determine the true effectiveness of gamification in educational contexts. Initial observations suggest that gamification implementation was followed by increased cognitive engagement and social engagement with teachers. Students reported higher satisfaction, enjoyment of intellectual challenges, and feeling more understood by instructors following the implementation period. These preliminary findings indicate that gamification may be associated with specific aspects of student engagement, though the nature and extent of these relationships require further investigation.

The comprehensive improvement in gameful experience measures and motivation scores provides initial evidence for educators considering gamification approaches. However, it's important to note that whilst these associations were encouraging, implementation should be thoughtful and aligned with learning objectives. The limited changes in some areas, such as academic engagement, indicate that gamification is not a universal solution and should be part of a broader, well-rounded educational strategy. The study contributes to the growing literature on gamification by providing initial observations from a real-world implementation, whilst highlighting the importance of robust research designs in educational research. Future

research could explore the long-term associations of gamification with academic performance and engagement, as well as investigate how different types of gamified elements may be associated with various aspects of the learning experience.

These preliminary findings add to the growing body of evidence exploring gamification in education. They suggest that when implemented thoughtfully, gamification may be associated with enhanced student engagement, motivation, and learning experiences, potentially paving the way for more innovative and student-centred approaches in higher education.

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UNLOCKING STRATEGIC VALUE THROUGH ENTERPRISE RISK MANAGEMENT

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ABSTRACT

Enterprise Risk Management (ERM) has evolved from a compliance-oriented function into a strategic capability that enables organizations to thrive in volatile, uncertain, complex, and ambiguous (VUCA) environments. This paper conceptualizes ERM as a driver of strategic value through its alignment with Dynamic Capabilities Theory (DCT), emphasizing the mechanisms of sensing, seizing, and transforming. Drawing on a systematic literature review of 62 peer-reviewed studies, this study develops a conceptual model that illustrates how ERM practices, risk identification, assessment, response, monitoring, and communication strengthen dynamic capabilities and enhance organizational resilience, agility, innovation, and sustainability. The findings reposition ERM from a risk mitigation tool to a strategic enabler, offering actionable insights for executives on integrating ERM into strategic planning to improve adaptability and long-term competitiveness. This paper contributes to theory by reframing ERM as a capability-based approach and provides practical guidelines for leveraging ERM in dynamic and uncertain business environments.

Keywords: Enterprise risk management, dynamic capabilities theory, strategic value, resilience, agility

INTRODUCTION

Enterprise Risk Management (ERM) has evolved into a critical strategic function for organizations operating in increasingly volatile and complex environments. Historically, risk management was focused on compliance and financial control; however, the last decade has seen a significant transformation in its purpose and application. ERM now encompasses a holistic and integrated approach that aligns risk considerations with organizational strategy, enabling firms to anticipate and respond effectively to disruptions (Beasley, Branson, & Hancock, 2023; McKinsey & Company, 2023).

Global events such as the COVID-19 pandemic, geopolitical conflicts, climate change, and accelerated digitalization have amplified the need for organizations to build resilience and

agility through structured risk management practices (ISO, 2023; PwC, 2024). ERM facilitates proactive decision-making by embedding risk assessment and mitigation into strategic processes, thereby improving resource allocation, fostering innovation, and sustaining competitive advantage (Kraus et al., 2023; Teece, 2023). Unlike traditional risk management, which focuses primarily on avoiding losses, ERM emphasises value creation by leveraging opportunities that arise from uncertainties (Fraser & Simkins, 2016; Beasley et al., 2023).

Despite growing recognition of ERM's strategic role, many organisations continue to implement ERM primarily for regulatory compliance rather than as a mechanism for achieving long-term performance outcomes. This has resulted in a disconnect between ERM practices and strategic value realization (Arena, Arnaboldi, & Azzone, 2022). In the current VUCA environment, where disruptions can erode market positions rapidly, understanding how ERM supports strategic adaptability and dynamic capabilities has become a critical priority for both scholars and practitioners (Teece, 2023).

PROBLEM STATEMENT

Although there is consensus on ERM's importance for governance and compliance, its role as a strategic enabler of resilience, agility, and competitive advantage remains underexplored. Most research has focused on the adoption and regulatory aspects of ERM, with limited attention to how ERM processes such as risk identification, assessment, and monitoring—interact with dynamic capabilities to enhance strategic outcomes (Arena et al., 2022; Beasley et al., 2023). This conceptual gap represents a missed opportunity for organizations seeking to leverage ERM as a tool for innovation and long-term value creation in uncertain environments.

Purpose of the Study

The purpose of this paper is to examine how ERM can unlock strategic value by enabling organisations to sense risks and opportunities, seize competitive advantages, and transform capabilities to maintain sustainability and growth. Drawing on Dynamic Capabilities Theory and evidence synthesised through a systematic literature review of studies published between 2020 and 2025, this paper conceptualises ERM as more than a compliance function, positioning it as a strategic capability that fosters resilience and adaptability.

Research Questions and Objectives

This study seeks to answer the following research questions:

1) How does ERM enhance strategic decision-making in dynamic and uncertain environments?

2) Through which mechanisms do ERM contribute to resilience, agility, and value creation?

3) How can ERM be integrated into organisational strategy to enable competitive advantage?

The objectives are to:

- Develop a conceptual framework linking ERM practices to dynamic capabilities and strategic value
- Provide theoretical insights on ERM as a strategic resource for resilience and innovation
- Offer practical recommendations for aligning ERM with organisational strategy in complex environments

Significance of the Study

This paper advances academic discourse by reframing ERM as a dynamic capability that creates strategic value, addressing a major gap in the literature (Beasley et al., 2023; Teece, 2023). From a managerial perspective, it offers actionable strategies for integrating ERM into organisational planning to enhance resilience, agility, and innovation in uncertain markets. Given ongoing disruptions driven by digital transformation, climate risks, and geopolitical instability, leveraging ERM as a strategic enabler is essential for sustaining competitiveness in the modern business landscape.

LITERATURE REVIEW

Evolution of Enterprise Risk Management

Enterprise Risk Management (ERM) has undergone a profound transformation over the past two decades. Initially introduced as a compliance and risk mitigation tool, ERM has evolved into an integrated strategic process aimed at aligning risk considerations with organisational objectives (Fraser & Simkins, 2016; COSO, 2017). Recent studies emphasise that ERM is no longer confined to regulatory frameworks but has become central to enhancing resilience, agility, and strategic adaptability (Arena, Arnaboldi, & Azzone, 2022; Beasley, Branson, & Hancock, 2023).

ERM provides a structured approach for identifying, assessing, responding to, and monitoring risks that could affect an organisation’s ability to achieve its objectives (ISO, 2023). Modern ERM practices adopt an enterprise-wide perspective that incorporates financial, operational, reputational, cyber, and environmental risks into a cohesive framework (PwC, 2024; KPMG, 2024). This approach allows organisations to move beyond a siloed focus and integrate risk considerations into key strategic decisions, fostering a proactive stance toward uncertainty (McKinsey & Company, 2023).

ERM as a Strategic Enabler

Recent literature positions ERM as a driver of strategic value creation, rather than a mere risk control mechanism. ERM supports strategic decision-making by enabling organisations to evaluate trade-offs between risk and reward, thereby optimising resource allocation and improving long-term performance (Beasley et al., 2023; Kraus et al., 2023). By embedding ERM within strategic planning processes, firms can develop a forward-looking risk posture that strengthens competitiveness and innovation.

ERM's strategic role is especially relevant in VUCA environments, where firms must adapt rapidly to external shocks such as supply chain disruptions, geopolitical conflicts, and technological advancements (PwC, 2024). McKinsey & Company (2023) notes that organisations leveraging ERM for scenario planning and stress testing were better positioned to navigate the uncertainties associated with COVID-19 and subsequent global crises. This demonstrates ERM's capability to support agility and resilience when integrated effectively into corporate strategy.

Organisational Resilience and ERM

Resilience, defined as an organisation's capacity to anticipate, withstand, and recover from disruptions, has become a central outcome of effective ERM practices (ISO, 2023; Teece, 2023). ERM enhances resilience by providing mechanisms to identify vulnerabilities, prioritize risks, and develop contingency plans. By doing so, organisations are better equipped to manage crises, sustain operations, and protect stakeholder value during adverse events (Arena et al., 2022).

Empirical evidence underscores the importance of ERM-driven resilience in volatile contexts. A 2023 KPMG report found that firms integrating ERM into governance frameworks achieved 20% faster recovery rates during supply chain crises compared to firms lacking mature ERM systems. Similarly, PwC (2024) highlights that ERM integration is critical for managing ESG-related risks, which increasingly influence investor confidence and regulatory compliance.

Agility, Innovation, and ERM

In addition to resilience, organisational agility, the ability to sense market changes and respond swiftly, is an essential capability for sustaining competitive advantage. ERM plays a crucial role in enabling agility by fostering risk-informed decision-making and encouraging calculated risk-taking (Kraus et al., 2023). Organisations that perceive risk management as a source of strategic insight rather than a constraint are more likely to pursue innovative strategies (Beasley et al., 2023).

Recent research illustrates how ERM contributes to agility in digital transformation and innovation contexts. For example, Teece (2023) asserts that ERM provides the analytical foundation for firms to sense technological disruptions, seize emerging opportunities, and reconfigure resources effectively. This aligns with the principles of Dynamic Capabilities Theory, which emphasises the need for sensing, seizing, and transforming to achieve sustainable performance in turbulent environments.

Linking ERM to Dynamic Capabilities

The integration of ERM into organisational strategy aligns closely with the Dynamic Capabilities framework (Teece, Pisano, & Shuen, 1997; Teece, 2023). Dynamic capabilities refer to an organisation's ability to integrate, build, and reconfigure internal and external competencies in response to rapidly changing environments. ERM complements these capabilities by providing structured processes for risk sensing, analysis, and response.

Specifically:

- Sensing: ERM enables early identification of strategic risks and emerging opportunities through continuous monitoring and data analytics (ISO, 2023).
- Seizing: By aligning risk appetite with strategic objectives, ERM facilitates timely and informed decisions regarding investment and resource allocation (KPMG, 2024).
- Transforming: ERM supports the reconfiguration of business processes to manage risk exposure and exploit new market opportunities, fostering long-term sustainability (Teece, 2023).

By strengthening dynamic capabilities, ERM enhances organisational resilience, agility, and competitiveness, key components of strategic value creation (Arena et al., 2022).

Gaps in Literature

Despite growing attention to ERM's strategic role, research remains fragmented. First, most studies emphasise compliance and operational benefits, with limited conceptual clarity on the mechanisms linking ERM to strategic outcomes such as resilience and agility (Arena et al., 2022; Beasley et al., 2023). Second, empirical evidence on ERM's contribution to innovation and organisational adaptability remains scarce, particularly in emerging markets. Finally, while the dynamic capability perspective has been proposed as a theoretical lens, its application to ERM remains underdeveloped, creating opportunities for further conceptual and empirical studies.

METHODOLOGY

Research Design

This study adopts a Systematic Literature Review (SLR) approach to synthesise contemporary research on Enterprise Risk Management (ERM), organisational resilience, and agility, focusing on their contribution to strategic value creation. The SLR method provides a rigorous and transparent framework for collecting, analysing, and synthesising knowledge across multiple studies (Snyder, 2019; Xiao & Watson, 2019). The approach follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines to ensure replicability and comprehensiveness (Page et al., 2021).

Data Sources and Search Strategy

Relevant studies were retrieved from leading academic databases, including Scopus, Web of Science, Emerald Insight, and ScienceDirect, as well as reputable practitioner reports. The search covered publications from January 2020 to May 2025, ensuring the inclusion of the most recent developments in ERM and strategic management, while incorporating seminal works for theoretical grounding.

Search terms combined keywords such as:

- “Enterprise Risk Management” OR “ERM”
- “strategic value” OR “value creation”
- “organisational resilience” AND “agility”
- “Dynamic Capabilities” AND “risk management”

Boolean operators and database filters for peer-reviewed English-language articles were applied to refine the results (Moher et al., 2021).

Inclusion and Exclusion Criteria

Inclusion criteria:

- Studies published between 2020 and 2025 focusing on ERM, strategy, resilience, agility, or dynamic capabilities
- Peer-reviewed journal articles and high-quality industry reports
- Conceptual or empirical studies linking ERM to strategic value

Exclusion criteria:

- Articles addressing only compliance or operational risk without strategic integration
- Non-English publications

- Papers lacking methodological rigour or conceptual clarity

Screening and Selection Process

The review followed a three-stage screening process:

1) Initial Search: 487 studies identified based on keyword combinations.

2) Title and Abstract Screening: 275 studies were excluded for lack of relevance.

3) Full-Text Review: 62 studies meeting the inclusion criteria were selected for synthesis.

The selection process adhered to PRISMA 2020 standards to ensure transparency and reproducibility (Page et al., 2021).

Data Extraction and Analysis

Data extracted from the selected studies included publication details, research objectives, ERM dimensions, theoretical frameworks applied, and reported strategic outcomes (resilience, agility, innovation, value creation). A thematic analysis was applied to identify patterns and relationships across studies, which informed the development of the conceptual model linking ERM practices to strategic value through dynamic capabilities (Snyder, 2019; Kraus et al., 2023).

THEORETICAL FRAMEWORK

Dynamic Capabilities Theory as the Foundation

The theoretical foundation of this study is Dynamic Capabilities Theory (DCT), which provides a robust lens for understanding how organisations sustain competitive advantage in rapidly changing and uncertain environments (Teece, Pisano, & Shuen, 1997; Teece, 2023). Dynamic capabilities refer to an organisation's ability to integrate, build, and reconfigure internal and external resources and competencies to address volatile and complex business conditions (Teece, 2018; Teece, 2023). Unlike ordinary capabilities, which focus on efficiency and routine operations, dynamic capabilities emphasise adaptability, resilience, and continuous transformation, which are critical in a VUCA environment (Volatility, Uncertainty, Complexity, and Ambiguity).

DCT is particularly relevant to Enterprise Risk Management (ERM) because effective risk management requires sensing potential threats and opportunities, seizing them through informed decision-making, and transforming processes and resources to align with changing market realities. ERM practices such as risk identification, assessment, monitoring, and communication enable firms to anticipate and respond proactively to uncertainty, aligning closely with the three dimensions of dynamic capabilities: sensing, seizing, and transforming (Teece, 2023; Kraus et al., 2023).

Alignment of ERM Practices with Dynamic Capabilities

The integration of ERM into strategic processes can be conceptualised as an enhancer of dynamic capabilities, operationalised as follows:

- Sensing: ERM provides systematic processes to identify emerging risks and opportunities in the internal and external environment (ISO, 2023; KPMG, 2024). Through risk scanning and horizon analysis, organisations can anticipate disruptions such as regulatory changes, technological advancements, and market volatility (Beasley et al., 2023).
- Seizing: Once risks and opportunities are sensed, ERM enables firms to make informed strategic choices by aligning risk appetite with business objectives and optimising resource allocation (PwC, 2024). This involves developing robust risk-response strategies, prioritizing investments, and capturing value from uncertainty through innovation and diversification.
- Transforming (or Reconfiguring): ERM supports organisations in adapting structures, processes, and capabilities to mitigate risks and capitalise on opportunities effectively (Teece, 2023). For instance, organisations may redesign supply chains, adopt digital technologies, or integrate ESG considerations in response to identified risk patterns.

Conceptual Positioning of ERM within DCT

By aligning ERM practices with the dynamic capabilities' framework, ERM is repositioned from a compliance-driven activity to a strategic enabler that strengthens resilience, agility, and long-term competitiveness. ERM serves as a critical capability that allows organisations to thrive in turbulent environments by providing structured processes to manage uncertainty proactively (Arena, Arnaboldi, & Azzone, 2022; McKinsey & Company, 2023).

The theoretical underpinning of this study, therefore, rests on the argument that ERM operationalises dynamic capabilities in organisations, bridging risk management and strategic management. The proposed conceptual model reflects this relationship by showing how ERM practices influence the three dimensions of dynamic capabilities, which, in turn, drive strategic value outcomes such as resilience, agility, innovation, and sustainability.

Key Theoretical Insights

- Dynamic Capabilities Theory explains why ERM must move beyond compliance and become embedded in strategic planning.
- ERM enhances adaptive capacity, enabling firms to sense and interpret environmental signals, seize opportunities, and transform resources to maintain competitive advantage.

- The link between ERM and dynamic capabilities provides a strong theoretical rationale for positioning ERM as a source of strategic value creation, not just risk mitigation.

CONCEPTUAL DISCUSSION

Repositioning ERM as a Strategic Enabler

The conceptual model developed in this study positions Enterprise Risk Management (ERM) as a critical enabler of strategic value rather than a compliance-oriented activity. Traditional perspectives on ERM emphasised risk mitigation and regulatory adherence, limiting its role to operational and financial control (Fraser & Simkins, 2016). However, contemporary business environments characterised by volatility, uncertainty, complexity, and ambiguity (VUCA) require organisations to embed ERM within their strategic frameworks to foster resilience, agility, and innovation (Beasley, Branson, & Hancock, 2023; McKinsey & Company, 2023).

The proposed model conceptualises ERM as a mechanism for building dynamic capabilities, enabling firms to sense, seize, and transform in response to emerging risks and opportunities. Through systematic risk identification, assessment, response, and monitoring, ERM provides the intelligence and adaptability needed for strategic decision-making in rapidly evolving contexts (ISO, 2023; Teece, 2023).

ERM and Dynamic Capabilities: Mechanisms for Strategic Value Creation

The model operationalises Dynamic Capabilities Theory (DCT) by illustrating how ERM practices strengthen the three core dimensions of dynamic capabilities:

- Sensing: ERM frameworks allow organisations to systematically monitor internal and external environments to detect early warning signals of disruptions such as regulatory changes, technological innovations, and supply chain vulnerabilities (KPMG, 2024). Through tools like scenario analysis and predictive analytics, ERM enhances the firm's ability to anticipate risks and uncover strategic opportunities before competitors (PwC, 2024).
- Seizing: Once opportunities and risks are identified, ERM facilitates timely, informed decision-making by aligning risk appetite with strategic objectives. This alignment enables resource reallocation and investment in opportunities that support growth while maintaining risk within acceptable thresholds (Kraus, Clauss, & Breier, 2023). For example, firms adopting ERM-integrated strategy during the COVID-19 pandemic were able to diversify supply chains and implement digital transformation faster than peers lacking mature ERM systems (McKinsey & Company, 2023).

- Transforming: ERM supports organisational adaptability by enabling the restructuring of operations, governance processes, and business models in response to changing risk landscapes (Teece, 2023). This reconfiguration often involves integrating digital technologies, strengthening ESG practices, or redesigning customer engagement models to enhance resilience and competitiveness.

By enabling these processes, ERM acts as a strategic capability that ensures continuity and adaptability while driving innovation and value creation in dynamic environments.

Strategic Value Outcomes: Resilience, Agility, and Innovation

The ultimate objective of embedding ERM into strategic planning is to generate strategic value outcomes, as highlighted in the conceptual model:

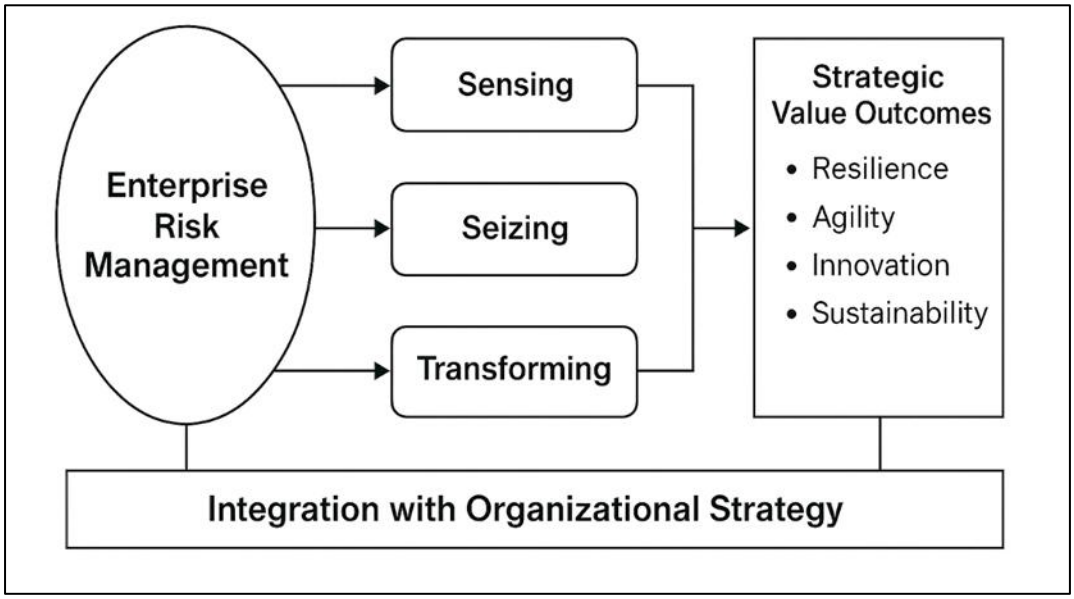
- Resilience: Organisations with robust ERM systems can anticipate disruptions and maintain operational continuity during crises, thus protecting stakeholder interests and financial stability (Arena, Arnaboldi, & Azzone, 2022; ISO, 2023).
- Agility: ERM supports rapid decision-making and operational flexibility, allowing firms to respond effectively to market shifts and competitive pressures (Kraus et al., 2023).
- Innovation: By creating a risk-aware culture, ERM encourages calculated risk-taking, enabling firms to pursue innovative initiatives without exposing themselves to unmanaged threats (Beasley et al., 2023).
- Sustainability: ERM aligns risk management with long-term strategic goals, including ESG commitments, ensuring organisations remain competitive and socially responsible in volatile markets (PwC, 2024).

Integration with Organisational Strategy

The discussion underscores that ERM must be embedded into strategic management processes rather than treated as a standalone risk function. Effective integration requires alignment of ERM with corporate governance, performance management, and strategic decision-making mechanisms (KPMG, 2024). This integration ensures that risk considerations are proactively incorporated into critical decisions, resource allocations, and innovation strategies.

Firms that adopt ERM as part of their strategic DNA develop competitive advantages through superior risk intelligence and adaptability (McKinsey & Company, 2023). Conversely, organisations that fail to adopt a strategic ERM perspective risk slower responses to disruption, lower stakeholder confidence, and diminished market relevance. The model is depicted in the following figure.

FIGURE 1: ERM AND DYNAMIC CAPABILITIES: MECHANISMS FOR STRATEGIC VALUE CREATION



MANAGERIAL IMPLICATIONS

The findings from this conceptual analysis have important implications for executives, risk managers, and strategic decision-makers. By repositioning Enterprise Risk Management (ERM) as a strategic enabler grounded in Dynamic Capabilities Theory, organisations can leverage ERM to create long-term value, improve resilience, and maintain competitiveness in turbulent environments.

Integrating ERM into Strategic Planning

Executives should embed ERM into core strategic planning processes, ensuring risk intelligence informs business decisions, resource allocation, and growth initiatives. This integration requires aligning ERM practices with corporate objectives, governance structures, and performance indicators (Beasley et al., 2023). For instance, ERM should be used during budgeting, portfolio planning, and digital transformation projects to identify and manage emerging risks early.

Developing a Risk-Aware Organisational Culture

A risk-aware culture is critical for enabling proactive responses to uncertainty. Leaders should communicate risk appetite clearly across all levels of the organisation and encourage employees to identify and escalate risks without fear of repercussions (PwC, 2024). Training and awareness programs should be institutionalised to strengthen risk literacy, thereby empowering employees to take calculated risks that foster innovation and agility.

Leveraging ERM to Enhance Dynamic Capabilities

Managers should use ERM as a platform for strengthening dynamic capabilities by embedding processes for:

- Sensing: Continuous environmental scanning using advanced analytics to identify emerging risks and opportunities.
- Seizing: Linking risk insights to decision-making frameworks, enabling quick and informed strategic actions.
- Transforming: Regularly reconfiguring business models and processes in response to risk dynamics, supported by agile governance and digital tools (Teece, 2023).

Linking ERM with Digital Transformation and ESG

Modern organisations face risks related to digital disruption, cybersecurity, and sustainability regulations. ERM should be aligned with digital transformation initiatives and ESG objectives to ensure resilience and compliance while creating new growth opportunities (KPMG, 2024). Firms that fail to address digital and sustainability risks through ERM may face reputational damage and regulatory penalties.

Establishing Continuous Monitoring and Adaptive Strategies

Static risk frameworks are no longer sufficient in dynamic environments. Managers should adopt real-time risk monitoring systems and integrate scenario planning and stress testing into ERM practices (McKinsey & Company, 2023). This adaptive approach enables timely responses to disruptions such as supply chain breakdowns, economic shocks, and regulatory shifts.

Driving Competitive Advantage through ERM

By embedding ERM in strategic processes, organisations can convert uncertainty into strategic advantage. Firms with mature ERM systems demonstrate superior resilience during crises, faster recovery times, and improved stakeholder confidence (Arena, Arnaboldi, & Azzone, 2022). ERM thus becomes a differentiator that enhances long-term competitiveness and market positioning.

CONCLUSION

In an era characterised by volatility, uncertainty, complexity, and ambiguity, the ability of organisations to manage risk strategically has become essential for long-term success. This paper conceptualised Enterprise Risk Management (ERM) as a strategic enabler rather than a compliance-driven function, positioning it as a mechanism for enhancing organisational

adaptability and value creation. Grounded in Dynamic Capabilities Theory, the study developed a conceptual model that demonstrates how ERM strengthens the critical processes of sensing, seizing, and transforming capabilities that enable firms to thrive in turbulent environments.

The discussion highlights that when ERM is embedded within strategic planning and decision-making processes, organisations gain the ability to anticipate emerging risks, capture opportunities, and reconfigure resources effectively. These capabilities support the achievement of strategic outcomes such as resilience, agility, innovation, and sustainability, shifting ERM from a role of risk mitigation to one of value creation.

From a theoretical perspective, the paper provides a new lens for understanding ERM by linking it to dynamic capabilities, contributing to the broader discourse on risk management and strategy. Practically, the findings offer guidance for managers on how to integrate ERM into governance frameworks and organisational processes to enhance adaptability and competitive advantage.

While this conceptual analysis lays a strong foundation, future empirical research is necessary to validate the proposed model and test its applicability across various industries and regions. There is also scope for exploring how emerging technologies, sustainability imperatives, and organisational culture influence the effectiveness of ERM as a strategic tool.

Organisations that adopt ERM as a dynamic capability rather than a regulatory requirement will be better positioned to navigate uncertainty, leverage opportunities, and create sustainable value in an increasingly complex global environment.

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TRACK 6: MARKETING MANAGEMENT (EXCLUDING DIGITAL MARKETING)

ADOPTING UTAUT IN THE SOUTH AFRICAN FINTECH CONTEXT

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ABSTRACT

Guided by the Unified Theory of Acceptance and Use of Technology (UTAUT), this study investigates the practices and processes of successful financial technology (FinTech) firms in South Africa. An interpretivist paradigm, using mono-method qualitative methodology, was adopted. South African FinTech firms were investigated by conducting semi-structured interviews with 14 individuals knowledgeable about FinTech who were currently or formerly employed at FinTech firms. The data collected were analysed in a two-stage process, initial and final coding, by applying incident-by-incident coding. The study identified two overarching categories shaping the success of South African FinTech firms: practices and processes of FinTech firms and the environment shaping the establishment and operations of these firms. This study contributes by suggesting practical recommendations linked to the regulatory reform, industry collaboration, technological integration, and talent development to enhance FinTech innovation and integration within the financial services sector.

Keywords: FinTech firms; technology acceptance; traditional financial services providers; UTAUT

INTRODUCTION AND BACKGROUND

Trabelsi, Abakah, Yadav and Tiwari (2025) describe financial technology (FinTech) as the merging of technology with business activities in the financial services sector. This encompasses the tools, processes, systems, and expertise utilised in delivering financial services (Puschman, 2017:69). The introduction of the first universally accepted credit card by the Diners Club in the 1950s is seen as an important point in FinTech's development, showing the shift from analogue to digital finance (Setiawan and Maulisa, 2020:222). Since then, the financial services industry has implemented progressive innovations. The International Monetary Fund (IMF) (2022:11) and Giglio (2021) report that the most lucrative markets for FinTech firms are in the areas of payments, lending, and business-to-business support, with cryptocurrencies experiencing significant growth. FinTech firms specialise in utilising high-level technology applications to provide solutions for financial services' needs

(Silaban, Prayoga and Rambe, 2023:574; Moosa, 2022:3; Giglio, 2021:607) by synergising with traditional financial service providers (FSPs) and mobile network operators to bring about financial inclusion (Pal, Gopi and Lee, 2023; Senyo and Karanasios, 2020:5).

The operations of traditional FSPs are challenged by the emergence of FinTech firms as traditional FSPs lack the required innovative prowess and technological agility to keep pace with them (Barbu, Florea, Dabija and Barbu, 2021:1416). Therefore, traditional FSPs acquire FinTech firms to curb direct competition (Van Loo, 2018:234-235) as FinTech firms provide more convenient services to consumers (Barbu *et al*., 2021:1416). With the widespread use of smartphones in South Africa, telecommunication companies are exploring the role of FinTech in the disruption of the financial services industry. However, regulatory provisions in South Africa have restricted the use of FinTech applications by telecommunications companies, such as mobile money (The FinTech Times, 2022). Despite the restrictions, the FinTech industry has grown, specifically in Cape Town, which has emerged as the hub of FinTech start-ups in Africa (Pollio and Cirolia, 2022:509). According to Akhtar (2023:18) and IMF (2022:11), a reason for this growth is due to the adoption of policies by the South African Reserve Bank (SARB) in creating a friendly environment for FinTech through integration with the mainstream financial services channels.

However, for some FinTech products and services, there is no specific legislation; these products and services are administered under the general ambit of acts such as the Financial Advisory and Intermediary Services Act, 2002, and the Financial Markets Act, 2012, among others (Geral, Kern, Tibane and Bowmans, 2022:5). Although the financial services industry is highly regulated, there is evidence of an increase in non-compliance due to the growth of FinTech firms (Alblooshi, 2022, cited in Cele and Mlitwa, 2024:5). In addition, there is also evidence that FinTech firms fail to adapt timeously to regulation (Huibers, 2021:5), leading to some FinTech firms not being not compliant to the regulations (Cele and Mlitwa, 2024:5).

PROBLEM STATEMENT

The success of FinTech firms is due to their ability to create value using innovative products, finding new cost-efficient methods, distribution mechanisms, consumer interfaces, market segments, as well as adopting disruptive business models (Roeder, Cardona, Palmer, Werth, Muntermann and Breitner, 2018:1223). In addition, FinTech firms require creative talent to develop innovative ideas and convert these ideas into workable solutions, contributing to the success of firms (Capgemini, 2019:9, Brett, 2018:10). Furthermore, traditional FSPs face the challenge of becoming obsolete if they do not compete effectively with their FinTech counterparts. Therefore, traditional FSPs may need to restructure their business practices and processes to remain operational within the South African financial services landscape. It is

therefore important to determine what practices and processes should be in place for FSPs in South Africa, especially FinTech firms, to be successful.

RESEARCH QUESTION AND RESEARCH OBJECTIVES

Considering the problem statement, the main research question is: What practices and processes are used within the South African financial services environment in which FinTech firms operate? Therefore, the primary objective of this study is to explore and describe the practices and processes of successful FinTech firms in South Africa using the Unified Theory of Acceptance and Use of Technology (UTAUT), while the secondary objective is to establish the South African financial services environment in which FinTech firms operate.

THEORETICAL FRAMEWORK

Products and services of FinTech firms

The main niches of FinTech products and services are payments, lending and capital raising, investment and trade, as well as clearing and settlement (Minto, Voelkerling and Wulff, 2017:437).

- Payments: The focus of FinTech firms is to provide quick and secure online payments. Completing these transactions requires checking out through payment gateways, which are security features that allow for the efficient and secure completion of online transactions (Malik and Banker, 2019:228).
- Lending and capital raising: FinTech firms have innovative credit assessment and approval processes, allowing businesses and individuals to obtain loans that otherwise not have possible. Therefore, the stringent credit review and strict know-your-customer (KYC) processes that traditional FSPs conduct are eliminated (Franco, García, Husetovic and Lassiter, 2020:5).
- Investment and trade: The use of robo-advisors is regarded as easily accessible while being affordable, especially when compared to the cost of appointing financial advisors as employees (Anshari, Almunawar and Masri, 2022:3). In addition, the growth in the use of robo-advisors from 2022 to 2030 is projected to increase by 29.7% (Grand View Research, 2022).
- Clearing and settlement: Numerous digital activities occur after concluding financial transactions. The clearing and settlement process involves post-transaction processes and reporting using distributed ledger technology to validate information between networks (Bank for International Settlements, 2020:14).

Underpinning theory for the study

The purpose of the UTAUT is to theoretically illustrate how firms accept and adopt technologies to add value to the value chain (Handoko and Prianto, 2020:263). Furthermore, adopting new technology poses risks, such as financial, legal, security and operational risks, to innovative business practices and processes (Ryu and Ko, 2020:3). Therefore, the UTAUT is appropriate to evaluate the acceptance or non-acceptance of new technologies by traditional FSPs and FinTech firms. The UTAUT comprises of four factors to determine firms' intentions to adopt and use new technologies, namely, performance expectancy, effort expectancy, social influence and facilitating conditions. Various theories such as the institutional theory (see Kabengele and Hahn, 2021), technology-organisation-environment (TOE) framework (see Prakash, 2025), resource-based view (RBV) theory (see Frederiks, Costa, Hulst and Groen, 2024), sociotechnical theory (see Ghazinoory, Shirkhodaie and Pahlavanian, 2023; Liu and Soomro, 2025), and organisational change theory (see Liu and Soomro, 2025) also support the factors included in the UTAUT.

- Performance expectancy: Performance expectancy is defined as the extent technology can be used to increase productivity (Venkatesh, Morris, Davis and Davis, 2003:447). Previous research highlighted that if performance expectancy is satisfactory, then the possibility of acceptance and adoption of new technologies is high (Loureiro, Cavallero and Miranda, 2018) as it provides a relative advantage (Sair and Danish, 2018). For this study, performance expectancy is contextualised as the extent to which FinTech may assist traditional FPSs and FinTech firms to be more productive, as it enhances efficiencies in developing and making products available to the market.
- Effort expectancy: Effort expectancy is described as the ease with which technology is used (Nyesiga, Kituyi, Moya and Aballo, 2017:8) and is based on the expectation of user experience. User experience is driven by technology to create new experiences for the customers (Laurent and Sinz, 2019:21). However, employees with a higher technology appetite displayed stronger empowerment, thus having greater user experience with less effort (Liu and Soomro, 2025). In addition, support of financial services members is imperative when adopting technology as it will assist with the ease of technology use due to the support (Ghazinoory *et al*., 2023). For this study, effort expectancy is the ease with which traditional FSPs use FinTech as it is regarded as user-friendly and allowing easy access to performing different functions.
- Social influence: Social influence is the process were the perception of other individuals influences a potential user's view (Venkatesh *et al*., 2003). Previous research, such as Nyesiga *et al*. (2017) and Madigan, Louw, Dziennus, Graindorge, Ortega, Graindorge and

Merat (2016), shows that superior references of counterparts and family and friends, and factors such as risk and sustainability, influence the acceptance of technology. In addition, FinTech firms' technology-driven business models have provided a blueprint for traditional FSPs as these models have been viewed as being effective. However, it is also important to gain consumer trust prior to adopting technology (Kabengele and Hahn, 2021). Social influence is defined for this study as the influence of industry counterparts on the acceptance of new technology by traditional FSPs.

- Facilitating conditions: Facilitating conditions are the organisational and technological environments affecting technology acceptance (Venkatesh *et al*., 2003) and include organisational attitudes that is manifested in the preparedness to accept new technologies (Dwivedi, Rana, Jeyaraj, Clement and Williams, 2017). It is important that essential resources and systems should be in place prior to the adoption and use of FinTech, such as adequate resources, knowledge about using technology, compatibility of new technology with current systems and the availability of adequate technical assistance and support (Prakash, 2025; Liu and Soomro, 2025; Ghazinoory *et al*., 2023; Rahi, Ghani, Alnaser and Ngah, 2018). Furthermore, firms are expected to adopt technology under regulatory uncertainty (no or limited regulation) to secure competitive resources (Frederiks *et al*., 2024). The study by Kabengele and Hahn (2021) highlighted that an enabling environment, through facilitating conditions such as regulation or educational infrastructure, is essential to the adoption of new technologies within FinTech firms. Therefore, facilitating conditions is contextualised as the legislative and organisational policies, infrastructure and support systems allowing traditional FSPs to accept FinTech while not influencing productivity negatively.

RESEARCH DESIGN AND METHODOLOGY

Table 1 summarises the research design and methodology adopted, as per the research onion of Saunders, Lewis and Thornhill (2023), in this study.

TABLE 1: SUMMARY OF RESEARCH DESIGN AND METHODOLOGY ADOPTED

ASPECT	APPLICATION TO STUDY
Research philosophy	Interpretivist paradigm adopting a qualitative methodology within the FinTech industry using the UTAUT
Approach to theory development	Deductive approach as the study is guided by the UTAUT to propose behavioural actions in adopting novel technologies
Methodological choice	Mono-method qualitative allowing the research to make meaning of the participants' viewpoints

Strategy		Semi-structured interviews (60-90 minutes per interview) focusing on FinTech firms' practices and processes as guided by UTAUT
Time horizon		Cross-sectional as data is gathered at a specific period
Procedures and techniques	Target population	All employees at FinTech firms, meeting the inclusion criteria: • Current/former owners or employees of a FinTech firm • Completed a full internship or at least one year's experience in a FinTech firm • Knowledgeable about the financial products or services that FinTech firms offer • Ages of 18 and 65
	Sampling	Non-probability purposive and snowball sampling as participants should be knowledgeable about the financial products or services offered
	Sample size	Minimum of 12 and maximum of 15 (Simet *et al*., 2018:620) selected from sample frame (all FinTech firms in South Africa listed on the Traxcn database) – data saturation achieved with participant 14
	Interview guide	• Section A: Profile of participants using a nominal scale • Section B: Questions regarding FinTech firm's practices and processes
	Data collection	• Secondary data: Books, journals, Internet sources • Primary data: Survey using a structured self-administered interview guide
	Data analysis	• Descriptive statistics – frequencies, means and standard deviations • Content analysis: Adopted Hsieh and Shannon (2005) six steps: 1) reading collected data for comprehension, 2) rereading text to determine recurrent themes, 3) identifying key words and phrases from text, 4) making notes from text regarding how content is understood, 5) grouping similar ideas into clusters (basis for coding scheme), 6) defining, describing and coding each cluster • Coding process during content analysis: Adopted incident-by-incident coding process (Thornberg and Charmaz, 2014:156-158) – coding based on researcher's interpretation of the transcribe text to identify similar occurrences or processes as described by participants

	Trustworthiness	• Credibility – member checking used • Dependability – detailed documentation on the research process recorded • Transferability – audit trail of participants' feedback and the feedback context • Confirmability – citing verbatim quotes
	Ethics	• Data collected only commence after obtaining ethical approval • Rights of respondents (explicit informed consent, voluntary participation, confidentiality and anonymity of respondents, opt-out option) • Accurate referencing of reliable secondary sources • Turnitin similarity index used

Source: Authors' own construction

FINDINGS OF THE STUDY

Demographic profile of participants

Data saturation was achieved at participant 14. Table 2 summarises the demographic profile of the 14 participants.

TABLE 2: DEMOGRAPHIC PROFILE OF SAMPLE

CHARACTERISTIC	PROFILE
Gender	Male (13); Female (1)
Age	30-39 (8); 40-49 (3); 50-59 (3)
Current position	Senior executive position (13); Mid-level position (1)1
Qualification/Field of study	MBA (2); Accounting (4); Computer science (4); Investment management (1); Marketing (1); Commercial background (1); Matric (1)
Experience in years	6-10 years (3); 11-15 years (3); 16-20 years (5); 20+ years (3)

Source: Authors' own construction

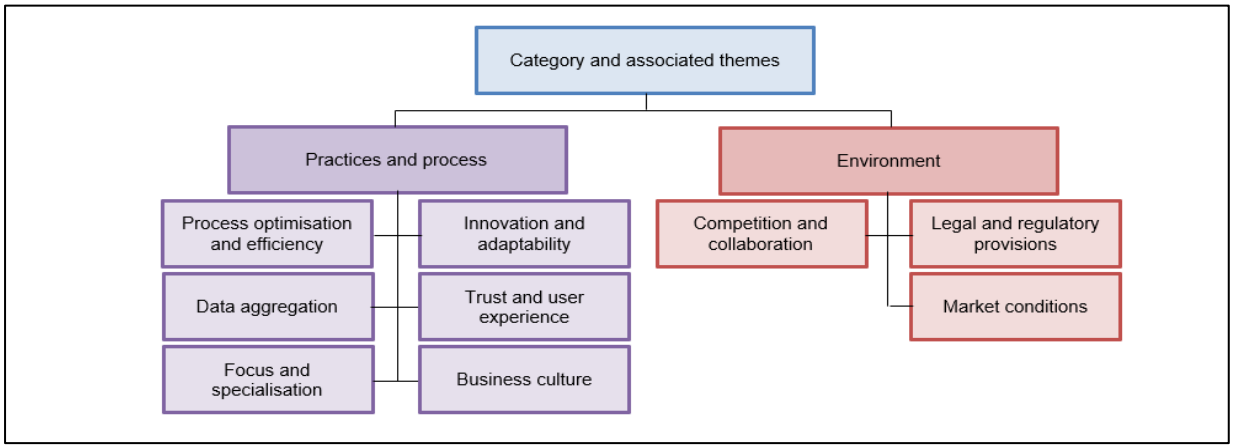
The sample comprised predominantly males, with 13 out of the 14 respondents identifying as males. Most participants were between the ages of 30 and 39 and held senior executive positions within their respective organisations. Participants had a minimum of three years of industry experience, which ensured that they possessed adequate exposure and insight into their respective fields. In terms of educational background, most participants held formal

qualifications in disciplines closely aligned with the focus of the study, including business administration, accounting, and computer science.

Findings relating to the identified themes

The analysis of the interview transcripts led to the identification of several themes, which were subsequently classified into two overarching categories, namely, practices and processes (comprising six themes) as well as environment (comprising three themes). Figure 1 summarises the two categories with the associated themes.

FIGURE 1: CATEGORIES AND THEMES DERIVED FROM DATA



Source: Authors' own construction

Category 1: Practices and processes

This category captures the operational strategies employed by South African FinTech firms to establish themselves in the market and sustain long-term success. Participants provided valuable insights into the key practices and processes involved in both the initial setup and ongoing management of these firms.

- Process optimisation and efficiency: A fundamental attribute of FinTech firms is the ability to optimise business processes by using data-driven applications (Aevo Consulting Group, 2020:1) while being efficient (Prokopenko, Shmorgun, Kushniruk, Prokopenko, Slatvinska and Huliaieva, 2020:126). Participants across age, experience, and qualification spectrum reported that the success of FinTech firms is contingent upon their ability to introduce efficiencies in a manner that gives them a competitive advantage over their traditional FSP counterparts and against their fellow FinTech counterparts (*"It is going to allow us to deploy faster, and it is going to save us costs. It is going to create a better service internally, which we can then offer to our clients."* P12).
- Innovation and adaptability: Adaptability complements innovation as it assists in managing uncertainties while willingly taking risks (Latham-Green, 2020:2). The participants were all

in agreement that innovation and adaptability are essential aspects of FinTech firms to attain market dominance. Furthermore, innovation was regarded as essential to compete effectively with traditional FSPs as FinTech firms occupy market segments that traditional FSPs are ill-equipped to serve. Sentiments were consistent across the age and experience, with 13 participants strongly advocating for innovative digitisation of the financial services sector (*"I definitely think we are on the pioneering side of technologies." P14*), while one participant highlighted the presence of a human element as important (*"Although people are moving away from the human process to [a] digital process, the expectation of machine is a hundred per cent all the time, and [the] reality is you can't. There is no way you can get a hundred per cent all the time."* P10). These findings are aligned with the study of Ghazinoory *et al*. (2023).

- Data aggregation: The success of technology companies within the digital economy is dependent on innovation and technical inputs (Petit and Teece, 2021:1169). The participants described data aggregation as a vital component of designing consumer-facing front ends and a means to gain insights into user experiences (*"I think it's because of the data-centric nature of our platform we have had to create sort of custom workflows."* P7). Across all ages, qualifications and experiences, participants unanimously agreed that data is central to building technology to address customers' needs. In addition, participants are in full agreement that the primary purpose of data in FinTech firms is to leverage the applications in product development.

- Trust and user experience: The financial services sector operates on trust (Dewatmoko, Udayat and Anggarini, 2023:9821). In addition, FinTech platforms allow individuals and entities to conduct financial transactions, manage investments, and perform banking functions with great ease using user-friendly interfaces and seamless digital offerings. The user experience refers to the thoughts and feelings that result from a customer's interaction with a firm's products, services, and brand (Barbu *et al*., 2021:1471). Participants described trust and user experience as crucial elements for the longevity of FinTech firms. Participants across the gender, age and experience strongly emphasised trust and user experience more than any other theme. Although all participants argued that trust and user experience are central to solving the matter of FinTech firms' legitimacy, two views emerged. The first view sought to achieve trust by giving customers a satisfactory user experience, thus creating dependability on a FinTech firm's product (*"There is a proof-point, and it goes back [to] reliability … It goes back to trust and reputation. If you know you are a community and you make your first payment to me through your phone and it works, you will tell your mate."* P14) while the second view involved leveraging the reputation of established institutions, including traditional FSPs, to

take a product to market (*"… if your customer has a good experience, they'll come back, and they'll use the service again, regardless of what the service is."* P3).

- Focus and specialisation: Participants indicated that the success of FinTech firms is often contingent upon their ability to identify a niche and focus their attention on it, as this helps to prevent spending time and resources on activities that may not be value-adding (*"I don't think we are reinventing finance; I think we are curating it for a specific use case … because tech is automating it, you need to curate it effectively."* P5). This finding is aligned with the findings of Alaassar, Mention and Aas (2022:2168), where FinTech firms collaborate to focus on underregulated niche market segments with good growth potential. Participants identified three key aspects: the need for FinTech firms to solve market pain points, the need for financial inclusion, and the need to identify and lock in a niche in the market. In addition, regardless of age and work experience, the participants shared similar views regarding focus and specialisation within FinTech firms.
- Business culture: Manik and Megawani (2019, cited in Suprapti, Asbari, Cahyono, Mufid and Khasanah, 2020:77) note the importance of business culture, positing that the culture of a firm is how it develops the talent attributes required to ensure the long-term success of the firm. Participants highlighted diverse cultural perspectives concerning running FinTech businesses in South Africa, informed by their philosophical standpoints. The participants unanimously agreed that their respective FinTech firms were built around a central piece of technology, as well as effective governance and human resource policies (*"It's all about creating an environment that is conducive to delivering a result, and I think that you can have a mixture of the sort of strong governance and not compromise on this, but have a working environment that people feel safe in."* P6).

Category 2: Environment

This category captures the legal, social, and economic conditions that shape the establishment and operation of FinTech firms in South Africa. Participants reflected on how supportive the local financial services environment is for starting and managing these firms. Three key themes emerged: competition and collaboration, legal and regulatory provisions, and market conditions.

- Competition and collaboration: Healthy levels of competition lead to innovation as it facilitates the entry of new market players and encourages firms to remain competitive (Griffith and Van Reenen, 2021:2). Participants did not unanimously agree on the state of competition and collaboration in South Africa. Four participants concurred that the level of competition, particularly against traditional FSPS, is unhealthy *("We have, however, a number of partners that constrain us, so they are not competitors, but they are making our*

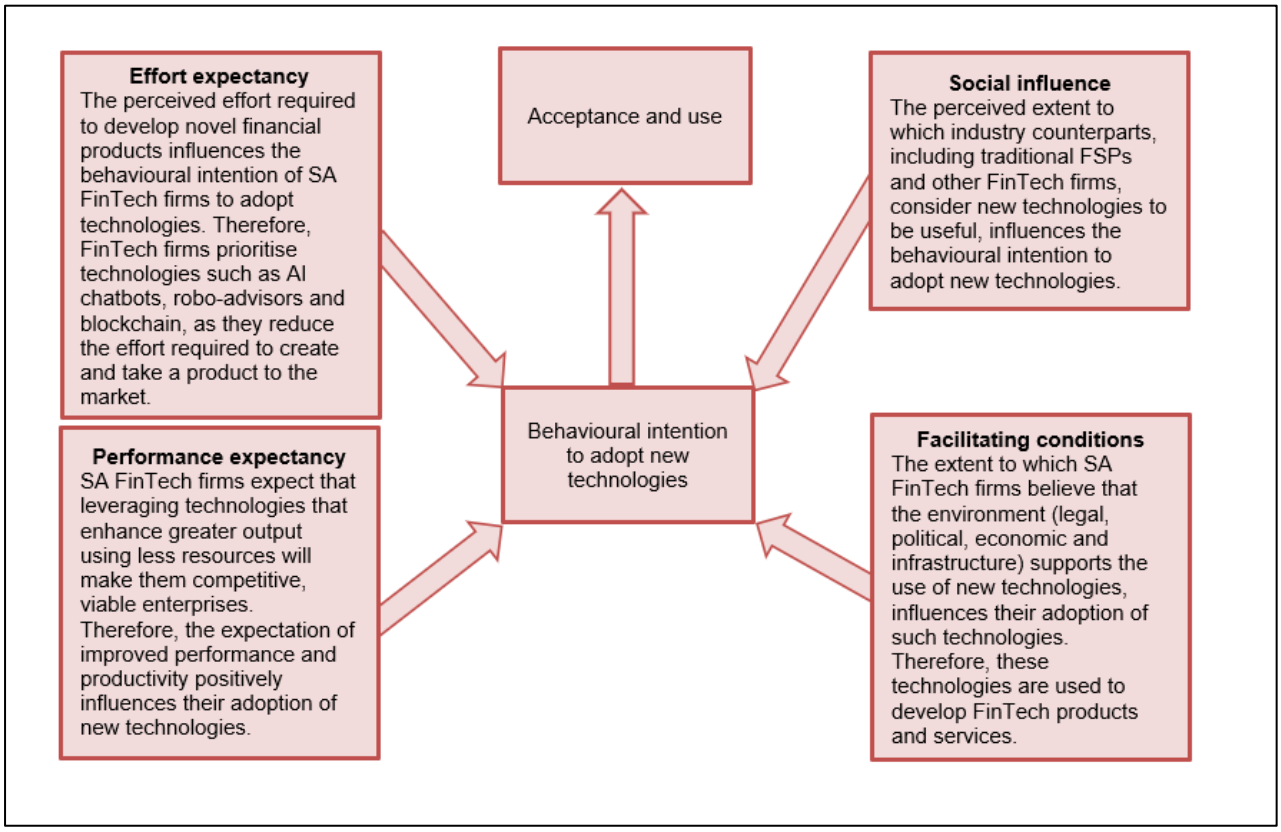
lives as difficult, like the banks." P1), while three participants concurred that there is generally more collaboration in recent times than in the past *("There has been a turn where there has been a realisation that collaboration is probably the way to go." P10)*.

- Legal and regulatory provisions: Many governments have initiated sandbox schemes to understand how to regulate FinTech firms more effectively without restricting innovation (Ashenafi and Dong, 2022:383). Two significantly different perspectives regarding the legal and regulatory environment were found. The first perspective, supported by four participants, was that laws and regulations are too burdensome to the formation and successful operation of FinTech firms and, therefore, present a barrier to entry (*"If one looks at the laws and regulations as implemented, it's very unfriendly to innovation."* P4). Consequently, there are legal grey areas where FinTech firms operate, albeit without a high level of clarity from the law. The second perspective, supported by two participants, is the reactive nature of legislative provisions as opposed to a forward-thinking, proactive stance, which accommodates the high-growth nature and risk profiles of FinTech firms (*"… regulation has been very, very key within our space. I am just really getting to understand how well the regulatory landscape is opening up to this new sort of reality." P7*). In addition, Frederiks, *et al* (2024) found that the greater the regulatory uncertainty regarding the technology, the more willing the respondents were to adopt the technology. Furthermore, changes in the legal and regulatory are play a major role in the adoption of technology (Ghazinoory *et al*., 2023).
- Market conditions: The business environment includes factors that affect a business, thereby contributing towards its output (Adewole and Umoru, 2021:196). Diverse perspectives were put forward when describing the South African environment. Firstly, the South African environment is described as conducive to growth, although the access to capital is viewed as potentially retrogressive (*"If we just talk start-ups hurdles, hurdle number one is access to capital." P4*). Secondly, the market conditions are observed as the longstanding monopolistic effects of traditional FSPs, specifically banks, and the stifling influence of current legislation *("The levels of bureaucracy, compliance and governance just almost stifle their ability. And therein has created the opportunity for FinTech firms, I think, to emerge." P11*). The findings are aligned with the findings by Kabengele and Hahn (2021:12).

Interpreting the findings using UTAUT

Figure 2 summarises the findings in terms of the UTAUT.

FIGURE 2: FINDINGS IN RELATION TO THE UTAUT



Source: Adapted from Venkatesh, Thong and Xu (2016:35)

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The following are recommendations regarding FinTech firms' practices and processes:

- The network of cooperation should be expanded beyond FinTech firms and traditional FSPs by developing synergies with other industries, including mobile network operators, software developers, and educational institutions, amongst others.
- Increase the capacity of the sandbox initiative by the SARB and affiliated organisations to increase capacity, allowing more early-stage FinTech firms to access expert advice, resources, and capital funding opportunities.
- Create an incentives-based scheme by institutions, including the South African Revenue Services (SARS), that allows for subsidies or tax breaks from the SARS for FinTech firms that develop innovative solutions.
- Create an industrywide FinTech field expert association and a FinTech hub to organise the industry and develop a standard practice that encapsulates the various FinTech niches.

- Consider amending the Financial Sector Conduct Authority's (FSCA) schedule of accredited financial products and services, as defined in the Financial Advisory and Intermediary Services (FAIS) Act, 37 of 2002, to accommodate an increasing number of new products and services that fall outside the ambit of current legislation that should be monitored to create greater oversight when developing FinTech products and services.

Regarding the environment category, the following recommendations are made:

- Develop and implement more formal FinTech-based study courses into the National Curriculum to demystify innovative FinTech products.
- Provide training and continuous professional development (CPD) programmes by industry associations such as the FinTech Association of South Africa (FINASA), specifically in early-stage businesses.
- Accelerate the transition of traditional FSPs from older-generation mainframe computing systems to semi-automated and fully digitalised business models that support artificial intelligence and large language models.
- Include more FinTech field experts in policymaking bodies to broaden the scope of knowledge and skills whenever policies regarding FinTech firms are formulated for the financial services industry.
- Policies must be formulated by statutory bodies such as the National Credit Regulator (NCR), Financial Intelligence Centre (FIC) and the FSCA, which address the unique attributes of FinTech firms.
- Closer monitoring of the strategic collaboration between traditional FSPs by regulatory bodies, including the Competition Commission, to prevent predatory or anticompetitive practices by traditional FSPs as they wield more significant influence over the financial services environment than FinTech firms.
- Explore a small securities exchange under the Johannesburg Stock Exchange (JSE), specifically for highly scalable FinTech firms, to attract more investment into the sector and resolve the liquidity challenges experienced by FinTech firms.

CONCLUSION

This study aimed to explore the practices and processes of a selection of FinTech firms in South Africa using the UTAUT. Based on the empirical findings, effort expectancy, social influence, performance expectancy, and facilitating conditions are key determinants of FinTech firms' success. Thus, an assertion is made that the selected South African FinTech firms exhibit the behavioural intentions required to accept and use new innovative

technologies. This study contributes to the ongoing development of UTAUT by showing that, in the South African FinTech environment, technology acceptance is influenced not only by the four original constructs, but also by factors not explicitly addressed in the original model. Notably, the findings highlight regulatory agility (the ability to adapt rapidly to changing regulatory requirements) and trust-building in underserved markets as distinct determinants of FinTech adoption and use. More specifically it is suggested that regulatory reforms be accelerated to support innovation in the FinTech space. Additionally, fostering greater industry collaboration, integrating advanced technologies, and focusing on talent development will be critical for enhancing the sustainability and competitiveness of FinTech firms in South Africa. Addressing these challenges will not only help FinTech firms grow but also facilitate their integration into the broader financial ecosystem, benefiting both the companies themselves and the economy at large.

The findings of this study were based on qualitative data which was collected from 14 individuals who at the time of data collection, were currently or formerly employed at South African FinTech firms. Purposive sampling allowed for the inclusion of participants with relevant industry knowledge but led to a small and specialised sample. As a result, the generalisability of the findings to the broader FinTech sector was limited. It is suggested that future research could complement these insights with quantitative or mixed-method approaches.

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ASSESSING THE CHALLENGES AND REQUIREMENTS FOR MARKET ENTRY IN EAST AFRICA FOR A SOUTH AFRICAN ELECTRICAL MANUFACTURING COMPANY

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ABSTRACT

South Africa's current economic conditions present significant challenges, including market saturation and low growth prospects, highlighting the need for electrical manufacturing organisations to explore new markets. East Africa offers an expansion opportunity due to its rapid industrialisation and growing infrastructure. This study aimed to assess the market entry challenges and entry requirements. The study utilised a qualitative methodology, with data collected from fourteen participants and thematically analysed.

The findings reveal that a phased market entry strategy is most effective for managing market complexities, starting with low-risk, strategic local partnerships to navigate the unique regulatory and cultural landscapes. It is essential to understand local markets and adapt products and services to meet local demands. A local identity is crucial, as is establishing a flexible and lean operational structure. As the business becomes established, there should be a gradual integration and training of local employees.

Keywords: Internationalisation; market entry strategies; product adaptation; East Africa

INTRODUCTION AND PROBLEM STATEMENT

In 2023, the actual growth rate of South Africa’s Gross Domestic Product (GDP) decreased to 0.6%, a decline from 1.9% recorded in 2022 (African Development Bank, 2024). Structural challenges further aggravate the difficulty for organisations to grow and thrive in the domestic market. In addition, competitive pressures and market saturation in South Africa necessitate a strategic shift to invest in new markets and sustain operations while adapting to different business environments.

East Africa emerges as a compelling destination for South African electrical manufacturing organisations seeking to expand their operations. Numerous factors, including geographic proximity, robust trade agreements, linguistic compatibility, and significant economic potential,

underpin this strategic choice (East African Development Bank, 2023). Geographic proximity not only reduces transportation costs but also ensures more efficient logistical operations. The ongoing infrastructural investments in East Africa, particularly in transport networks, ports, and logistics hubs, have further enhanced the region's appeal as a strategic target for expansion. East Africa has been benefiting from substantial infrastructural advancements, which have improved the efficiency and reliability of supply chains across the region. The African Continental Free Trade Area (AfCFTA) is expected to accelerate these advancements by removing trade barriers and promoting trade within Africa (African Development Bank, 2024). East Africa's economic significance is bolstered by its participation in various trade pacts, such as the Common Market for Eastern and Southern Africa (COMESA) and the East African Community (EAC). These trade agreements facilitate opportunities for South African firms to grow their businesses in East Africa (COMESA, 2024). Such opportunities are enabled by the widespread use of English in the region, which is the official language of countries such as Kenya and Uganda, reducing the psychic distance between cultures.

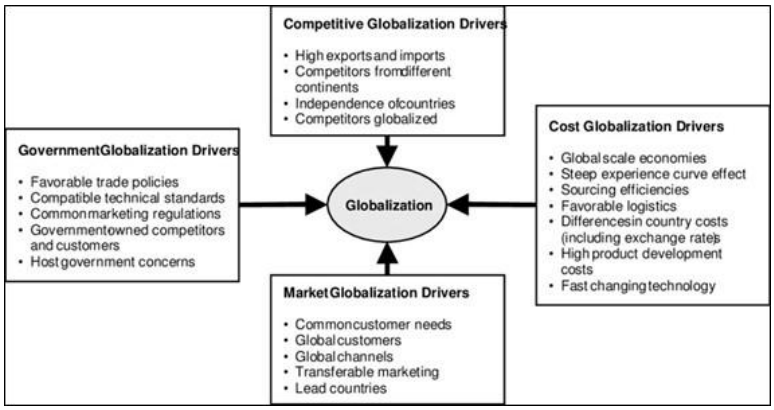
However, before expanding into East Africa, it is critical to understand the challenges and internationalisation strategies for market entry. Hence, the research problem is the limited understanding of the viability of expanding a South African electrical manufacturing organisation into East Africa, necessitating a thorough analysis to evaluate the potential for successful market entry and expansion.

LITERATURE REVIEW

Drivers of internationalisation

Johnson, Scholes and Whittington (2017) define international strategy as a spectrum of strategic options available to organisations seeking to expand beyond their domestic markets. The increasing globalisation of markets has led many organisations to adopt international strategies as a core growth initiative (Xu et al, 2021), capitalising on market opportunities. Yip (2001) identified four primary drivers behind the adoption of international strategies, encapsulated in Yip’s globalisation framework, illustrated in Figure 1 below:

FIGURE 1: GLOBALISATION DRIVERS



Source: Yip (2001)

- Market Drivers: The rise of global trade and the presence of global customers with similar needs prompt companies to adopt international strategies.
- Cost Drivers: Potential economies of scale and cost advantages motivate multinational companies to internationalise.
- Government Drivers: Efforts by governments and organisations to ease investment and trade barriers facilitate international expansion.
- Competitive Drivers: The emergence of global competitors forces organisations to expand internationally to mitigate competitive threats (Yip, 2001).
- “Frontier markets,” as found in Sub-Saharan Africa, are those with robust economic growth and resilience during global economic downturns, although smaller than typical emerging markets like India or China (Speidell and Krohne, 2007). The appeal of African markets can be attributed to several factors: (i) both formal and informal networks, (ii) the ability for firms to source from neighbouring markets, (iii) available services for businesses, (iv) the presence of numerous small enterprises, and (v) the availability of resources (Speidell and Krohne, 2007). Nevertheless, these markets also face challenges, including socio-political instability, poorly regulated labour markets, inadequate infrastructure, and high transaction costs resulting from a lack of conduct codes and best practices (Ferrucci and Paciullo, 2015; Rodrik, 2016; Dallago and Casagrande, 2023). While in 2008, Sub-Saharan Africa was one of the few regions showing strong economic growth despite the global slowdown (Games, 2012), systematic risks associated with East Africa necessitate a deep understanding of the political, economic, social, and technological environments before investing (Mataen, 2012).

Critical success factors for internationalisation

To address the challenges of internationalisation, the following are identified as the critical success factors of internationalisation (Moric Milovanovic and Cvjetkovic, 2021):

Product and Service Adaptability: Prior research emphasises the importance of adapting products and services to meet local market standards and consumer preferences. Fagerberg (2005) emphasises that high-quality products, competitively priced and tailored to local needs, significantly enhance market penetration and customer loyalty.

Market Understanding: Understanding local market conditions, including economic stability, regulatory environments, and competitive landscapes, is essential for making informed strategic decisions. The Uppsala model, as discussed by Johanson and Vahlne (2015), suggests that market knowledge is accumulated gradually through experience, which is vital for successful internationalisation.

Infrastructure and Logistics: The success of internationalisation efforts is closely tied to the availability of reliable infrastructure and logistics. As the East African Development Bank (2023) notes, overcoming challenges related to high transport costs and inconsistent energy supplies requires substantial investment in local infrastructure to ensure consistent product delivery and operational efficiency.

Strategic Partnerships: Forming strategic partnerships with local entities, such as distributors and joint venture partners, is a critical success factor. Maqbool, Sudong, Manzoor and Rashid (2018) argue that such collaborations provide valuable insights into local markets, reduce entry barriers, and enhance integration into the local business environment.

Human Capital Development: Developing local talent through targeted training and development programs is essential for ensuring operational efficiency and fostering innovation. The East African Development Bank (2023) underscores the importance of investing in human capital to build a skilled workforce that can drive the company’s long-term success in the region.

Risk Management: Effective risk management is crucial for navigating the complexities of international markets. Mataen (2012) highlights the importance of understanding and mitigating political, fiscal, and operational risks through robust contingency planning.

Market entry modes

There are several options for market entry, progressing from low risk to high risk, and low control to high control, to gain both direct and indirect insights (Coviello, Kano and Liesch, 2017) as follows:

Export: Exporting is a low-cost and low-risk initial market entry strategy. According to Cavusgil, Knight and Riesesenberger (2012), exporting allows firms to rapidly enter a foreign market with minimal capital investment while testing the market's responsiveness to their products.

Licensing and Franchising: Contractual arrangements such as licensing and franchising represent market entry strategies that require less upfront investment. These approaches enable companies to expand into new territories without the need to establish their own physical operations in those markets (Cavusgil et al., 2012).

Strategic Alliances and Joint Ventures: Forming collaborative partnerships or shared business entities with local organisations is often advised as a practical approach for entering markets characterised by intricate business environments and significant cultural differences. Arnold (2000) and Maqbool et al. (2018) emphasise that these partnerships enable foreign firms to leverage local partners' market knowledge, networks, and distribution channels, thus reducing entry barriers.

Direct Investment and Wholly Owned Subsidiaries: Although direct investment through wholly owned subsidiaries involves higher risk and capital investment, it offers greater control over operations and strategic direction. Dunning's (1988) OLI Framework suggests that firms should consider direct investment when they possess significant ownership advantages, such as proprietary technology or brand equity, which can be effectively exploited in foreign markets (Li and Xiong, 2022).

Some authors, such as Johnson et al. (2017), recommend a staged approach, starting with exports and gradually increasing control until setting up wholly owned entities. However, Cavusgil et al. (2012) argue against this evolutionary approach, suggesting that organisations can directly choose a market entry strategy based on the opportunity size and their own capabilities. Alternatively, Brouthers, Chen, Li and Shaheer (2022) suggest that non-traditional entry modes could be explored.

Marketing strategies and mix adaptation

Khanna, Palepu and Sinha (2005) recommend that companies expanding into frontier markets should first understand the institutional context, particularly the extent of corruption. Once this understanding is obtained, organisations should revise their marketing strategies accordingly.

Product Adaptation: Cateora, Gilly and Graham (2007) emphasise that international marketing involves adapting product offerings to meet the specific needs and standards of the local market. This adaptation is particularly crucial in diverse and fragmented markets, such as East Africa, where consumer preferences and regulatory requirements can vary significantly across countries.

Pricing Strategy: When implementing pricing strategies in international markets, it is essential to consider local economic conditions, purchasing power, and competitive dynamics. Cavusgil et al. (2012) argue that a company must strike a balance between competitive pricing and

maintaining profitability. In East Africa, where price sensitivity may be higher due to varying economic conditions, the organisation should adopt a pricing strategy that is competitive yet sustainable.

Brand Positioning: Sheth (2011) suggests that in emerging markets, including Africa, organisations should focus on building a strong brand identity that differentiates them from local and international competitors such as emphasising the unique selling points (USPs) of the products and aligning the brand with values that resonate with local consumers, such as reliability, quality, and community involvement.

Product Standardisation versus Adaptation: While certain product features can remain standardised, other aspects, such as packaging and features, should be adapted to meet local requirements and consumer expectations (Vrontis, Thrassou and Lamprianou, 2009).

Cateora et al. (2007) suggest that pricing, distribution, and promotion are the most adapted elements of the international marketing mix, while product planning, development, and aftermarket support are standardised, especially for industrial products.

Operational structure in frontier markets

To successfully internationalise into East Africa, a South African electrical manufacturing organisation must establish an operational structure that is both flexible and adaptive to local conditions (Kostova, Marano and Tallman, 2016). Key components of this structure could include:

Decentralised Decision-making with Regional Hubs: Kostova et al. (2016) note that these regional hubs facilitate quicker decision-making and knowledge transfer, allowing firms to better adapt to local market conditions. For a South African organisation expanding into East Africa, setting up a regional hub within the region would be beneficial for integrating local market insights with corporate strategies, thereby enhancing responsiveness and operational efficiency.

Network-Based Organisational Structure: The Uppsala model emphasises the importance of gradual internationalisation through networks and relationships, suggesting that organisations initially focus on nearby, culturally similar markets before expanding further (Johanson and Vahlne, 2015). For successful internationalisation in East Africa, a network-based structure that leverages relationships with local partners, distributors, and suppliers is crucial.

Dynamic Capabilities and Flexibility: The Dynamic Capabilities View (Brock and Hitt, 2024) emphasises the need for organisations to reconfigure their operations to adapt to rapidly changing environments continually. In the context of East Africa, where political and economic

conditions can be volatile, having a flexible operational structure that allows for quick adaptation to market changes is essential (Ferreira & Ferreira, 2025).

Centralised Strategic Control with Local Execution: While localised management is important, maintaining centralised control over strategic planning ensures consistency in the organisation's vision and objectives across different markets. Arnold (2000) suggests that MNCs should retain control over strategic marketing and budgeting, while allowing local entities the flexibility to adapt these strategies to suit local conditions. This balance between central oversight and local execution enables the organisation to maintain a unified brand identity while being responsive to local market demands (Kostova et al., 2016).

RESEARCH OBJECTIVES

To address the research problem and aim of the study, and based on the issues identified in the literature review, the following research objectives are tabled:

RO1: To determine the critical success factors of internationalisation for a South African electrical manufacturing organisation

RO2: To analyse the market entry strategies appropriate for the selected country in East Africa

RO3: To determine the adaptation requirements for marketing strategies and marketing mix for successful internationalisation when entering the selected country

RO4: To assess the operational structure required to support the internationalisation of a South African organisation in East Africa.

RESEARCH METHODOLOGY

This study adopted an exploratory, inductive, and qualitative research strategy to investigate market opportunities and strategic entry options for a South African electrical manufacturing company in East Africa. A qualitative methodology was selected for its ability to interpret complex patterns of behaviour and decision-making processes, which are critical for understanding the nuanced factors influencing internationalisation strategies (Pope and Mays, 2000; Gummesson, Mele, Polese and Mende, 2014). The population for this research comprised industry leaders involved in facilitating, leading, and driving international expansion in frontier markets. A purposive sample of 14 participants was selected, half from an electrical manufacturing organisation and the remainder from managers and entrepreneurs from other organisations, based on their in-depth knowledge and experience of international expansion.

Data were collected through semi-structured interviews, which were conducted on Microsoft Teams. The interviews were recorded, transcribed, and then the data were thematically analysed using NVivo software to identify key codes and themes. Ethics approval was

obtained for the study, and the ethical requirements were rigorously adhered to. The research criteria for addressing trustworthiness in qualitative research were met through the evaluation of credibility, dependability, and transferability. The mechanisms of prolonged engagement, member checking, keeping an audit trail and thick description were utilised for trustworthiness (Korstjens and Moser, 2018).

RESULTS/FINDINGS

This section presents the detailed findings of the analysis for each research objective, highlighting the themes developed with supporting comments from participants, and integrating the themes with prior studies. The interview-based methodology enabled the capture of nuanced, experience-based knowledge from industry professionals, which was crucial in identifying the specific success factors relevant to internationalisation in the East African context.

RO1: Critical Success Factors of Internationalisation

- Understanding Local Markets and Cultural Sensitivity:

Multiple participants emphasised the necessity of understanding the local market dynamics as a critical success factor. As noted by P1, *"Understanding the local markets, including informal sectors, is critical."* Similarly, P11 pointed out, *"You don't know their economy, their set-up, and how distribution works,"* highlighting the importance of gaining a deep understanding of the local economic environment before entering a new market. Cultural adaptation was another recurring theme. Participant P3 stated, *"There's a cultural aspect in Africa regarding South African products,"* underlining the need for organisations to adapt their approaches to local cultural norms and preferences. Participant P8 reinforced this: *"You've got to respect their way of doing it."*

- Strategic and Local Partnerships:

Several participants stressed the significance of forming strong local partnerships. Participant P2 mentioned, *"Partner selection and program are critical success factors,"* emphasising the need to carefully choose local partners who can navigate the market's complexities. P5 added, *"Utilising local professionals such as bankers and lawyers,"* which further supports the idea that local expertise is invaluable. P11 reinforced this by saying*, "Get a distributor or a partner that's been operating in those regions for a long time,"* highlighting that experienced local partnerships are crucial for effective market entry and operations.

- Quality Assurance and Product Adaptation

The emphasis on maintaining high product quality was consistent across interviews. Participant P1 stated, *"Focus on delivering high-quality products,"* which reflects the

importance of ensuring that the products meet or exceed local expectations. P11 echoed this by stressing, *"Quality, quality, quality. You give the guys good quality; you explain the why to them."* The need for adapting products to meet local demands was also highlighted. Participant P6 mentioned*, "Market relevance," noting* that products must be tailored to local needs to succeed.

- Regulatory Compliance and Legal Understanding:

The importance of understanding and complying with local regulations was consistent. Participant P2 noted, *“Clear understanding of the regulatory framework is crucial,”* emphasising the need for organisations to thoroughly understand the legal environment before entering a new market. Participant P6 reinforced this by stating, *"Knowledge and having a full understanding of their laws,"* which underlines the necessity of legal compliance for successful internationalisation. Participant P7 added that thorough strategic planning is essential, especially in dealing with government regulations and tax challenges*: "We had to speak to some government officials, we had to speak to local tax authorities..."*

- Operational Resilience and Efficiency:

The ability to establish and maintain a robust supply chain was highlighted as a critical factor. Participant P11 stated, *"If you didn’t have three times the stock in-country or had a robust pipeline with your distributors, you are ...,"* emphasising the importance of having a resilient supply chain to avoid disruptions. Participant P2 mentioned, *"Having boots on the ground is essential,"* indicating the need for a local presence to manage operations effectively. Participant P4 concurred, pointing out that *"A local presence is key”.*

The themes identified above are consistent with the Uppsala Model (Johanson and Vahlne, 1977; 2009), which emphasises gradual market entry and building in-depth local knowledge. The Resource-Based View (RBV) (Ferreira and Ferreira, 2025) is evident in the focus on leveraging internal capabilities, such as quality assurance and robust supply chain management (P3), to create sustainable competitive advantages in new markets.

RO2: Market Entry Strategies

- Local Partnerships and Agents:

Establishing strong local partnerships is consistently highlighted as a critical market entry strategy. Participant P1 advised, *"Establish partnerships with local distributors,"* emphasising the importance of leveraging the local expertise and networks that these partners provide. Participant P8 reinforced this by stating, *"We rely on partners to gain that footprint,"* indicating that local partnerships are essential for gaining market access and ensuring operational success. The role of local agents is also critical. P3 mentioned*, "Maintain a two-tier structure*

model with a solid distributor," suggesting that a structured approach involving local agents can help navigate the market's complexities. P11 added*, "Get a distributor or a partner that's been operating in those regions for a long time,"* underscoring the value of experience and established relationships in the local market.

- Phased Market Entry:

A phased entry strategy was frequently mentioned to manage risks and build a solid foundation. Participant P1 suggested, *"Start with e-commerce to test the market before committing fully,"* advocating for a gradual approach to entering new markets. P3 echoed this strategy by recommending, *"Phased entry by establishing trust and building capabilities with local entities."* The phased approach is also seen as a method for mitigating risks. P2 advised, *"Go in with low risk by focusing on a channel model,"* suggesting that a gradual entry, starting with less resource-intensive methods, can help manage uncertainties.

- Localisation of Operations:

Localisation was emphasised as a strategy for successful market entry. Participant P2 recommended*, "Localise some portion of your value chain,"* indicating that adapting operations to fit local contexts can significantly enhance market penetration. P6 highlighted the need for *"Localisation,"* reinforcing the idea that operations should be tailored to the specific needs and conditions of the East African market. Having a physical presence in the market was also seen as crucial. P11 stated, *"Boots on the ground, having people from South Africa in-country,"* suggesting that a direct presence can help manage operations more effectively and foster closer relationships with local partners.

- Strategic Planning and Market Research:

The importance of comprehensive business planning was repeatedly mentioned. P7 shared, *"We did a proper business plan, we went into the country,"* underscoring the need for detailed preparation before entering the market. Preparation requires understanding the local regulations, market dynamics, and potential challenges. P5 emphasised the importance of research by stating*, "South African research team... in the country for a prolonged period,"* highlighting the necessity of prolonged and thorough market research to understand local conditions and consumer behaviour. P4 reinforced this by noting*, "Proper research on the local market is very key,"* indicating that a deep understanding of the market is crucial for successful entry.

- Differentiation and Competitive Advantage:

Differentiating products to stand out in the market was highlighted as a key strategy. P1 mentioned, *"Emphasise quality and reliability to stand out,"* suggesting that focusing on the

superior quality and reliability of products can help build a competitive edge. P5 added *"Branding and quality assurance," indicating* that a strong focus on branding and ensuring product quality is crucial for gaining customer trust. Leveraging digital platforms, such as e-commerce, was also suggested to differentiate and penetrate the market. P2 recommended, *"Leveraging e-commerce as a differentiator,"* highlighting the role of digital channels in reaching customers and creating a unique market position.

The staged approach to market entry is consistent with the Uppsala Model (Johanson and Vahlne, 1977; 2009) and the OLI Paradigm (Dunning, 1988), both of which advocate for incremental commitment and the use of local resources and partnerships to mitigate risks. The emphasis on local partnerships aligns with Cavusgil et al. (2012), who suggest that leveraging local expertise through strategic alliances or joint ventures can mitigate the risks associated with market entry.

RO3: Adaptation of Marketing Strategies and Marketing Mix

- Localised Marketing Strategies:

Understanding and respecting local cultures is vital for successful marketing. P2 emphasised, *"Adapt marketing materials to local languages and preferences,"* highlighting the importance of creating marketing content that resonates with the local population. P6 also mentioned, *"Translate marketing campaigns to Swahili,"* indicating that using local languages in marketing efforts is crucial for effective communication and engagement. P6 suggested*, "Always use locals in marketing campaigns,"* emphasising the need to incorporate local talent into marketing strategies to enhance relatability and cultural relevance. This approach helps build trust and establish a strong local presence.

- Digital and Traditional Marketing Integration:

Leveraging digital platforms is critical in East African markets. Participant P4 highlighted the importance of having a *"Strong e-commerce presence"* and being active on social media, stating*, "The East African market is big on social media."* Such statements suggest that digital marketing, particularly through social media channels, plays a significant role in reaching and engaging with the target audience. Combining digital strategies with traditional marketing methods was recommended by P5, who stated, *"A mix of digital and traditional print,"* indicating that an integrated approach is effective in penetrating the market and reaching a broader audience.

- Brand Positioning and Perception:

Emphasising quality and the unique value proposition of products is key to successful brand positioning. P1 stated*, "Focus on delivering high-quality products,"* reinforcing the importance

of quality in establishing a strong brand reputation. P8 noted the importance of understanding local perceptions, stating, *"We Americanise it a lot because Africans want to see international people,"* suggesting that while international branding can be effective, it should be balanced with local cultural expectations to ensure relevance.

- Product Differentiation and Pricing Strategy:

Differentiating products based on unique features and reliability is key to standing out in the market. Participant P1 mentioned, *"Emphasise quality and reliability to stand out,"* indicating that highlighting these aspects can give the brand a competitive edge. P3 further supported this by stating*, "Focus on product availability and quality as differentiators."* Pricing strategies need to be tailored to the local market's perceived value. P1 advised, *"Price according to the market's perceived value,"* suggesting that understanding the local market's willingness to pay and aligning prices accordingly is essential for success.

- Direct Engagement and Relationship Building:

Direct engagement with customers and stakeholders was highlighted as an effective strategy. P7 noted, "What works nicely is the actual product, the product developers or the product people, the people that design these products to come into the country and upsell the product initially," suggesting that personal interactions and demonstrations can significantly enhance marketing efforts. Establishing a local presence is crucial for building trust and fostering long-term relationships with customers.

The adaptation of marketing strategies, including localised marketing and cultural sensitivity (P1), is consistent with Cateora et al. (2007), who emphasises the need to tailor marketing strategies to fit local cultural and market conditions. The strategic adaptation of pricing and brand positioning aligns with Cavusgil et al. (2012) and Sheth (2011).

RO4: Operational Structure for Internationalisation

- Robust Supply Chain Management:

Maintaining a strong and adaptable supply chain is a recurrent theme. Having a well-stocked and resilient supply chain is essential for managing the uncertainties and logistical challenges in East Africa. Participant P3 pointed out, *"Ensure a strong supply chain to handle complexities,"* highlighting the importance of local warehousing and distribution networks to ensure smooth operations. P4 also mentioned the need for *"Efficient logistics,"* reinforcing that supply chain efficiency is crucial for maintaining continuous operations.

- Local Presence and Office Set-up:

Establishing a local office was emphasised as a component of the operational structure. P2 noted, *"Establish a local office with legal and tax support,"* suggesting that having a physical presence in the market is essential for navigating local regulatory environments and supporting day-to-day operations. P5 echoed this sentiment, stating, *"Having local representatives or legal entities registered in the country"* is vital for maintaining compliance and fostering strong relationships with local stakeholders. P12 further reinforced the need for a local presence by stating, *"Boots on the ground, having people from South Africa in-country,"* indicating that direct in-country representation is necessary for effective management and to ensure that operations are aligned with local markets.

- Strategic Partnerships and Support Networks

Building strong partnerships with local entities is crucial for operational success. Participant P6 mentioned, *"Partnerships with the locals are important too,"* emphasising that local partnerships provide essential support for navigating operational challenges. P7 also highlighted the role of agents by saying*, "The one thing that was a bottleneck from time to time was the distribution guys,"* pointing out that effective partnerships with local distributors are critical for overcoming logistical challenges. The role of supportive networks was also highlighted by P8, who said, *"Support we get praised for it a lot,"* suggesting that having dedicated support networks within the local market is essential for sustaining operations and ensuring smooth execution of business activities.

- Flexible and Phased Operational Approach:

A flexible and phased approach to operations was recommended to manage the complexities of entering a new market. P2 advised, *"Consider a phased approach and minimal in-country presence initially,"* suggesting that starting with a smaller operational footprint and gradually expanding is a prudent strategy. P3 echoed this approach by mentioning, *"Operating with a light team of three or four, including warehouse management, is recommended,"* indicating that starting small and scaling up based on market conditions can help manage risks and operational costs. The need for operational flexibility was further highlighted by P5, who noted*, "Adopting advanced technology for operations,"* suggesting that integrating technology into operations can enhance efficiency and enable greater adaptability to local conditions.

- Training and Knowledge Transfer:

Training local staff and transferring knowledge is key to ensuring operational efficiency. P12 emphasised*, "Training is critical that they go through a very rigorous training process on the parts and the processes,"* highlighting the importance of training to ensure that local teams

are well-equipped to handle the specific needs of the market. P6 also emphasised the importance of knowledge transfer, stating*, "Have a regional office that takes care of that office," which suggests* that establishing regional offices that serve as hubs for training and knowledge transfer can help maintain consistency in operations across different regions.

The need for regional hubs to facilitate local decision-making and ensure alignment with corporate strategies is consistent with Kostova et al. (2016), while the emphasis on a robust supply chain aligns with the Resource-Based View (RBV) (Ferreira and Ferreira, 2025), which advocates for leveraging firm-specific resources and capabilities as a source of competitive advantage. Fagerberg (2005) emphasises the importance of robust infrastructure and logistics.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The findings highlight the logistical challenges faced by South African companies in East Africa, particularly those related to customs clearance. The participants note that delays and changing requirements at customs are common, and these issues often make supply chain operations unfeasible. The solution proposed in the interview involves partnering with local entities that possess the necessary connections to navigate these challenges effectively. In addition, South African companies entering East Africa have failed due to inadequate adaptation and localisation. The success of organisations such as Carrefour is attributed to better adaptation to local consumer preferences or adopting a *local identity.* Furthermore, another critical factor is the importance of local channel partnerships that understand the regulatory landscape and possess the necessary connections to facilitate smoother operations.

Organisations need to maintain political neutrality when operating in East Africa. Respondents advised against aligning with specific political figures or regimes, as this could jeopardise the business when political power shifts.

A phased market entry strategy, supported by local partnerships, is crucial for mitigating risks and ensuring sustainable growth. The emphasis is on starting with low-risk entry methods, such as forming partnerships with local distributors, with a flexible operational structure. Localised marketing strategies and the integration of digital and traditional marketing methods, with an emphasis on product quality and reliability, are critical for differentiating the brand as part of adapting to local culture.

Adequate resources must be allocated to support the phased market entry strategy, including investments in local partnerships, supply chain infrastructure, and marketing initiatives. Organisations should adopt a learning-oriented approach, continuously gather market intelligence and adjust strategies based on real-time data and feedback. The country manager

needs to establish connections with key local entities, such as governmental representatives, business organisations, and influential community figures. This engagement plays a vital role in fostering trust and laying the groundwork for sustained success within the market.

CONCLUSIONS

Table 1 compares the study findings with those of prior research to conclude relative to each of the Research Objectives:

TABLE 1: COMPARISON OF LITERATURE VS STUDY FINDINGS PER RESEARCH OBJECTIVE

Research Objectives	Literature findings	Study Findings	Conclusion
RO1: Critical Success Factors	Success depends on understanding local markets, establishing partnerships, and adapting to local needs (Fagerberg, 2005; Moric Milovanovic and Cvjetkovic, 2021).	Integrating expatriates for aligning operations and relying on local employees for contextual understanding is crucial.	**Adaptation to local conditions and careful partner selection are essential for successful internationalisation, emphasising the importance of new insights into local challenges and the risks associated with insufficient adaptation and partner vetting.**
RO2: Market Entry Strategies	Entry into East African markets often involves joint ventures, alliances, or phased approaches (Cavusgil et al., 2012).	Emphasises the necessity of local channel partnerships to navigate regulatory challenges and customs procedures effectively.	**Successful entry strategies in East Africa must include flexible and context-specific approaches, utilising local partnerships to address unique regulatory and logistical challenges effectively.**
RO3: Marketing Strategies Adaptation	Marketing strategies should adapt to local conditions with some standardisation (Cateora et al., 2007).	Local cultural insights and digital channels, such as e-commerce, social media, and influencer marketing, are crucial in East Africa.	**Dynamic marketing strategies integrating local insights and modern digital channels are vital, highlighting the need for cultural sensitivity and innovative digital approaches.**
RO4: Operational Structure	**Regional headquarters play a crucial role in effective operational management (Kostova et al., 2016).**	**A lean, flexible operational structure with initial support from headquarters is effective; transition to a mix of expatriates and locals is crucial.**	**Initial lean structures with local talent development are effective in East Africa; regional headquarters remain beneficial, but adaptability and local talent development are key for sustainability and success.**

For a South African electrical manufacturing organisation to enter the Kenyan market, it is crucial to establish a local identity to gain acceptance from the local market, address market entry challenges and facilitate the successful implementation of internationalisation strategies.

Recommendations for further research should address the limitations of this study, including its small sample size and the limited scope of the participants. Additionally, exploring other industries, conducting quantitative research to validate and potentially generalise the findings, and repeating the study after market entry to identify new insights are recommended.

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CAUSE-RELATED MARKETING: EXPLORING THE INFLUENCE OF VISUAL AND VERBAL NON-PROFIT CUES ON CONSUMER ATTITUDE AND INTENTION

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ABSTRACT

This study investigates the influence of non-profit organisation (NPO) visual and verbal communication cues on consumer attitudes and purchase intentions within cause-related marketing (CAREM) campaigns. A mixed-method approach was employed, including focus groups and a 3x2 between-subjects factorial experiment, with data collected from 184 respondents. The findings reveal that positive NPO visual cues significantly enhance cognitive and affective attitudes toward CAREM offers, while verbal cues, particularly when emotionally framed, do not consistently improve consumer responses. In fact, omitting verbal cues led to more favourable attitudes and purchase intentions, suggesting that cognitive overload or scepticism may arise from excessive textual content. The interaction between visual and verbal cues influenced affective attitudes but showed limited effects on other variables. The study contributes to CAREM literature by highlighting the nuanced effects of campaign structural elements (CSEs), elevating the NPO as a donation recipient, and recommending that emotionally compelling imagery and concise messaging are prioritised.

Keywords: cause-related marketing; non-profit communication cues; attitude; intention

INTRODUCTION

Over the years, cause-related marketing (CAREM) has gained traction as a strategic approach for firms to form profitable alliances with nonprofit organisations (NPOs) and consumers (Bhatti, Galan-Ladero and Galera-Casquet, 2023). Consumers are increasingly valuing social brand purpose and are more likely to support firms that collaborate with NPOs to address social issues (Gray, Dolan, Wilkie, Conduit and Burgess, 2024). Firms can leverage CAREM as a strategic communication tool to raise awareness about their purpose and to build a positive brand image (Fitzsimmons, Qin, Heffron, and DiStaso, 2022). Despite growing importance, research exploring the influence of the NPO and how it is framed in CAREM campaigns is limited (Mambadja, Dondolo and Conradie, 2023). Therefore, this study

assessed the influence of visual and verbal NPO-related cues in CAREM campaign advertisements on consumers' attitudes and intentions. As background CAREM will be introduced along with visual and verbal communication cues and its relevance to NPOs. The literature review will conclude by delineating the dependent variables of the study, namely attitude (towards the CAREM advertisement and offer) and purchase intention. The problem statement, research objectives, and methodology will be described, followed by results and implications.

CAUSE-RELATED MARKETING

Cause-related marketing (CAREM) is defined by Varadarajan and Menon (1988:60) as "the process of formulating and implementing marketing activities that are characterised by an offer from the firm to contribute a specific amount to a designated cause when customers engage in revenue providing exchanges that satisfy organisational and individual objectives". Since American Express's pioneering campaign in 1983, CAREM has evolved from a sceptically viewed tactic to a robust marketing strategy that fosters mutually beneficial relationships among firms, consumers, and NPOs (Terblanche *et al*., 2023). The benefits of CAREM include enhanced brand image, increased customer loyalty, positive social impact, and strengthened community relations (Kurian *et al*., 2024). However, risks such as backlash from controversial causes and misaligned brand-cause fit persist (Bhatti *et al*., 2023). Notable South African initiatives include Ster Kinekor's Vision Mission program, which funds eye care for underprivileged children, and KFC's Add Hope campaign addressing child undernourishment, demonstrating the diverse applications of CAREM in addressing social issues. Effective CAREM campaigns hinge on campaign structural elements (CSEs), which encompass the cues communicated to consumers (Terblanche *et al*., 2023). The success of these campaigns depends on the strategic selection and combination of CSEs, necessitating further research about their independent and collective impact on consumer responses (Melero and Montaner, 2016). While previous studies have often emphasized the profit brand, the role of the NPO as CSE in CAREM warrants more exploration (Mambadja *et al*., 2023). This study, therefore, investigates the influence of NPO-related visual and verbal cues in CAREM campaigns, underscoring the importance of the donation recipient and effective communication in these initiatives (Chatterjee and Parihar, 2023).

VISUAL AND VERBAL COMMUNICATION CUES

A cue refers to any tactic which a firm deliberately frames in its advertisements to enhance consumer brand recall and purchase decisions (Fu, Meng, Chen, Cai, Lai and Ma, 2022). A combination of visual and verbal cues is used in most advertising efforts (excluding radio, for instance) (Rehman, Gulzar and Aslam, 2022). Visual cues include elements like imagery,

colour, typography, and layouts, used to build associations, convey product benefits, evoke emotions, persuade consumers and ultimately influence buying decisions (Chatterjee and Parihar, 2023). Verbal cues, such as words or phrases, stimulate association formation in the consumer's mind, leading to inference-making, clarifying ambiguities, and ultimately grasping the intended meaning of the message (Moffett, Folse and Palmatier, 2021).

The non-profit organisation's visual communication cues in cause-related marketing

The non-profit sector has become increasingly competitive, necessitating effective communication strategies for engaging clients, donors, funders, partners, and volunteers (Bhatti *et al*., 2023). Effective CAREM advertisements rely on thoughtful visual cues, as research indicates that imagery can evoke compassion, with varying success rates for sad versus happy images (Chatterjee and Parihar, 2023; Bataoui and Boch, 2023). Visuals featuring beneficiaries significantly influence consumer perceptions, particularly among females who exhibit better facial recognition and a communal orientation (Hansen and Zaichkowsky, 2021). Both positively and negatively framed emotions can elicit advertising responses, with evidence suggesting that negatively framed cues, such as images of needy children, result in higher donation rates (Grappi *et al*., 2023; Jang and Chu, 2022). While many CAREM campaigns emphasise brand identity over the NPO itself, the framing of visuals is a critical factor in influencing consumer attitudes and intentions toward charitable giving. Current literature reveals a scarcity of research on the impact of visual cues on charitable donation responses, with findings indicating that while negative imagery may drive donations, it can also deter engagement (Albouy, 2017). Consequently, while visual cues in CAREM messages can effectively highlight social or environmental issues and enhance audience engagement, they may also result in divided attention or cognitive overload, potentially hindering message processing (León *et al*., 2022).

The non-profit organisation's verbal communication cues in cause-related marketing

An effective CAREM appeal communicates a sponsoring firm's social responsibility and the outcomes of a cause (Beise-Zee, 2013). Grappi *et al*. (2023) indicate that verbal framing significantly influences perceptions and judgments, with positive or negative framing impacting emotional responses and decision-making. Notably, Chang and Lee (2010) found that negatively framed advertisements in the CAREM initiative often receive more favourable consumer evaluations compared to positively framed cues, suggesting heightened consumer responsiveness to warnings. However, Chang (2007) warned that in high-risk contexts, such negative framing may generate anxiety or avoidance due to overwhelming negative

information. Additionally, Sandoval and García-Madariaga (2023) showed that emotionally resonant messages generally outperform those focusing solely on functional effectiveness, emphasizing the importance of emotional connection in successful advertisements. While previous research has explored attitude and intention within CAREM, studies regarding the influence of NPO-related CSEs on these variables are limited (Mambadja *et al*., 2023).

Attitude and cause-related marketing

Attitude significantly influences campaign participation in the context of CAREM. A positive attitude can enhance engagement and commitment, as individuals who perceive CAREM as beneficial and aligned with their values are more likely to contribute actively (Terblanche *et al*., 2023). Conversely, negative attitudes or scepticism may deter involvement, potentially leading to lower engagement and success rates when CAREM is viewed as irrelevant or untrustworthy (Walter *et al*., 2024). According to the tri-component model, attitude is a learned predisposition encompassing cognitive, affective, and conative components (Schiffman and Kanuk, 2010). This model outlines how consumers form attitudes toward CAREM by engaging mentally, emotionally, and behaviourally, where the cognitive component involves beliefs and knowledge, the affective component relates to emotional responses, and the conative component reflects intentions to act (Galan-Ladero *et al*., 2015). The dual-coding theory posits that different information is processed through different mental systems (Paivio, 2010) and advertisements featuring both visual and verbal cues thus offer different routes (cognitive and affective) to positive attitude formation (Rai, Goel, Kyal and Surana, 2024). In this study attitude toward the CAREM advertisement and attitude (cognitive and affective) toward the CAREM offer will be explored as these are the high-level consumer-facing representations of the CAREM campaign.

Purchase intention and cause-related marketing

Purchase intention in CAREM refers to a consumer's conscious decision to buy a product that is associated with an NPO, social or environmental cause, ultimately aiming to support a meaningful initiative (Arslanagic-Kalajdzic, Kadic-Maglajlic, Dlacic and Zabkar, 2022). Initial research by Holmes and Kilbane (1993) indicated no significant impact by CAREM on purchase intention, but a later study by Müller, Fries and Gedenk (2014) established a positive correlation between these constructs. More recent studies have demonstrated that consumers are more likely to purchase cause-related products when there is affinity for the product brand and a strong alignment between the product and the associated cause (Akbari, 2023). Additionally, personal connections to causes, consumer choice in recipient selection, and framing have been shown to positively impact purchase intentions (Kureshi and Thomas, 2018). Ultimately, the influence of CAREM on purchase intention varies, and further research

is warranted as a better understanding of the dynamics of purchase intention allows firms to develop more effective CAREM campaigns that can drive sales and contribute positively to worthy causes (Chen, 2023).

PROBLEM STATEMENT

CAREM has evolved into a strategic approach, linking the firm/brand, consumer and NPO/cause in mutually beneficial exchanges. CAREM campaigns are developed by carefully selecting and designing an array of CSEs. Research over time has shown that different combinations of CSEs exert distinct influences on consumer attitudes and intention. Thus, further research is recommended (Fitzsimmons *et al*., 2022). Although most CAREM research tends to focus on the profit brand, a study by Terblanche *et al*. (2023) in South Africa has confirmed the important potential influence of the donation recipient in CAREM. The research recommended the inclusion of a specific NPO in a CAREM campaign, rather than a general cause, and signalled the potential importance of NPO-related cues in campaign communication. However, research about the influence of such cues (both verbal and visual) has not been conducted.

RESEARCH OBJECTIVES AND METHODOLOGY

The objectives of the research and the corresponding null hypotheses are provided in Table 1.

TABLE 1: RESEARCH OBJECTIVES AND CORRESPONDING NULL HYPOTHESES

Research objectives		**Null hypotheses**
1a-c	To assess the influence of (a) NPO visual communication cues, (b) NPO verbal communication cues and (c) the interaction between these variables on consumer attitude toward the CAREM advertisement.	H_{01a-c}
2a-c	To assess the influence of (a) NPO visual communication cues, (b) NPO verbal communication cues and (c) the interaction between these variables on cognitive consumer attitude toward the CAREM offer.	H_{02a-c}
3a-c	To assess the influence of (a) NPO visual communication cues, (b) NPO verbal communication cues and (c) the interaction between these variables on affective consumer attitude toward the CAREM advertisement	H_{03a-c}
4a-c	To assess the influence of (a) NPO visual communication cues, (b) NPO verbal communication cues and (c) the interaction between these variables on consumer intention to purchase the cause-linked product portrayed in the CAREM campaign.	H_{04a-c}

The methodological choice for this research was mixed-method in the form of qualitative focus groups and a quantitative 3X2 between-subjects factorial experiment. According to the mixed-method design matrix (Johnson and Onwuegbuzie, 2004), the order decision for this study was sequential and the paradigm emphasis decision was dominant. Thus, the quantitative experiment took place after the qualitative focus groups and was the main focus of the research.

Focus groups, experimental design and stimuli development

Two focus groups were conducted. The first focused on selecting the profit brand and NPO to be featured in the CAREM advertisement as experimental stimuli. Hi-Tec was selected as the profit brand to be featured in the study and the WWF as the NPO donation recipient. The fit between these entities was also ascertained. From secondary research the two main effects of the experiment were derived: (1) NPO verbal communication cues, featuring three levels (1: no cue; 2: positive cue; 3: negative cue); (2) NPO visual communication cues, featuring two levels (1: positive cue; 2: negative cue). The second focus group focused on developing the NPO's visual and verbal communication cues' levels for depiction in the stimuli. Table 2 provides a graphical depiction of the 3X2 experimental design and the main effect combinations introduced via stimuli to each group.

TABLE 2: 3X2 FACTORIAL EXPERIMENTAL DESIGN AND MAIN EFFECT COMBINATIONS

		NPO VERBAL CUE		
		Positive	**Negative**	**None**
NPO VISUAL CUE	**Positive**	Positive, positive (Group 1)	Positive, negative (Group 2)	Positive, none (Group 3)
	Negative	Negative, positive (Group 4)	Negative, negative (Group 5)	Negative, none (Group 6)

Following the focus groups, six unique print advertisements were developed as part of a 3X2 between-subjects factorial experimental design for six experimental groups. Collaborating with a graphic designer ensured the advertisements maintained both external and face validity. The print format was selected due to its relevance in online media and in-store promotions. Three advertisements incorporated a positive visual cue (healthy green grass field) and three a negative visual cue (soil erosion). Regarding verbal cues, two advertisements featured a positive statement ("With your purchase, the WWF can reduce soil erosion to ensure more fertile land, better productivity and sustainability."), two included a negative statement ("Without your purchase, the WWF is not able to reduce soil erosion, which leads to less fertile land, nutrient degradation, and soil salinity."), and two included no verbal cue. In addition to

the manipulations, each stimulus also featured the following standardised communication elements: (1) standard overall advertisement concept, design and layout; (2) Hi-Tec logo at the bottom right corner of the advertisement and the WWF logo in the top right corner; (3) headline: “Your purchase can make a difference!”; (4) advertisement sub-headline summarising the CAREM offer: “With every pair of Hi-Tec boots purchased, a contribution of 10% of the product price will be made to the World Wide Fund for Nature in South Africa”; (5) amplification message position (the amplification featured the verbal manipulations); (6) product image (hiking boots) in the bottom left corner above the product characteristics; (7) product characteristics in the bottom left corner of the advertisement, emphasised with a visual element and aligned with the level of information typical from this category, and; (8) product website address in a black font below the Hi-Tec logo (for relevance and as a link between offline and online media). The print advertisements were introduced to respondents during the data collection process and were visible whenever questions related to the advertisement were posed.

Questionnaire development, data collection, analysis, and sampling

The questionnaire, developed from focus groups and expert feedback, was implemented using Qualtrics. It aimed to collect demographic data (age, gender, income) to confirm respondent inclusion criteria, pre-measures to evaluate attitudes toward the profit and NPO brands, and reliable scale items from literature to assess dependent variable responses post-exposure to stimuli. Data collection occurred via Qualtrics, and the analysis was conducted using IBM SPSS. Descriptive statistics were employed for demographic data. The individual and collective influences of independent variables on dependent variables were analysed using one-way ANOVA and univariate ANOVA, with appropriate post hoc tests (Games-Howell for unequal variances and Gabriel/Tukey for equal variances). Normality and homogeneity were tested prior to selecting statistical techniques; the Welch test was used for homogenous constructs while ANOVA tests were applied for non-homogenous ones (Field, 2013). With regards to the sample, the target population comprised income-earning male and female South African millennials aged 24-35 during data collection. Multi-stage sampling, including convenience sampling followed by judgment sampling, was carried out with assistance from a marketing research agency, accessing respondents via an online panel. A minimum sample size of 30 respondents per experimental group was determined adequate (Hair, Bush, and Ortinau, 2008).

RESULTS AND DISCUSSION

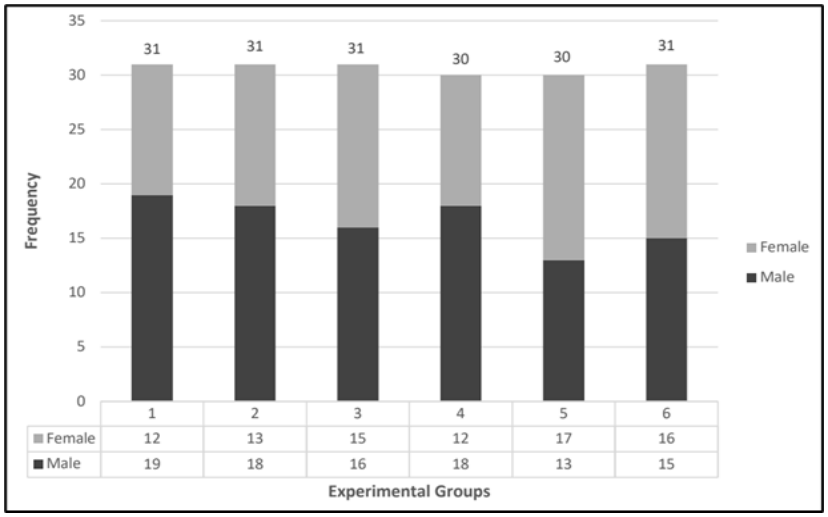
The study utilised actual brands, measuring brand attitude prior to stimulus exposure. Respondents with extremely negative attitudes were excluded to mitigate extremity bias. The

remaining sample indicated positive attitudes toward Hi-Tec (μ=5.37) and WWF (μ=5.68) across groups. One-way ANOVA indicated no significant pre-existing differences in brand attitude, suggesting that negative attitudes post-exposure would not be due to prior biases. The Qualtrics forced response option ensured no missing data. An analysis of the Cronbach's alpha coefficients for each construct per experimental group indicated that the reliability for all constructs per experimental group exceeded 0.8. This finding is consistent with the Cronbach's alpha for the total data set (Zikmund & Babin, 2010). The unidimensionality for the total sample and experimental groups were independently assessed by means of principle axis factoring (eigenvalues greater than 0.4). The principal axis factoring used an oblique ration of direct oblimin, because it allowed factors to correlate (Field, 2013). Testing unidimensionality was deemed appropriate as the sample size per group had more than 15 respondents (Field, 2013). The Kaiser-Meyer-Olkin (KMO) measures per experimental group and for the total sample were above 0.6 (deemed suitable by Tabachnick and Fidell, 2019).

Realised sample and respondent profile

The total sample size for the final study (after modifications) was 184, spread quite equally across the six experimental groups. Figure 1 displays the size of and the gender distribution (54 percent male and 46 per cent female) within each experimental group. The sample was recruited to be income-earning – 52.7 percent of the total sample earned more than R18 000 per household per month, including 10.9 percent with an income of more than R40 000 per month. All respondents were between 24 and 31 years of age. The sample was thus representative of the predetermined requirements, namely male and female, income-earning, and aged between 24 and 35.

FIGURE 1: GENDER DISTRIBUTION AND SAMPLE SIZE PER EXPERIMENTAL GROUP



Analysis of variance (ANOVA) was deemed a suitable method for determining the differences between experimental groups during the inferential analyses. Pertaining to this study, the following assumptions of ANOVA were met or deemed satisfactory as per Field (2013): (1) normality; (2) homogeneity of variance; and (3) independence of observations.

Inferential analysis and results

Two-way ANOVAs were conducted to test the influence of the independent variables on the dependent variables for all the hypotheses. During analysis, the two-way interaction effects and the independent main effects were investigated. All tests were conducted at both 95% and 90% confidence, and ultimately, all hypotheses were rejected or not rejected on the 90% confidence basis.

The R-squared statistics delivered by each analysis and the percentage of variance explained by the experimental main effect are summarised in Table 3.

TABLE 3: VARIANCE IN DEPENDENT VARIABLES EXPLAINED

Dependent variable	R-squared statistic	Percentage variance explained by the experimental main effects
Attitude toward the CAREM advertisement	0.005	0.5
Cognitive attitude toward the CAREM offer	0.048	4.8
Affective attitude toward the CAREM offer	0.033	3.3
Purchase intention	0.004	0.4

It is evident from Table 3 that the variance explained by the experimental main effects are quite low. However, the low R-squared statistics does not diminish the value of the statistically significant findings pertaining to the influence of the main effects on the dependent variables,

but it does infer that variations in attitude toward the CAREM advertisement, cognitive and affective attitude toward the CAREM offer, and purchase intention in the CAREM context are not fully explained by NPO visual and verbal communication cues. The finding was expected as the purpose of the study was not to develop an all-inclusive model that comprises all the potential CSEs. CAREM low R-squared values are viewed as satisfactory in studies such as the current one.

The influence of NPO visual and verbal communication cues and the interaction between these main effects on attitude towards the advertisement were assessed – see results summary in Table 4.

TABLE 4: INFLUENCES OF MAIN EFFECTS AND INTERACTION ON ATTITUDE TOWARDS THE ADVERTISEMENT

Tests of between-subjects effects						
Source	**Type III sum of squares**	**Degrees of freedom**	**Mean square**	**F-value**	**Sig.**	**H_0**
One-way influences						
NPO visual communication cues	0.919	1	0.919	0.801	0.372	H_{01a} not rejected
NPO verbal communication cues	5.872	2	2.936	2.558	0.080	H_{01b} rejected
Two-way interaction						
NPO visual communication cues x NPO verbal communication cues	2.068	2	1.034	0.901	0.408	H_{01c} not rejected

From Table 4, it is evident that attitude toward the advertisement was not significantly influenced by a two-way interaction between the main effects, nor by a one-way influence from NPO visual communication cues. However, NPO verbal communication cues exerted a significant influence (ten per cent level of significance) ($F=2.558$; $p=0.080$) and H_{01b} could thus be rejected. According to the estimated marginal means, irrespective of the visual cues depicted in the advertisement, respondents were more positive toward the advertisement when no NPO verbal cue was featured in the stimulus ($\mu=5.69$) than when a positive ($\mu=5.61$) or negative ($\mu=5.28$) cue was featured. The Elaboration Likelihood Model (ELM) (Petty and Cacioppo, 1996) offers some insight into the results. Whenever verbal cues are portrayed in conjunction with visual cues in an advertisement, the ELM central route to persuasion is activated in addition to the peripheral route, resulting in consumer scepticism which reduces

the warm glow of giving and mutes the consumer response to the advertisement (Chaabane and Parguel, 2016). However, when verbal cues are omitted, there is a gap for peripheral route processing by the visual hemisphere of the brain. Visual cues can grab consumer attention more rapidly than verbal cues, as they can be understood and absorbed much faster. According to Brennan and Binney (2010) a negative visual cue related to a social cause steers individuals to stay inactive, dislike or even reject the advertisement. The results suggest that this notion might also be applicable in response to positive versus negative verbal cues.

The influence of NPO visual and verbal communication cues and the interaction between these main effects on cognitive attitude towards the offer were assessed – see results summary in Table 5.

TABLE 5: INFLUENCES OF MAIN EFFECTS AND INTERACTION ON COGNITIVE ATTITUDE TOWARDS THE OFFER

Tests of between-subjects effects						
Source	**Type III sum of squares**	**Degrees of freedom**	**Mean square**	**F-value**	**Sig.**	**H_0**
One-way influences						
NPO visual communication cues	13.848	1	13.848	5.902	0.016	H_{02a} rejected
NPO verbal communication cues	9.753	2	4.877	2.078	0.128	H_{01b} not rejected
Two-way interaction						
NPO visual communication cues x NPO verbal communication cues	4.684	2	2.342	0.998	0.371	H_{01c} not rejected

From Table 5, it is evident that cognitive attitude toward the offer was not significantly influenced by a two-way interaction between the main effects, nor by a one-way influence from NPO verbal communication cues. However, NPO visual communication cues exerted a significant influence (F=5.902; p=0.016) and H_{02a} could thus be rejected. According to the estimated marginal means, irrespective of the verbal cues featured in the offer, the positive NPO visual cue produced a more positive cognitive attitude toward the CAREM offer (μ=6.21) than the negative cue (μ=5.66). Cognitive attitude points to consumer knowledge and perceptions that are gained from information provided, it is not a measure of consumer rationality (Schiffman and Kanuk, 2010). Thus, the more favourable the knowledge gained

(e.g. through positive verbal cues), the more positive the perceptions of the CAREM offer and the more positive consumers' cognitive attitude. The construct under consideration highlights that consumers perceive CAREM as a purchase transaction rather than a mere act of donation. This distinction underscores the importance of providing positive information to facilitate effective mental processing (Terblanche *et al*., 2023).

The influence of NPO visual and verbal communication cues and the interaction between these main effects on affective attitude towards the offer were assessed, as can be seen in Table 6.

TABLE 6: INFLUENCES OF MAIN EFFECTS AND INTERACTION ON AFFECTIVE ATTITUDE TOWARDS THE OFFER

Tests of between-subjects effects						
Source	**Type III sum of squares**	**Degrees of freedom**	**Mean square**	**F-value**	**Sig.**	**H_0**
One-way influences						
NPO visual communication cues	7.338	1	7.338	3.059	0.082	H_{03a} rejected
NPO verbal communication cues	8.641	2	4.321	1.801	0.168	H_{03b} not rejected
Two-way interaction						
NPO visual communication cues x NPO verbal communication cues	11.275	2	5.637	2.350	0.098	H_{03c} rejected

As evident in Table 6, affective attitude toward the CAREM offer was significantly influenced by the interaction between NPO visual and verbal communication cues (F=2.350; p=0.098). Thus, H_{03c} could be rejected. The most positive affective attitude toward the CAREM offer (μ=6.07) was recorded in the group presented with a stimulus featuring a negative NPO visual cue and no NPO verbal cue. The least positive affective attitude toward the CAREM offer (μ=4.96) emanated from exposure to a stimulus featuring a negative NPO visual cue and a positive NPO verbal cue. NPO visual communication cues also had a significant impact (ten per cent level of significance) on affective attitude toward the CAREM offer (F=3.059; p=0.082), resulting in the rejection of H_{03a}. A more positive affective attitude toward the CAREM offer was generated in the positive NPO visual cue scenario (μ=5.96) than in the negative NPO visual cue scenario (μ=5.56). The main effects of NPO verbal communication

cues did not have a significant influence on affective attitude toward the CAREM offer. From the two-way interaction, it can be inferred that the affective attitude towards a CAREM offer is greater when consumers are presented with a negative visual cue (drawing on their heartstrings) and no verbal cues to mitigate the response. However, the misalignment between a negative visual cue and a positive verbal cue can deliver the opposite. As cause-brand fit is important for positive outcomes (Pracejus, 2004), verbal and visual cue fit also seem to be necessary for positive affective attitudes. The influence of NPO visual and verbal communication cues and the interaction between these main effects on purchase intention were assessed – see results summary in Table 7.

TABLE 7: INFLUENCES OF MAIN EFFECTS AND INTERACTION ON PURCHASE INTENTION

Tests of between-subjects effects						
Source	**Type III sum of squares**	**Degrees of freedom**	**Mean square**	**F-value**	**Sig.**	**H_0**
One-way influences						
NPO visual communication cues	0.732	1	0.732	0.639	0.425	H_{04a} not rejected
NPO verbal communication cues	11.307	2	5.654	4.932	0.008	H_{04b} rejected
Two-way interaction						
NPO visual communication cues x NPO verbal communication cues	0.763	2	0.381	0.333	0.717	H_{04c} not rejected

From Table 7, it is evident that purchase intention was not significantly influenced by a two-way interaction between the main effects, nor by a one-way influence from NPO visual communication cues. However, NPO verbal communication cues exerted a significant influence ($F=4.932$; $p=0.008$) and H_{04b} could be rejected. Consumer intentions to purchase the cause-linked product featured in the CAREM campaign was more positive in the no NPO verbal cue scenario ($\mu=5.71$) than in the positive or negative NPO verbal cue scenario ($\mu=5.66$; $\mu=5.12$), with the mean scores in all two cases being relatively high (above 5 on a seven-point Likert scale), indicating overall positive attitudes. Purchase intention was included in this study, because the fundamental purpose of CAREM is to sell a cause-linked product so that the benefits stemming from the transaction can be activated. Considering that the influence of

NPO verbal communication cues on purchase intention has not previously been assessed in CAREM, a comparison with previous research was not possible. However, it has been found that verbal cues require more time and effort to process and are more difficult to remember than visual cues (Nagel, Maurer and Reinemann, 2012). This research indicated that consumers were more motivated to purchase the cause-linked product when the NPO verbal cue was omitted, as consumers were not confronted with the additional effort required to process the NPO verbal cues.

Managerial implications and recommendations

The study demonstrates that positive visual cues from NPOs significantly influence consumers' cognitive and affective attitudes, underscoring the importance of imagery in shaping perceptions in emotional campaigns. Notably, advertisements that omit verbal cues yield more favourable consumer attitudes and higher purchase intentions compared to those that include verbal messaging, suggesting that excessive text can lead to cognitive overload or scepticism. Contrary to some prior studies (Albouy, 2017; Jang and Chu, 2022) which indicated that negative cues could enhance donations, this research indicates that positive imagery (e.g., healthy environments) elicits better responses than negative representations (e.g., erosion), which has important implications for brand tone and emotional appeal. The interaction between visual and verbal cues affects affective attitudes but does not consistently influence other dependent variables, highlighting the need for strategic alignment rather than assuming inherent synergy. Furthermore, the limited explanatory power of communication cues indicates the influence of additional factors such as brand-cause fit, consumer values, and campaign credibility. As such, it is recommended that brands and NPOs invest in high-quality, emotionally engaging imagery that highlights positive impacts, focusing on concise messaging and avoiding overly directive or manipulative language. Marketing teams should consider employing headline-style messaging with subtle emotional cues. While negative cues can be strategically employed, overuse may diminish effectiveness, necessitating pre-testing to prevent eliciting avoidance. Given the efficacy of visual cues in communication, it is essential for marketers to enhance their presence on digital platforms like Instagram, YouTube, and TikTok, which emphasise visual storytelling. Educating marketing teams and partner NPOs on these findings can help synchronise messaging strategies for cause-related campaigns. Lastly, because visual and verbal cues explain only a limited portion of consumer response variance, incorporating contextual situational elements (CSES) such as spokesperson credibility, campaign duration, and donation transparency is vital for optimising initiative impact.

CONCLUSION

This study examines how NPO-related visual and verbal communication cues impact consumer attitudes and purchase intentions within CAREM campaigns. Using a 3x2 between-subjects factorial experimental design, the analysis employs two-way ANOVAs to explore how specific campaign elements affect consumer responses. The findings reveal that positive visual cues significantly enhance both cognitive and affective attitudes towards CAREM offerings. In contrast, emotional verbal cues do not consistently improve attitudes or purchasing intentions; notably, the absence of verbal cues often correlates with more favourable outcomes. This challenges the assumption that more informational content yields better persuasion, highlighting the risks of cognitive overload and scepticism linked to text-heavy messaging in social campaigns. The study acknowledges limitations such as the use of non-probability sampling methods (including convenience and judgment sampling), and focusing solely on individuals aged 24 to 35, which may restrict the generalizability of the results. Additionally, it primarily addresses NPO-related visual and verbal cues while excluding other possible communication strategies (e.g. celebrity endorsements and other campaign structural elements. Despite these limitations, this research contributes to the literature on CAREM by indicating that a simplified approach to verbal messaging may be more effective, while positive visual cues can significantly enhance consumer engagement. These insights are valuable for marketers and nonprofit organisations aiming to create more impactful and relevant CAREM campaigns.

ACKNOWLEDGEMENT

Acknowledgement is given to Yanke Odendaal for collecting data and contributing to the literature.

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CONSUMER EXPECTATIONS, SATISFACTION AND PURCHASE INTENTION IN THE SOUTH AFRICAN SHORT-TERM INSURANCE INDUSTRY

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ABSTRACT

The South African short-term insurance industry faces significant customer retention and acquisition challenges within an increasingly competitive market. Understanding customer expectations and their influence on purchase intentions is critical for insurance providers seeking to enhance service delivery and maintain profitability. This study investigates the relationship between six customer expectation dimensions (service quality, convenience, commitment, technology use, communication and customisation) and their impact on customer satisfaction and purchase intention in the South African short-term insurance industry. Using a quantitative methodology, data were collected from 369 short-term insurance policyholders via an online survey distributed through social media (Facebook, LinkedIn) and snowball sampling. Structural equation modelling using PLS-SEM revealed that convenience, technology use, and commitment were significant predictors of customer satisfaction. Moreover, customer satisfaction strongly predicted purchase intention. The findings offer valuable insights for short-term insurance providers looking to enhance customer satisfaction and retention by prioritising convenient service delivery, technological integration and relationship commitment.

Keywords: customer expectations; customer satisfaction; purchase intention; short-term insurance

INTRODUCTION

The insurance industry plays a pivotal role in South Africa's financial services sector, contributing significantly to economic stability and growth. According to recent industry reports, the South African insurance sector grew to R647.9 billion in gross written premiums in 2023, with short-term insurance accounting for approximately R141.5 billion (Financial Sector Conduct Authority (, 2024). Despite economic challenges including high inflation rates and the lingering impacts of the COVID-19 pandemic, the sector has demonstrated resilience with a

compound annual growth rate of 5.7% between 2020-2023 (Deloitte, 2024). The South African short-term insurance market has experienced significant transformation in recent years, driven by technological innovation, changing consumer preferences and regulatory developments. The Financial Sector Conduct Authority (FSCA) reported that as of 2023, there were 95 registered short-term insurers competing in a market characterised by increasing consolidation and digital disruption (FSCA, 2024). Market leaders include Old Mutual with 29.8% market share, Sanlam at 23.2%, Discovery at 17.5%, and Momentum Metropolitan at 12.3% (PwC, 2023). Notably, the industry has witnessed a significant shift toward digital engagement, with online policy sales increasing by 34% between 2021 and 2023 (McKinsey & Company, 2024). This digital transformation has been accompanied by changing customer expectations regarding service delivery, personalisation and convenience. The South African Customer Satisfaction Index for short-term insurance showed an overall industry score of 76.4 in 2023, indicating generally positive consumer sentiment but reflecting a slight decline from 77.2 in 2022, suggesting growing customer expectations (Consulta, 2023). This evolving landscape presents both opportunities and challenges for insurers. While technological advancements enable enhanced service delivery and operational efficiencies, they also raise customer expectations regarding convenience, customisation and seamless experiences. Research by Deloitte (2023) indicates that 73% of South African insurance customers now expect digital self-service options, while 65% value personalised offerings based on their individual risk profiles and behaviours.

Despite the growing importance of customer satisfaction and retention in the South African short-term insurance industry, there remains a critical gap in understanding the specific dimensions of customer expectations that drive satisfaction and purchase intention in this context. While previous studies have explored these relationships in developed markets or in broader financial services contexts (Omar & Owusu-Frimpong, 2007; Roberts-Lombard & Du Plessis, 2012), limited empirical research has focused specifically on the South African short-term insurance market with its unique socioeconomic characteristics, competitive dynamics, and regulatory environment. This gap is particularly significant given the industry's rapid digital transformation and changing competitive landscape. Short-term insurers face mounting pressure to differentiate themselves through enhanced customer experiences, yet lack precise insights into which aspects of their service offerings most significantly influence satisfaction and purchase decisions among South African consumers. Without this understanding, insurers risk misallocating resources toward service dimensions that may not significantly impact customer satisfaction or purchase intention. The high mobile penetration rate (95% as of 2023), combined with significant income disparities and varying levels of financial literacy, creates a complex environment for understanding customer expectations (Statistics South

Africa, 2023). This study addresses this critical knowledge gap by empirically investigating the relationships between six dimensions of customer expectations (service quality, convenience, commitment, technology use, communication, and customisation) and their impact on customer satisfaction and purchase intention in the South African short-term insurance industry. By identifying the key drivers of satisfaction and purchase intention in this specific context, this research aims to provide actionable insights for practitioners while contributing to the theoretical understanding of consumer behaviour in emerging financial service markets.

LITERATURE REVIEW AND PROBLEM INVESTIGATED

The Expectation-Disconfirmation Paradigm

This study is grounded in the expectation-disconfirmation paradigm, which provides a theoretical foundation for understanding the relationship between customer expectations and satisfaction. According to this paradigm, disconfirmation occurs when there is a disparity between actual service performance and customer expectations (Lankton and McKnight, 2012). When service performance exceeds expectations, positive disconfirmation occurs, leading to satisfaction; when performance meets expectations, confirmation occurs; and when performance falls short of expectations, negative disconfirmation occurs, resulting in dissatisfaction (Banahene, Ahudey and Asamoah, 2017). This paradigm is particularly relevant to the insurance industry, where service quality and performance are often intangible and subjective. Recent research by Senanu and Narteh (2022) and Nguyen, Nguyen, Liem and Luu (2024) has applied this paradigm to financial services in emerging markets, demonstrating its continued relevance in contemporary service contexts. Their work specifically highlights how digital service quality expectations have evolved in African banking contexts, providing valuable insights that can be extended to insurance services.

Constructs measured in the study

Customer expectations in the short-term insurance industry

Customer expectations are defined as personal beliefs about a product or service's delivery and performance (Ashfaq, Yun, Waheed, Khan and Farrukh, 2019). In the insurance context, six key dimensions of customer expectations have been identified through previous research: service quality, customisation, communication, use of technology, commitment and convenience (Kuo, Chen and Cheng, 2018).

- Service Quality: Service quality represents a customer's assessment of service excellence based on their expectations and perceptions (Khurana, 2013).research by Ashfaq *et al*. (2019) has expanded this understanding by examining how digital service quality dimensions influence customer satisfaction in online insurance contexts. Their findings suggest that reliability, responsiveness and assurance continue to be critical dimensions,

but new factors like system availability and privacy have gained prominence. Additionally, Batat (2022) have introduced the concept of "phygital" service quality—a blend of physical and digital service experiences—which is particularly relevant as insurers navigate the post-pandemic landscape. Their research suggests that creating seamless integration between digital and physical touchpoints is increasingly important for service quality perceptions. This is further supported by Kumar, Rana, Rani and Rani (2024) who demonstrated that phygital service delivery significantly enhances customer satisfaction.

- Customisation: Customisation involves tailoring services to meet specific customer needs and preferences (Meng, Song and Zhao, 2019). This process depends on the organisation's ability to gather and utilise customer data effectively (Zheng and Guo, 2020). Insurance providers can leverage customisation to offer policies that better reflect individual risk profiles and coverage needs, potentially enhancing customer satisfaction and willingness to pay (Klesse, Cornil, Dahl and Gros, 2019). Recent research by Annaram (2022) has introduced the concept of "hyper-personalisation" in financial services, which goes beyond traditional customisation by leveraging artificial intelligence and big data to create ultra-specific offerings. Their study found that hyper-personalised insurance products can significantly enhance perceived value and reduce price sensitivity, suggesting an evolution beyond traditional customisation approaches. This perspective is reinforced by Petzer and Roberts-Lombard (2024), whose research in South Africa demonstrates that personalised service delivery significantly enhances customer satisfaction and loyalty, suggesting that hyper-personalisation represents a natural evolution of traditional customisation approaches in emerging markets.
- Communication: Effective communication involves keeping customers informed and managing their expectations through preferred channels (Rai and Medha, 2013). In the insurance context, communication is particularly important for addressing customer concerns, answering questions and providing timely information throughout the service process (Craig, 2019; Stokes, 2018). Recent research by Xuan, Trugong and Quang (2023) has examined the impact of omnichannel communication strategies on customer engagement in African financial services. Their findings indicate that consistency across communication channels is more important than the number of channels available, suggesting quality over quantity in communication strategies.
- The Use of Technology: Technology use in insurance spans from digital applications and online platforms to artificial intelligence and automation (Bonner, 2018; Safitri, 2018). Customers increasingly expect technological solutions that enhance convenience while maintaining service quality (Klesse *et al*., 2019; Zheng and Guo, 2020). According to PwC (2019), approximately 60% of insurance customers desire a tailored digital experience.

Contemporary research by Mhlanga (2022) has examined the adoption of insurance technologies (InsurTech) in South Africa specifically, finding that while digital adoption has accelerated, significant differences exist across demographic segments. Their research highlights the importance of considering the "digital divide" when implementing technological solutions in the South African context.

- Commitment. This aspect refers to the desire to maintain a relationship over time (Roberts-Lombard, Mpinganjira and Svensson, 2019). In the insurance context, commitment manifests as trust, loyalty, and mutual investment in the customer-provider relationship (Gundlach, Achrol and Mentzer, 1995). Strong commitment can indicate potential future rewards and reduced likelihood of switching to competitors (Roberts-Lombard and Du Plessis, 2012). Recent research by Petzer and Roberts-Lombard (2024) has explored how different dimensions of organisational commitment (affective, calculative, and normative) differentially influence retention in South African financial services. Their findings suggest that affective commitment (emotional attachment) is particularly powerful in driving loyalty in African service contexts. This is consistent with Morgan and Hunt's (1994) seminal work on relationship marketing, which established that affective commitment creates stronger customer bonds than purely transactional relationships, particularly in service industries where trust and reliability are important.
- Convenience: Convenience in the insurance context refers to the ease and accessibility of service across the customer journey, from policy acquisition to claims processing (Stephens and McGowan, 2015). Mehmood and Najmi (2017) emphasise that convenience is fundamental to meeting customer expectations and enhancing satisfaction. Contemporary research by Rabbanee (2023) has expanded the convenience construct to include "digital convenience," which encompasses aspects such as information accessibility, transaction simplicity, and service speed in online environments. Their research suggests that digital convenience may be becoming more important than traditional convenience dimensions in influencing satisfaction, particularly among younger consumers.

Customer satisfaction and purchase intention

Customer satisfaction occurs when a product or service meets or exceeds customer expectations (Roberts-Lombard *et al.*, 2019). It represents a psychological state of pleasure derived from expectation fulfilment (Ouhna and Mekkaoui, 2013; Saha, Islam and Hoque, 2016) and serves as an indicator of organisational performance and competitive advantage (Chong, Ch'ng, Liu and Li, 2017). Purchase intention refers to the likelihood of a customer purchasing a product or service in the future (Wu, Yeh and Hsiao, 2011). It is influenced by

customer attitudes, responses to marketing efforts and previous experiences (Pham, Tran, Misra, Maskeliunas and Damasevicius, 2018). In the insurance context, purchase intention may manifest as policy renewal, coverage expansion, or acquisition of additional insurance products. Recent research by Skaikh, Kumar, Mishra and Elahi (2024) has introduced the concept of "integrated satisfaction" in financial services, which suggests that satisfaction now encompasses not only traditional service elements but also digital experience, social responsibility and value alignment. Their research suggests that integrated satisfaction is more strongly predictive of purchase intention than traditional satisfaction measures.

The link between customer expectations and satisfaction and purchase intentions

The relationship between the various constructs in this study are supported by previous research and theoretical frameworks. Service quality has been found to directly influence customer satisfaction (Cristo, Saerang and Worang, 2017), as customer perceptions of service excellence shape their satisfaction levels (Nguyen *et al*., 2018). Similarly, customisation can enhance satisfaction by better matching services to individual customer needs (Meng *et al*., 2019). Effective communication contributes to satisfaction by addressing customer questions and concerns (Stokes, 2018), while technology use can enhance convenience and service delivery (Bonner, 2018; Safitri, 2018). Commitment fosters trust and loyalty (Haghkhah, Rasoolimanesh and Asgari, 2020), and convenience reduces customer effort and enhances the overall service experience (Mehmood and Najmi, 2017). Customer satisfaction, in turn, has been found to significantly influence purchase intention (Nguyen *et al*., 2018; Ya, Noor, Nor and Ahmad, 2017). Satisfied customers are more likely to repurchase products or services and may recommend them to others through word-of-mouth (Rai and Medha, 2013). Based on this literature review, the following hypotheses were formulated:

H_1: There is a positive and direct relationship between service quality and customer satisfaction in the South African short-term insurance industry.

H_2: There is a positive and direct relationship between the customisation of services and customer satisfaction in the South African short-term insurance industry.

H_3: There is a positive and direct relationship between communication and customer satisfaction in the South African short-term insurance industry.

H_4: There is a positive and direct relationship between the use of technology and customer satisfaction in the South African short-term insurance industry.

H_5: There is a positive and direct relationship between commitment and customer satisfaction in the South African short-term insurance industry.

H_6: There is a positive and direct relationship between convenience and customer satisfaction in the South African short-term insurance industry.

H_7: There is a positive and direct relationship between customer satisfaction and purchase intention in the South African short-term insurance industry.

RESEARCH OBJECTIVES

The primary objective of this study is to determine the relationship between customer expectations dimensions (service quality, convenience, commitment, technology use, communication, and customisation), customer satisfaction, and purchase intention in the South African short-term insurance industry. The secondary objectives include:

- To identify whether and which customer expectation dimensions have the strongest influence on customer satisfaction in the South African short-term insurance context.
- To determine the strength of the relationship between customer satisfaction and purchase intention in the short-term insurance industry.

RESEARCH METHODOLOGY

This study adopted a positivist philosophical worldview, which emphasises empirical measurement and objective analysis of relationships between variables (Saunders *et al*., 2023). This approach was appropriate given the study's focus on testing specific hypotheses derived from existing theory. A quantitative research methodology was employed to facilitate statistical analysis and generalisation of findings across the broader population. A descriptive cross-sectional research design was implemented through an online survey. The target population comprised South African individuals between the ages of 18 and 65 who held at least one short-term insurance policy. Non-probability sampling methods were employed, specifically purposive sampling (targeting individuals meeting the screening criteria) and snowball sampling (asking participants to refer others who met the criteria). The survey link was distributed through social media platforms, including Facebook and LinkedIn and through direct referrals. This approach enabled efficient data collection while reaching a diverse range of short-term insurance policyholders across South Africa. The questionnaire was adapted from validated scales used in previous research, including measures by Zeithaml *et al*., (2009), Khazaei *et al*. (2014), Poon and Lee (2012), Wong *et al*. (2008), Hashem (2011), Sangle and Awasthi (2011), Siddiqui and Sharma (2010), Dagger *et al*. (2011), Dagger and Sweeney (2007), and Yi-Ming and Chin-Fu (2010). The instrument included items measuring each of the six customer expectation dimensions, as well as customer satisfaction and purchase intention. Data were collected using the SurveyMonkey platform and then exported to Microsoft Excel for initial processing. After data cleaning and validation, a total of 369 valid

responses were obtained. This sample size exceeded the minimum requirements for PLS-SEM analysis, which recommends at least ten times the maximum number of paths pointing to any construct in the model (Hair *et al*., 2017). The data were analysed using SmartPLS 4 software (Ringle *et al*., 2024), employing Partial Least Squares Structural Equation Modelling (PLS-SEM). This approach was selected due to its suitability for predictive model testing and exploratory research (Hair *et al*., 2019). Following the two-step approach recommended by Anderson and Gerbing (1988), the analysis first evaluated the measurement model to ensure reliability and validity before examining the structural model to test the hypothesised relationships.

ANALYSIS AND DISCUSSION

Reliability Analysis

The measurement model was assessed by examining the reliability and validity of the constructs. As shown in Table 1, internal consistency reliability was evaluated using Cronbach's alpha, composite reliability (rho_a), and composite reliability (rho_c). All constructs demonstrated acceptable reliability with values exceeding the recommended threshold of 0.70, except for Commitment (0.676), which was marginally below the threshold but still acceptable for exploratory research (Hair *et al*., 2019).

TABLE 1: CONSTRUCT RELIABILITY MEASURES

Construct	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	AVE
Service quality	0.772	0.793	0.851	0.589
Technology use	0.767	0.792	0.865	0.683
Commitment	0.676	0.679	0.822	0.607
Communication	0.713	0.716	0.839	0.635
Convenience	0.749	0.758	0.856	0.666
Customisation	0.698	0.752	0.827	0.616
Purchase intention	0.872	0.873	0.921	0.796
Satisfaction	0.866	0.868	0.903	0.652

Convergent and Discriminant Validity

Convergent validity was assessed using factor loadings and average variance extracted (AVE). All item loadings exceeded the recommended threshold of 0.7, indicating good indicator reliability. The AVE values for all constructs exceeded the recommended threshold of 0.5 (Fornell and Larcker, 1981), confirming adequate convergent validity. Discriminant validity was assessed using the Heterotrait-Monotrait ratio (HTMT). All HTMT values were below the conservative threshold of 0.85 (Henseler *et al*., 2015), indicating good discriminant validity between constructs, with the sole exception of the relationship between Satisfaction

and Purchase Intention (0.879). This slightly elevated value remains acceptable given the theoretical distinction between these constructs and the fact that the bias-corrected confidence interval did not contain 1.0 ([0.824, 0.930]). The Fornell-Larcker criterion further confirmed discriminant validity, as the square root of each construct's AVE was greater than its correlation with other constructs. Additionally, cross-loadings analysis showed that each indicator loaded highest on its respective construct, providing further evidence of discriminant validity.

Collinearity Assessment

Variance Inflation Factor (VIF) values were examined to detect potential multicollinearity issues. All VIF values for the inner model were below the conservative threshold of 3.0, ranging from 1.000 to 1.724, indicating no significant multicollinearity concerns.

Structural Model Assessment

The model demonstrated acceptable fit with an SRMR value of 0.064 for the estimated model, which is below the recommended threshold of 0.08 (Hu and Bentler, 1999). The NFI value was 0.754, which is approaching the recommended threshold of 0.9. While not optimal, this is considered acceptable given the exploratory nature of the research and the complexity of the model. The coefficient of determination (R^2) was used to evaluate the explanatory power of the model. The results indicated that the model explained 58.7% ($R^2 = 0.587$) of the variance in Purchase Intention and 50.8% ($R^2 = 0.508$) of the variance in Satisfaction. These R^2 values exceed the thresholds suggested by Hair *et al*. (2019) for moderate (0.50) and substantial (0.75) explanatory power in consumer behaviour research, indicating robust predictive capability. The path coefficients and their significance levels were examined to test the hypothesised relationships. The results are presented in Table 2.

TABLE 2: PATH COEFFICIENTS AND EFFECT SIZES

Relationship	Path Coefficient	f^2
Commitment → Satisfaction	0.202	0.056
Communication → Satisfaction	0.055	0.004
Convenience → Satisfaction	0.424	0.238
Customisation → Satisfaction	0.055	0.004
Satisfaction → Purchase Intention	0.766	1.421
Service quality → Satisfaction	-0.031	0.001
Technology use → Satisfaction	0.207	0.056

The strongest predictor of Satisfaction was Convenience ($\beta = 0.424$, $f^2 = 0.238$), followed by Technology Use ($\beta = 0.207$, $f^2 = 0.056$) and Commitment ($\beta = 0.202$, $f^2 = 0.056$). Communication ($\beta = 0.055$, $f^2 = 0.004$) and Customisation ($\beta = 0.055$, $f^2 = 0.004$) had minimal effects on Satisfaction, while Service Quality unexpectedly showed a slight negative effect ($\beta = -0.031$, $f^2 = 0.001$). The relationship between Satisfaction and Purchase Intention was strong

and positive (β = 0.766, f² = 1.421), confirming the important mediating role of Satisfaction in predicting Purchase Intention. Based on these findings, Hypotheses H5 (Commitment → Satisfaction), H6 (Convenience → Satisfaction), and H4 (Technology Use → Satisfaction) were supported, while Hypotheses H1 (Service Quality → Satisfaction), H2 (Customisation → Satisfaction), and H3 (Communication → Satisfaction) were not supported. Hypothesis H7 (Satisfaction → Purchase Intention) received the strongest support among all hypotheses.

DISCUSSION OF RESULTS

This study offers key insights into factors affecting consumer satisfaction and purchase intention in South Africa's short-term insurance sector. Convenience significantly influences Satisfaction (β = 0.424, f² = 0.238), reflecting modern consumers' preference for simplified processes and accessibility. This aligns with research indicating consumers increasingly value time-saving services (Rabbanee, 2023). In the South African context, convenience encompasses streamlined policy acquisition, straightforward claims processes and accessible customer service—reflecting a broader shift in financial services where convenience has become a key differentiator. Technology Use positively affects Satisfaction (β = 0.207, f² = 0.056), mirroring global digitalisation trends in financial services (Mhlanga, 2022; Puschmann, 2017). For South African insurers, this suggests that continued investment in technological innovations is essential to meet evolving consumer expectations. Commitment also positively influences Satisfaction (β = 0.202, f² = 0.056), indicating consumers value insurers demonstrating dedication to long-term relationships. This aligns with relationship marketing theory emphasising commitment in building trust and loyalty (Morgan and Hunt, 1994; Petzer and Roberts-Lombard, 2024). Unexpectedly, Service Quality showed a slight negative effect (β = -0.031, f² = 0.001), suggesting traditional service quality dimensions may be baseline expectations rather than differentiators in the South African market. Similarly, Communication and Customisation showed minimal effects (both β = 0.055, f² = 0.004), contrasting with previous research of Rai and Medha (2013) and Stokes (2018). This may reflect changing consumer preferences where efficiency outweighs personalisation. The strong relationship between Satisfaction and Purchase Intention (β = 0.766, f² = 1.421) confirms satisfaction's critical role in driving purchase behaviour, aligning with Oliver's (1999) satisfaction-loyalty framework. The large effect size indicates satisfaction is the primary determinant of purchase intention, emphasising the strategic importance of enhancing consumer satisfaction for short-term insurers seeking to drive purchase behaviour.

MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Based on this study's findings, short-term insurers should prioritise convenience, technology and commitment to enhance customer satisfaction. To enhance convenience, insurers should

streamline customer journeys by simplifying policy acquisition, claims processes and service interactions, while developing intuitive self-service options and optimising response times with clear service level agreements. Technology leverage is essential through implementing feature-rich mobile applications for comprehensive policy management and deploying AI-driven customer service solutions with appropriate human escalation paths. Strengthening commitment requires developing transparent communication strategies regarding policy terms, ensuring consistent delivery on service promises (particularly for claims processing), training staff as relationship managers rather than transaction processors, and demonstrating ethical practices through responsible business conduct. Measurement and improvement systems should incorporate satisfaction metrics into organisational performance frameworks, establish feedback systems that drive service improvements, and utilise advanced analytics to identify segment-specific satisfaction drivers. These focused strategies directly address the key determinants of customer satisfaction identified in this research.

CONCLUSION

This study has provided valuable insights into the factors influencing customer satisfaction and purchase intention in South Africa's short-term insurance industry. The research has identified convenience, technology use, and commitment as the primary drivers of customer satisfaction, which in turn strongly predicts purchase intention. The findings challenge some conventional assumptions about service quality, customisation and communication suggesting that in the contemporary South African insurance context, these factors may have less direct influence on satisfaction than previously thought. Instead, customers appear to prioritise ease of service access, technological integration, and relationship commitment when forming satisfaction judgments about their short-term insurance providers. The strong relationship between customer satisfaction and purchase intention underscores the critical importance of satisfaction as a key variable in the consumer decision-making process. This finding aligns with the expectation-disconfirmation paradigm and reinforces the view that meeting or exceeding customer expectations is fundamental to driving purchase behaviour in the insurance context. From a theoretical perspective, this study contributes to the literature by validating and extending existing models of customer satisfaction and purchase intention within the specific context of South African short-term insurance. The research confirms the applicability of the expectation-disconfirmation paradigm in this setting while highlighting the evolving nature of customer expectations in an increasingly digital and convenience-oriented market. From a practical standpoint, the findings provide clear strategic direction for short-term insurance providers seeking to enhance customer satisfaction and drive purchase intention. By prioritising convenience through streamlined processes and service accessibility, embracing technological innovation across the customer journey, and demonstrating

commitment through consistent service delivery and relationship-building, insurers can significantly enhance satisfaction levels and, consequently, improve purchase intention among their customer bases. These insights are particularly relevant in the current South African insurance landscape, characterised by intense competition, digital transformation, and evolving customer expectations. As the industry continues to navigate these challenges, a deep understanding of the factors driving customer satisfaction and purchase behaviour will be essential for maintaining a competitive advantage and ensuring long-term success. Future research could explore these relationships across different customer segments and examine how the influence of these factors evolves over time as the market continues to develop. Additionally, exploring the reasons behind the unexpected findings regarding service quality, customisation, and communication would provide further valuable insights for both theory and practice.

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DEVELOPING A CONCEPTUAL FRAMEWORK OF CONSUMER ENGAGEMENT PERCEPTIONS REGARDING THE USE OF SOCIAL MEDIA WITHIN THE HOTEL INDUSTRY

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ABSTRACT

Technological developments led to the emergence of social media that drastically transformed the way people engage. Therefore, this paper focuses on developing a conceptual framework for social media consumer engagement within the South African hotel industry. Based on existing consumer engagement models, the influence of seven independent variables (access to technology, level of informativeness, ease of use, two-way communication, level of security, rewards offered, eWOM) on consumer engagement in the hotel industry, and three dependent variables (trust, loyalty, repeat online booking) are proposed to be tested. Positivistic quantitative research using primary data from 500 (convenience and snowball) surveyed respondents will be subjected to statistical analysis to test hypotheses. The target population will be adult guests that visited any hotel in South Africa who used social media platforms prior the booking. Hotel industry stakeholders will be provided with practical guidelines regarding the influence of social media on consumer engagement.

Keywords: access to technology; customer engagement; e-word of mouth; ease of use; hotel industry; level of informativeness; level of security, social media; two-way communication

INTRODUCTION AND BACKGROUND

The advent of web applications has significantly transformed communication and traditional marketing (Steinphórsson and Alfreõsdóttir, 2018:1). The use of the internet and smart devices are linked to the development of various web applications, providing firms with opportunities to convert one-way communication into interactive dialogue with the customers (Lim and Rasul, 2022:326). The use of technological development, such as social media, has shifted the power from businesses to customers. Customers are no longer passive recipients, as they are dynamic contributors to a large variety of marketing activities where customers freely share their bad or good experiences with others. One of the major opportunities of using social media is enabling businesses to immediately engage in communication with their customers (Calderon-Monge and Ramirez-Hurtado 2022:1249, 1252). Considering the opportunities

presented by using social media for customer communication, it appears that businesses have embraced the digital world of communication.

The South African tourism sector, including the hospitality industry, have reported for the 2022 to 2023 period a 48.9% increase in international tourists. Furthermore, the hospitality industry is estimated to grow by more than 4% annually by 2029. (Govender, 2024). The hotel sector has the potential for encouraging economic growth, improving jobs creation and building the social environment (Rather and Sharma, 2017:1). Thus, customers are among the most important assets of any business, especially for businesses within the hotel sector. Hence, encouraging and engaging long-term relationships with potential consumers is the cornerstone for the achievement of service sectors, such as hotels. Therefore, for hotel businesses to gain a well-grounded competitive advantage in a challenging environment they need to develop strong relationships with their customers, which can be achieved using social media (Gomez-Suarez and Veloso, 2024:319). However, not all customers have enduring relationships with hotels visited or intending visiting. As it is costly for businesses when customers switch to competitors, it is thus imperative for hotels to implement strategies to acquire and retain potential customers. Consumer engagement, via social media, can be used as an engagement and customer relationship building (Nazir, Khadim, Asadullah and Syed, 2023:9). Hotel operators could thus gain from engaged customers, as they usually show positive intentions, such as recommending the hotel and its services to others. Customers that are engaged tend to be loyal to the business, eager to keep on buying products and services (Touni, Kim, Haldorai and Rady, 2022:7) while having greater trust in businesses (Okeke, 2025:27; Jiménez, Carmona and Moral, 2024:12).

Social media applications permit consumers to build online communities to connect with each other by sharing opinions and information and engage with businesses (Jiménez *et al*., 2024:1-2; Calderon-Monge and Ramirez-Hurtado, 2022:1250). Therefore, these sites should be used by hotel operators to engage, advertise their service, and gather quick feedback from customers (Talukder, Masud, Miah, Hera and Faruque, 2025:11). Via these online platforms, the hotel industry can communicate and engage with customers before, during, and after the tourists' travel and holidays experiences. Hence, the need of creating a strong relationship with consumers is growing not only in terms of customer loyalty and retention, but as well in terms of business endurance (Connolly, 2015: 17). In the competitive environment, understanding consumers' needs became more and more crucial for businesses and therefore it remains unavoidable for marketers to become accustomed to the revolution in the field of marketing (Govender, 2024; Rupin, 2015:3). Therefore, the rise of social media has empowered customers and transformed the dynamics of transactional marketing by offering consumers with sites able to attain huge audiences and allowing active engagement between

marketers and their clients via online two-way interaction (Steinphórsson and Alfreõsdóttir, 2018:1).

Lim and Rasul (2022:327) concur that social media is a platform for dialogue not only between businesses and customers; but has also amongst customers. Talukder *et al*. (2025:1) highlight that social media platforms extend business to customers, by providing timely promotions to customers while receiving customer feedback that impact customer loyalty. By building an enduring relationship with customers, businesses tend to identify problems, better understand their customers, deliver what they want and develop a strong relationship with their customers. Such interactions necessitate a personalised customer service and closer cooperation in the form of engagement with customers (Vivek, Beatty and Morgan*,* 2012:127), which can be accomplished using social media as digital transformation is revolutionising the hospitality industry (Govender, 2024). However, it is important to note that few empirical research (Talukder *et al*., 2025.1 Lim and Rasul, 2022:329; Dieck, Kim and Moon, 2017) have been focused in exploring the concepts of customer engagement and social media in the tourism and hospitality industry, and hotel industry more specifically. Therefore, the aim of this study is to examine the perceptions of consumer engagement regarding social media within the hotel industry.

PROBLEM STATEMENT

Social media has become an important channel for businesses because it can be used to promote services and build online relationships with customers (Jiménez *et al*., 2024:3). Travelers and hotel guests often used social networking sites such as Facebook, Twitter, Instagram, WhatsApp, YouTube, and Trip Advisor to share their travel and holiday experiences. Therefore, hotel operators should utilise social media channels to post latest information, interact with their target audiences, and enables online booking. The growth of social media has thus facilitated the concept of consumer engagement as it is an element of relationship marketing (Lim and Rasul, 2022:325). Consumer engagement has been explored in many academic disciplines such as sociology, psychology, political science and organisational behaviour (Kei, Osman and Paim, 2017:78). Even though the word customer engagement is transpiring in many disciplines, it is a relatively new research area within an online marketing context. Williams (2017:85) considers consumer engagement as “a psychological process” that constitutes the basic instrument an organisation could utilise to develop loyalty among new customers of a brand, in order to eventually persuade customer to return. Despite the rising interest in consumer engagement, there is often a lack of agreement when it comes to the treatment of the dimensionality of customer engagement. Apart from divergence in perspectives, it is notable that most research conducted on consumer engagement are based on developed countries such as Europe, Asia and America (Gupta,

Bakshi and Dogra, 2018). There are only a few empirical studies (Lim and Rasul, 2022;335; Williams, 2017) exploring the concept of consumer engagement in developing countries, such as South Africa.

A review of literature further shows that most of the studies were originally explanatory and qualitative in nature (Vivek *et al*., 2012); however, the more recent studies moved towards being quantitative in nature (Lim and Rasul, 2022:334). In addition, most of the studies are not directed by some underlying theory (Lim and Rasul, 2022:34). This study aims at contributing to addressing these knowledge gaps by ensuring a theoretical underpinning based on the social exchange theory, technology acceptance model and gratification theory to understand the perceptions of consumer engagement regarding social media. There also seems to be no agreement amongst previous research regarding the possible outcomes of consumer engagement, as summarised by the research done by Lim and Rasul (2022:333). Gómez-Suárez and Veloso (2020) and Khan, Fatma and Shamim (2019) also concur that previous research has focused more on understanding experiences in the tourism sector in general, but less attention has been devoted to experiences in hotels, although hotels are one of the central services that provide tourism experiences.

Therefore, this divergence in opinions justifies this study on the perceptions of consumer engagement regarding social media within the hotel industry. Six factors influencing consumer engagement with social media and on how consumer engagement influences trust, loyalty and repeat online booking will be investigated.

RESEARCH OBJECTIVES AND RESEARCH QUESTIONS

Based on the problem statement, the primary objective of the proposed research is to investigate the perceptions of customer engagement regarding social media within the hotel industry. To achieve the primary objective, two secondary objectives are formulated:

SO^1: To determine the factors (antecedents) influencing consumer engagement with social media in the hotel industry; and

SO^2: To determine the influence of consumer engagement with social media in the hotel industry on trust, loyalty and repeat online bookings as outcomes.

The first set of research questions are: What is the influence of *access to technology* (RQ^1), *level of informativeness* (RQ^2), *ease of use* (RQ^3), *two-way communication* (RQ^4), *level of security* (RQ^5), *rewards offered* (RQ^6), and *eWOM* (RQ^7) on *consumer engagement* within the hotel industry? The second set of research questions are: What is the influence of *consumer engagement* on *trust* (RQ^8), *loyalty* (RQ^9) and *repeat online bookings* (RQ^{10}) within the hotel

industry? The third set of research questions are: What is the influence of *trust* on *loyalty* (RQ^{11}) and the influence of *loyalty* on *repeat online booking* within the hotel industry? (RQ^{11})

THEORETICAL FRAMEWORK OF THE STUDY

Overview of consumer engagement

The engagement concept has been explored in many scholar disciplines including organisational behaviour (employee engagement) and marketing (consumer engagement). Employee engagement has been viewed as a motivational factor towards a business's objectives. Based on the seminal work of Khan (1990), employee engagement is defined as employees' involvement in their work where the employees express expressing themselves physically, cognitively and emotionally while performing their tasks. Therefore, engagement in the context of organisation behaviour is about fervour, enthusiasm, commitment and the employees' willingness to hard work in order to help the business succeed.

Bansal (2016) regards consumer engagement as the emotional attachment that a customer experience during repeated and ongoing interactions. In the competitive marketplace, consumer engagement is critical in achieving a competitive advantage as consumer engagement can be used as a tool to maintain, build and improve business relationship (Calderon-Monge and Ramirez-Hurtado, 2022:1252). However, there has been many debates regarding the dimensions of consumer engagement. The definition of consumer engagement diverges between a one-dimensional to a multidimensional concept (Lim and Rasul, 2022:332; Chen, Han, Bilgihan and Okumus, 2021:879-882). Vivek *et al*. (2012:128) view consumer engagement as a one-dimensional behavioural construct that concentrates on the strength a customer places forward to be involved in business activities. Chen *et al*. (2021:878) consider consumer engagement to include three dimensions, namely conscious attention (level of interest the individual desires to have in interacting with the brand); enthused participation (mind-set of an individual linked to interacting with the brand), and social interaction (affective – two-way dialogue between the consumer and the brand). In this study consumer engagement will be one construct with multiple dimensions which encompass cognitive, behavioural and affective engagement as described by Chen *et al*. (2021). Previous research aimed to explain consumer engagement (Rupin, 2015), to develop conceptual frameworks to understand consumer engagement (Touni *et al*., 2022; Yoong and Lian, 2019) and to focus on existing customers, prospective customers, customer value-creation as well as interactive experiences (Williams, 2017:76). However, due to the growingly competitive marketplace, a new approach to run the business is necessitated which should focus on customer centric, customer relationships and co-creation of value (Calderon-Monge and Ramirez-Hurtado, 2022:1249; Agyei, Sun, Penney, Abrokwah and Ofori-Boafo, 2021).

Overview of social media

Wolf, Sims and Yang (2018) define social media as source of online information that customers used to educate themselves about brands, products and services. However, Lim and Rasul (2022:326) provide a broader definition by indicating that social media is a tool to be used to socially interact using available communication methods to convert one-way communication into collaborative conversation. This broader definition is adopted for this study. Technology, and more specifically, mobile devices, have become a part of the daily life of individuals as well as a frequent means of communication for customers and businesses (Lim and Rasul, 2022:327; Dollarhide, 2021), especially in tourism and hospitality services (Jiménez *et al*., 2024:1; Chen *et al*., 2021:893). Furthermore, Touni *et al*. (2022) highlight that social media is extensively used within the tourism and hospitality services, allowing individuals using social media to share text, photos and video content that can be used to promote products. In addition, Correa, Pavez and Contreras (2020) and Calderon-Monge and Ramirez-Hurtado (2022) highlight that businesses use social media to develop relationships with existing and new customers. This means of communication between customers and businesses and amongst customers is referred to as social media.

Hospitality industry and social media marketing

The hospitality industry comprises of many kinds of businesses; however, this study focuses on the hotel industry. The use of social media is on the rise and hotels, regardless of their classification, should use social media as marketing via social media is recognised to be more valuable than traditional marketing (Kaushik and Khanna, 2017: 71). Van den Brink (2020) and Veloso, Ieva and Gómez-Suárez (2024:68) assert that travellers use social media to search for reviews posted by previous visitors and look for hotels recommendations when they are planning for a trip. This means that hoteliers need to pay attention to social media by increasing their visibility online. Social media showcases the hotel business as it provides great opportunities for hoteliers to make their business a desirable and lovely destination for their potential visitors. This can be done by creating and posting photos, videos and short stories about their brand online (Hossain, Sheikh and Islam, 2025). Through social media, hoteliers can connect, thus build relationships, with their target customers by posting accurate content. Customers may see that the hotel is what they are looking for and therefore may be more disposed to choose the hotel (Lakha and Vaid, 2021). Previously, travellers mostly depend on travel agencies to book accommodations. However, Tourists are more self-sufficient and well-informed in selecting a hotel and therefore may prefer to make direct bookings. If hoteliers interact with potential guests, they are more predisposed to book directly with the hotel. Hoteliers can also use social media platforms to inform their followers about any promotions and the advantages of direct bookings (Pinto and Castro, 2019). Social media

can be acknowledged as a form of word-of-mouth which has a huge influence on customer's decision-making process (Hossain, Kabir and Revi, 2017:39). In the hotel industry, social media marketing can be highly beneficial for hotel operators.

RESEARCH METHODOLOGY

Table 1 summarises the proposed research design and methodology, using the research onion (Saunders, Lewis and Thornhill, 2023:131).

TABLE 1: PROPOSED RESEARCH DESIGN AND METHODOLOGY ADOPTED FOR THE STUDY

ASPECT		APPLICATION TO STUDY
Research philosophy		*Positivism* – adopting a quantitative methodology to deductively assess the influence of customer engagement on social media use within the hotel industry
Approach to theory development		*Deduction* – using secondary data sources to define the problem statement and to develop hypotheses to be empirically tested
Methodological choice		*Mono-method quantitative* – attaining research objectives through empirical assessments involving numerical analysis that will examine the causal relationship between the constructs in the conceptual framework presented
Strategy		*Survey using self-administered structured questionnaires*
Time horizon		*Cross-sectional* – data will be gathered at a specific period
Procedures and techniques	Population	*Population* – adult guests that visited any hotel in South Africa who made use of the hotel's website and other social media platforms prior to booking the accommodation
	Sampling	Non-probability convenience and snowball sampling based on availability and willingness
	Sample size	500 respondents based – based on research by Lujja (2016) and Reitz (2012)
	Questionnaire design	*Section A*: Demographic data using a nominal scale *Section B*: Perceptions regarding independent variables (access to technology, level of informativeness, ease of use, two-way communication, level of security, rewards offered and eWOM) using a five-point Likert ordinal scale *Section C*: Perceptions regarding the three dimensions (cognitive, behavioural and effective) of consumer engagement as a mediating variable using a five-point Likert ordinary scale

		Section D: Perceptions regarding the dependent variables (trust, loyalty and repeat online bookings) using a five-point Likert ordinary scale
	Data collection	*Secondary data*: Books, journals, Internet *Primary data*: Survey using a structured self-administered questionnaire
	Data analysis	*Descriptive statistics* – frequencies, means and standard deviations *Exploratory factor analysis* – construct validity *Cronbach's alpha* – reliability testing *Structural Equations Modelling* – test formulated hypotheses *Correlation analysis* – determine relationship and strength between variables
	Ethics	Following university ethics policies and guidelines by applying for ethical approval from institutional ethics committee for human studies Rights of respondents (explicit informed consent, voluntary participation, confidentiality and anonymity of respondents, opt-out option) Accurate referencing of reliable secondary sources Turnitin similarity index to be used

Source: Authors' own construction

MODELS SUPPORTING CONSTRUCTION OF PROPOSED CONCEPTUAL FRAMEWORK

The Cheung, Lee and Jin's customer engagement model focuses

Cheung, Lee and Jin (2011) conducted research to investigate customer engagement in an online platform. Cheung *et al*. (2011) defined consumer engagement as degree of involvement with a specific platform on a physical, cognitive and emotional level. Therefore, consumer engagement is a psychological and behavioural manifestation through online social platforms. Furthermore, consumer engagement is measured as a multidimensional construct encompassing three dimensions, namely, vigour (physical), absorption (cognitive) and dedication (emotional). In addition, involvement and social interaction are found to be precursors of customer engagement in an online social platform.

Reitz's online customer engagement model

The research conducted by Reitz (2012) explored online customer engagement by exploring the antecedents and outcomes. The framework proposed by Reitz (2012) was drawn from

O'Brien and Toms (2008) and Mollen and Wilson (2010) to comprehend the online consumer engagement procedure. According to Reitz (2012), the antecedents of online customer engagement are: perceived information, perceived enjoyment and perceived interactivity. The outcomes are loyalty and repurchase intention. The three dimensions of online consumer engagement are cognitive, affective and participative. The findings of the study conducted by Reitz (2012) show that perceived enjoyment and perceived interactivity on the business's Facebook page have an influence on both cognitive and affective online consumer engagement.

Lujja's consumer engagement model

The study conducted by Lujja (2016) investigated the consequences of consumer engagement on social networking sites such as Facebook and to determine whether cognitive, emotional and behavioural consumer engagement have a positive effect on brand loyalty, satisfaction, commitment and trust in SNS. The consequences of consumer engagement are brand loyalty, satisfaction, brand commitment and trust. Most of the items used by Lujja (2016) to measure the three dimensions of consumer engagement were adopted from previously validated scales (such as Cheung *et al*. 2011).

CONCEPTUAL FRAMEWORK, HYPOTHESES AND VARIABLES OF THE STUDY

A conceptual framework is a high-level representation used by researchers to logically structure how essential variables link to one another as it describes the proposed relationship between variables under investigation (Grant and Osanloo, 2014:13). Figure 1 presents the conceptual framework that will be used in this study to examine the perceptions of consumer engagement regarding social media within the hotel industry.

Three sets of null and alternative hypotheses are formulated, and the null hypotheses are the following:

First set of hypotheses: Relationships between the independent variables and the intervening variable

H_0^1: Access of technology has no significant influence on consumer engagement in the hotel industry.

H_0^2: The level of informativeness has no significant influence on consumer engagement in the hotel industry.

H_0^3: Ease of use has no significant influence on consumer engagement in the hotel industry.

H_0^4: Two-way communication has no significant influence on consumer engagement in the hotel industry.

H_0^5: Level of security has no significant influence on consumer engagement in the hotel industry.

H_0^6: Rewards offered has no significant influence on consumer engagement in the hotel industry.

H_0^7: eWOM has no significant influence on consumer engagement in the hotel industry.

Second set of hypotheses: Relationships between the intervening variable and the dependent variables

H_0^8: Consumer engagement has no significant influence on trust in the hotel industry

H_0^9: Consumer engagement has no significant influence on loyalty in the hotel industry.

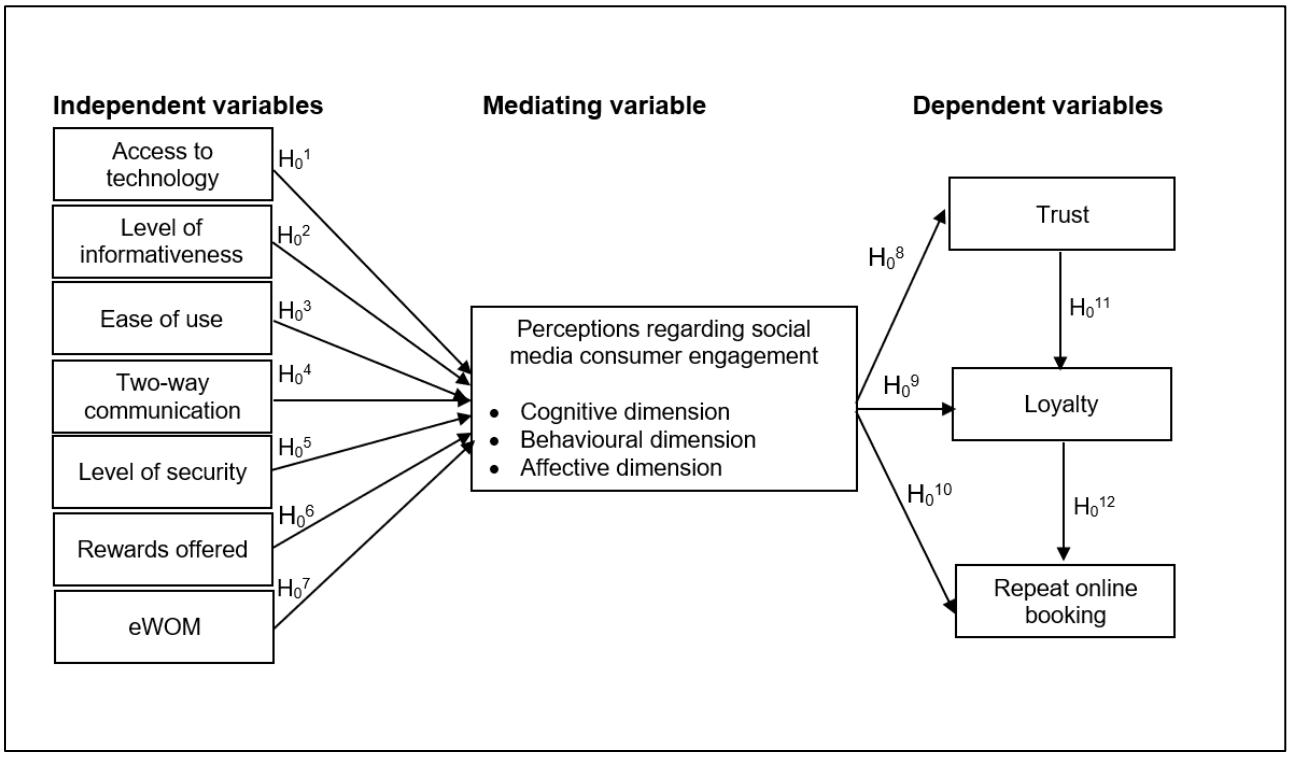
H_0^{10}: Consumer engagement has no significant influence on repeat online booking in the hotel industry.

Third set of hypotheses: Relationships between the dependent variables

H_0^{11}: No significant relationship exists between trust and loyalty on consumer engagement in the hotel industry.

H_0^{12}: No significant relationship exists between loyalty and repeat online booking on consumer engagement in the hotel industry.

Figure 1: Conceptual framework of consumer engagement regarding the use of social media within the hotel industry



Source: Authors' own construction

Table 2 summarises the operationalisation of variables used in this study.

TABLE 2: OPERATIONALISATION OF THE VARIABLES BASED ON PREVIOUS RESEARCH

	Variables	Operationalisation	Contributing authors
Independent variable	**Access to technology**	The use of social platforms (Facebook, Twitter, Instagram, WhatsApp, Trip Advisor) by the hotels to interact and engage with guests.	Jung, Dieck and Chung (2018) Kazandzhieva, Ilieva and Filipova (2017)
	Level of informativeness	Aptitude to efficiently provide pertinent information that can attract clients and motivate them to make better buying decisions.	Gomez-Suarez and Veloso (2024) Veloso *et al*. (2024) Lee and Hong (2016) Blanco, Blasco and Azórin (2010)
	Ease of use	An element of the theory acceptance model and a crucial determinant of attitude towards new technology.	Baki (2020) Sago (2013) Lim and Ting (2012)
	Two-way communication	Interactive dialogue by enabling the recipient of the message to converse back to the sender.	Gomez-Suarez and Veloso (2024) Hether, Murphy and Valente (2014)

TABLE 2: OPERATIONALISATION OF THE VARIABLES BASED ON PREVIOUS RESEARCH

	Level of security	**Security is essential because of the risk created when technology is utilised to send information and includes confidentiality, integrity and availability.**	**Hiatt and Choi (2016) Hekkala, Värynen and Wiander (2012)**
	Rewards offered	Be defined as a form of incentives given by businesses to motivate the employees for their hard work or to encourage potential customers.	Munir, Lodhi, Sabir and Khan (2016) Alfandi and Alkahsawneh (2014)
	eWOM	Electronic word of mouth is an online peer to peer referrals or recommendations from a satisfied customer to other customers.	Montazemi and Saremi (2014) Lerrthaitrakul and Panjakajornsak (2014) Kaijasilta (2013)
Consumer engagement	**Cognitive dimension**	Conscious attention is the level of interest the individual desires to have in interacting with the brand	Touni *et al*. (2022) Chen *et al*. (2021) Bilro and Loureiro (2020)
	Behavioural dimension	Social interaction is a two-way dialogue between the consumer and the brand	Touni *et al*. (2022) Chen *et al*. (2021) Bilro and Loureiro (2020)
	Affective dimension	Enthused participation refers to the mind-set of an individual linked to interacting with the brand	Touni *et al*. (2022) Chen *et al*. (2021) Bilro and Loureiro (2020)
Dependent variables	**Trust**	Trust is a person's belief that an exchange will take place in a real manner with one's positive expectation.	Baki (2020) Kanthawongs (2018) Özer and Zeng (2017)
	Loyalty	Is the tendency to prefer a specific product over all others due to happiness with the product or service.	Baki (2020) Durga (2018) Lujja (2016)
	Repeat online booking	Refers to the customer's decision to choose the same hotel for his/ her next vacation due to good customer experience.	Chalupa and Petricek (2024) Gomez-Suarez and Veloso (2024) Kim, Kim and Park (2017)

Source: Authors' own construction

ACADEMIC AND MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

From an academic perspective, the study contributes to the limited literature on consumer engagement and social media within the hotel industry, especially in the South African context. This study will make a significant contribution to the field of knowledge in the industry through the development of the conceptual framework that will enlighten the perceptions of consumer engagement regarding social media. Furthermore, most of the studies conducted on consumer engagement are qualitative in nature and this study will fill the gap in the literature by conducting quantitative research. From a managerial perspective, the results of the study could produce valuable information for hotel operators to help enhance their marketing strategies in the light of social media engagement. In addition, the recommendations of the study will be useful in enabling accurate and effective social media platforms that hotel

operators should use to engage customers and build a long-term relationship. Holistically, having a comprehensible idea about the enabling context of social media platform acceptance could enhance the understanding of the future of these growing technologies for businesses in South Africa in general and hotels in particular.

CONCLUSION

The following extract seems appropriate to conclude this paper with**:**

"… hotels prioritize consumer entertainment content on social media that aims to describe the experiences provided by the hotel over other communication tools … highlights the underuse of a communication instrument that can help reinforce the image of the brand and offers useful information so that potential guests are more open to making reservations … hotel managers must design their social media posts carefully to ensure that in addition to communicating the intended experience, these posts encourage the user to interact with the content, whether they are presently enjoying a stay at the hotel, planning their trip or have recently finished a stay at the hotel … hotels should publish content based on the hotel's experience dimensions, and can segment content when conducting advertising campaigns on social networks … emphasises the value of the hotel and provides practical information that is more important than emotional factors in promoting these values" (Gomez-Suarez and Veloso, 2024).

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GREAT IS YOUR FAITH! A SERIAL MEDIATION MODEL OF BRAND FAITH AND REPURCHASE INTENTIONS: A MULTI-GROUP ANALYSIS

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ABSTRACT

This study examines the serial mediating roles of brand love and brand credibility in the relationship between brand faith and repurchase intention. The study draws on the Attachment Theory and is informed by the Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ) and investigates how a faith-based construct influences consumer behaviour across three energy drink brands. Data were collected through a structured questionnaire from 498 energy drink consumers in South Africa, aged 18-25 years (Red Bull: *n* = 196; Monster: *n* = 135; Powerplay: *n* = 167). Using Partial Least Squares Structural Equation Modelling (PLS-SEM) with Multi-Group Analysis (MGA), the findings confirm the proposed serial mediation model across all three brands. The results indicate brand-specific variations in how emotional and cognitive brand perceptions influence repurchase intentions. These findings extend the Attachment Theory through a faith-based construct, offering valuable insights for marketers aiming to build sustainable brands for young consumers.

Keywords: Brand faith; young consumers; energy drinks; brand sustainability

INTRODUCTION

Great faith is knowing promises are as solid, even when one's eyes can't see them, choosing to trust the assurance above all else. As Hebrews 11:1 affirms, "Now faith is the substance of things hoped for, the evidence of things not seen" (King James Version) (BibleGateway, 2025). Similarly, faith in a brand refers to the perception of a brand with the reverence often reserved for deeply held convictions. While branding is often regarded as an 'art', Haig (2006) argues that it also draws heavily from the structures and symbolism of religion. Faith in a brand, operationalised as brand faith in this study, is thus characterised by deep emotional commitment, encompassing trust, admiration, and devotion.

Recent research by Awasthi et al., (2024) uncovers the subconscious dynamics between emotion and brand loyalty, highlighting the role that emotional triggers play in driving consumer behaviour. Their study identifies specific emotional states such as trust, that significantly

influence various dimensions of loyalty, including repeat purchase behaviour. Awasthi et al., (2024) affirm that these emotional triggers contribute critically to sustained consumer commitment. Similarly, Yazdi et al., (2024) highlight a growing shift in branding literature toward core constructs such as trust and belief, which are central to the conceptualisation of brand faith. These contemporary lenses both validate and extend foundational ideas from Haig (2006) and Cova et al., (2007). Authors Cova et al., (2007) suggest that individuals can be as devoted to brands as they are to religious beliefs. In alignment with this view, Haig (2006: 2) states, “Like religions, brands want people to have faith in what they have to offer; this faith ideally leads to life-long devotion and belief in the brand’s authenticity.” Similarly, Sarkar and Sarkar (2017) contend that both brands and religion serve as mediums through which individuals express self-worth and identity.

Faith itself is defined by Cambridge Dictionaries (Cambridge University Press, 2025), in multiple ways: the British version describes it as “a high degree of trust or confidence in something or someone”; the American version defines it as “great trust or confidence in something or someone”; and the Business version views it as “a feeling of trust that something will be successful, or that people will do what they promise to do.” Haig (2006) further asserts that brand faith can lead to life-long consumer devotion. Research supports this notion, suggesting that highly devoted customers may remain loyal to a brand despite poor product performance, scandals, bad publicity, high prices, or the absence of promotional efforts (Pimentel and Reynolds, 2004). From a theological perspective, Kellenberger (1985) explains that Protestant theologians often perceive faith as an emotional state, while Catholic theologians tend to view it as intellectual assent to specific propositions. In this study, brand faith is examined through three key orientations: trust, engagement, and community, which are key connections in the energy drinks category. Because faith as a brand construct, draws on religious metaphors, positions brands as objects of trust, emotional connection, and identity (Sarkar and Sarkar, 2017; Haig, 2006), this concept extends traditional understandings of attitudinal loyalty by incorporating symbolic and affective commitment that often endures beyond the brand’s functional performance or marketing efforts (Pimentel and Reynolds, 2004). While the Santa Clara Strength of Religious Faith Questionnaire by Plante and Boccaccini, 1997) empirically examined the construct of faith in psychological contexts, its application in branding remains under investigated. This study positions brand faith as the foundational stage of a progressive consumer–brand relationship. However, there is limited empirical understanding of how faith-based brand attachment transitions into deeper emotional affinity (e.g., brand love), influences perceptions of brand reliability (credibility), and ultimately drives behavioural intentions such as repurchase. To address this gap, this study

tests a serial mediation model that investigates these psychological pathways and how they differ across brands; specifically Red Bull, Monster, and Powerplay.

Therefore, the purpose of this study is to examine the serial mediating roles of brand love and brand credibility in the relationship between brand faith and repurchase intention. In addition, the study seeks to compare these dynamics across three distinct brands within the energy drink category. By identifying brand-specific variations in consumer engagement, this research aims to offer valuable insights for marketers seeking to cultivate sustainable, long-term brand relationships, thereby contributing to the broader goal of driving responsible business practices.

Research Question

How do brand love and brand credibility serially mediate the relationship between brand faith and repurchase intention, and how do these relationships differ across energy drink brands of (Red Bull, Monster, and Powerplay)?

Thus, the objectives of this study are as follows:

1. To examine the direct influence of Brand Faith on Brand Love across three energy drink brands: Red Bull, Monster, and Powerplay.
2. To assess the effect of Brand Love on Brand Credibility across three energy drink brands: Red Bull, Monster, and Powerplay.
3. To determine the relationship between Brand Credibility and Repurchase Intention across three energy drink brands: Red Bull, Monster, and Powerplay.
4. To investigate the serial mediating roles of brand love and brand credibility in the relationship between brand faith and repurchase intention across three energy drink brands: Red Bull, Monster, and Powerplay.
5. To compare the strength and significance of these relationships across three energy drink brands: Red Bull, Monster, and Powerplay.

LITERATURE REVIEW

The global energy drinks market is projected to reach USD 104 billion by 2030, driven by the increasing demand for functional beverages and continuous product innovation (Mordor Intelligence, 2025). This growth is fuelled by health-conscious reformulations, such as reduced sugar and the inclusion of natural or sustainable ingredients, signalling a broader shift towards transparency, ethical sourcing, and long-term consumer loyalty (Statista, 2024; The Brainy Insights, 2024; Nielsen, 2025). Gen Z and Millennials, especially in South Africa, are central to this trend, given their active lifestyles, high academic/work demands, and digital engagement (Deloitte, 2024; Euromonitor, 2025a; Euromonitor, 2025b). In South Africa, the energy drinks market continues to maintain strong growth In South Africa (BMI Research,

2025). Driven by consumer perceptions of energy and refreshment benefits, along with aggressive pricing, promotional efforts, and appealing brand messaging. Originally dominated by premium imports, the market has expanded with affordable, locally produced value brands, attracting a broader consumer base across income levels (BMI Research, 2025).

Major brands in the energy drinks sector are aligning their strategies with the growing demand for social responsibility. Red Bull continues to uphold its premium, performance-driven image while incorporating sustainability into its operations, focusing on carbon reduction and eco-friendly packaging (Red Bull, 2025). Similarly, Monster Energy has broadened its lifestyle appeal through its support of music and gaming, integrating sustainable practices like solar energy and water efficiency in its operations (Monster, 2025). Powerplay, a South African brand, appeals to more budget-conscious consumers by emphasizing empowerment, purpose, and sustainability, through initiatives such as recyclable packaging and waste reduction (Coca-Cola Beverages Africa, 2025). However, while environmental consciousness is rising, sustainability is not yet a dominant purchase driver, especially when it is perceived as costly or inconvenient (Deloitte, 2024). Despite this, younger consumers (18-34) are more willing to pay a premium for brands that demonstrate genuine commitment to sustainability (Deloitte, 2024). Additionally, these consumers believe that brands, not individuals, should take the lead on environmental responsibility (Deloitte, 2024).

The energy drink category represents a high-margin, high-frequency purchase segment within FMCG (Mordor Intelligence, 2025). To remain competitive, brands must drive emotional and cognitive connections with young consumers, who are increasingly active in co-creating brand meaning, particularly on social media platforms (Euromonitor, 2025a). Trust, credibility, and emotional resonance are influenced by how well brands live up to their values (Nielsen, 2025). In parallel, young consumers are shifting towards sustainable practices, such as increased recycling, reduced use of single-use plastics, and favoring products with minimal or eco-friendly packaging (Deloitte, 2024).

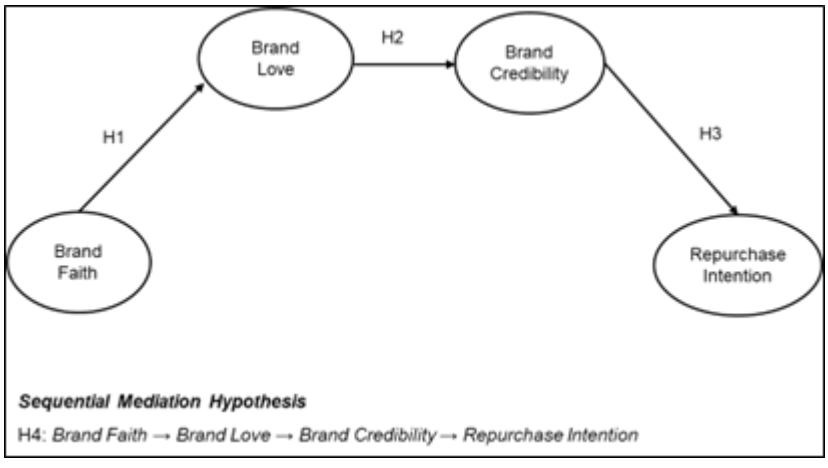
Consumers increasingly expect brands to be socially and environmentally responsible and uphold ethical values (Kuokkanen and Sun 2020). Sustainability concerns have reached a point where consumers may dismiss a brand or reject it in favour of a competitor for “not doing the right thing” (Gidaković et al., 2022). Brand sustainability is defined as a consumer’s belief that a company acts upon environmental and social expectations beyond legal requirements and its own interests (Gidaković et al., 2022). Brands that authentically reflect these values through ethical sourcing, carbon-neutral production, and waste-reducing packaging are well-positioned to build brand faith. In doing so, they not only meet growing consumer expectations but also cultivate long-term loyalty and emotional connections, which are as important as

product performance in this competitive market (Deloitte, 2024; Red Bull, 2025; Coca-Cola Beverages Africa, 2025).

Theoretical Framework

This study is grounded in the Attachment Theory (Bowlby, 1969), which posits that individuals form deep emotional and psychological bonds with significant objects in their environment. Originally developed to explain interpersonal relationships, the theory has since been extended to marketing to understand how consumers develop meaningful connections with brands. In the context of consumer behaviour, the Attachment Theory offers a strong perspective through which brand relationships can be examined. Research demonstrates that consumers can form strong emotional ties to brands, influencing their self-concept, sense of security, and behavioural intentions, such as loyalty and repurchase (Park and MacInnis, 2006; Escalas and Bettman, 2005). Attachment Theory helps explain why individuals not only trust brands but also feel emotionally connected to them, just as they might with people. This connection influences their loyalty and their likelihood of continuing to purchase from that brand. Using Attachment Theory as the theoretical foundation, this study proposes a serial mediation model, presented in Figure 1, to investigate the relationships between brand faith, brand love, brand credibility, and repurchase intention across three major energy drink brands: Red Bull, Monster, and Powerplay. The serial mediation model suggests that brand faith drives an emotional bond (brand love), which in turn enhances the perception of brand credibility, ultimately leading to repurchase intention.

FIGURE 1: PROPOSED RESEARCH MODEL



Source(s): Figure by Author

Brand Faith: Faith as a brand management construct draws on the metaphor of religion, positioning brands as objects of trust, devotion, and identity (Sarkar and Sarkar, 2017; Haig, 2006). It moves beyond traditional notions of attitudinal loyalty by encompassing emotional

and symbolic commitment, often persisting despite poor product performance or limited marketing efforts (Pimentel and Reynolds, 2004). The Santa Clara Strength of Religious Faith Questionnaire Plante and Boccaccini (1997) conceptualises faith as a unidimensional construct that captures the intensity of personal belief and reflects the centrality of faith in one's daily life and decision-making. This being the same foundational principles of brand faith. In an era where brands increasingly resemble belief systems, understanding how brand faith functions is critical to grasping how symbolic loyalty develops and persists across brands. In this study, brand faith is positioned as the starting point in the evolution of a progressive consumer–brand relationship.

Brand Faith and Brand Love: Consumers who develop faith in a brand, perceiving it as reliable, purposeful, and value-driven, are more likely to form emotional bonds with that brand. Faith aligns with individuals' values and identities, which drives feelings of affection and devotion (Plante and Boccaccini, 1997), while brand love refers to the emotional attachment a consumer feels toward a brand (Santos and Schlesinger, 2021). It is an affective state characterised by passion, closeness, and positive evaluation. This affective connection state often leads to brand loyalty, advocacy, and resilience in the face of negative information (Bagozzi et al., 2017). Authors Leite et al., (2023) affirm that brand love emerges from affective commitment and trust-based identity alignment.

Consumers who experience brand love typically perceive the brand as irreplaceable and integrated into their self-concept, just as how brand faith would be experienced. When a brand's values align with a consumer's personal identity, faith in the brand is more likely to emerge and evolve into love (Kazmi et al., 2019). Accordingly, brand faith functions as both a cognitive and emotional precursor to brand love. Thus, it is hypothesised in this study that:

H1: Brand Faith has a positive influence on Brand Love.

Brand Love and Brand Credibility: Consumers emotionally attached to a brand tend to view its actions more favourably, perceiving it as more authentic, trustworthy, and reliable. This is because emotional bonds, such as brand love, can shape and bias cognitive evaluations like brand credibility, which refers to a brand's perceived trustworthiness, expertise, and ability to deliver on promises (Erdem et al., 2006). Recent findings show that strong brand love can significantly improve perceptions of brand trust and perceived quality, which are integral components of credibility (Bae & Kim, 2023; Sohaib et al., 2023).

Previous studies have presented credibility as an antecedent of brand love, while recent studies suggest a reversed or reciprocal relationship, where emotional attachment can enhance perceptions of credibility (Carroll and Ahuvia, 2006). This perspective aligns with Attachment Theory, which argues that emotional closeness precedes and informs cognitive

judgments (Thomson et al., 2005). Empirical research supports this shift (Maduretno et al., 2022; Nawaz et al., 2020; Delgado-Ballester et al., 2001), for example, brand love has been found to significantly influence brand trust and perceived quality, which are components of credibility. This study therefore posits that:

H2: Brand Love has a positive influence on Brand Credibility.

Brand Credibility and Repurchase Intention: Brands that are seen as credible, e.g. they deliver on promises and maintain consistent quality, are more likely to earn consumers' long-term loyalty and drive repeat purchases (Rifi and Mostafa, 2022). Consumers are more likely to return to brands they trust to consistently deliver on promises (Erdem and Swait, 2004). In particular, repurchase intention, defined as a consumer's conscious plan to buy a brand again in the future, is strongly shaped by perceptions of credibility. A recent study by Brew (2024) reported that brand credibility influences repurchase intention. Sweeney and Swait (2008) confirmed this association, demonstrating that brand credibility significantly influences customer retention, satisfaction, and repeat purchase intentions. When consumers perceive a brand as trustworthy and capable, they are more inclined to consider it. This study posits that:

H3: Brand Credibility has a positive influence on Repurchase Intention.

Serial Mediation: Serial Mediation provides more accurate estimation of indirect effects by examining the step-by-step process through which one variable influences another (Gudergan et al., 2025). It offers deeper insight into the underlying mechanisms by identifying the order and interaction of mediating variables along the causal pathway (Nguyen et al., 2015). In this study, a serial mediation path is proposed in which the influence of Brand Faith on Repurchase Intention operates through two serial mediators: Brand Love and Brand Credibility. This suggests that Brand Faith first drives Brand Love, which in turn enhances Brand Credibility, ultimately leading to increased Repurchase Intention. This study posits that:

H4: Brand Love and Brand Credibility serially mediate the relationship between Brand Faith and Repurchase Intention.

METHODOLOGY

Data Collection Method, Sample and Measures

A quantitative, cross-sectional research design was employed. Data were collected using physical questionnaires at three universities in South Africa. A purposive sampling approach was used to target consumers who had consumed an energy drink brand within the six months preceding the survey. Participants were aged between 18-25 years. The final sample of 498

respondents comprised of Red Bull consumers (*n* = 196); Monster consumers (*n* = 136), and Powerplay consumers (*n* = 167).

Measurement Scales

Validated multi-item scales were adapted from existing literature to ensure the reliability and validity of the constructs used in this study. Brand faith was measured using 10 items adapted from The Santa Clara Strength of Religious Faith Questionnaire (SCSORF) by Plante and Boccaccini (1997), while brand love was assessed using 7 items derived from Rageh and Spinelli (2012). For brand credibility, 6 items were adapted from Hanzaee and Taghipourian (2012). Lastly, repurchase intention was measured using 4 items derived from Beckman, Kumar, and Kim (2013). The scales and wording of the study items were modified to suit the research context. The study used a seven-point Likert scale with anchor points of ‘‘strongly disagree’’ (1) and ‘‘strongly agree’’ (7) to measure all variables. Finstad (2010) suggests that 7-point scales often yield higher internal consistency (e.g., Cronbach’s alpha) and better construct validity compared to 5-point scales and further enhances the robustness of the measurement model in structural equation modelling (SEM) techniques such as PLS-SEM.

RESULTS

The data were analysed using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS 4. PLS-SEM is particularly well-suited for testing complex relationships between latent constructs, including mediation analysis (Hair et al., 2022; Memon et al., 2018). It allows for multiple mediators (Hayes, 2022). This study made use of the bootstrapping method with 5,000 subsamples. Bootstrapping allows for the assessment of the various types of mediations and conditional process analyses directly in PLS-SEM (Sarstedt et al., 2020). In this study, the analysis followed a two-step approach: first evaluating the measurement model for reliability and validity, then testing the structural model to assess the hypothesised relationships. The measurement model evaluation included tests of reliability, convergent and discriminant validity. The structural model tested hypothesised relationships, while Multi-Group Analysis (MGA) examined brand-level differences across Red Bull, Monster, and Powerplay consumers. Multigroup Analysis enables the assessment of whether coefficients, especially for structural relationships, differ significantly across groups (Picón-Berjoyo et al., 2016). Different approaches serve multigroup analyses in PLS-SEM, these approaches can also be applied to more than two groups (Cheah et al., 2023).

TABLE 1: DESCRIPTIVE STATISTICS

	Red Bull count %	Monster count %	Powerplay count %	Grand total
Gender				
Female	82 (43.1%)	48 (35.8%)	66 (39.5%)	*196*
Male	112 (57.1%)	84 (62.2%)	97 (58.1%)	*293*
Prefer not to say	2 (1.0%)	3 (2.2%)	4 (2.4%)	*9*
Total	*196*	*135*	*167*	*498*
Age				
18-20	76 (38.8%)	57 (42.2%)	78 (46.7%)	211
21-23	91 (46.4%)	64 (47.4%)	68 (40.7%)	223
24-25	29 (14.8%)	14 (10.4%)	21 (12.6%)	64
Status				
Employed	20 (10.2%)	10 (7.4%)	12 (7.2%)	42
Self-Employed	2 (1.0%)	3 (2.2%)	4 (2.4%)	9
Student	171 (87.2%)	121 (89.6%	148 (88.6%)	440
Unemployed	3 (1.5%)	1 (0.7%)	3 (1.8%)	7
Frequency of Energy Drink consumption				
1-3 times a month	49 (25.0%)	34 (25.4%)	43 (25.7%)	126
Daily	11 (5.6%)	6 (4.4%)	7 (4.2%)	24
Irregular routine	95 (48.5%)	65 (48.1%)	82 (49.1%)	242
More than once per week	21 (10.7%)	10 (7.4%)	14 (8.4%)	45
Once per week	20 (10.2%)	20 (14.8%)	21 (12.6%)	61
Grand total	196 (100.0%)	135 (100%)	167 (100%)	498

Source(s): Table by authors

The respondents' demographic characteristics are summarised in Table 1. The final sample included 498 participants, comprised of Red Bull (n = 196), Monster (n = 135), and Powerplay (n = 167) consumers. The majority of respondents identified as male (n = 293; 58.8%), followed by female (n = 196; 39.4%), while a small proportion (n = 9; 1.8%) preferred not to disclose their gender. Across all three brands, males were more prominently represented. Most participants were between the ages of 18 and 23, with 211 respondents (42.4%) aged 18–20 and 223 respondents (44.8%) aged 21–23. Only 64 participants (12.9%) were aged 24–25, indicating that the majority of energy drink consumers in the sample were in the younger adult cohort. The vast majority of respondents were students (n = 440; 88.4%), with smaller proportions being employed (n = 42; 8.4%), self-employed (n = 9; 1.8%), or unemployed (n = 7; 1.4%). Energy drink usage patterns revealed that almost half of the participants (n = 242; 48.6%) reported an irregular consumption routine. Approximately 25.3% (n = 126) consumed energy drinks 1–3 times per month, while 12.3% (n = 61) consumed them

once a week. A smaller group (n = 45; 9.0%) consumed more than once per week, and only 4.8% (n = 24) reported daily consumption.

TABLE 2: ASSESSMENT OF MEASUREMENT MODEL

	Factor loading	Cronbach alpha (CA)	Composite reliability (CR)	Average variance extracted (AVE)	VIF	R^2
Red Bull						
Brand Credibility		0.92	0.93	0.72		0.34
BC1 <- Brand Credibility	0.82				2.48	
BC2 <- Brand Credibility	0.80				2.40	
BC3 <- Brand Credibility	0.87				3.18	
BC4 <- Brand Credibility	0.90				3.85	
BC5 <- Brand Credibility	0.84				2.90	
BC6 <- Brand Credibility	0.88				3.69	
Brand Faith		0.94	0.95	0.71		
BF2 <- Brand Faith	0.80				2.40	
BF3 <- Brand Faith	0.87				3.87	
BF4 <- Brand Faith	0.85				3.70	
BF5 <- Brand Faith	0.82				2.50	
BF6 <- Brand Faith	0.86				3.35	
BF7 <- Brand Faith	0.90				5.27	
BF8 <- Brand Faith	0.82				2.85	
BF9 <- Brand Faith	0.83				2.90	
Brand Love		0.93	0.93	0.70		0.45
BL1 <- Brand Love	0.78				2.60	
BL2 <- Brand Love	0.84				2.66	
BL3 <- Brand Love	0.86				3.70	
BL4 <- Brand Love	0.87				3.39	
BL5 <- Brand Love	0.89				3.61	
BL6 <- Brand Love	0.87				3.46	
BL7 <- Brand Love	0.75				2.08	
Repurchase intention		0.93	0.94	0.83		0.35
RI1 <- Repurchase Intention	0.93				4.51	
RI2 <- Repurchase Intention	0.94				5.21	
RI3 <- Repurchase Intention	0.89				3.10	
RI4 <- Repurchase Intention	0.86				2.48	
Monster						
Brand Credibility		0.90	0.90	0.66		0.34

BC1 <- BC	0.82				2.29	
BC2 <- BC	0.75				2.39	
BC3 <- BC	0.85				2.81	
BC4 <- BC	0.87				2.77	
BC5 <- BC	0.73				1.94	
BC6 <- BC	0.85				2.72	
Brand Faith	0.95	0.95	0.96	0.73		
BF2 <- BF	0.82				2.73	
BF3 <- BF	0.87				4.06	
BF4 <- BF	0.84				3.20	
BF5 <- BF	0.81				2.49	
BF6 <- BF	0.89				3.72	
BF7 <- BF	0.87				4.08	
BF8 <- BF	0.89				6.02	
BF9 <- BF	0.82				4.09	
Brand Love	0.93	0.936	0.946	0.716		0.39
BL1 <- BL	0.87				3.96	
BL2 <- BL	0.87				3.34	
BL3 <- BL	0.86				4.18	
BL4 <- BL	0.88				3.38	
BL5 <- BL	0.87				2.97	
BL6 <- BL	0.81				2.37	
BL7 <- BL	0.75				2.05	
Repurchase intention	0.90	0.92	0.93	0.77		0.18
RI1 <- RI	0.93				4.01	
RI2 <- RI	0.93				4.32	
RI3 <- RI	0.87				2.77	
RI4 <- RI	0.76				1.78	
Powerplay						
Brand Credibility		0.92	0.92	0.70		0.42
BC1 <- Brand Credibility	0.83				2.78	
BC2 <- Brand Credibility	0.83				2.78	
BC3 <- Brand Credibility	0.81				2.12	
BC4 <- Brand Credibility	0.88				3.16	
BC5 <- Brand Credibility	0.79				2.15	
BC6 <- Brand Credibility	0.89				3.27	
Brand Faith		0.93	0.93	0.68		
BF2 <- Brand Faith	0.81				3.05	
BF3 <- Brand Faith	0.80				3.11	
BF4 <- Brand Faith	0.84				2.82	
BF5 <- Brand Faith	0.73				1.85	

BF6 <- Brand Faith	0.86				2.98	
BF7 <- Brand Faith	0.89				4.44	
BF8 <- Brand Faith	0.85				3.12	
BF9 <- Brand Faith	0.82				2.90	
Brand Love		0.91	0.91	0.64		0.39
BL1 <- Brand Love	0.76				2.71	
BL2 <- Brand Love	0.81				2.60	
BL3 <- Brand Love	0.87				3.40	
BL4 <- Brand Love	0.81				2.37	
BL5 <- Brand Love	0.83				2.82	
BL6 <- Brand Love	0.84				2.82	
BL7 <- Brand Love	0.70				1.93	
Repurchase Intention		0.92	0.92	0.80		0.30
RI1 <- Repurchase Intention	0.91				4.44	
RI2 <- Repurchase Intention	0.92				4.56	
RI3 <- Repurchase Intention	0.87				2.48	
RI4 <- Repurchase Intention	0.88				2.55	

Source(s): Table by authors

To evaluate the reliability and validity of the constructs across the three energy drink brands (Red Bull, Monster, and Powerplay), a measurement model assessment was conducted using standard criteria: factor loadings, Cronbach's alpha (CA), composite reliability (CR), average variance extracted (AVE) (Saari et al., 2021) (see Table 2). All constructs demonstrate strong internal consistency, with Cronbach Alpha (CA) values and composite reliability (CR) values exceeding the recommended threshold of 0.70 (Hair et al., 2022), across all three brands. Moreover, AVE values for each construct exceeded the recommended threshold of 0.50 (Hair et al., 2022) (Red Bull: CA ranges from 0.92 to 0.94, CR from 0.93 to 0.95, and AVE from 0.70 to 0.83); (Monster: CA ranges from 0.90 to 0.95, CR from 0.90 to 0.95, and AVE from 0.66 to 0.77); (Powerplay: CA ranges from 0.91 to 0.93, CR from 0.91 to 0.93, and AVE from 0.64 to 0.80).

Factor loadings exceed the recommended threshold, further supporting the constructs' reliability. Loadings range from 0.70 to 0.94 across all indicators and brands, confirming that each item reliably measures its associated construct. Measurement items BF1 and BF10 across all three brands have been deleted as they were less than the proposed 0.60 outer loading values threshold (Hu and Bentler, 1999) (see Table 2).

The Variance of Inflation Factor (VIF) was also used in this analysis to identify the degree of multicollinearity. Variance Inflation Factor (VIF) scores for all items are below the recommended threshold of 5 (Hair and Lukas, 2014), indicating no concerns with

multicollinearity. This supports the robustness of the model (see Table 2). Finally, the R-square (R^2) values reflect the explanatory power of the model. According to Cho et al., (2020), R^2 values should exceed 0.10 (10%) to be considered meaningful. In this study, all R^2 values ranged between 0.18 and 0.45, thereby satisfying this criterion (see Table 2).

TABLE 3: DISCRIMINANT VALIDITY

	Brand Credibility	Brand Faith	Brand Love	Repurchase Intention
Red Bull				
Brand Credibility				
Brand Faith	0.46			
Brand Love	0.63	0.72		
Repurchase Intention	0.63	0.48	0.69	
Monster				
Brand Credibility				
Brand Faith	0.39			
Brand Love	0.64	0.65		
Repurchase Intention	0.47	0.52	0.69	
Powerplay				
Brand Credibility				
Brand Faith	0.389			
Brand Love	0.72	0.67		
Repurchase Intention	0.59	0.47	0.65	

Source(s): Table by authors

To assess discriminant validity among the key constructs (brand credibility, brand faith, brand love, and repurchase intention), the Heterotrait-Monotrait Ratio (HTMT) criterion was applied for each of the three brands: Red Bull, Monster, and Powerplay (see Table 3). HTMT is considered a more reliable method for evaluating discriminant validity than the traditional Fornell-Larcker criterion, with thresholds of HTMT values < 0.85 or HTMT < 0.90 (if the constructs are conceptually similar), often used to confirm acceptable discriminant validity (Hair et al., 2022). The aforementioned threshold was met in Table 3, where HTMT values were below the 0.85 threshold across all three brands.

TABLE 4: STRUCTURAL MODEL ASSESSMENT: DIRECT EFFECTS

Brand/Hypothesis	Construct relationship	Path coefficient (β)	T statistic	P value	Significance level	Decision
Red Bull						
H1a	Brand Faith -> Brand Love	0.67	17.33	0.00	*** (p < 0.01)	Supported
H2a	Brand Love -> Brand Credibility	0.59	11.45	0.00	*** (p < 0.01)	Supported

H3a	Brand Credibility -> Repurchase Intention	0.59	12.09	0.00	*** (p < 0.01)	Supported
Monster						Supported
H1a	Brand Faith -> Brand Love	0.62	10.18	0.00	*** (p < 0.01)	Supported
H2a	Brand Love -> Brand Credibility	0.58	8.99	0.00	*** (p < 0.01)	Supported
H3a	Brand Credibility -> Repurchase Intention	0.43	6.07	0.00	*** (p < 0.01)	Supported
Powerplay						Supported
H1a	Brand Faith -> Brand Love	0.63	13.97	0.00	*** (p < 0.01)	Supported
H2a	Brand Love -> Brand Credibility	0.65	12.16	0.00	*** (p < 0.01)	Supported
H3a	Brand Credibility -> Repurchase Intention	0.54	8.22	0.00	*** (p < 0.01)	Supported

Note(s): *Significant at p < 0.09; **Significant at p < 0.05; ***Significant at p < 0.01

Source(s): Table by authors

The results of testing the hypotheses through the structural model are shown in Table 4 (direct relationships), Table 5- (serial mediation). For significance, Krommenhoek and Galpin (2013) recommend that t-values and p-values of 2.54 ($p \leq 0.01$), 1.96 ($p \leq 0.05$) and 1.65 ($p \leq 0.09$) be considered significant at 99%, 95% and 90% confidence levels, respectively

Table 4: To assess brand-specific differences, a Multi-Group Analysis (MGA) was conducted using SmartPLS 4 to compare path coefficients (direct relationships) across Red Bull, Monster, and Powerplay consumers. According to the results presented (see Table 4), the relationship between brand faith and brand love (H1) was strongest for Red Bull ($\beta = 0.67$; $p < 0.01$), followed closely by Powerplay ($\beta = 0.63$; $p < 0.01$) and Monster ($\beta = 0.62$; $p < 0.01$)). The relationship between brand love and brand credibility (H2) showed the highest path coefficient for Powerplay ($\beta = 0.65$), followed by Red Bull ($\beta = 0.59$; $p < 0.01$) and Monster ($\beta = 0.58$; $p < 0.01$). The relationship between brand credibility and repurchase intention (H3) was most influential for Red Bull ($\beta = 0.59$; $p < 0.01$), followed by Powerplay ($\beta = 0.54$; $p < 0.01$) and Monster ($\beta = 0.43$), suggesting that cognitive loyalty is a particularly strong pathway for Red Bull consumers (see Table 4).

TABLE 5: SERIAL MEDIATION EFFECT

	Construct relationship	**Path coefficient (β)**	**T statistic**	**P value**	**Significance level**	**Decision**
Red Bull						
H4a	Brand Faith -> Brand Love -> Brand Credibility -> Repurchase Intention	0.23	5.71	0.00	*** (p < 0.01)	Serial Mediation Supported
Monster						

H4a	Brand Faith -> Brand Love -> Brand Credibility -> Repurchase Intention	0.16	3.36	0.00	*** (p < 0.01)	Serial Mediation Supported
Powerplay						
H4a	Brand Faith -> Brand Love -> Brand Credibility -> Repurchase Intention	0.22	4.74	0.00	*** (p < 0.01)	Serial Mediation Supported

Note(s): *Significant at *p < 0.09;* **Significant at *p < 0.05;* ***Significant at *p < 0.01*

Source(s): Table by authors

Table 5: To assess brand-specific differences, a Multi-Group Analysis (MGA) was conducted using SmartPLS 4 to compare path coefficients (serial mediation) The results across all three brands indicate that the serial mediation model holds true for each of them (H4) with brand faith acting as a precursor to brand love, which in turn affects brand credibility, leading to repurchase intention (see Table 5). The statistically significant path coefficients and low p-values for all brands suggest that this mediation process is consistent and robust, providing strong evidence for the theoretical model tested in the study. The path coefficient for Red Bull was (β = 0.23, with a t-statistic of 5.71 and a p-value of 0.00). This indicates a strong, statistically significant relationship at the p < 0.01 level. The serial mediation effect for Red Bull supports the hypothesis that brand faith leads to brand love, which then influences brand credibility, ultimately impacting repurchase intention. For Monster, the path coefficient was (β = 0.16, with a t-statistic of 3.36 and a p-value of 0.00). This is also statistically significant at the p < 0.01 level. These results suggest that Monster's brand perceptions follow a similar pattern to Red Bull's, with brand faith positively influencing brand love, which then impacts brand credibility and repurchase intention. Powerplay showed a path coefficient of (β = 0.22, with a t-statistic of 4.74 and a p-value of 0.00), which is also significant at p < 0.01. The mediation effect for Powerplay supports the serial process outlined in the study, demonstrating that brand faith influences brand love, brand credibility, and ultimately repurchase intention (see Table 5).

DISCUSSION

The findings of this study offer empirical support for the proposed model linking brand faith, brand love, brand credibility, and repurchase intention within the energy drink sector. The results reveal that brand faith exerts a significant and positive influence on brand love across all three examined brands (Red Bull, Monster, Powerplay). This relationship is consistent with existing literature, suggesting that when consumers perceive a brand as trustworthy, purposeful, and value-driven, they are more likely to experience emotional attachment (Plante & Boccaccini, 1997; Kazmi et al., 2019). Brand faith aligns with consumers' identities and values, functioning both cognitively and emotionally to drive brand love, an affective state

characterised by passion, intimacy, and commitment (Santos & Schlesinger, 2021; Bagozzi et al., 2017). Furthermore, the study confirms that brand love significantly enhances brand credibility, reinforcing recent shifts in the literature that suggest emotional attachment can bias cognitive evaluations, such as trustworthiness and reliability (Thomson et al., 2005; Maduretno et al., 2022; Nawaz et al., 2020). While earlier studies positioned credibility as a precursor to brand love (Carroll & Ahuvia, 2006), this study substantiates the reciprocal pathway, wherein emotional closeness enhances perceptions of brand authenticity and competence. In turn, brand credibility was found to significantly predict repurchase intention, in line with prior research demonstrating that consumers are more inclined to repurchase from brands they perceive as trustworthy and consistent in quality (Erdem & Swait, 2004; Sweeney & Swait, 2008). Importantly, the study also validated a serial mediation model, wherein the influence of brand faith on repurchase intention operates through brand love and brand credibility. This finding offers theoretical refinement by supporting the notion that consumer loyalty intentions are shaped through an affective-cognitive chain, as proposed by Gudergan et al., (2025) and Nguyen et al. (2015). The study provides a multi-step processes through which brand perceptions influence behavioural intentions

Theoretical Contribution

This study contributes to the literature by advancing the concept of brand faith through the development and empirical validation of a serial mediation model. This study focused on three real-world energy drink brands. Drawing upon the Santa Clara Strength of Religious Faith Questionnaire (SCSORF) (Plante and Boccaccini, 1997), the serial mediation model dissects interrelationships among key constructs, revealing the ordered psychological mechanism through which brand faith influences repurchase intention through brand love and brand credibility as critical mediators in this process, offering an understanding of how belief in a brand transitions into repurchase behaviour. In doing so, the study has expanded the marketing literature. The findings highlight the value of serial mediation analysis as a methodological approach capable of uncovering complex and previously unobserved dynamics. Moreover, by focusing on young adults, a rapidly growing consumer base in the energy drinks market, the study provides timely insights for both scholars and practitioners. The integration of Attachment Theory with a faith-based construct further extends the theoretical scope, offering a perspective on how emotional and cognitive elements can shape consumer behaviour. Importantly, this study introduces a novel empirical application of the Santa Clara Strength of Religious Faith Questionnaire (SCSORF) (Plante and Boccaccini, 1997) by adapting it to measure brand faith, a construct previously under investigated in marketing literature. The evidence suggests that a brand's perceived authenticity and alignment with consumer values can significantly strengthen emotional bonds and increase

repurchase intention. Thus, the study contributes to the emerging literature that attempts the foundations to lay for understanding the effects of brand faith on consumer behavioural outcomes.

MANAGERIAL IMPLICATIONS

The study highlighted three areas that may prove effective in increasing consumers' repurchase intentions: perceptions of brand faith, brand love, and brand credibility. The present study results suggest that consumers' perceptions of brand faith significantly influence their repurchase intentions via two pathways: directly and indirectly, through brand love and brand image. Given the increasing emphasis on environmental and social responsibility among younger demographics, the role of authenticity in branding cannot be overstated. Brand managers should thus prioritise the development of emotionally resonant and trustworthy marketing strategies that authentically reflect sustainable and ethical values. Communicating a brand's environmental impact, community involvement, and ethical practices through transparent storytelling is likely to reinforce brand faith and increase emotional engagement. This, in turn, enhances credibility, thereby strengthening the consumer's inclination to repurchase. In terms of brand-specific insights based on the multigroup analysis: Red Bull and Powerplay exhibit higher path coefficients ($\beta = 0.23$ and $\beta = 0.22$, respectively), indicating that brand faith plays a stronger role in driving repurchase intention through brand love and brand credibility, compared to Monster ($\beta = 0.16$). This means that Red Bull, with its strong emotional positioning, should continue to focus on cultivating brand authenticity and trust, reinforcing its leadership in brand faith and repurchase behaviour, while integrating sustainability into its core messaging. For Monster, while brand faith has a slightly lower influence, it still significantly impacts repurchase intention. The brand may benefit from investing more in emotional branding and credibility building initiatives, such as transparency and consistency in messaging, to enhance consumer trust and behaviour. While Powerplay, with relatively weaker emotional ties, should prioritise building brand credibility, emphasising reliability, quality assurance, and alignment with consumer values.

Marketers across all three energy drink brands should implement layered strategies that align with the serial pathway identified in the study. This involves first establishing brand faith. Once trust is established, marketers should aim to cultivate brand love by fostering emotional connections through storytelling, lifestyle alignment, and meaningful consumer engagement. Finally, brand credibility can be solidified through consistent product performance, expert endorsements, and integrity in brand communication.

Packaging and promotional materials also play a vital role in shaping perceptions of brand faith. By showcasing eco-friendly materials, highlighting ethical sourcing, or featuring

messages that resonate with consumer values, brands could further reinforce their commitment to responsible business practices. Additionally, partnerships with well-known endorsers or socially relevant influencers can amplify brand messages, particularly among younger audiences attuned to digital platforms. Beyond marketing efforts, these findings also have implications for policymakers.. Policymakers can leverage the positive consequences of brand faith and emotional connection to drive broader societal goals, such as environmental awareness and responsible consumption.

In conclusion, the path from brand faith to repurchase intention is neither linear nor singular; it is a multifaceted journey shaped by emotional resonance and credibility. By aligning brand strategies with these dimensions, energy drink brands can more effectively build loyalty among today's values-driven, emotionally engaged young consumers.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

While this study offers valuable insights into the role of brand faith, brand love, and brand credibility in shaping repurchase intentions among young South African consumers, several limitations must be acknowledged. First, the research focused exclusively on a narrow demographic segment, young adults aged 18 to 25, and a single product category, namely energy drinks. Although this focus allowed for a more detailed exploration of brand-related constructs within a specific consumer context, it also limits the generalisability of the findings to other age groups and product categories. Consumer behaviour can vary significantly across demographic segments and industries; therefore, future research should consider replicating this study across more diverse populations, including older consumers, different generational cohorts, or consumers in different cultural or geographical contexts. Moreover, extending the analysis to other product categories such as personal care, apparel, or technology, could provide a broader understanding of how brand faith operates across different consumption domains. Second, the study employed a cross-sectional research design, which restricts the ability to draw causal inferences or examine how consumer perceptions and behaviours evolve over time. Longitudinal research designs would offer a more comprehensive understanding of the dynamics of brand faith and related constructs, particularly how they develop and change through repeated brand interactions or across different stages of the consumer journey. Third, data collection was based solely on a quantitative survey approach. While this method enabled the measurement of key constructs and relationships, it may have introduced common method bias and limited the richness of contextual insights. Future research should consider employing mixed methods approaches or experimental research designs to validate the findings and assess their robustness across different settings.

An important contribution of this study is its novel conceptualisation of brand faith. The construct was defined and operationalised in a manner that clearly distinguishes it from related constructs in branding and consumer psychology literature, such as trust, brand commitment, or brand loyalty. However, due to the relative novelty of this construct, the availability of empirical literature, particularly in the context of brand faith, is still limited. This presents an opportunity for future scholarship to further refine and test the construct across various theoretical and practical domains. Future research may also explore how sustainability and ethical business practices influence consumer perceptions of brand faith, especially among socially and environmentally conscious consumers. This includes examining the impact of sustainable packaging, ethical sourcing, waste reduction in production, and fair labour practices on brand attitudes and purchase behaviour. Such studies would contribute to the growing discourse on sustainable branding and provide managers with actionable insights into how ethical considerations can enhance brand relationships.

Although this study is subject to certain methodological and contextual limitations, it contributes meaningfully to the literature on brand relationship quality among young consumers. Addressing the outlined limitations in future research will enhance the theoretical robustness and practical relevance of findings related to brand faith and its role in shaping consumer behaviour.

CONCLUSION

This study advances the limited body of research on brand faith by empirically investigating its role in shaping consumer behaviour among young adults, a demographic critical to the energy drinks market. Through serial mediation modelling, the research establishes a structured pathway in which brand faith influences brand love, which subsequently enhances brand credibility and, ultimately, repurchase intention. This directional relationship highlights the interdependent nature of emotional and cognitive brand constructs and their collective influence on consumer loyalty. The findings have important theoretical implications, particularly in highlighting brand faith as a foundational construct that precedes and facilitates deeper emotional (brand love) and rational (brand credibility) consumer responses. As young consumers increasingly expect brands to reflect on their values such as transparency, integrity, social responsibility, and sustainability, brand faith may serve as a strategic asset in building both commercial success and societal value.

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IDENTIFYING FACTORS THAT INFLUENCE CUSTOMER EXPERIENCE IN THE PERI-URBAN SECTOR: THE CASE OF SPAZA SHOPS

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ABSTRACT

The aim of this paper is to identify factors that influence customer experience in spaza shops to assist them to be more competitive. A survey was conducted through a self-administered questionnaire. The absence of a sampling frame to assist the researchers meant convenience sampling was deemed most appropriate in data collection. The study collected and analysed data from a total of 185 respondents. Five valid and reliable factors were identified, which could be used to measure customer experience in a spaza shop context. This study has helped to create knowledge on how spaza shop owners can enhance their customer experience to be more competitive. The latter has been done by developing a specific scale with factors that can be used to measure customer experience within spaza shops. Spaza shops can most likely compete more successfully in the market if they improve the customer shopping experience based on the factors identified in this study.

Keywords: Spaza shops; customer experience; townships; South Africa

INTRODUCTION AND PROBLEM STATEMENT

Spaza shops are small informal businesses that are found in many South African townships, selling small grocery items to the surrounding township residents (Mafuwane, Muchie, Paripati & Kirupta 2023:213). The operation of spaza shops in South Africa is pertinent because spaza shops create entrepreneurship ventures in the form of business ownership for business owners and provide employment opportunities for workers employed by these businesses (CIBA 2024:7; Mafuwane et al 2023:214-216). The latter provides both spaza shop owners and employees with a means to create a daily livelihood for themselves. Despite the economic contribution of these small businesses through creating employment prospects in the informal sector, it is important to point out that the operation of spaza shops in South Africa is characterised by many challenges. Some of the challenges include growing competition from formal retail stores and a poor customer experience.

According to a report by CIBA (2024:8), spaza shops face increasing competition from large retail stores entering the informal sector in townships. When the latter occurs, the formalised retail stores sell their products and services to long term customers of spaza shops, taking a significant portion of the market, and this could be identified as one of the reasons that drives spaza shops out of business (Muruba 2023:9-29). For example, in a study by Tetani (2023:3) that investigates factors that influence business performance of informal homebased enterprises, it is reported that domestically owned spaza shops have decreased in quantity in townships and those that continue to operate are struggling and are not competitive. In another study, still in the spaza shop context, Mafuwane et al (2023:217) agree that spaza shops are decreasing in quantity because of a lack of support by government and local residents.

Recent customer experiences in spaza shops have been linked with the sale of grocery items that have expired or are counterfeits (Willie 2024:7-10) which is a critical concern, as it jeopardises the health and trust of customers who patronise these small businesses. Other researchers have associated the sale of products and services in spaza shops with unhygienic environments (Mafuwane et al 2023:220; Willie 2024:7). The above information confirms the assertions of a study by van Eyk, Amoah and Yase (2022:20) which reports that experiences of customers during the purchase activity in spaza shops has not received sufficient attention from scholarly researchers, although it has the potential to make spaza shops more competitive.

Therefore, it is important for spaza shops to be positioned in the market more competitively. The factors that are perceived as important by customers, to give rise to a memorable shopping experience, should be identified. If positive customer experiences are presented to customers, spaza shops may benefit from an enhanced customer experience.

The above information has led to the formulation of this research question: Which factors can be identified as valid and reliable to measure customer experience in spaza shops? The primary objective of this paper is thus to identify which factors are both valid and reliable and thus can be used to measure customer experience in spaza shops. In other words, this study adds immediate knowledge on how spaza shops may enhance their customer shopping experience. It is postulated that enhancing customer experience will assist to make these small businesses more competitive in the market.

The following section presents a literature overview of spaza shops and customer experience. A brief outline of the research methodology applied will also be provided. The empirical results will then be presented, followed by conclusions and recommendations to spaza shop owners and managers.

LITERATURE OVERVIEW

The arrival of spaza shops in South Africa was entrenched when small businesses were often found operating in townships that are situated in the peri urban sector. Sharma, Dehalwar, Kumar and Vyas (2023:9) put forward that peri urban refers to an area that is geographically situated on the fringes of a city, that cannot be described as either urban or completely rural. It is an area that exists mainly because people from diverse cultural backgrounds – mostly poor with no land ownership, over time have migrated and settled together (Varkey & Manasi 2019:99).

Spaza shops are one of the business categories that can be found in the peri urban sector, operating from abandoned shipping containers, residential stands, small houses or corrugated iron sheet structures (Yesufu 2021:13). The term “spaza” is township slang and means an “imitation of a real shop” (Liedeman, Charman, Piper & Petersen 2013:2). Mafuwane et al (2023:220) explain that spaza shops are small informal businesses that mostly operate in townships, selling a variety of products and services. Spaza shops offer their customers a selection of convenience products that can be subcategorised into basic food, dairy products and meat, sweets and snacks, prepared food, toiletries and over the counter medications such as Med-Lemon and Grandpa. Owing to technological developments (Makhetha 2019), spaza shops are now able to service customers who want to purchase electricity and airtime. A discussion on spaza shop experience is presented below.

The spaza shop experience

This study is rooted in the customer experience theory. The experience of the customer prior, during and after the purchase of a product or service may result in favourable outcomes such as satisfaction and intention to return (Zandi & Sekhavat 2024:6). Customer experience refers to the interactions that take place between a business and its customers (Bascur & Rusu 2020:18; Bustamante & Rubio 2017:886) that leave the customer with a memorable experience. To identify factors that can be used to measure the spaza shopping experience, it is important to consult studies that have measured customer experience. In this regard, numerous research studies (Cassel 2015:23; Pine & Gilmore 1999; Quadri-Felitti & Fiore 2012:3; Turkson, van Eyk & Amoah 2022:84) that employed the customer experience theory, were consulted. A research study by Cassel (2015:1) investigated the effects of the four realms of experience on pop-up retail experiences; and Quadri-Felitti and Fiore (2012:3) used the four realms of experience constructs as a framework for understanding wine tourism. The four realms of an experience include education, esthetic, entertainment and escapism. Turkson et al (2022:17) investigated factors that influence customer experience value in shopping malls. In their study, it was found that service encounter, the four realms of an

experience, utilitarian values and hedonic value influence customer experience value in shopping malls. In another study, Bagdare and Jain (2013:779) measured retail customer experience using four dimensions, namely joy, mood, leisure and distinctiveness. In their study, all dimensions were found to be valid and reliable measures of retail customer experience (Bagdare & Jain 2013:798). A study by Bustamante and Rubio (2017:897) measuring instore customer experience in retail environments, puts forward that instore customer experiences are a combination of physical, cognitive, affective and social factors. All these previously mentioned factors were found to be valid and reliable in measuring customer experience (Bustamante & Rubio 2017:899).

Brun, Rajaobelina, Ricard and Berthiaume (2017:318) encourage researchers to model customer experience to fit their own unique contexts. The same view has been adopted for this study. In the four realms of an experience by Pine and Gilmore (1999), the esthetic experience is relevant. Spaza shops mostly operate in containers or through window openings, which is viewed as too limited to stage educational, escapist and entertainment experiences. In the study by Bagdare and Jain (2013), leisure has not been considered in this study because spaza shops do not warrant enough attraction for customers to enjoy spending their leisure time shopping in spaza shops. Moods and joy are both considered in the measurement of affective in this study. Therefore, only distinctiveness has been identified as a factor that can influence customer experience in spaza shops. In the study by Bustamante and Rubio (2017:897), it is only the physical factor that has been excluded from this study because this factor is similar to esthetic – which has already been selected in this study. Therefore, cognitive, affective and social remain relevant. With consideration to the above, this study proposes that customer experience in a spaza shop context is likely to include a combination of esthetic, distinctiveness, cognitive, affective and social. The following section provides a brief discussion on these factors within a spaza shop context.

Esthetic in a spaza shop context

Esthetics is a store's physical environment or setting (Gonewa, Adiele & Nkoro 2013:738). The physical environment is made up of interior and exterior facilities. An interior includes décor, lighting, flooring, carpeting and the store's overall cleanliness (Gonewa et al 2013:739; Turley & Milliman 2000:195). Alternatively, a building's shape and outdoor colour constitute the exterior appearance of a store. Customers select places to shop from based on the pleasure that shopping venues can offer to their senses (Quadri-Felitti & Fiore 2012:9). A good esthetics experience allows customers to relax and feel comfortable in the shopping experience (Lim & Lewis 2017:11).

Distinctiveness in a spaza shop context

In measuring customer experience, there is likely to be an aspect of distinctiveness that can be considered as customers are searching for unique, delightful and memorable experiences (Pine & Gilmore 1999:12; Pine & Gilmore 2013:2013; Radder & Han 2015:455; Rahmani, Gnoth & Mather 2014:360). Research by Warnaby (2009:288) suggests that the built environment which surrounds the delivery of a service can be helpful in the conceptualisation and creation of place distinctiveness. Warnaby (2009:289) reports that a building's architectural style can be used to create interesting and distinctive perceptions about a business in the shopper's mind and contribute to customer experience. The distinctiveness factor in a spaza shop context is concerned with the way spaza shops stand out (are distinctive) compared to their competitors (Yase 2022:72).

Cognitive in a spaza shop context

Pine and Gilmore (1999:12-13) explain that a person's intellect is one of the levels that needs to be engaged for an experience to happen as the true value of an experience lingers in a person's memory, where it remains with them, long after the experience has occurred. From this definition, the authors point out that there is a link between cognition and experience. Bustamante and Rubio (2017:889) describe how the cognitive component of instore customer experience (ISCX) relates to the ability of customers to engage in mental activity (reflecting) based on their direct experiences with stimuli during the shopping experience. Thus, mindful of the above descriptions, cognitive in this study refers to the cognitive responses that are elicited in customers during the shopping process.

Affective in a spaza shop context

The measurement of customer experience should include an acknowledgment of the affective experiences, as customers are emotionally driven (Tsaur, Chiu & Wang 2006:47). This implies that customers are drawn towards emotionally rich experiences (Brun et al 2017:319). In the context of online apparel products, Bagozzi, Gopinath and Nyer (1999) (in Lee & Chen-Yu 2018:6) explain that affective is a popular term that is used in marketing to explain feelings, emotions and moods. Bustamante and Rubio (2017:890), in the context of retail stores, indicate that emotions contribute to the creation of an affective experience. Spaza shops are viewed as venues that can impact the customer's emotion and mood during the shopping experience.

Social in a spaza shop context

Turley and Milliman (2000:197), in the retail shopping context, refer to social interaction as the *human variable*, which compromises two different components, the influence of other

shoppers and the influence of retail employees. Research on customers' motivations for shopping with their friends and family members points out that friends and family members possess trustworthy suggestions or information, opinions and advice (Bustamante & Rubio 2017:891; Davies, Baron & Harris 1999:49) that are crucial to customers when they are shopping (Davies et al 1999:47). Roy, Gruner and Guo (2020:7) in a retail context, point out that employees are one of the stakeholders that make up the social element of customer experience, and mainly provide customers with suggestions and/or an exchange of opinion or advice during social interactions. Once the customer experience in a spaza shop context has been conceptualized, it is important to consider how customer demographics may impact the shopping experience.

METHODOLOGY

A positivistic research paradigm along with a quantitative research methodology was followed in this study. This paradigm necessitates the collection of quantitative data. In this study, the target population is customers that have purchased products and services from spaza shops that are specifically situated in Nelson Mandela Bay townships, including Walmer Township, kwaZakhele, Zwide, Motherwell, KwaMagxaki and New Brighton. A complete sampling frame of customers that had purchased items from spaza shops was lacking. Considering this fact, the study applied a non-probability sampling technique in the form of a convenience sampling method to allow the researchers to easily attain members of the target population that are accessible and willing to participate in the study (Kim 2022:616).

A self-administered questionnaire comprising three sections was utilised to obtain primary data for this study. The first section, Section A in the questionnaire, confirmed that respondents that volunteered to participate in the survey, were above 18 years, and had a history of purchasing products and services in spaza shops. Six townships located in the Nelson Mandela Municipality in South Africa served as the study area. The townships were Walmer Township, kwaZakhele, Zwide, Motherwell, KwaMagxaki and New Brighton. Section B of the questionnaire focused on the collection of data on the experience factors, consisting of esthetic, distinctiveness, cognitive, affective and social. A total of 36 questionnaire items were developed by the researcher to measure the latter factors. A five-point Likert scale pillared by 1=strongly disagree and 5=strongly agree was presented in this section for respondents to indicate their level of agreement with statements. Several research studies were consulted to build the questionnaire statements, including research studies by Bustamante and Rubio (2017); Davis and Dyer (2012) and Oh et al (2007). The questionnaire's Section C focused on ascertaining the respondents' demographic details based on their gender, age and the purchase location of the respondents.

Given the calculation of 6 (number of variables) multiplied by 5 (items) (O'Rourke & Hatcher 2013) multiplied by 5 (respondents) (Osborne 2014:48), a minimum sample size of 150 respondents was necessary to conduct this study. Nonetheless, a total of 200 questionnaires was distributed of which 185 were deemed usable. Once data collection and cleaning were complete, a total of 185 questionnaires were considered useful for statistical analysis. IBM SPSS statistics version 27 was chosen to run the statistical data analysis. To ascertain the validity of the measuring instrument used in this study, content validity and construct validity were utilised. Internal consistency reliability was used to assess the consistency of the research tool through a test or calculation known as the Cronbach's Alpha coefficient (Doval, Viladrich & Angulo-Brunet 2023:6). The Cronbach's Alpha coefficient is the most widely used estimate of internal consistency reliability (Doval et al 2023:6).

EMPIRICAL RESULTS

The demographic profile of the respondents is shown in Table 1. Results pertaining to the respondent's gender, age and purchase location are displayed in Table 1. Male respondents made up slightly more than half (56.2%) of the sample, with 42.2% being female. 72.4% of the respondents were younger than 35 years and 24.8% were 35 – 64 years old. More of the respondents (19.5%) who participated in the survey were from the New Brighton spaza shops. The second-highest percentage of respondents (18.9%) were from spaza shops located in KwaMagxaki. Spaza shops in Zwide accounted for the third-highest percentage of respondents (15.7%). The remaining responders came from Walmer Township (11.9%), KwaZakhele (14.6%), and Motherwell (15.1%).

TABLE 1: DEMOGRAPHIC PROFILE OF THE RESPONDENTS

PROFILE		FREQUENCY	PERCENTAGE
Gender	Males	104	56.2
	Female	78	42.2
	Not willing to say	2	1.1
	No response	1	0.5
	TOTAL	185	100
Age	19 – 24	74	40.0
	25 – 34	60	32.4
	35 – 44	30	16.2
	45 – 54	8	4.3
	55 – 64	8	4.3
	65 +	3	1.6
	No response	2	1.2
	TOTAL	185	100
Purchase location	Walmer Township	22	11.9
	KwaZakhele	27	14.6
	Zwide	29	15.7
	Motherwell	28	15.1
	KwaMagxaki	35	18.9
	New Brighton	36	19.5

	No response	8	4.3
	TOTAL	185	100

VALIDITY AND RELIABILITY

To ensure structural validity, the questionnaire was reviewed by two subject experts in the field of Marketing at a public university in South Africa. In Table 2, an exploratory factor analysis (EFA) is shown that was conducted to ensure structural validity of the measuring instrument. Results of the EFA showed items that loaded onto their factors as anticipated, except for the items that were intended to measure esthetic and distinctiveness, which combined into one factor that was subsequently renamed uniqueness. Table 2 further presents the valid factors which emerged, which include uniqueness, cognitive, affective, social and customer experience. All items with loadings above the 0.4 threshold were retained (Maskey, Fei & Nguyen 2018:97; Sigudla & Maritz 2023:4).

TABLE 2: VALIDITY AND RELIABILITY OF FACTORS

ITEMS		Factor loadings	SD	Cronbach's Alpha	M
Cognitive (COG)			**1.11**	**0.839**	**3.13**
COG4	Brings interesting ideas to mind.	0.747	1.285		3.18
COG5	Awakens my creativity.	0.800	1.306		3.06
COG6	Inspires me.	0.731	1.257		3.13
Uniqueness (ESTH & DIS)			**0.888**	**0.887**	**2.82**
ESTH 7	Building design is attractive.	0.432	1.221		2.80
ESTH 8	Outside appearance is attractive.	0.604	1.170		2.96
ESTH 9	Outside colour of the building is attractive.	0.538	1.242		3.08
ESTH 11	Interior appearance is attractive.	0.456	1.254		2.85
DIS 19	Unique interior appearance (e.g. Furniture, floor carpeting).	0.507	1.191		2.72
DIS 20	Unique exterior appearance (e.g. Décor, entrance, entrance covering, store front, and the building's architecture and colour).	0.886	1.217		2.82
DIS 21	Interesting building design.	0.783	1.141		2.72
DIS 22	Distinctive architectural style.	0.776	1.106		2.68
Affective (AFF)			**0.901**	**0.772**	**3.23**

AFF13	Taking advantage of a price deal at the spaza shop makes me feel happy.	0.603	1.262		3.40
AFF14	When I make a purchase at the spaza shop, it is exciting.	0.656	1.121		3.14
AFF15.	I take joy in being a customer in the spaza shop	0.600	1.205		3.39
AFF 16	Looking at the display of products and services in the spaza shop lifts my mood.	0.546	1.075		3.01
Social (SOC)			**0.974**	**0.810**	**3.39**
SOC23	In the spaza shop I am able to interact with employees.	0.637	1.174		3.53
SOC24	In the spaza shop my queries (complaints) are solved with the help of employees	0.652	1.283		3.39
SOC25	I have conversations about life in general with the spaza shop's employees.	0.551	1.263		3.36
SOC26	I ask for purchasing suggestions from the spaza shop's employees.	0.493	1.179		3.32
Experience (EXP)			**1.068**	**0.862**	**3.55**
EXP 34	In the spaza shop employees are friendly.	0.958	1.183		3.68
EXP 35	In the spaza shop employees are respectful.	0.737	1.188		3.51
EXP 36	In the spaza shop employees provide assistance.	0.736	1.220		3.52

Internal consistency reliability of the constructs was tested through a calculation of the Cronbach's alpha, and as can be seen from Table 2, all Cronbach's alpha coefficient scores exceeded the 0.7 threshold (Arof, Ismail & Saleh 2018:43). A Cronbach's alpha coefficient score of 0.7 was considered an acceptable indication of reliability (Arof et al 2018:43). In view of the latter, there is enough evidence for the experience factors, namely uniqueness, cognitive, affective, social and experience, to be accepted as reliable measures of customer experience in a spaza shop context. In addition, the standard deviation scores of the factors were mostly below 1 (SD = 0.888 – 0.974) which means that the responses given by respondents were similar. Only cognitive and dependent factor - customer experience (SD =

1.11 and 1.068) - had standard deviation scores that exceeded 1. The latter could be an indication that respondents provided varying responses for the cognitive shopping experience offered in spaza shops.

The mean scores for all factors ranged between M = 2.82 and M = 3.55. A total of four factors (cognitive, affective, social and customer experience) reported mean scores that ranged between 3.14 and 3.55, which implies that respondents agree to some extent that these factors influence the shopping experience in a spaza shop context. Uniqueness reflected a low mean score (M = 2.82), which implies that respondents are not content with the current uniqueness experience offered at a spaza shop.

CONCLUSIONS

An interesting result from the EFA was evident when two factors, esthetic and distinctiveness, combined into one factor that was subsequently termed uniqueness. The latter could mean that spaza shops need to pay attention to what makes their business unique amongst their customers. Overall, the results of the exploratory factor analysis confirmed that the measuring instrument employed in this study has structural validity. This means that all experience factors (uniqueness, cognitive, affective, social) and dependant variable - customer experience – are valid factors that can measure the shopping experience in a spaza shop setting. Cronbach's alpha coefficient scores for all the factors appeared above the 0.7 threshold, implying that the research instrument is an acceptable measure of customer experience. It can be said that the results of the EFA and Cronbach's alpha coefficients scores have both satisfied the threshold to produce a valid and reliable research instrument to assist spaza shop owners to increase their competitiveness in the market through enhancing their current customer shopping experiences.

Limitations are also noted in this study. Data collection took place in the Eastern Cape, specifically in Nelson Mandela Bay (NMB) townships – Walmer Township, KwaZakhele, KwaMagxaki, New Brighton, Zwide and Motherwell. The latter implies that the generalisability of the results is limited only to customers and spaza shops situated in these townships. Only three demographic variables (Age, Gender and Township) were measured, future studies could include more demographic variables in their study.

MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

A discussion of the results for the valid and reliable factors will be provided along with recommendations.

Cognitive in a spaza shop context

Table 2 shows that three items loaded onto the cognitive factor as intended. The results are an indication that cognitive experiences occur when customers are exposed to stimuli (display of products and services) that can awaken their curiosity, stimulate their creativity, and stimulate customers to develop interesting ideas during the shopping experience. Thus, spaza shops are encouraged to put up posters (with serving suggestions) to entice customers to buy the products. It is also postulated that doing the latter can inspire customers with creative ideas and show them how to prepare some of the products when they arrive home. Brochures and information pamphlets can also contribute to the cognitive experience when customers start to mentally process the information and pictures related to their shopping experience.

Uniqueness in a spaza shop context

As shown in Table 2, the uniqueness factor consists of eight items in total, half of the items were originally developed to measure esthetic, and the other half were originally intended to measure distinctiveness. The items loaded onto one factor, which was subsequently renamed uniqueness. The results indicated that uniqueness refers to the attractiveness of the outside colour of the spaza shop, building design and interior design. It also means that the interior and exterior appearance of a spaza shop can make it stand out and be distinctive compared to other stores which may sell grocery items. Spaza shop owners can enrich their uniqueness by focusing on the exterior and interior appearance of their shops. Warm paint colours (such as orange, yellow and red), pot plants, trees and concrete paving can be incorporated into the exterior environment of the spaza shop to make it more appealing for shoppers. Wallpaper, decorations, paintings and other visual art can be used inside the spaza shop to make the interior more visually satisfying for shoppers.

Affective in a spaza shop context

The affective factor was constituted of four items (refer to Table 2). The results suggest that happiness, excitement, joy and surprise are some of the emotions that need to be stimulated in customers during the shopping experience for a positive affective experience. To encourage such experiences, spaza shop managers and employees are encouraged to ensure that their customers are dealt with in a respectful and polite manner. It is also recommended that spaza shops increase their marketing activities about some of their products and services during promotions as it may arouse excitement around the purchase activity at the store. Most customers become happy when they buy products and services at discounted prices. Spaza shops are encouraged to avoid selling spoilt, stale or fake products to their customers as it may cause a negative affective experience. To prevent this, spaza shops are encouraged to sell their customers only fresh, original products.

Social in a spaza shop context

As can be seen from Table 2, four items loaded onto the social factor as intended. The results reveal that employees (at the spaza shop) are crucial contributors to a positive social shopping experience. Customers appreciate being able to interact and have meaningful conversations (about life in general) with spaza shop employees during their shopping experience. It also contributes positively to the customers' social shopping experience when employees can solve customer queries and complaints effectively and, if need be, make suggestions to customers. Therefore, with consideration to the above, spaza shops are encouraged to ensure that their customers are dealt with in a friendly and respectful manner by their employees. Spaza shops are further advised to employ workers who are wanting to genuinely converse with customers, strive to stay up to date with current affairs and enjoy generating solutions to customer queries and complaints.

Customer experience

It can be seen in Table 2 that three items loaded onto the customer experience factor as intended. These findings could be an indication that positive employee behaviour in the form of friendliness, respect and helpfulness contributes to the occurrence of the spaza shopping experience. Therefore, it is recommended that spaza shop managers continue to encourage their workers at the shop to be polite, assist and be respectful during customer interactions. Spaza shop managers are encouraged to show appreciation and recognition to their employees when they have shown great customer service care. Doing this will assist in keeping all employees motivated to provide exceptional customer experiences.

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INFLUENTIAL FACTORS THAT SHAPE PURCHASING BEHAVIOURS FOR LUXURY GOODS WITHIN THE LGBTQI+ CONSUMER SEGMENT

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ABSTRACT

This paper investigates the factors influencing the purchasing behaviour of luxury goods within the LGBTQI+ market segment. Despite its growth, limited research delves into the motives behind luxury purchases within this community. The LGBTQI+ community's increasing visibility and acceptance have bolstered their economic influence, particularly in luxury sectors, forming what is termed the Pink Economy. This encompasses bespoke businesses serving LGBTQI+ consumers across various industries, from fashion to travel. With the expanding luxury market and the increased spending power, understanding the factors that influence their buying behaviours is crucial. The study employed a quantitative approach; 428 usable questionnaires were submitted for statistical analysis using SPSS 28 and SEM via AMOS 28 revealed a significant positive correlation between psychological factors and the intention to purchase luxury goods. This underscores the influence of psychological factors such as motives, perceptions, attitudes, and beliefs on purchase decisions. This research can help marketers and luxury brands craft targeted strategies to engage effectively with this diverse market segment.

Keywords: consumer behaviour; LGBTQI+ market; luxury goods; sociodemographic factors

INTRODUCTION

The LGBTQI+ market segment has undergone a significant transformation in recent years, driven by the growing societal acceptance of the community (Del Rio, 2021). This shift has led to greater visibility and a surge in spending, which has notably contributed to economies worldwide (Taylor, 2020). The economic influence of South Africa's LGBTQI+ community exceeds R250 billion, as evidenced by the Size Matters report published by the Other Foundation (2024). This study underscores the substantial purchasing power wielded by this demographic, highlighting its significant role in the national economy. This considerable

purchasing power has led to the classification of LGBTQI+ consumers as key contributors to the economy (Um, 2014). Notably, studies reveal that LGBTQI+ individuals generally possess higher disposable income than their non-LGBTQI+ counterparts (Um, 2014) and display a marked preference for luxury goods (Junzuan Ye, 2019). Consequently, some brands have identified this market as a valuable opportunity for revenue and market share growth (Um, 2014).

The global market for personal luxury goods is a significant and expanding industry, exceeding 250 billion USD in 2022 and expected to grow by 3.2% per year from 2023 to 2028. (Faccioli & Martin, 2022). The intersection of the LGBTQI+ market segment's increasing spending power and their preference for luxury goods makes this segment particularly attractive for luxury brands. This phenomenon has even been termed the "ideal market" (Bagnall, 2011). However, despite its potential, the LGBTQI+ market remains largely untapped in developing economies such as South Africa (Williamson, 2021). Therefore, it is essential for businesses, particularly in such markets, to better understand and engage with this segment to harness the "pink economy" for broader economic growth.

This study addresses the gap in understanding the factors that influence luxury goods purchasing behaviour among the LGBTQI+ market segment. Although brands have started targeting this group, there is little research on their specific motivations and decision-making processes. This research identifies key drivers behind LGBTQI+ consumers' luxury purchases, offering insights for marketers aiming to engage this demographic. The findings contribute to the literature on consumer behaviour, particularly in South Africa, where LGBTQI+ consumer research is limited (Williamson, 2021).

The rest of the paper will explore in greater detail the various factors that influence the purchase behaviour of luxury goods within the LGBTQI+ market segment, offering an in-depth analysis of this emerging consumer cohort and its impact on the luxury goods market of the LGBTQI+ market segment, particularly where luxury goods are concerned.

LITERATURE REVIEW

LGBTQI+ Market Segment

The LGBTQI+ market, which includes lesbian, gay, bisexual, transgender, queer and intersex individuals, with the "+" symbol representing broader inclusivity (Parent, DeBlaere and Moradi, 2013), has emerged as a complex and heterogeneous consumer segment. Since the 1990s, the use of this umbrella term has developed to reflect a shared social identity that promotes both community solidarity and distinct patterns of consumption. Social Identity Theory, as proposed by Tajfel and Turner (1979), offers insight into the ways in which individuals within this group derive aspects of their self-concept from group membership, thereby shaping their

consumer behaviour. Luxury brands, for example, frequently function as markers of identity affirmation, allowing LGBTQI+ consumers to express alignment with communities that place importance on visibility, pride and authenticity (Weedon et al., 2017).

In recent years, increasing societal acceptance of LGBTQI+ identities, influenced by sustained advocacy, progressive education and evolving cultural norms (Shatto and Erwin, 2016), has enhanced the community's political visibility and economic influence (McBrien and Rutigliano, 2022). The reduction in stigma has facilitated greater engagement in public life and has simultaneously strengthened collective economic agency, with an estimated purchasing power of R152 billion within South Africa alone (The Other Foundation, 2017). While this level of economic influence is comparable to that of other minority groups, Social Identity Theory also highlights the role of in-group loyalty and out-group differentiation in shaping consumption choices. LGBTQI+ consumers are often inclined to support brands that affirm their identity, while actively distancing themselves from those perceived as non-inclusive or disingenuous (Madinga et al., 2021).

Nevertheless, despite growing attention to LGBTQI+ consumer markets, there remains a significant gap in scholarly understanding regarding how individuals within the community interpret and respond to marketing representations (Kemp, 2019). This calls for further empirical investigation into the nuanced ways identity, community belonging and market engagement intersect within LGBTQI+ consumer behaviour.

Luxury Goods

The conceptualisation of luxury is inherently fluid and subject to continuous evolution, precluding the possibility of a singular, universally applicable definition for luxury goods (Hudders, Pandelaere & Vyncke, 2013). This elusiveness stems from the subjective nature of luxury, which is deeply influenced by individual perceptions, cultural contexts, and socio-economic factors. Consequently, what constitutes a luxury for one individual or group may not hold the same significance for another.

Despite this definitional challenge, common characteristics are often attributed to luxury goods. Zhang and Cude (2018) provide a concise definition, characterising luxury goods as items distinguished by their high price, exceptional quality, and limited availability. Consumers are drawn to these products not merely for their functional attributes but also for the powerful interplay of quality, emotional resonance, and perceived rarity (Zhang & Cude, 2018). While not essential for survival, luxury goods are often perceived as enhancing the consumer's quality of life, offering a degree of ease or indulgence that differentiates them from necessary commodities. Their elevated price point typically positions them as purchases for individuals

possessing greater disposable income or accumulated wealth than the average person (Chiou & Hsiao, 2017).

Beyond their tangible attributes, luxury goods and brands wield significant symbolic power, contributing to their high demand (Ergun, 2021). The acquisition and display of luxury items often serve as powerful markers of high social status and a prosperous lifestyle. This symbolic value extends beyond mere ostentation, tapping into consumers' deepest aspirations and dreams. As Ergun (2021) elaborates, luxury goods embody more than just superior craftsmanship and quality; they represent personal achievements, desired identities, and a cultivated aesthetic.

A more comprehensive understanding of luxury goods can be gleaned from a set of six key criteria that define their distinctive features. Ergun (2021) identifies these as: excellent quality, a very high price, rarity and uniqueness, beauty and poly-sensuality, ancestral heritage and personal history, and ultra-flushness. These attributes are consistently perceived as positive qualities that contribute to the allure and desirability of luxury products, shaping their unique position within the consumer market.

Factors that influence purchase intentions

Kotler and Keller (2016) emphasise various critical factors that influence purchase intentions, encompassing psychological, personal, social, and cultural aspects. Additionally, as noted by Ajzen (1991), an individual's intention significantly impacts their decision to engage in a particular behaviour.

Psychological factors

The increasing global recognition and acceptance of the LGBTQI+ community have significantly enhanced their visibility and representation, which in turn has had a notable impact on their consumer behaviour. Research shows that inclusive societies not only support social development but also contribute to economic growth through what is commonly known as the pink economy (Ramya and Ali, 2016). In this context, psychological factors such as motivation, perception, learning, beliefs and attitudes play an essential role in influencing purchasing decisions (Solomon and Russell, 2023).

Motivation, which stems from both physiological and psychological needs, affects consumer preferences related to convenience, self-expression, prestige and the desire for social connection (Baker and Hart, 2016). LGBTQI+ consumers are particularly drawn to brands that affirm their identity and create a sense of belonging, which reflects the ideas behind Self-Determination Theory that focuses on the fulfilment of intrinsic needs such as autonomy, competence and relatedness (Ryan and Deci, 2000). Perception also shapes how consumers

evaluate brands, with LGBTQI+ individuals more likely to support companies that are perceived to be inclusive and socially responsible (Madinga et al., 2021; Kotler and Armstrong, 2015). These perceptions are reinforced through learning, as consistent positive experiences with a brand strengthen loyalty, especially when the brand demonstrates ongoing and authentic support for the LGBTQI+ community (Weedon et al., 2017; Solomon and Russell, 2023). The Theory of Planned Behaviour, developed by Ajzen (1991), provides a useful framework for understanding these patterns, particularly in relation to luxury purchasing behaviour. LGBTQI+ consumers are influenced by their attitudes towards brands that reflect and support their identity, by social norms within their communities that encourage ethical and inclusive consumption, and by their perceived ability to access and afford luxury products. This combination of psychological and social factors illustrates how internal motivations and external influences work together to shape behaviour (Alyaqout & Alyaqout, 2023). Therefore, it is hypothesised that:

H_1: There is a statistically significant relationship between psychological factors and the LGBTQI+ market segment's intention to purchase luxury goods.

Personal Factors

Consumer behaviour is significantly influenced by personal characteristics such as age, income, occupation, lifestyle, and gender identity. Age plays a pivotal role in shaping consumer preferences, with needs and tastes evolving at different life stages (Rehman, Yusoff, Zabri, & Ismail, 2017). Income levels also significantly influence product choices, as individuals consider disposable income, savings, and borrowing capacity when making purchasing decisions (Suvadarshini & Mishra, 2021). Occupation is another key driver, affecting the products and brands individuals favour and exposing them to various influences from their reference groups depending on their job roles (Rehman & Jamil, 2016). Executives, for example, are more inclined to indulge in premium brands compared to those in lower-level positions (Rani, 2014). Consumer lifestyle, reflecting surroundings, interests, opinions, and activities, also moulds purchasing behaviour (Rani, 2014). Consumers with extravagant lifestyles and higher incomes are more likely to purchase luxury goods with minimal hesitation, while those facing financial constraints adopt a more conservative approach to luxury spending (Rani, 2014). The family's life cycle stage significantly impacts luxury goods consumption, with teenagers influenced by peer pressure from social media, music videos, and television shows (Gil, Dwivedi, & Johnson 2017), and older consumers investing in luxury products to convey social status (Amatulli, Guido, & Natarajan, 2015). Gender identity is a significant factor in shaping purchase intentions, with increasing recognition of non-binary gender identities (Haig, 2004; Sigelman & Rider, 2017). Cultural variations also affect

decision-making dynamics within households (Yang & Lu, 2015). Based on the above, it is hypothesised that:

H_2: There is a statistically significant relationship between personal factors and the LGBTQI+ market segment's intention to purchase luxury goods.

Social Factors

Humans are inherently social creatures, and their behaviours are shaped by their daily interactions. Various social factors, such as family dynamics, reference groups, and societal roles and statuses, significantly influence consumer behaviour (Hemsley-Brown & Oplatka, 2016:14). In the context of family, queer couples typically have smaller nuclear families, where individual choices and decision-making power hold more significance compared to the larger, more collectively oriented decision-making process seen in heterosexual joint families (Folgerø, 2008). Familial buying patterns significantly shape preferences, dislikes, and personal tastes (Badgett, 2001). Reference groups, composed of individuals who share common norms and whose behaviours are interdependent, also play a crucial role in shaping attitudes, values, and behaviours. This influence is evident in LGBTQI+ communities, where overlapping reference groups contribute to the collective shaping of individual behaviour (Ramya & Ali, 2016). Roles and status within society impact consumer choices, as individuals select products that reflect their societal roles or the roles they aspire to attain (Shah∗ & Asghar, 2023). This is particularly relevant to the LGBTQI+ communities, where the concept of "pink money" associated with a luxurious lifestyle may drive consumer behaviour, influenced by aspirational goals (Badgett, 2001). Societal perceptions often stereotype openly homosexual individuals, especially gay men, as economically stable and belonging to higher social classes, despite such generalisations not necessarily reflecting reality (Badgett, 2001:175). Based on the above, it is hypothesised that:

H_3: There is a statistically significant relationship between social factors and the LGBTQI+ market segment's intention to purchase luxury goods.

Cultural Factors

Culture serves as the defining characteristic that distinguishes one society from others. It encompasses a range of elements, including beliefs, language, myths, conventions, rituals, and laws, shaping people's behaviour and the tangible products resulting from that behaviour as they are transmitted across generations (Hoyer et al., 2018). Various cultural factors, such as geographical location, country, religion or religious affiliations, and social associations, play a significant role in influencing consumer behaviour (Beyers, 2017). The extent to which a consumer identifies with these cultural elements can impact their overall cultural orientation and, consequently, influence their spending patterns, especially on luxury items. Importantly,

since culture is acquired, consumers often draw upon their cultural background as a rationale for their financial decisions (Hoyer et al., 2018).

Based on the above, it is hypothesised that:

H_4: There is a statistically significant relationship between cultural factors and the LGBTQI+ market segment's intention to purchase luxury goods.

Purchase intention and consumer buying behaviour

Consumer buying behaviour encompasses the complex process through which individuals select, purchase, and utilise goods and services to satisfy personal needs and desires (Ramya and Ali, 2016). The Theory of Planned Behaviour (TPB), developed by Ajzen (1991), offers a comprehensive framework for understanding this process. It proposes that purchase intention, which serves as a strong predictor of actual behaviour, is influenced by attitudes towards the behaviour, perceived social norms, and the individual's sense of behavioural control. These three elements interact to shape the consumer's decision-making process, particularly in relation to whether an intended action is translated into actual behaviour.

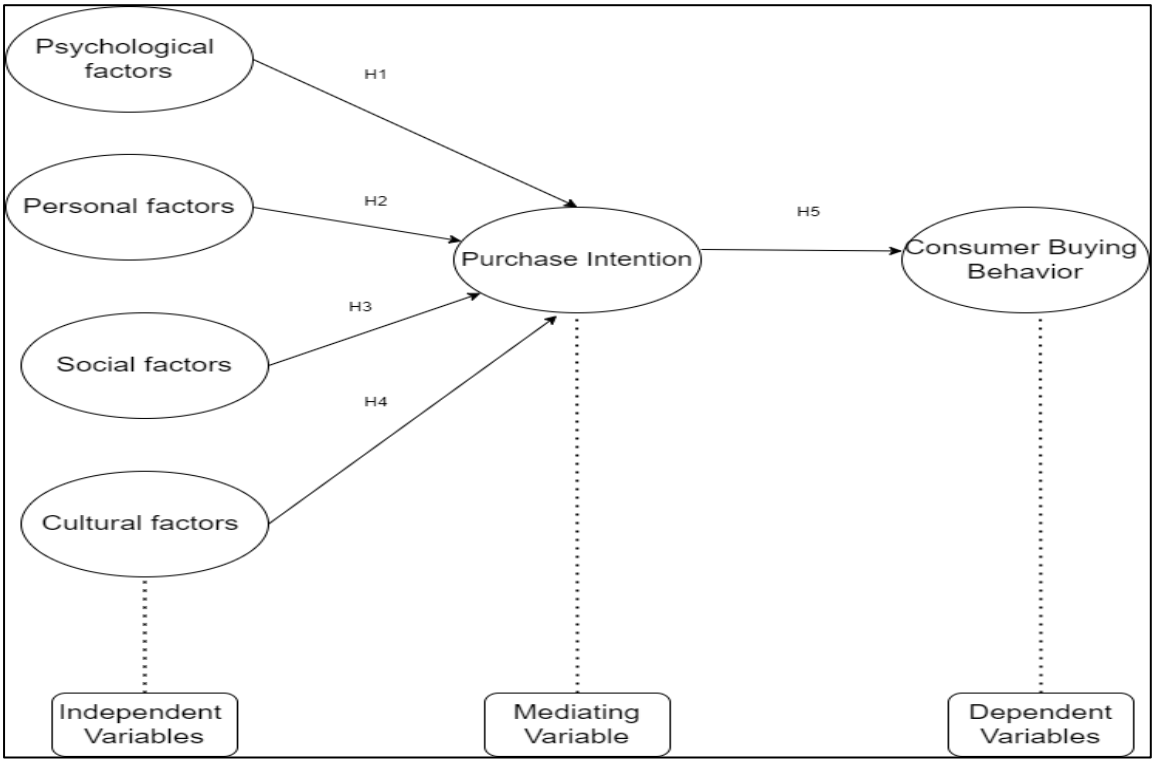
Purchase intention reflects not only the consumer's readiness to act but also their willingness to acquire specific goods or services (Ali et al., 2020). It is further influenced by their tendency to adjust attitudes in response to motivational or situational cues (Sohn and Kim, 2020). Among LGBTQI+ consumers, these intentions are frequently shaped by brand attitudes that affirm identity, such as inclusive marketing, by community-driven expectations that reflect broader social norms, and by the perceived capacity to access and afford products, especially in luxury categories. The TPB builds upon the earlier Theory of Reasoned Action (Ajzen and Fishbein, 1980) by recognising that external constraints—such as economic barriers or discriminatory experiences can hinder the translation of intention into actual behaviour, thus accounting for discrepancies between what consumers intend to do and what they ultimately do (Sohn and Kim, 2020).

Brands play a significant role in shaping consumer intentions, particularly through the development of inclusive messaging that cultivates loyalty (Erciş et al., 2012). For LGBTQI+ individuals, alignment between brand identity and personal values often determines purchase decisions, illustrating how TPB's concept of subjective norms intersects with the principles of Social Identity Theory (Weedon et al., 2017). Additional contextual factors, including the shopping environment (such as online versus physical stores), perceptions of product quality (Bilal and Ali, 2013), and the level of trust in promotional content (Ali et al., 2020), further influence how consumers evaluate and act upon their intentions. These insights underscore

the multifaceted nature of consumer behaviour and highlight the importance of socially attuned and contextually responsive marketing strategy. Based on the above, it is hypothesised that: H_5: There is a statistically significant relationship between purchase intention and consumer buying behaviour within the LGBTQI+ market.

From the information gathered, we can illustrate the influence of various independent variables (psychological, personal, social, and cultural factors) on consumer buying behaviour, with purchase intention acting as a mediating variable. The research is grounded in Kotler's theory of consumer behaviour. The hypothetical model illustrating the relationships between these variables is presented in Figure 1. Hypothetical model of proposed relationships for factors influencing consumer buying behaviour of luxury goods among the LGBTQI+ market segment.

FIGURE 1: HYPOTHETICAL MODEL



METHODOLOGY

The study employed non-probability sampling, using convenience and snowball sampling to gather data from LGBTQI+ individuals in South Africa, aged 18-65. A total of 428 self-administered web-based questionnaires were completed, and the demographic profile is detailed in Table 1. For data analysis, responses were first encrypted and organised in Excel, where data cleaning was conducted. The cleaned data was then imported into SPSS for descriptive analysis, which included generating tables and graphs. Reliability was tested using Cronbach's alpha to ensure internal consistency, while Confirmatory Factor Analysis (CFA) verified the factor structures. Structural Equation Modeling (SEM) and path analysis were used to examine relationships between variables, and various inferential statistics were applied, such as Pearson Correlation and ANOVA, to assess group differences and relationships.

TABLE 1: DEMOGRAPHIC PROFILE OF THE SAMPLE

Age	Frequency	Percentage (%)
18-29	373	87.1
30-39	18	4.2
40-49	26	6.1
50-59	11	2.6
Level of education		
Lower than Grade 12 (Lower than NQF 4)	3	0.7
Grade 12 (NQF 4)	22	5.1
Higher Certificate, Advanced National (vocational) Cert. (NQF 5)	55	12.9
National Diploma, Advanced Certificates (NQF 6)	30	7.0
Bachelor's Degree, Advanced Diploma, Post Graduate Certificate and B-tech (NQF 7)	125	29.2
Honour's Degree, Post Graduate Diploma and Professional Qualifications and higher (NQF 8 and higher)	193	45.1
Monthly Income		
R5000 and below	49	11.4
Between R5001 - R10 000	31	7.2
Between R10 001 - R20 000	74	17.3
Between R20 001 - R30 000	126	29.4
Between R30 001 - R40 000	73	17.1
R41 000 and above	61	14.3
Prefer not to say	14	3.3
***n =428**		

Table 1 summarises the demographic profile of the respondents.

Age

The age distribution analysis revealed that most respondents (87.1%) are aged 18-29 years. Smaller age groups include 30-39 years (4.2%), 40-49 years (6.1%), and 50-59 years (2.6%). A detailed breakdown is provided in Table 4.1.

Level of Education

The educational background of respondents indicates that nearly half (45.1%) hold a postgraduate qualification, such as an Honour's degree, PG Diploma, or Professional Qualification. A minor proportion (0.7%) have not completed Grade 12, and 5.1% have only completed Grade 12. Other educational levels include Higher Certificate or Advanced National (vocational) Certificate (12.9%), National Diploma or Advanced Certificate (7.0%), and Bachelor's degree, Advanced Diploma, Post Graduate Certificate, or B-tech (29.2%).

Income

The income distribution shows a diverse financial background among respondents. The largest group (29.4%) reports a monthly income between R20,001 and R30,000. Other significant income ranges include R10,001 to R20,000 (17.3%) and R30,001 to R40,000 (17.1%). Additionally, 14.3% earn R41,000 and above, while 11.4% earn R5,000 or less. A small percentage (3.3%) chose not to disclose their income. This data, detailed in Table 1, provides insights into the financial diversity of the participants.

Survey instrument and procedure

Data collection involves systematically gathering and measuring information on variables of interest to address research questions, formulate hypotheses, and assess findings (Kabir, 2016). The study used both primary and secondary data sources. Secondary data, collected by others (Goodwin, 2012), was specifically obtained for the literature review, while primary data was generated by the researcher through surveys to address the research problem. Ensuring the validity and reliability of the chosen instrument is crucial, as it affects the overall validity and reliability of the research (Suter, 2012). The data collection method must be critically evaluated to ensure it produces the desired results. In this study, self-administered web-based and paper-based questionnaires were used, featuring multiple-choice and Likert scale questions to ensure anonymity and privacy. A seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree), was employed. The questionnaire contained 35 measurement items, with a minimum of 4 and a maximum of 7 items per variable. Questions were adapted from previous research by Sánchez-Alzate and Sánchez-Torres (2017) and Handarkho (2020). After data collection, the researcher encoded the data into an Excel spreadsheet for analysis, which was then imported into IBM©SPSS©28 for further processing.

RESULTS

The study assessed the reliability of its measurement instrument using Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE) tests, revealing varying levels of internal consistency. Psychological factors had a Cronbach's alpha of 0.81, personal

factors scored 0.74, social factors 0.80, and cultural factors 0.71. Purchase intention and consumer buying behaviour showed good consistency at 0.82 and 0.86, respectively, aligning with Shahirah and Moi (2019), where values above 0.80 are good and above 0.70 are acceptable. Composite reliability scores were also within acceptable ranges, all surpassing the 0.7 threshold (Haji-Othman & Yusuff, 2022). Psychological factors had a slightly lower but acceptable reliability of 0.627, confirming the reliability of the research instrument. Validity tests, including convergent and discriminant validity, showed satisfactory results, with acceptable AVE values and correlations below the critical threshold. Model fit assessment supported the model's adequacy, while structural model testing revealed significant positive relationships between psychological factors and purchase intention, as well as between purchase intention and consumer buying behaviour. However, personal, social, and cultural factors did not show significant associations with purchase intention, highlighting unique dynamics within the LGBTQI+ market segment. Overall, the study provides valuable insights into purchase intentions and consumer behaviour in this demographic, contributing to a deeper understanding of consumer dynamics in this niche market. These findings are shown in Table 2.

TABLE 2: HYPOTHESIS TESTING RESULTS

Hypothesis	Relationship	Estimate	Standardised Estimate	t-values	P-values	Hypothesis Result
H_1	Psychological Factor & Purchase Intention	0.289	0.369	3.066	0.002	**Supported**
H_2	Personal Factor & Purchase Intention	-0.154	-0.164	-1.218	0.223	**Not supported**
H_3	Social Factor & Purchase Intention	0.114	0.136	1.485	0.137	**Not supported**
H_4	Cultural Factor & Purchase Intention	0.072	0.095	1.696	0.09	**Not supported**
H_5	**Purchase Intention & Consumer buying behaviour**	**0.85**	**0.636**	**10.666**	***	**Supported**

a significance level p<0.05; b significance level p<0.01; c significance level p<0.001

Overall analysis of hypotheses testing results

Hypothesis 1 (H1) reveals a significant and positive relationship between psychological factors and the LGBTQI+ market segment's intention to purchase luxury goods. This underscores the considerable influence of psychological factors, including individual motives, perceptions, attitudes, and beliefs, in shaping purchase intentions. The results affirm the importance of understanding the psychological underpinnings of consumer behaviour within this market segment. Conversely, Hypotheses 2, 3, and 4 (H2, H3, H4) do not provide evidence of

significant relationships between personal, social, and cultural factors, respectively, and the intention to purchase luxury goods within the LGBTQI+ market. These results suggest that factors related to personal traits, external social influences, and cultural norms do not exert a substantial influence on purchase intentions in this specific context. This departure from prior research emphasises the unique dynamics at play within the LGBTQI+ market. Hypothesis 5 (H5) solidifies the central role of purchase intention in shaping consumer buying behaviour within the LGBTQI+ market segment. A strong and positive relationship between purchase intention and actual consumer buying behaviour is established, highlighting that purchase intention significantly influences the purchasing decisions made by individuals in this market segment.

The research delves into six key areas - psychological, personal, social, cultural factors, purchase intention, and consumer buying behaviour - offering insights valuable to businesses targeting the LGBTQI+ market segment. Psychological factors play a significant role in shaping purchase intentions, urging businesses to tailor their strategies accordingly. While personal factors may not directly influence purchase intention, acknowledging diversity within the community is crucial. Social and cultural factors were not found to significantly affect purchase intention, but understanding nuances is vital for effective marketing. Establishing a strong link between purchase intention and consumer behaviour underscores the need for strategies that nurture intention. The study's nuanced findings stress the importance of context and sample intricacies in interpretation, guiding businesses towards more inclusive and effective marketing practices in the LGBTQI+ market segment.

PRACTICAL MANAGERIAL IMPLICATIONS

Marketing campaigns should be crafted to resonate with the psychological motivations of LGBTQI+ consumers, focusing on themes of self-expression, identity affirmation, and emotional connection. Brands could collaborate with LGBTQI+ influencers or create campaigns that celebrate diversity and inclusion. While personal, social, and cultural factors may not directly affect purchase intentions, acknowledging the diversity within the LGBTQI+ community is vital. Brands should ensure that their messaging and imagery reflect a broad range of identities and experiences to foster inclusivity and trust. To strengthen purchase intention, brands should adopt strategies such as personalised marketing, exclusive offers, and exceptional customer service. For instance, luxury brands could offer tailored experiences like private shopping events or curated collections to attract LGBTQI+ consumers and convert their intentions into actual purchases. By applying these insights, managers can develop more effective and inclusive marketing strategies that resonate with the LGBTQI+ segment, ultimately enhancing brand loyalty and driving revenue growth. The study highlights the

importance of understanding the unique dynamics of this market and adapting approaches to cater to its specific needs and preferences.

LIMITATIONS OF THE STUDY AND RECOMMENDATIONS FOR FUTURE STUDIES

Several limitations in this study deserve attention. Firstly, the sample size and diversity of participants present constraints. Despite efforts to include a diverse range of LGBTQI+ individuals, the study may not fully represent the entire community. Future studies could benefit from larger and more diverse samples to encompass a broader range of perspectives and experiences. Secondly, the reliance on questionnaires may have limited the depth of understanding. Employing a mixed-methods approach, including interviews and focus groups, could provide richer insights into the factors influencing consumer behaviour within the LGBTQI+ market segment. Lastly, the generalisability of the study's results is limited by its context-specific nature. The results, based on a particular cultural and regional setting, may not be directly applicable to all LGBTQI+ communities or other cultural environments. Future research should explore these relationships in various contexts for a more comprehensive understanding. Future research in this field could benefit from several avenues of exploration.

CONCLUSION

This study examined factors influencing luxury goods purchasing behaviour among the LGBTQI+ market segment. Findings revealed that psychological factors—such as motives, attitudes, and beliefs—significantly drive purchase intentions, while personal, social, and cultural factors had no notable impact. A strong positive relationship between purchase intention and actual buying behaviour was also established. These insights highlight the importance of emotional and identity-driven marketing strategies for luxury brands targeting this demographic. However, the study’s regional focus limits generalisability, calling for broader, mixed-methods research in future. The results provide a foundation for more inclusive and effective marketing approaches in the luxury sector.

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MACHINE LEARNING FOR PREDICTING SUSTAINABLE CONSUMER-BRAND RELATIONSHIP IN GREEN BEAUTY PRODUCTS

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ABSTRACT

This study investigates consumer-brand engagement (CBE) predictors in the green beauty sector within an emerging market context. Drawing on CBE theory and a survey of 500 South African consumers, we apply machine learning (ML) models (including Random Forest, Gradient Boosting, Linear Regression, and Stochastic Gradient Descent) to identify key drivers of brand awareness, association, loyalty, and trust. The findings reveal that quality perception, price perception, and green product attitudes are the most influential predictors of engagement. Brand trust and loyalty exhibit the highest predictive power, while brand awareness remains difficult to model. Feature importance analyses emphasize the relevance of sustainability-related attributes, such as perceived ethicality and environmental knowledge. This study contributes to branding literature by integrating ML analytics with sustainability-oriented consumer behaviour, offering practical insights for companies aiming to foster long-term consumer relationships in eco-conscious markets. Implications for brand strategy, sustainability communication, and market segmentation are discussed.

Keywords: Consumer-brand engagement; Green beauty; Machine learning; Sustainability marketing

INTRODUCTION

Consumers increasingly seek brands that align with their values and choices as they become more conscious of sustainability. This shift is particularly pronounced in emerging markets, where concerns about environmental degradation, unethical corporate behaviour, and misleading sustainability claims have intensified (Bevan-Dye and Synodinos, 2025). The green beauty sector, which encompasses personal care products produced in an

environmentally friendly way, has emerged in this wave of transformation (Srivastava, Sanjeev and Gupta, 2024; Limbu, Pham and Nguyen, 2022; Lupindo, Madinga and Dlamini, 2024).

Despite the heightened interest in sustainability-focused branding, the factors influencing consumer-brand engagement in the green beauty sector remain underexplored, particularly in emerging economies such as South Africa. Grasping consumer brand engagement requires shifting from traditional brand management approaches to interactive and relationship-oriented models (Hollebeek, Küçük and Çağlar, 2014; Ndhlovu and Maree: 2024; Zeqiri, Koku, Dobre, Milovan, Hasani and Paientko, 2025). Previous studies have established that brand knowledge, brand association, brand loyalty, and brand trust are central to long-term consumer engagement and brand equity formation (Cheung, Pires, Rosenberger, Leung and Sharipudin et al., 2021; Goyal & Verma, 2022; Santos, Cheung, Coelho and Rita, 2022). Prior literature works have established that factors such as brand awareness, brand association, brand loyalty, and brand trust are essential to long-term consumer engagement and brand equity formation (Sang and Cuong, 2025; Goyal and Verma, 2022).

However, these brand factors have not been extensively examined in the context of environmental sustainability, particularly in green beauty product markets in emerging economies. Furthermore, although consumer brand engagement (CBE) theory provides a solid foundation for understanding brand interactions, its application in sustainability-oriented branding is still evolving. Existing research has mainly focused on attitudinal and behavioural aspects of brand engagement, often neglecting the role of sustainability-related values. In particular, there is limited understanding of how ethical consumerism, environmental awareness, and perceived brand sustainability shape CBE outcomes in emerging markets.

LITERATURE REVIEW AND PROBLEM INVESTIGATED

A global shift toward sustainable consumption has elevated green products as central to branding strategies, especially in sectors directly linked to personal well-being, such as beauty and cosmetics. Environmentally friendly products are characterised by their ability to satisfy consumer needs while minimising ecological harm (Srivastava et al., 2024). Green beauty products, in particular are produced using sustainable production methods and make use of ethically sourced materials, non-toxic ingredients and sustainable packaging (Limbu et al., 2022; Lupindo et al., 2024).

With ever-increasing population growth and environmental pressures mounting (Nations, 2025), the beauty industry faces criticism over unethical practices, including animal testing, excessive packaging, and the use of harmful chemicals (Nguyen, Le, Ho, Dela Cruz, Tran and Do, 2024). In response, consumers increasingly demand transparency and ethical

responsibility from organisations (Nguyen et al., 2024), though scepticism persists due to greenwashing practices.

Within this landscape, Consumer Brand Engagement (CBE) theory offers a multidimensional lens—cognitive, emotional, and behavioural - for understanding how consumers form lasting connections with brands (Hollebeek et al., 2014; Zeqiri et al., 2025). Core dimensions such as brand awareness, association, loyalty, and trust are fundamental to this relationship (Sang and Cuong, 2025), but their role within sustainability-driven branding in emerging markets is still insufficiently examined.

Brand awareness, defined as a consumer's ability to recognise or recall a brand, plays a key role in influencing consumers' eco-conscious choices (Brewer and Zhao, 2010). However, awareness alone may not lead to trust, especially when consumers face difficulty distinguishing between genuinely sustainable brands from those that merely claim to be (Testa, Rizzo, Schifani, Tóth and Migliore, 2024). Similarly, brand association (based on perceptions and experiences) helps build identity and differentiation but must balance ethical messaging with product efficacy to avoid perceptions of green brands as ineffective or overpriced (Ajayi, Olaniyi, Oladoyinbo, Ajayi and Olaniyi, 2024).

Brand loyalty in green beauty is shaped by both rational (price, quality) and ethical (sustainability, transparency) factors (Qalati, Barbos and Deshwal, 2024). While many consumers express sustainable preferences, actual behaviours often reveal that price sensitivity make it difficult for brands to align value and values (Nangia, Bansal and Thaichon, 2024). Brand trust, in turn, hinges on product reliability and ethical consistency. Greenwashing scandals can quickly erode consumer confidence, making transparent communication and credible certifications essential (Dlamini and Mahowa, 2024; Mohammed, Al-Swidi, Al-Hakimi and Ferraris, 2025).

Emerging markets like South Africa present both opportunity and complexity for sustainable branding. Environmental awareness is rising, yet barriers such as income inequality, distrust in claims, and uneven product access persist (Dlamini and Mahowa, 2024; Iannuzzi, 2025). Localised values, such as the importance of locally sourced inputs and visible ethical practices, shape perceptions more than international eco-labels (Foroudi, Marvi, Cuomo and D'Amato, 2024). Therefore, understanding the interplay between brand dimensions and sustainability attributes is essential.

While traditional marketing research has explored CBE constructs, few studies integrate machine learning (ML) to analyse engagement patterns in sustainability-driven sectors. ML offers advanced tools to uncover non-linear relationships and improve predictive accuracy (Saxena, Agarwal, Pandey and Pandey, 2024). Despite its growing application in consumer

analytics, ML remains underutilised in branding studies, especially within the green beauty product domain. This gap points to an urgent need for research that leverages ML to model consumer-brand dynamics under the lens of sustainability.

RESEARCH OBJECTIVES

This study addresses these gaps by examining consumer-brand engagement in the green beauty sector through sustainability-driven branding and ML analytics. The research is guided by two key research questions: What key factors drive consumer-brand engagement (CBE) in the green beauty sector within an emerging market? And how do brand-related and sustainability-driven variables contribute to this engagement?

This research offers a novel methodological approach to branding studies in sustainability-driven markets by integrating ML-driven analytics with consumer-brand engagement theory. The findings reveal that quality perception, price sensitivity, and sustainability-driven attitudes significantly impact brand awareness, association, loyalty, and trust. Among these factors, Brand trust and brand loyalty emerge as the most influential predictors of long-term consumer engagement, reinforcing their critical role in sustainable branding strategies. Brand awareness proves more challenging to predict, highlighting the need for more substantial marketing visibility and consumer education strategies to enhance recognition of green beauty brands. Feature importance rankings across ML models reveal that ethicality, environmental knowledge, and social influences (e.g., bandwagon behaviour) significantly shape consumer-brand engagement.

METHODOLOGY

Sample

The data for this study were collected via an online survey facilitated by the professional marketing research company IPSOS. The target population consisted of individuals aged between 18 and 65 years residing in South Africa. Participants were recruited from the roughly 40 000 panellist pool that IPSOS possesses using convenience sampling, a widely used marketing and consumer research approach. While convenience sampling allows for efficient data collection, it may introduce sampling bias, limiting the generalisability of findings. To mitigate this limitation, post-stratification weighting was considered to adjust for demographic imbalances in the dataset (Kumar, Rahman, Rajverma and Misra, 2024). The sample size of 500 respondents was determined based on model complexity requirements. Machine learning models involving seven or more latent variables, and a minimum sample of 300–500 respondents, are recommended to ensure statistical power and model stability (Hair, Black, Babin, Anderson and Tatham, 2009). This sample size aligns with prior brand engagement

and consumer behaviour studies using machine learning approaches. The survey remained active for five days, during which all respondents voluntarily completed the questionnaire.

Input variables

A structured electronic questionnaire was developed to collect data on brand-related perceptions, behavioural perceptions and controls, and environmental attitudes toward green beauty products. The questionnaire included an introductory section explaining the study's objectives and assuring respondent anonymity, demographic questions to contextualise consumer behaviour patterns and validated, scaled-response items adapted from established literature to measure brand-related outcomes. All scaled-response items were measured using a six-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). The choice of a six-point scale without a neutral midpoint was intentional, as prior studies suggest it encourages more decisive responses and reduces central tendency bias (Honuk et al., 2024). However, this structure may force respondents to express an opinion even when uncertain, potentially introducing bias. This limitation is acknowledged and discussed further in the limitations section of this study.

The brand-related outcomes measured in this study included: Brand Association - six items (Yoo, Donthu and Lee, 2000; Cheung et al., 2021). Brand Awareness - four items (Yoo et al., 2000). Brand Loyalty - five items (Cheung et al., 2021; Yoo et al., 2000). Brand Trust (four items - Ha, 2004; Huifeng and Ha, 2023). Additional variables included quality perception, price perception, consumer perceived ethicality, behavioural control, environmental attitudes, and bandwagon consumer behaviour, measured using previously validated scales (Kim and Choi, 2005). Table 1 below summarises the variables using machine learning models.

TABLE 1: DESCRIPTIVE STATISTICS

Variables	Cronbach's Alpha	VIF	Mean	Dispersion	Standard deviation
Brand association	0.880	1.996	4.216	0.242	1.099
Brand awareness	0.900	2.915	3.903	0.325	1.327
Brand loyalty	0.895	2.748	4.052	0.266	1.159
Brand trust	0.944	2.163	4.622	0.210	1.088
Quality perception	0.887	2.388	4.651	0.190	1.030
Price perception	0.917	2.995	4.306	0.239	1.134
Consumer perceived ethicality	0.920	3.854	4.594	0.194	0.993
Bandwagon consumer behaviour	0.882	2.449	3.815	0.325	1.308
Perceived behavioural control	0.868	2.771	4.946	0.157	0.849
Green beauty product attitude	0.914	3.062	4.732	0.192	1.042
Self-enhancement	0.867	1.725	4.223	0.282	1.241
Self-transcendence	0.863	2.022	5.337	0.132	0.804
Environmental attitude	0.818	2.574	5.010	0.150	0.891
Environmental concern	0.863	2.070	5.216	0.143	0.873
Environmental knowledge	0.903	2.428	4.575	0.195	0.974

Notes: This table lists the variables identified from the literature and along with the explanation. These variables are the inputs to the ML models.

Source: Authors own creation

Machine Learning Models

This study employed machine learning (ML) techniques to improve predictive accuracy and uncover key drivers of consumer-brand engagement. Four models were used: Random Forest (RF), known for its robustness and capacity to model non-linear relationships (Breiman, 2001); Linear Regression (LR), applied as a baseline to assess linear associations between predictors and outcomes (James, Witten, Hastie and Tibshirani, 2021); Gradient Boosting (GB), selected for its strong predictive performance; and Stochastic Gradient Descent (SGD), suitable for high-dimensional data and efficient parameter optimisation.

The study incorporated feature selection, stratified cross-validation, and resampling techniques to enhance model reliability to mitigate class imbalance (Kumar et al., 2024). Cross-validation procedures included stratified 10-fold, stratified shuffle split (80/20), and segmentation by urban versus rural consumers.

Model performance was assessed using standard metrics: Mean Squared Error (MSE), Root Mean Squared Error (RMSE), Mean Absolute Error (MAE), Mean Absolute Percentage Error (MAPE), and R-squared (R^2) (James et al., 2021). The ReliefF algorithm was used to identify the most influential predictors of brand engagement to improve interpretability.

RESULTS/FINDINGS

Predictive performance across brand-related variables

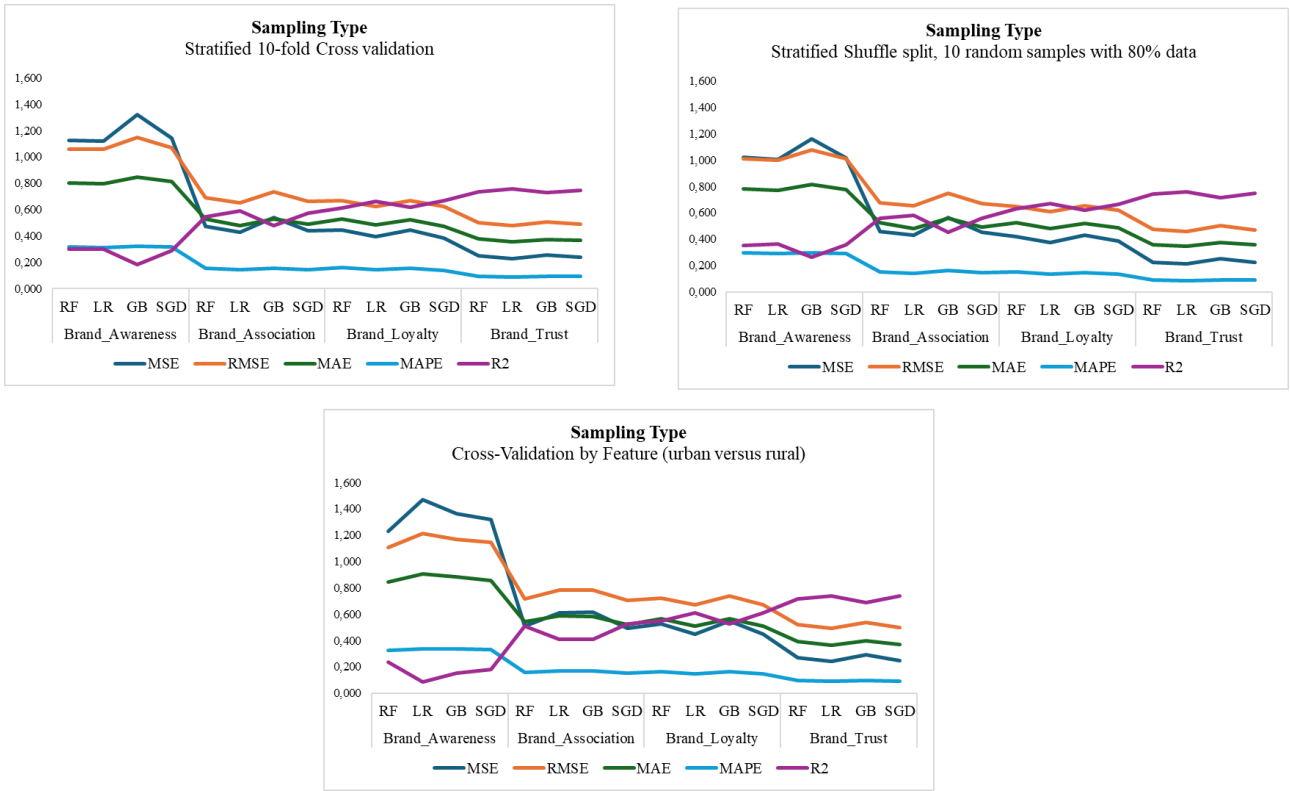
The evaluation of machine learning models across different sampling strategies -stratified 10-fold cross-validation, stratified shuffle Split (80% random samples), and cross-validation by Feature (urban vs. rural) - demonstrates minor variations in performance metrics but no significant impact on overall rankings or conclusions. The key performance indicators considered include Mean Squared Error (MSE), Root Mean Squared Error (RMSE), Mean Absolute Error (MAE), Mean Absolute Percentage Error (MAPE), and R^2 scores. Figure 1 illustrates these variations across all brand-related variables.

Brand awareness exhibited the weakest predictive power, with all models struggling to explain significant variance. Across all sampling techniques, Random Forest (RF) achieved the highest R^2 (0.237–0.354), indicating moderate explanatory power. However, Linear Regression (LR) performed poorly (R^2 = 0.086–0.365) despite having slightly lower RMSE and MAPE values (1.060–1.213 RMSE, 0.288–0.336 MAPE). Gradient Boosting (GB) demonstrated the weakest performance overall, with higher MSE (1.163–1.364) and low R^2

(0.153–0.263), suggesting that it was unable to capture patterns within the data effectively. The weaker predictive power for brand awareness may be attributed to its nature as a cognitive construct rather than a behavioural one. Unlike brand trust or loyalty, which involve tangible consumer actions, awareness relies heavily on exposure, marketing reach, and prior familiarity, making it challenging to model using consumer-driven predictors. Additionally, brand awareness is highly dependent on external market factors, such as advertising efforts, competitor brand visibility, and media presence - factors not directly captured in this dataset.

Brand association models performed better than brand awareness, achieving moderate to good predictive power across all sampling strategies. Linear Regression (R^2 = 0.412–0.589) and Stochastic Gradient Descent (SGD, R^2 = 0.526–0.575) were the most effective models, showing lower error rates (0.428–0.613 MSE, 0.479–0.586 MAE). RF followed closely (R^2 = 0.509–0.557), while GB again showed higher errors and lower R^2 values (0.408–0.481). These findings suggest that brand association is more structured and measurable than awareness, as it involves specific consumer perceptions and product differentiations. This aligns with previous research indicating associative memory mechanisms allow for more structured consumer recall and differentiation.

FIGURE 1: PERFORMANCE METRICS FOR ML MODELS



Legend. Mean squared error (MSE), root mean squared error (RMSE), mean absolute error (MAE), mean absolute percentage error (MAPE), coefficient of determination (R^2), random forest (RF), linear regression (LR), gradient boosting (GB) and stochastic gradient descent (SGD).

Source: Authors own creation

Brand loyalty exhibited strong predictive performance across all ML models, with R^2 values exceeding 0.50 in all cases, meaning the models explained at least half of the variance in consumer loyalty behaviours. Linear Regression (R^2 = 0.611–0.671) and SGD (R^2 = 0.613–0.667) were the top-performing models, achieving the lowest MAE (0.475–0.512) and MSE (0.374–0.450). RF and GB models showed moderate performance, with slightly higher errors and lower R^2 values (0.526–0.631). The high predictability of brand loyalty aligns with prior research emphasising habitual purchasing behaviours and emotional connections to brands. Unlike brand awareness, loyalty is often reinforced through repeated interactions and brand-consumer relationships, making it more stable for predictive modelling.

Brand trust emerged as the most predictable brand-related variable, with R^2 values consistently above 0.69 across all models, demonstrating strong explanatory power. Linear Regression (R^2 = 0.741–0.761) and SGD (R^2 = 0.737–0.749) performed best, achieving low MSE (0.211–0.244) and RMSE (0.459–0.494), indicating high model accuracy. RF and GB also performed well (R^2 = 0.714–0.749) but with slightly higher errors. The high predictability of brand trust may be due to its strong association with measurable consumer perceptions such as product reliability, ethical considerations, and brand transparency. Consumers who trust a brand typically exhibit consistent behaviours, making it a more stable and predictable target variable compared to awareness or association.

Feature importance across machine learning models

Understanding feature importance helps clarify which consumer perceptions most influence brand outcomes. For brand awareness, models showed the greatest variation in predictor rankings. Quality perception consistently ranked highest (RF = 0.363; GB = 16.100), confirming its central role in brand recall. Environmental knowledge followed (e.g., LR = 0.321; GB = 13.084), reinforcing that eco-conscious consumers are more likely to recognise green brands. Price perception and green beauty product attitude were also influential, particularly in Gradient Boosting (12.088 and 6.438, respectively), suggesting that non-linear models capture nuanced effects of pricing and sustainability perceptions. In contrast, bandwagon behaviour and self-enhancement showed lower impact, indicating that awareness is driven more by intrinsic product and environmental attributes than by social or aspirational cues. Table 2 summarises these findings.

TABLE 2: RANK OF FEATURES OF BRAND AWARENESS ON ML MODELS AFTER APPLICATION OF BALANCING TECHNIQUES

Rank	Variables	Random forest	Linear regression	Gradient boosting	Stochastic gradient descent

1	Quality perception	0.363	0.393	16.100	0.373
2	Environmental Knowledge	0.177	0.321	13.084	0.358
3	Price perception	0.159	0.164	12.088	0.242
4	Green beauty product attitude	0.140	0.190	6.438	0.248
5	Consumer perceived ethicality	0.061	0.138	5.110	0.101
6	Bandwagon consumer behaviour	0.037	0.099	10.404	0.135
7	Self-Enhancement	0.021	0.031	10.395	0.024
8	Environmental Attitude	0.021	0.151	6.800	0.169
9	Self-Transcendence	0.008	0.060	8.939	0.069
10	Perceived Behavioural Control	0.006	0.207	6.451	0.245
11	Environmental Concern	0.006	0.015	4.191	0.074

Source: Authors own creation

For brand association, quality perception was consistently the top predictor (RF = 0.455; GB = 27.352), confirming that consumers link brand identity closely with product quality. Price perception followed (e.g., GB = 13.965), emphasising the role of pricing in brand differentiation. Green beauty product attitude and environmental knowledge also contributed, reflecting consumers' growing preference for sustainability-aligned brands. Linear regression highlighted environmental knowledge (0.231) more than GB (9.093), suggesting that linear models may better capture direct sustainability effects. Consumer perceived ethicality had moderate influence (0.057–7.169), supporting its relevance but also played a secondary role to functional attributes. Bandwagon behaviour had a stronger influence here (e.g., GB = 11.056) than in awareness, indicating that social dynamics play a larger role in brand positioning than in initial recognition. Table 3 summarises these insights.

TABLE 3: RANK OF FEATHERS OF BRAND ASSOCIATION ON ML MODELS AFTER APPLICATION OF BALANCING TECHNIQUES

Rank	Variables	Random forest	Linear regression	Gradient boosting	Stochastic gradient descent
1	Quality perception	0.455	0.573	27.352	0.606
2	Price perception	0.184	0.187	13.965	0.204
3	Green beauty product attitude	0.159	0.120	6.422	0.173
4	Environmental Knowledge	0.075	0.231	9.093	0.231
5	Consumer perceived ethicality	0.057	0.164	7.169	0.155
6	Bandwagon consumer behaviour	0.048	0.141	11.056	0.141
7	Environmental Attitude	0.007	0.034	4.251	0.070
8	Self-Enhancement	0.007	0.033	6.060	0.051
9	Perceived Behavioural Control	0.004	0.107	5.023	0.107
10	Self-Transcendence	0.002	0.090	4.343	0.077
11	Environmental Concern	0.001	0.052	5.267	0.084

Source: Authors own creation

For brand loyalty, green beauty product attitude was the top predictor across all models, with Gradient Boosting assigned a high weight (16.882), reflecting its strong link to repeat purchase behaviour. Price perception ranked closely behind (RF = 0.332; LR = 0.354; GB = 19.994; SGD = 0.330), indicating that affordability remains a key factor, even among sustainability-

conscious consumers (Szaban *et al*., 2025). Quality perception came third, suggesting continued loyalty is also influenced by perceived product reliability. Unlike other brand dimensions, bandwagon behaviour had a greater influence here (GB = 8.905), highlighting the role of social validation in loyalty. Consumer perceived ethicality showed moderate importance (e.g., RF = 0.084; GB = 5.816), contributing to loyalty but less so than functional and social factors. Table 4 summarizes these insights.

TABLE 4: RANK OF FEATURES OF BRAND LOYALTY ON ML MODELS AFTER APPLICATION OF BALANCING TECHNIQUES

Rank	Variables	Random forest	Linear regression	Gradient boosting	Stochastic gradient descent
1	Green beauty product attitude	0.336	0.438	16.882	0.377
2	Price perception	0.332	0.354	19.994	0.330
3	Quality perception	0.146	0.238	12.516	0.284
4	Consumer perceived ethicality	0.084	0.100	5.816	0.124
5	Environmental Knowledge	0.044	0.190	8.296	0.184
6	Bandwagon consumer behaviour	0.042	0.074	8.905	0.092
7	Environmental Attitude	0.007	0.102	5.244	0.022
8	Self-Enhancement	0.005	0.037	7.202	0.008
9	Self-Transcendence	0.002	0.184	5.959	0.187
10	Perceived Behavioural Control	0.001	0.045	6.078	0.062
11	Environmental Concern	0.001	0.057	3.107	0.108

Source: Authors own creation

Among all brand-related variables, brand trust showed the strongest alignment with product quality, ethicality, and sustainability. Across models, quality perception consistently ranked as the top predictor (RF = 0.416; GB = 27.976; LR = 0.409; SGD = 0.344), indicating that trust is rooted in confidence in product performance. Green beauty product attitude followed closely, especially in Gradient Boosting (14.804), confirming the importance of eco-consciousness in trust formation. Consumer perceived ethicality also had a significant influence (RF = 0.151; GB = 9.466; LR = 0.112; SGD = 0.111), highlighting the role of fairness, cruelty-free practices, and transparency. While less central, price perception remained relevant, as perceived fairness in pricing contributes to trust (Konuk, 2023). In contrast, bandwagon behaviour and environmental knowledge had limited impact, suggesting that brand trust depends more on product and ethical attributes than on social influence. These findings are summarized in Table 5.

TABLE 5: RANK OF FEATURES OF BRAND TRUST ON ML MODELS AFTER APPLICATION OF BALANCING TECHNIQUES

Rank	Variables	Random forest	Linear regression	Gradient boosting	Stochastic gradient descent
1	Quality perception	0.416	0.409	27.976	0.344

2	Green beauty product attitude	0.300	0.332	14.804	0.371
3	Consumer perceived ethicality	0.151	0.112	9.466	0.111
4	Price perception	0.078	0.112	14.888	0.108
5	Environmental Knowledge	0.017	0.036	6.092	0.035
6	Bandwagon consumer behaviour	0.017	0.094	7.246	0.078
7	Perceived Behavioural Control	0.012	0.078	3.796	0.054
8	Self-Transcendence	0.003	0.065	3.669	0.072
9	Environmental Attitude	0.003	0.092	4.682	0.095
10	Self-Enhancement	0.002	0.033	4.515	0.029
11	Environmental Concern	0.000	0.006	2.865	0.021

Source: Authors own creation

Overall, under comparative insights across models, Random Forest (RF) and Linear Regression (LR) consistently ranked quality perception as the top predictor across all brand dimensions, confirming its central role in shaping consumer perceptions. Gradient Boosting (GB) assigned higher numerical importance scores to green beauty product attitude and price perception, highlighting non-linear interactions between consumer attitudes and brand-related outcomes. Stochastic Gradient Descent (SGD) showed similar patterns to Linear Regression, but with slightly stronger importance assigned to environmental knowledge and price perception. These results suggest that while quality perception remains the dominant driver of brand-related variables, different ML models capture varying degrees of influence from other predictors.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

This study provides empirical insights into the key drivers of brand-related outcomes -brand awareness, brand association, brand loyalty, and brand trust - within the green beauty sector in an emerging market. This paper identifies critical factors influencing consumer-brand engagement, reinforcing the consumer brand engagement (CBE) theory and offering practical implications for sustainable branding strategies. The findings emphasise the importance of quality perception, price perception, and sustainability-driven consumer attitudes in shaping brand relationships, demonstrating how branding in emerging economies is evolving alongside sustainability concerns.

This study contributes to CBE theory by confirming that consumer-brand engagement in emerging markets extends beyond traditional brand trust and loyalty. Specifically, it introduces a sustainability-driven engagement dimension, where consumers interact with brands not only behaviourally (e.g., repeat purchases) but also cognitively (e.g., environmental knowledge) and emotionally (e.g., trust in ethical claims). While previous research has emphasised the attitudinal, behavioural, and motivational components of CBE (Cheung *et al.*, 2021; Santos *et al.*, 2022), this study highlights that engagement in the green beauty sector is increasingly shaped by sustainability-related factors. Future CBE models should integrate sustainability-oriented constructs to capture consumer decision-making in eco-conscious markets better.

The findings further validate brand trust as the strongest predictor of consumer-brand engagement in emerging economies, where scepticism toward sustainability claims remains high. Unlike in developed markets, where brand reputation and longevity play a key role in building trust, consumers in emerging markets appear to rely more on first-hand product experiences, environmental knowledge, and ethical transparency. This suggests that brands must not only communicate their sustainability credentials effectively but also ensure that ethical claims are backed by verifiable evidence, such as third-party certifications and transparent supply chain practices.

The study provides several actionable insights for brand managers in the green beauty sector, particularly in emerging markets. First, quality perception continues to be the foundation of brand success. The results consistently show that quality perception is the strongest predictor of brand engagement across all dimensions. This underscores a fundamental marketing principle: no amount of sustainability messaging can compensate for poor product quality. Consumers may be willing to support sustainable brands, but product efficacy remains the primary driver of long-term engagement. Brands should emphasise high-performance formulations alongside eco-friendly attributes, positioning sustainability as an added benefit rather than the sole differentiator. This aligns with prior research indicating that sustainability is often a secondary consideration, with product performance and sensory appeal driving purchase decisions (Testa *et al.*, 2024).

Second, while sustainability-conscious consumers express a willingness to pay a premium for ethical and eco-friendly products, price perception remains a critical determinant of brand loyalty and trust. This presents a paradox: consumers value sustainability, but many remain price-sensitive, particularly in emerging markets where disposable income is lower. To navigate this challenge, brands should implement tiered pricing models, offering premium and affordable sustainable product lines. Brands should introduce smaller, entry-level product sizes to lower the financial barrier to sustainable consumption. And leverage subscription models and loyalty programs that reward sustainable purchases with discounts. By making sustainability more accessible, brands can expand their consumer base without compromising eco-friendly positioning.

Third, ethical transparency is a key trust-building strategy. The findings confirm that consumer perceived ethicality is a major determinant of brand trust, reinforcing that ethical transparency is a critical asset in markets where greenwashing concerns exist. Consumers are increasingly scrutinising brands' sustainability claims, and misleading marketing can lead to reputational damage. To build trust, brands should obtain and prominently display third-party certifications (e.g., organic, cruelty-free, carbon-neutral). Adopt radical transparency by sharing detailed reports on ingredient sourcing, production methods, and corporate sustainability goals.

Engage in two-way communication through social media and consumer education to address sustainability concerns.

Fourth, educating and engaging consumers beyond green messaging is a strong premise for brand engagement. The importance of green beauty product attitudes and environmental knowledge in brand engagement suggests that brands must go beyond promotional sustainability claims and actively educate consumers. Merely stating that a product is "green" is insufficient - brands must demonstrate why and how their products contribute to sustainability. Effective engagement strategies include storytelling through brand narratives, illustrating how sustainability initiatives positively impact communities and the environment. Influencer partnerships with eco-conscious advocates, who can translate complex sustainability concepts into relatable content. By integrating education into branding efforts, companies can foster deeper consumer connections and drive long-term engagement (Brewer and Zhao, 2010).

CONCLUSIONS

This study challenges conventional branding models by demonstrating that consumer-brand engagement in the green beauty sector is driven by traditional factors such as brand trust and loyalty and sustainability-related values. The research identifies quality perception, price sensitivity, and environmental consciousness as key drivers of brand awareness, association, loyalty, and trust. This reinforces the multidimensional nature of CBE theory, emphasising the need for brands to integrate sustainability as a core component of their strategies.

The managerial implications of this study are clear: brands that align sustainability with tangible product benefits - such as quality, affordability, and ethical transparency—will build deeper consumer engagement. As emerging markets increasingly shape the future of sustainable consumerism, brands that proactively adapt to these evolving expectations will secure long-term competitive advantages.

Beyond South Africa, these findings have broader relevance for other emerging markets, including Latin America, Southeast Asia, and Sub-Saharan Africa, where consumer demand for ethical and sustainable products is growing. However, future research should explore how regional cultural values shape sustainability-driven engagement and how digital communities influence green consumerism across different economies. Additionally, as economic volatility affects purchasing behaviour, further investigation is needed into how price sensitivity interacts with sustainability commitments.

This study also highlights the potential of ML models in advancing branding research, providing data-driven insights into consumer decision-making. However, further interdisciplinary research is required to refine predictive models and integrate them with

behavioural branding theories. Future studies should employ longitudinal data to establish causal relationships between sustainability engagement and brand loyalty. Investigate how ML-driven personalisation can enhance consumer trust in sustainability claims. Explore the intersection of social media analytics and AI in predicting brand engagement and sustainability trends.

Despite its contributions, this study has several limitations. First, the use of convenience sampling may introduce selection bias, limiting the generalisability of the findings. Future research should adopt randomised sampling to improve representativeness. Second, while ML models improve predictive accuracy, they do not establish causal relationships. Longitudinal data or experimental approaches are needed to determine the directionality of the observed effects.

Ultimately, this research reinforces that branding strategies in emerging markets must evolve beyond traditional marketing tactics, integrating sustainability, ethical transparency, and quality-driven engagement. The intersection of ML and branding research presents a powerful opportunity for brands to develop adaptive, consumer-centric sustainability strategies. As consumers demand greater authenticity, brands that leverage data-driven insights while maintaining ethical consistency and product excellence will achieve long-term consumer loyalty and market differentiation.

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THE CURRENT LANDSCAPE OF PLACE IN SOCIAL MARKETING: A SCOPING REVIEW

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ABSTRACT

Social marketing, a sub-discipline of marketing, is increasingly asked to evolve to enable better responses to complex social problems. In response, over the years academics have highlighted several concepts that can be clarified and strengthened to boost social marketing's impact. *Place*, the 3rd P from the social marketing mix, is one such concept. This scoping review investigates the current definition and understanding of *place*. Findings from the review of 69 articles and case studies reveal that *place* continues to show a lack of agreement on its definition and utilisation to support social change interventions. Recommendations include greater integration of multi-disciplinary thinking into defining and utilising *place*, and exploration of emergent spatial concepts such as digital space/place. Such steps can help clarify this foundational term while contemporising social marketing and ensuring its relevance to tackle behaviour change.

Keywords: social marketing mix, place, scoping review, multi-disciplinary; socio-spatial

INTRODUCTION

We live in complex times with complex social problems. Social marketing offers a well-established philosophical approach to designing and implementing social change activities to foster social and behaviour change to bring about better outcomes for all (Gordon *et al*., 2022; Schmidtke *et al*., 2021). Social marketing is a sub-discipline of marketing and borrows established marketing tools and approaches to plan and execute social marketing strategies (French & Gordon, 2019; International Social Marketing Association, 2017; Lee & Kotler, 2019). Stemming from the traditional marketing mix (i.e., the 4Ps of product, price, place, and promotion) is the social marketing mix (Dietrich *et al*., 2022).

In the social marketing mix, the third P of *place* has been defined as "where and when the priority audience will perform the desired behaviour, acquire any related goods, and receive any associated services" (Lee and Kotler, 2019: 299). This seemingly straightforward definition is gainsaid by its history of challenging social marketers. It was declared "the most overlooked and misunderstood P in the social marketing mix" (Lotenberg, 2010:130). Findings

from Edgar *et al*. (2015)'s systematic literature review on place found irregular application of place and frequent overlap of place with the 4th P of promotion. The call was made for social marketers to be more precise and accurate when communicating about place and so as to support maturation of the field (Edgar *et al*., 2015).

The objectives of this article are to review the extant scholarship on place in social marketing, take stock of the degree of consensus on the definitions of place, explore the utilisation of place in social marketing interventions, identify research gaps, and suggest future research opportunities.

The article arranged as follows. Firstly, it provides a brief introduction to social marketing, the social marketing mix and the 3rd P of place. Secondly, the scoping review conducted on place is described. The discussion of findings from the scoping review outlines the current understanding of place from a theoretical and empirical perspective and concludes there is a continued lack of consensus in defining and conceptualising use of place. The paper concludes with some recommendations for place and social marketing. Social marketing can leverage insights from other disciplines to build understanding and consensus on place. This can support social marketing's evolution to better understand behaviour and craft enhanced behavioural solutions. Emergent concepts, such as placelessness/ nonplace and digital space, should also be considered for social marketing's contemporisation.

LITERATURE REVIEW AND PROBLEM INVESTIGATED

Overview of social marketing

Social marketing forms part of the social change market, offering tools that can be intentionally used to bring about positive social results (French & Gordon, 2019; French & Russell-Bennett, 2015). It is a sub-discipline of marketing (Lee & Kotler, 2019) catalysed by Kotler and Zaltman as a framework to plan and enable social change and social good (Gordon *et al*., 2016; Kotler & Zaltman, 1971). It is a practical, applied field of study (French & Russell-Bennett, 2015) that offers a systematic process that integrates various strategies in its design and implementation (Carins & Rundle-Thiele, 2014; French, 2011) to achieve behaviour change (Rundle-Thiele *et al*., 2019). Social marketing is an evolving and still contested discipline (David & Rundle-Thiele, 2019; French, 2011, 2022; International Social Marketing Association, 2017; Kassirer *et al*., 2019) that is tackling a broad range of complex social issues, including public health, climate change and sustainability, water use, social cohesion and citizen engagement, and responsible financial practices (Akbar, Ndupu, *et al*., 2021; Deshpande, 2019; Gordon *et al*., 2016; Willmott & Rundle-Thiele, 2022).

The social marketing mix

The social marketing mix of product, price, place and promotions has been borrowed from the traditional marketing mix (i.e., the 4Ps) (Dietrich *et al*., 2022) and is considered a concept that distinguishes social marketing from other behaviour change approaches (Lahtinen *et al*., 2020; Rundle-Thiele *et al*., 2021). The mix consists of well-known and accepted intervention tools (the 4Ps are brief and memorable!) to plan and execute social marketing strategies (French & Gordon, 2019; International Social Marketing Association, 2017; Lee & Kotler, 2019) and to ensure a valued exchange offering is built (Rundle-Thiele *et al*., 2021).

Nonetheless, the social marketing mix has been criticised, albeit in the absence of empirical evidence (Issock *et al*., 2021; Lahtinen *et al*., 2020), and despite limited application of elements from the social marketing mix (Carins & Rundle-Thiele, 2014; Kubacki *et al*., 2017; Kubacki, Rundle-Thiele, Lahtinen, *et al*., 2015; Kubacki, Rundle-Thiele, Pang, *et al*., 2015). Further, a lack of conceptual clarity on each of the Ps has seeded confusion on its offering to social marketing (Lahtinen *et al*., 2020). Many of the P's are metaphorically translated from commercial marketing and force fit into a behavioural change objective (Peattie & Peattie, 2003). Another metaphoric challenge is that 'mix' was originally used to convey the notion of a chef, selecting ingredients (or in this case, tools, strategies and ideas) as appropriate to create something magical (or an innovative solution, fit for purpose), however, this understanding seems to have been lost (French & Gordon, 2019).

Against this background, use of the full social marketing mix has been empirically and positively assessed, proving its efficacy to achieve behaviour change (Lahtinen *et al*., 2020), and particularly as relevant to the stage of change that the target audience is in (Issock *et al*., 2021).

Place from the social marketing mix

This paper focuses on 'place', the third mnemonic of the famed 4P's. Place has long been considered as "overlooked and misunderstood" (Lotenberg, 2010:130); with a limited view of place being merely where an intervention occurs (Wood, 2019) and restraining its potential to foster positive emotions, positive mood, engagement and relationships, and to bring a social marketing intervention to life (Carvalho & Mazzon, 2015). Traditionally, place in the social marketing mix has been conceptualised and operationalised from a tactical perspective e.g., to increase accessibility, availability, convenience, hours etc. (Lee & Kotler, 2019). Literature abounds with inconsistent understanding of how this works in an intervention, with frequent overlaps with promotion and messaging noted. It is clear that there is an ongoing lack of understanding of place in social marketing (Edgar *et al*., 2015; Lotenberg, 2010).

Edgar *et al*. (2015)'s systematic literature review on place in social marketing found that across 84 sources "basic definitions of place presented by leading scholars have been reasonably constant in scope and focus" (Edgar *et al*., 2015, p. 12) with categorisations spread across communication channels (23,1%); distribution channel and/or accessibility (25,6%); physical location of a product (28,2%); physical location for performing a behaviour (23,1%), and other. However, such consistency was found wanting in describing actual interventions. Here, Edgar *et al*. (2015) found a strong overlap of place with promotion, the sharing of messages or information. The researchers questioned if this was perhaps due to conceptual confusion of 'distribution channel' and 'communication channel'. The systematic review concluded with recommendations to increase analytical thinking on using place for specific intervention strategies and to apply greater precision and clarity in reporting on the use of place. The authors noted that given the importance of place in the marketing mix, it behoves academics and practitioners to address place-based challenges as the "sustainability of behaviour change may depend most closely on changes that surround the *place* where the target audience lives, works, and plays" (p. 15, italics in original).

RESEARCH QUESTIONS

To determine the field's current definition and use of place in social marketing, a scoping review was conducted. The scoping review was not intended to mirror Edgar *et al*. (2015)'s systematic review, but rather to comprehensively summarise and synthesise knowledge (Colquhoun *et al*., 2014) and provide a current overview of place within social marketing.

Therefore, the overarching research question is:

What is known from the literature about any progress or changes in the definition and/or application of place since Edgar et al. (2015)'s systematic literature review?

The two secondary research questions for the scoping review are:

1) *What conceptual definitions of place have scholars and practitioners offered within the peer-reviewed literature?*
2) *Based on the literature, how have scholars and practitioners conceptualised and applied place strategies for specific interventions?*

The scoping review aimed to help identify knowledge gaps and areas for further investigation (Peters *et al*., 2021; Tricco *et al*., 2016). Given that social marketing is a field "characterised by growth in relevance, transformation and continued evolution" (Dietrich *et al*., 2022: 1436), this approach offers a "lie of the land" (Colquhoun *et al*., 2014) that is also flexible to the research objectives (Tricco *et al*., 2016).

RESEARCH METHODOLOGY

Design of the scoping review

This scoping review made use of the Preferred Reporting Its for Systematic Reviews and Meta-analysis Protocols – scoping review extension (PRISMA-ScR) checklist (Tricco *et al*., 2018) and was independently conducted by the researchers. The review protocol was originally prepared as a Systematic Literature Review and was registered prospectively with the Open Science Framework on 29 October 2024 and can be found at https://osf.io/5yxv4. The protocol was revised on 22 February 2025 to reflect the scoping review and revised protocol.

To identify the information sources, multiple approaches were followed. Firstly, peer-reviewed journal articles were sourced from three databases, namely Scopus, Web of Science and Emerald. Evidence in English was collected from 24 March 2015 (the day following Edgar *et al*. (2015)'s systematic literature review) to date of collection being 15 February 2025. The electronic search string was "social marketing" AND "marketing mix" AND "place". Further, evidence was sourced from additional publications, firstly, social marketing textbooks and an encyclopaedia dedicated to the field, namely "The Palgrave Encyclopaedia of Social Marketing". The latter was deemed an important evidence source as it provided multiple recent and global case studies on the application of place. Whilst these case studies are not peer-reviewed, they represent the current thinking by social marketing practitioners. This agnostic flexibility is a feature of scoping reviews (Peters *et al*., 2021). Secondly, the researcher conducted additional searching of the two peer-reviewed journals dedicated to social marketing, namely the Journal of Social Marketing and the Social Marketing Quarterly. Evidence in English was collected using the same date range (24 March 2015 to 15 February 2025). Given the publications were dedicated to social marketing, the electronic search string was "marketing mix" AND "place". An overview of the process and the final number of documents reviewed is shown in **Error! Reference source not found.**.

RESULTS/FINDINGS

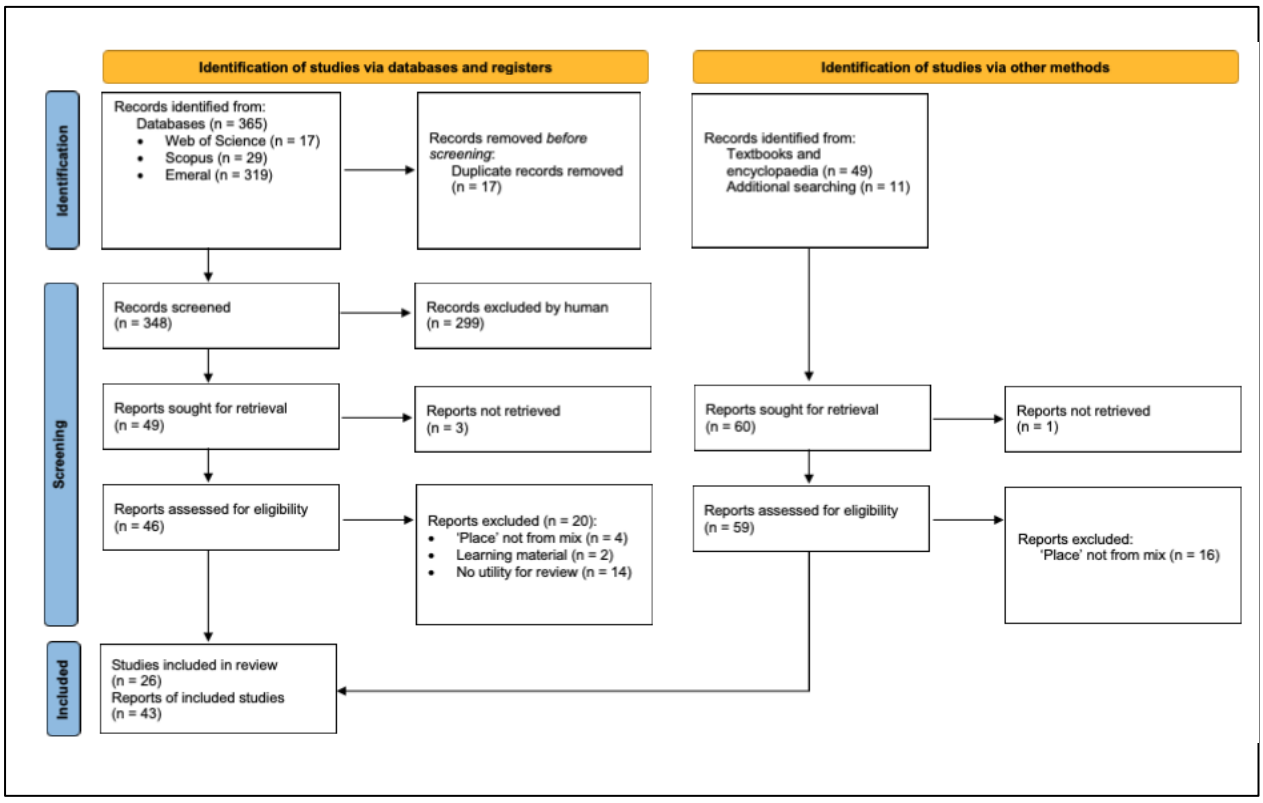
This section of the paper discusses the findings of the scoping review.

Analysis of definition of place within the social marketing mix

The scoping review captured 13 definitions of place in published literature. Definitions were coded and thematically analysed using Atlas.ti version 25.01.1 based on the "four Ws and an H questions", namely: *what* were the key defining elements of place, *where* and *when* is place applied, *why* is place part of a social marketing strategy, and *how* does place support desired outcomes.

As shown in **Error! Reference source not found.**, place has been inconsistently defined in the current literature. The key defining elements make mention of the availability of products and services (4 mentions) as well as place supporting the desired behaviour (4 mentions). Place being used for promotion/information was mentioned twice, albeit that this relates to the 4th P of promotion. Place has been defined in relation to different locations, ranging from the 'where' of interventions (6 mentions) to explicit mentions of physical space and/or virtual space (each 2 mentions). The 'when' component was mentioned 4 times. The importance of place in social marketing strategies linked place to the desired behaviour (7 mentions) and that is increased access and convenience (4 mentions) as well as engagement and connection (3 mentions).

Figure 1: PRISMA scoping review flow diagram



Source: Author's work

Analysis of the conceptualisation and utilisation of place in social marketing studies and interventions

An alternate approach to analysing the understanding of place is based on place strategies or tactics that may be conceptualised or used in social marketing interventions. The coding framework for the 64 identified articles, was informed by ten possible place strategies, taken from Lee and Kotler (2019). During the coding process, additional codes were noted, and the coding framework was expanded and refined before conducting thematic analysis. A summary

of the findings for each of place strategies plus an additional code, is shown below in **Error! Reference source not found.**. The additional code on the influence that place has on behaviour is particularly important given behaviour change lies at the heart of social marketing (International Social Marketing Association, 2017).

In reviewing the application of place in social marketing, it is evident that place has been tactically applied in a myriad of ways. The most frequently used tactic was to make the location closer through increased access and convenience to the place of intervention (23 mentions). Being at the point of decision making (12 mentions) and being where the target audience hangs out or shop (11 and 10 mentions respectively) were also common tactics for use of place.

FIGURE 2: DEFINITIONS OF PLACE IN SOCIAL MARKETING USING "4 W'S AND AN H QUESTIONS"

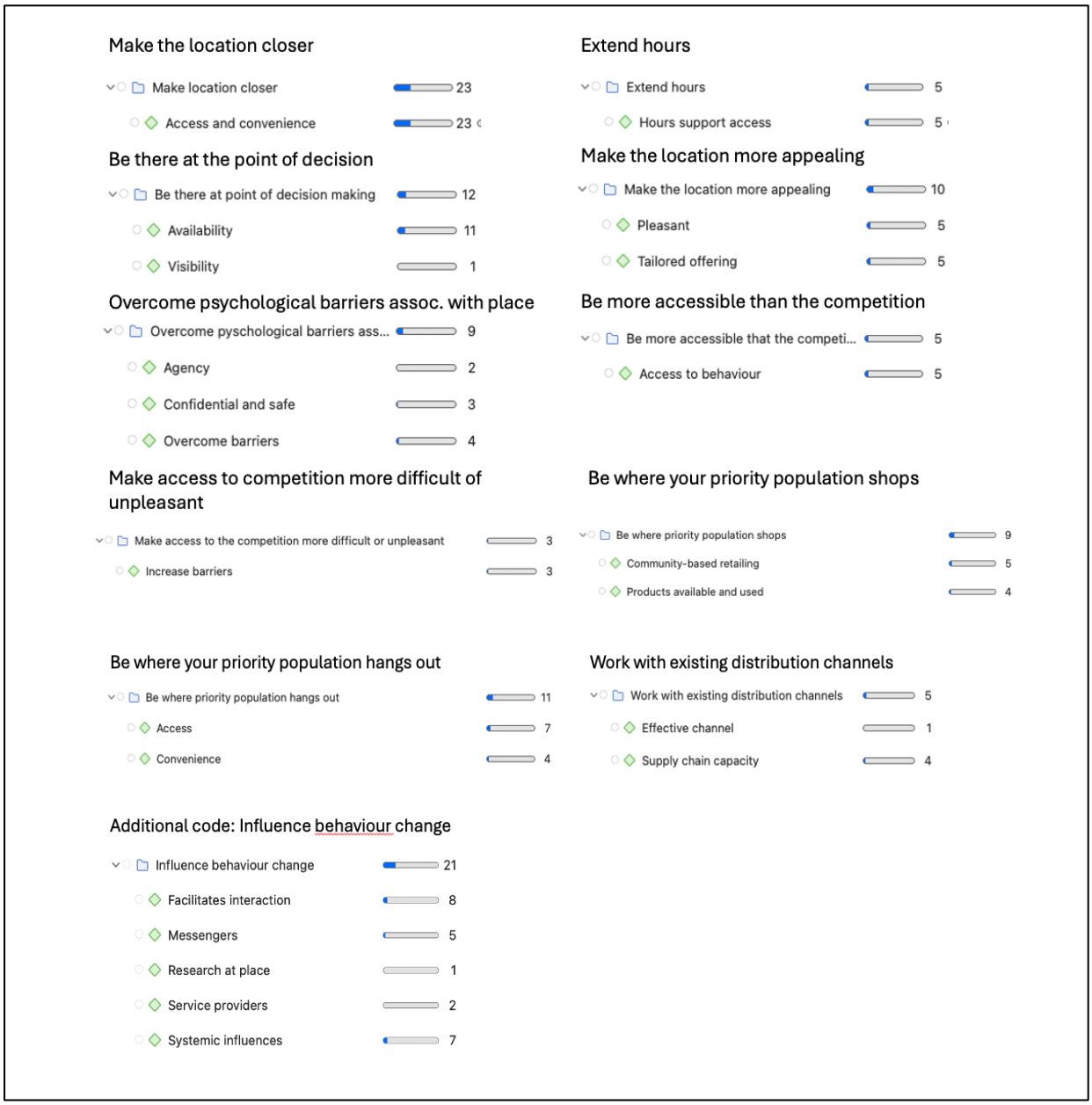


Source: Author's work

Another important theme that emerged was the interrelationship of place with other elements from the social marketing mix, including some elements proposed to form part of the mix (see **Error! Reference source not found.**). Their inclusion here by no means supports their candidacy; rather it is included to show the multi-faceted way in which place has been conceptualised and utilised, as well as how the "mix" is understood in the field: no element truly stands discrete and distinct.

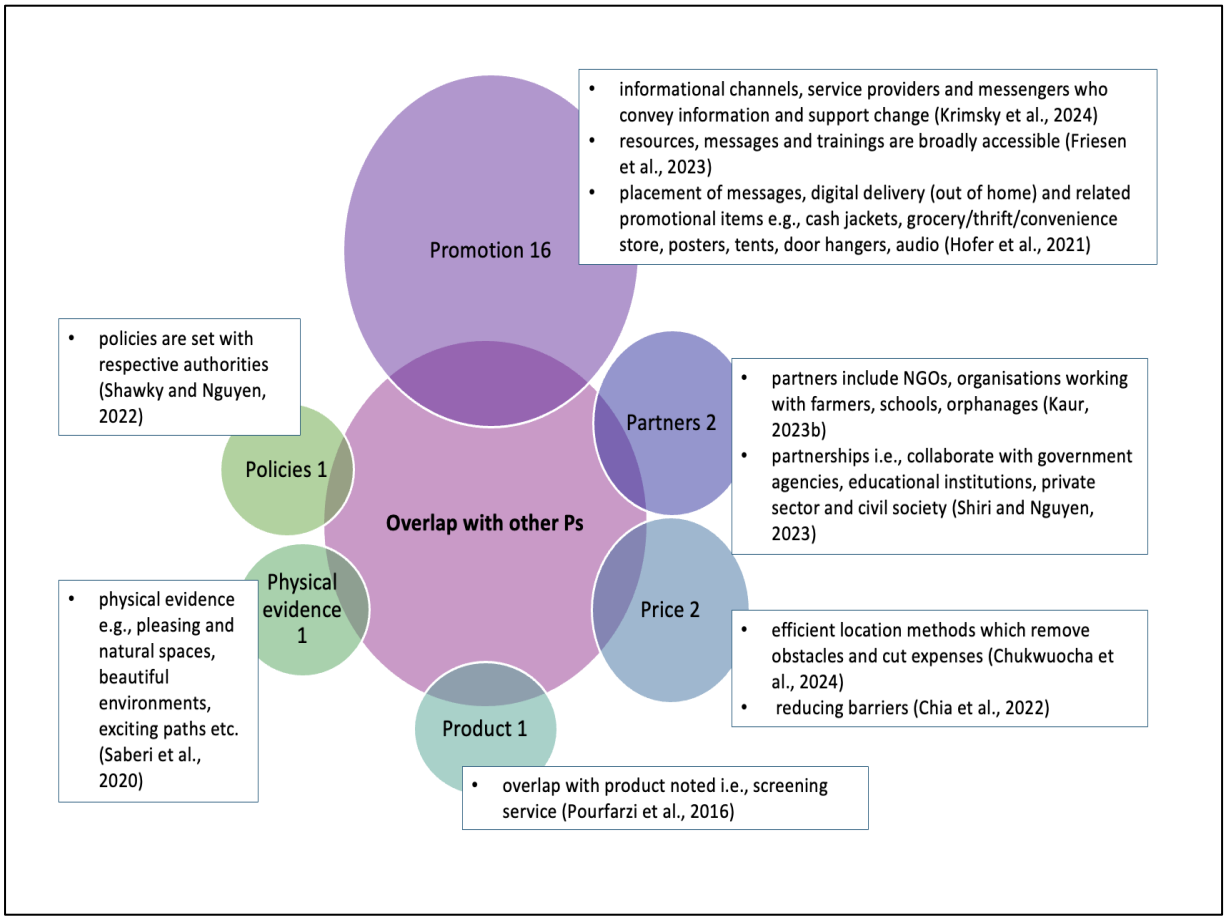
Of these elements, promotion featured predominantly with 16 mentions across the 64 articles. At 25% this echoes Edgar *et al*. (2015)'s finding from their systematic literature review where place was categorised as "communication channels" in 23.1% of their 84 articles reviewed.

FIGURE 3: CONCEPTUALISATION AND UTILISATION OF PLACE IN SOCIAL MARKETING



Source: Author's work

FIGURE 4: INTERRELATIONSHIP OF PLACE WITH OTHER P'S



Source: Author's work

Different 'place' types were noted in the literature and shown in the summary TABLE 1: Seeing a snapshot of these places helps to bring to life the "where" of how places have been conceived and utilised across different interventions. From a coding perspective examples were clustered per mention in an article (i.e., "schools, refugee camps and government entities" represents one 'physical location' example, not three).

TABLE 1: DIFFERENT PLACE TYPES IN LITERATURE

Codes of different 'place' types	No.	Examples of 'place' types
Physical locations	54	• schools, refugee camps, government entities (Chen *et al*., 2024) • breast screening clinics and mobile units (Kaur, 2023a) • urban and rural settings e.g., hospitals, health clinics, community centers, homes etc. (Tolia, 2023) • cycle paths, cycle-friendly roads and expressways in cities (Narangoda *et al*., 2023)
Virtual locations	17	• app (Ho & Nguyen, 2024) • privacy dashboard using the internet (Liyanaarachchi *et al*., 2023)

		• social media platforms and customised website (Wang *et al*., 2024)
Promotional	4	• airport signage, flash cards (Sherring, 2021) • radio, newspapers/magazines (Riddell *et al*., 2022)
Partners	3	• partners include NGOs, organisations working with farmers, schools, orphanages (Kaur, 2023b) • local NGOs to partner, infrastructure, geography and connectivity of site (Lewis *et al*., 2015)
Total	**78**	
Multiple types of places specified	15	• interventions and support offered at beauty salons (in-person) or via phone calls (Nguyen & Nguyen, 2023a) • programme provided on-site or online (website or app) (Nguyen & Nguyen, 2023b) • expand 'touchpoints'….including: digital…physical…partnerships (Shiri & Nguyen, 2023)

Source: Author's work

As expected, the vast majority of examples (54 of 78 or 69%) covered different physical locations. This covered a broad range of places that that were mostly located in the public or considered part of the community, such as recreation facilities and churches, in person meetings and retail outlets. Virtual or digital locations also featured in the examples of place with 22% mentioning online games, digital platforms, social media and telephone calls. Examples of promotional types of place included self-help books and digital materials. There were 4 examples offered. Examples and specifications of partners were outlined in the 3 examples offered for this type of place. This included partnerships with "government agencies, educational institutions, private sector and civil sector" as well local NGOs being identified as partners based on their presence and nature.

Discussion of findings

Across the findings on the conceptualisation and utilisation of place, there is a lack of consistent use of place. Place appears to straddle and overlap other traditional Ps from the mix as well as other Ps, acting as a "placeholder" for all manner of elements that may have a role to play in influencing behaviour. The absence of a clear definition in simple language is likely to be contributing to the way in which researchers and practitioners are applying place. Analysis of its use would also be affected. With this backdrop, it is perhaps of little surprise to learn that students struggle to understand and correctly apply place (Edgar *et al*., 2015).

While the scoping review is not intended to mirror Edgar *et al*. (2015)'s systematic review into more current times, there are parallels in findings that suggest a continuation of the status quo from 2015, namely the noticeable lack of this progress in understanding, conceptualising and utilising place.

This is a concerning finding given the stated importance of place, as well as of the social marketing mix, in a field that is sorely needed to be adept and responsive to adequately address complex and growing social issues.

It is further argued that the current understanding and utilisation of place is limited, selling the potential *fullness* of place short. For example, in the case study of an intervention to counter single-use plastic drinking cups, place was applied as 'where products (reusable discounted for sale cups) are made available and used' (Carrigan *et al*., 2024, p. 25). Such a place strategy fails to account for the nature of 'this place': the case study describes the touristy and rural Scottish seaside town of Buteville, with limited recycling facilities and different tourist and resident behaviours. Such fullness of understanding of place at the outset may have served to identify the need for site-specific interventions and/or other interventions such as use of deposit schemes, discounts, taxes etc.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Managerial implications

Social marketers need practical tools to explore and understand behaviour, and place holds the potential to be a route to meaningful insights. To do this, firstly, place needs to be clearly defined. The current confusion on place renders it an uncertain tool for social marketers to confidently use. If social marketers are clear about what place is, the 3rd P becomes a meaningful tool for understanding behaviour and crafting interventions. Secondly, the current scope of definitions of place in the social marketing mix are limited to tactical considerations. Such an approach fails to recognise the fullness of place and limits social marketers' understanding of how the target audience experiences the place of behaviour. Other disciplines can support social marketing's ability to broaden the perspective of place to craft strategic solutions to meet the needs of the target audience (Tapp & Rundle-Thiele, 2016). The vantage point of other disciplines such as human geography, architecture, the humanities, economic and political sciences can offer a more spacious view of *place* to strengthen utilization in social marketing. For example, viewing place through the lens of sociospatial dimensions, such as territory, network and scale (Castilhos *et al*., 2017) can expose other ways of understanding and applying place. Social marketers are offered a practical compass for dissecting the behavioural landscape and identifying critical problems, strategizing possible solutions and utilising the most effective entry points to change behaviours. For example, using scale, as a lens to explore place can draw other approaches and models such as the social ecological model (Bronfenbrenner, 1977) into *place* deepening perspective and offering further insights. This can reveal entry points, expose opportunities to leverage, and magnify relationships that can strengthen the design and implementation of a social marketing

intervention. In this way, place becomes a focal point for understanding behaviours and designing appropriate interventions. Furthermore, place now steps into a role that touches on several points along the social marketing strategic framework and extends the social marketing mix. As the potential for place is realised, it opens the door for the remaining Ps to also considered in this fashion.

Making more space for place echoes the call of several social marketers who seek unique theories for social marketing (Rundle-Thiele *et al*., 2019). It also resonates with the ongoing call for learnings from other disciplines to be integrated into social marketing (Deshpande, 2019; Tapp & Rundle-Thiele, 2016) and for social marketing to step beyond utilising *only* commercial marketing (Dietrich *et al*., 2022). In this way, social marketing can promote its relevance and responsiveness to the social issues of today (Akbar, Foote, *et al*., 2021) and deliver social change (French, 2011).

Recommendations

It is also suggested that emergent spatial concepts are explored in relation to place to better understand and influence behaviour change. Some spaces quite simply lack meaning and erode people's sense of identity bringing about the concept of *placelessness* (Relph, 1973) and a melancholic 'McDonaldisation' or 'Americanisation' (Cresswell, 2009). An allied concept is that of *nonplaces*, those non-descript, hollow and opaque spaces that result from super modernity and shaped by an excess of time, space and identity (McAllister, 2023). In non-places, such airports, public transport, banks, supermarkets, sprawling malls, and office complexes, people operate with singular individualism and replace their identity with voyeuristic alternatives (Trigg, 2017).

As the modern target audience increasingly experience placelessness and non-place, oftentimes the products of commercial marketing, social marketers will need to consider the influences and levers in such places to produce the desired behaviour.

Another important concept is that of *digital space/place* and its relationship to behaviour. The term 'digital space' is encompassing of all things digital, including digital technologies, interactions, and communications, as well as the devices and infrastructures that connect and facilitate. It is "the intangible but infinitely transmittable and transformable" (Benyon, 2022, p. 37) that have introduced new ways for people to interact with others and with space/place (Chaudhary, 2020). Increasingly technology is displacing place (Kleinman, 2007) so that where a person is, may be of less importance than what that person is perceiving, doing, and with whom they are engaging and sharing an experience (Chaudhary, 2020). Given the increasing presence of all things digital it is a necessary investigation for *place* in relation to behaviour.

Limitations of scoping review

The scoping review has some limitations. The review was conducted independently by the researcher which may have admitted bias into the review. Further, in some instances articles were not accessible and were not able to be included in the review. It is noted that the entries from the encyclopaedia were not peer-reviewed, however, given the relevance and currency of the entries they were included in the review. Further, some interventions may make use of place however, they do not explicitly report its use. For example, the *Leave It* program aimed to reduce koala and domestic dog interactions in specific areas in Australia (David *et al*., 2019). The project focused on working with and in communities to deliver local dog training sessions that would help to protect koalas from attack (Rundle-Thiele, 2022). Intentionally locating interventions in local communities to facilitate access and foster connections can be seen to be the use of place, albeit that it is never explicitly referenced in the article.

CONCLUSIONS

Despite the stated importance of *place* the concept remains poorly understood and inconsistently used. *Place* needs to be given due space to be defined and conceptualised for use in social marketing. It is not about tossing out the old and starting anew but rather envisioning the old to bring about new approaches to respond to the today's complex issues. Social marketing is called upon to evolve to respond to the social problems of today. Through leveraging insights from other disciplines social marketing can evolve and develop unique theories, models and approaches to better understand behaviour and craft enhanced behavioural solutions. This is urgently needed in a world of increased challenges, complexities and uncertainties.

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THE SHOPPING ORIENTATION EFFECT ON LOYALTY PROGRAMME QUALITY AND CUSTOMER SATISFACTION IN SOUTH AFRICAN SUPERMARKETS

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ABSTRACT

This study examines the influence of shopping orientations on loyalty programme quality perception and customer satisfaction within South African grocery supermarkets. South Africa's unique retail landscape, characterised by economic disparities and diverse consumer preferences, necessitates an understanding of how different shopping orientations impact loyalty programme evaluations. Drawing upon Stimulus-Organism-Response theory, Equity Theory, and Prospect Theory, the relationships between economic and apathetic shopping orientations, loyalty programme quality, and customer satisfaction were investigated. Survey data from 281 South African grocery shoppers were analysed using structural equation modelling. Findings demonstrate that economic shopping orientation significantly and positively influences loyalty programme quality perception ($\beta=0.393$, $p<0.001$), which, in turn, strongly impacts customer satisfaction ($\beta=0.679$, $p<0.001$). Contrary to expectations, apathetic shopping orientation did not have a significant impact on loyalty programme perception. These results underscore the need for tailored loyalty strategies, with a focus on enhancing programme accessibility for apathetic shoppers while maintaining strong value propositions for economic shoppers.

Keywords: customer satisfaction; loyalty programmes; shopping orientation; grocery retailers

INTRODUCTION

The global retail sector represents one of the most vital components of the worldwide economy, with annual revenues exceeding $8.5 trillion in 2024 and projected growth to reach $10.2 trillion by 2027 (Statista, 2024). Euromonitor (2025) reports approximately $2.32 trillion in the grocery retail sector sales for 2024, emphasising the sector's significant contribution to world GDP. Within this global context, South Africa's grocery retail landscape stands as particularly dynamic due to its growth, diverse consumer markets and high levels of competition, contributing approximately 5.5% to the country's GDP and employing over

800,000 people directly (Statistics South Africa, 2024). According to Fraser (2025) the South African grocery supermarket sector has evolved into a highly concentrated market dominated by five major players: Shoprite/Checkers, Pick n Pay, Spar, Woolworths, and Massmart. Together, these retailers command over 80% of the formal grocery market share. In an increasingly competitive environment, these retailers have turned to loyalty programmes as a strategic differentiator to attract and retain customers. Loyalty programmes have become widespread in South African supermarkets, with an estimated 82% of South African consumers participating in at least one grocery retail loyalty programme. These programmes generate substantial customer data while offering various rewards, from cash-back incentives to personalised promotions. Pick n Pay's Smart Shopper, Checkers' Xtra Savings, and Woolworths' WRewards each boast membership bases exceeding 10 million customers (Research and Markets, 2025).

According to Menoe and Barnard (2020), the exploration of shopping orientations provides crucial insight into consumer engagement and satisfaction within this competitive landscape. Shopping orientation—defined as a customer's general approach to acquiring goods and services—significantly influences how consumers perceive and interact with loyalty programmes. For instance, economic shoppers prioritise cost savings and value rewards, while apathetic shoppers exhibit a lack of enthusiasm for shopping, influenced by convenience and habit more than promotional incentives. Economic and apathetic oriented shoppers may each evaluate loyalty programmes through distinctly different lenses (Ma, Adam, Teo and Wong, 2024). Despite the proliferation of these supermarket loyalty programmes, research investigating the relationship between shopping orientation, loyalty programme quality perception, and ultimate customer satisfaction remains limited, particularly in the South African context. By examining these relationships, retailers can better tailor their loyalty strategies to align with predominant shopping orientations among their target demographics. As South African retailers invest increasingly in sophisticated loyalty programmes, estimated at R3.2 billion annually (PwC South Africa, 2024), understanding the factors that determine programme effectiveness becomes paramount. This research contributes to both theoretical understanding of consumer behaviour in emerging markets and practical knowledge for designing more effective loyalty programmes within South Africa's unique retail landscape.

LITERATURE REVIEW AND PROBLEM INVESTIGATED

This study employs three complementary theoretical frameworks to examine relationships between shopping orientation, loyalty programme quality and satisfaction in the South African context.

Theoretical Underpinning

Stimulus-Organism-Response (S-O-R) Framework

The S-O-R framework conceptualises environmental factors as "stimuli" that affect an individual's cognitive and affective reactions (Jeong, Kim, Li, Li, Choi and Kim, 2022). "Organisms" represent internal "perceptual, physiological, feeling, and thinking activities" that intervene between external stimuli and the "final actions, reactions, or responses emitted" (Bagozzi, 1986). The "response" represents consumers' final decisions, manifesting as approach or avoidance behaviours (Godefroit-Winkel, Schill and Diop-Sall, 2021). In loyalty programmes, the S-O-R framework positions loyalty programme benefits (S) as triggers for emotional and cognitive processes within consumers (O) that ultimately result in approach behaviours such as satisfaction or purchase intention (Meyer-Waarden, Bruwer and Galan, 2023). This framework effectively captures how loyalty programmes influence consumers' internal processes and subsequent behavioural responses (Kim and Johnson, 2016; Carlson, Wyllie, Rahman and Voola, 2019). The model has been extensively applied in retail settings to study consumer loyalty (Min, Jai and Lee, 2022) and is particularly valuable for examining how loyalty programmes influence buyer behaviour.

Equity Theory

Equity theory provides insights into how consumers evaluate the fairness of exchange relationships (Adams, 1963. In loyalty programmes, this theory suggests customers assess the value they receive relative to their inputs, comparing this ratio with other customers or alternative offerings (Kim, Steinhoff and Palmatier, 2020). The perception of equity significantly influences customer satisfaction and subsequent behavioural intentions (Sajtos and Chong, 2018). When customers perceive their rewards to be equitable relative to their contributions, positive attitudes toward the loyalty programme are fostered, enhancing overall satisfaction (Noble, Arli and Rajaguru, 2024). Equity theory explains the potentially destructive effect of witnessing preferential treatment through distributive (the outcome) and procedural (the process) unfairness perspectives (Henderson, Beach and Finkelstein, 2011). Loyalty programmes create a system of exchange wherein customers provide their loyalty, data, and continued patronage in return for utilitarian, hedonic, and symbolic benefits (Noble *et al*., 2024).

Prospect Theory

Prospect theory posits that individuals make decisions based on potential gains and losses relative to a reference point rather than absolute outcomes (Kahneman and Tversky, 1979). Applied to loyalty programmes, this theory suggests customers are more sensitive to potential losses (e.g., missed rewards, expiring points) than equivalent gains (Ko and Song, 2025). This

asymmetric value function explains why certain loyalty programme designs may be more effective than others. For instance, tiered programmes that highlight potential losses if certain spending thresholds are not maintained may motivate greater customer engagement than programmes emphasising only potential gains (Kim *et al*., 2020).

The three theoretical frameworks—Stimulus-Organism-Response theory, Equity Theory, and Prospect Theory—were selected for this study to provide complementary perspectives on consumer behaviour within loyalty programmes. S-O-R theory offers a comprehensive framework for understanding how loyalty programme features (stimuli) influence consumer cognition and emotions (organism) leading to satisfaction behaviours (response), making it particularly suitable for examining the sequential processing of loyalty programme benefits. Equity Theory addresses the fundamental fairness perceptions that drive consumer evaluation of loyalty programmes, explaining how customers assess whether their investment of loyalty and data yields proportionate returns compared to other customers or alternatives. Prospect Theory contributes crucial insights into how consumers evaluate loyalty programme benefits through loss aversion and reference point dependency, explaining why certain programme designs may be more psychologically compelling than others in motivating continued participation.

Constructs measured in this study

Shopping Orientations

Shopping orientation refers to a consumer's general approach to acquiring goods and services, encompassing motivations, preferences, and attitudes toward shopping (Menoe and Barnard, 2020). It reflects views of shopping as a social phenomenon, recreation, and complex economy (Ratnasari, Ula and Sukmana, 2020). This study focuses particularly on two shopping orientations especially relevant for understanding loyalty programme effectiveness in the South African context: economic and apathetic orientations.

Economic Shopping Orientation

Consumers with an economic shopping orientation shop primarily based on price considerations. These shoppers actively seek sales and bargains, compare similar products to secure the best deals, and prioritise functional needs over fashion trends. They are primarily driven by utilitarian motives, seeking to attain their goals with minimum irritation whilst achieving efficient and timely product purchasing (Ladhari, Gonthier and Lajante, 2019). Makhitha and Mbedza (2024) asserts that economic shoppers pay careful attention to merchandise assortment, prices, and quality. For economically-oriented shoppers, loyalty programmes that offer clear utilitarian benefits are likely to be particularly appealing. Additionally, price-oriented customers place more value on frequency rewards and monetary

incentives. These shoppers carefully evaluate the cost-benefit ratio of programme participation, making them potentially sensitive to the perceived quality of loyalty programme offerings.

Apathetic Shopping Orientation

Apathetic shoppers view shopping as a necessary but unpleasant task to be completed with minimal effort and time investment. These consumers typically exhibit low involvement with the shopping process, limited brand loyalty, and minimal interest in exploring alternatives (Menoe and Barnard, 2020). Apathetic shoppers are inactive consumers who have little interest in shopping activities and shop only out of necessity (Makhitha and Mbedzi, 2024). Zainuddin and Mohd (2013) describe apathetic shoppers as engaging in shopping with no intrinsic interest but largely out of necessity, perceiving shopping as a burden. These shoppers try to minimize their shopping time by completing their shopping as quickly as possible. For apathetic shoppers, loyalty programmes that require substantial effort to understand, join, or utilise may be perceived negatively. Their evaluation of loyalty programme quality is likely to be heavily influenced by the programme's ease of use and immediate benefits rather than long-term rewards or complex point accumulation systems (Menoe and Barnard, 2020).

Loyalty Programme Quality

Loyalty programmes are defined as institutionalised incentive systems that attempt to enhance consumers' consumption behaviour over time (Kim *et al*., 2020). These programmes have become ubiquitous marketing tools designed to retain customers by increasing switching barriers, enhancing customer satisfaction, increasing share of wallet, and customising offers to individual customers (Nesset, Bergem, Nervik, Sørlie and Helgesen, 2021). Loyalty programme quality can be conceptualised as comprising multiple dimensions of benefits: a) Utilitarian Benefits, refer to the programme's monetary advantages and convenience aspects, including discounts, reward cards, gifts, and vouchers (Sajtos and Chong, 2018). Hedonic Benefits express the exploration and entertainment dimensions enacted by the loyalty programme (Terblanche, 2015), including subjective feelings of pleasure or hedonic enjoyment and novelty. Symbolic Benefits refer to the need for self-expression, self-esteem, and social approval (Meyer-Waarden *et al*., 2023), including recognition and social benefits derived from the sense of exclusivity associated with an LP's status tier structure and preferential treatment. The quality of a loyalty programme is determined by how effectively it delivers these various benefits relative to the perceived costs of receiving them (Kim *et al*., 2020; Audrain-Pontevia and Garnier, 2021). A high-quality loyalty programme evokes positive internal cognitive assessments by customers and induces perceived value when the benefits outweigh the costs (Nesset *et al*., 2021).

Customer Satisfaction

Customer satisfaction is defined as an overall evaluation based on the customer's total purchase and consumption experience with a good or service over time (Fornell and Larcker, 1981). Prior marketing literature has demonstrated the importance of customer satisfaction for business success and its positive effect on long-term profitability and market value (Ramantyo and Dhewi, 2022). Satisfied customers are shown to be loyal, buy more, willingly pay price premiums, and engage in positive word-of-mouth (Kim *et al*., 2020). When customers perceive a loyalty programme to be of high quality—offering meaningful benefits relative to participation costs—their overall evaluation of experiences with the retailer is likely to be more positive. This enhanced satisfaction can lead to increased loyalty, greater share of wallet, and positive word-of-mouth (Faramarzi and Bhattacharya, 2021).

PROBLEM STATEMENT

Despite the proliferation of loyalty programmes in South African supermarkets, with an estimated 82% of South African consumers participating in at least one grocery retail loyalty programme (Fraser, 2025), there remains limited research examining how different shopping orientations influence perceptions of loyalty programme quality and subsequent customer satisfaction. Understanding these relationships is crucial for retailers seeking to design effective loyalty programmes that appeal to diverse customer segments in the unique South African context. South African supermarkets operate in an environment characterised by significant economic disparities, with a Gini coefficient of 0.63 making it one of the most unequal societies globally (Statistics South Africa, 2024). This economic divide creates distinct shopping orientations that may evaluate loyalty programme offerings differently. Major retailers like Pick n Pay's Smart Shopper, Checkers' Xtra Savings, and Woolworths' WRewards each boast membership bases exceeding 10 million customers (Research and Markets, 2025), yet face challenges in programme engagement and perceived value. Additionally, the South African retail environment is experiencing a shift toward digital transformation, with retailers investing approximately R3.2 billion annually in loyalty programmes (PwC South Africa, 2024). However, programme effectiveness varies significantly, with many customers perceiving these programmes as complex or offering insufficient value relative to engagement effort required. Understanding how to design loyalty programmes that appeal to both economic shoppers, who comprise approximately 42% of the South African grocery market, and notoriously difficult-to-engage apathetic shoppers (approximately 23% of shoppers) represents a significant challenge for South African retailers (Nielsen, 2019). This study addresses this knowledge gap by examining how these shopping orientations influence loyalty programme quality perception and customer satisfaction in the unique South African supermarket context.

RESEARCH OBJECTIVES / HYPOTHESES

The main purpose of this study is to determine whether shopping orientation has an influence on how consumers' perceive the quality of the loyalty programme offered by grocery retailers and subsequently consumers' satisfaction with the loyalty programme. The secondary objectives for the study include:

- To determine the influence of environmental shopping orientations (economic and apathetic) on loyalty programme quality of South African supermarket loyalty programmes.
- To determine the influence of loyalty programme quality and customer satisfaction within South African supermarket loyalty programmes.

The hypothesis set for the study are therefore:

H_1: There is a positive and significant relationship between economic shopping orientation and customers' perception of the loyalty programme quality.

H_2: There is a positive and significant relationship between apathetic shopping orientation and customers' perception of the loyalty programme quality.

H_3: There is positive and significant relationship between consumers' perceptions of the loyalty programme quality and their levels of satisfaction with the loyalty programme.

RESEARCH METHODOLOGY

This study employed a quantitative, descriptive research design within a positivist philosophical framework. This approach facilitated systematic measurement of predefined theoretical constructs and examination of relationships between variables (Saunders, Lewis and Thornhill, 2019). A cross-sectional survey methodology was implemented, with data collected through an online questionnaire administered via Microsoft Forms. The questionnaire incorporated multiple-choice questions using five-point Likert-type scales ranging from 'strongly disagree' (1) to 'strongly agree' (5). Measurement items were adapted from validated scales in previous studies (Choi and Kim, 2013; Mägi, 2003). Due to the absence of a comprehensive sampling frame of loyalty programme participants, non-probability snowball sampling was employed to access the target population. The study recruited participants residing in, South Africa, yielding 281 valid responses from an initial 328 respondents after data screening. Participants met the following criteria:

- Age between 18 and 65 years
- Regular grocery purchases at specified supermarkets (Shoprite, Checkers, Spar, Woolworths, and Pick n Pay)
- Active utilisation of loyalty programme cards during transactions

- Access to internet-enabled devices for questionnaire completion.

Partial Least Squares Structural Equation Modelling (PLS-SEM) was implemented through SmartPLS 4 software for data analysis. This approach was selected for its suitability for predictive research models, capacity to handle complex models with multiple constructs, accommodation of both reflective and formative measurement models, and robust performance with smaller sample sizes (Hair, Risher, and Sarstedt, 2019). Data analysis followed a two-step approach: a) Assessment of the measurement model (reliability and validity); b) Evaluation of the structural model (path coefficients, R^2, effect sizes). Common method variance was assessed using Harman's single factor test to ensure data quality. The measurement model evaluation examined construct reliability (Cronbach's alpha, composite reliability), convergent validity (factor loadings, AVE), and discriminant validity (Fornell-Larcker criterion, HTMT ratio).

The research protocol adhered to established ethical standards for social science research. Participant consent was obtained through a mandatory screening question at the beginning of the questionnaire. All respondents were informed that their feedback would be utilised exclusively for research purposes, with data anonymisation procedures implemented to protect participant privacy. The research received appropriate institutional ethical clearance prior to data collection.

FINDINGS AND DISCUSSION

Assessment of the Measurement Model

Prior to hypothesis testing, the measurement model was evaluated to ensure reliability and validity of the constructs. Harman's single factor test indicated that common method variance was not a concern, with the unrotated factor solution accounting for less than 50% of total variance (Podsakoff and Organ, 1986). As shown in Table 1, all constructs demonstrated excellent internal consistency reliability with Cronbach's alpha values (0.852 to 0.914) and composite reliability values (0.893 to 0.933) exceeding the recommended threshold of 0.7 (Hair *et al*., 2019). Convergent validity was confirmed through Average Variance Extracted (AVE) values ranging from 0.657 to 0.711, all above the recommended threshold of 0.5. Additionally, all measurement items exhibited outer loadings between 0.730 and 0.894, exceeding the conventional threshold of 0.7, further supporting convergent validity at the indicator level.

TABLE 1: CONSTRUCT RELIABILITY AND VALIDITY MEASURES

Construct	Cronbach's Alpha	Composite Reliability (rho_c)	Average Variance Extracted (AVE)
Apathetic Shopping Orientation	0.852	0.893	0.676
Economic Shopping Orientation	0.901	0.925	0.711
Loyalty Programme Quality	0.913	0.931	0.657
Satisfaction	0.914	0.933	0.701

Source: Authors own construction

Discriminant validity was assessed using both the Fornell-Larcker criterion and the Heterotrait-Monotrait (HTMT) ratio. The Fornell-Larcker analysis (Table 2) confirmed that the square root of the AVE for each construct (diagonal values) exceeded its correlation with other constructs. Additionally, all HTMT ratios (Table 3) were below the conservative threshold of 0.85 (Henseler, Hubona and Ray, 2016), with values ranging from 0.089 to 0.735, providing strong evidence of discriminant validity. Variance inflation factors (VIF) for all indicators ranged from 1.710 to 4.672, below the conservative threshold of 5 (Hair *et al*., 2019), confirming that multicollinearity was not a concern in the measurement model.

TABLE 2: FORNELL-LARCKER CRITERION

Construct	Apathetic Shopping Orientation	Economic Shopping Orientation	Loyalty Programme Quality	Satisfaction
Apathetic Shopping Orientation	**0.822**			
Economic Shopping Orientation	0.175	**0.843**		
Loyalty Programme Quality	-0.065	0.369	**0.811**	
Satisfaction	0.016	0.417	0.679	**0.837**

Source: Authors own construction

TABLE 3: HETEROTRAIT-MONOTRAIT RATIO (HTMT)

Relationship	HTMT Ratio
Loyalty Programme Quality <-> Apathetic Shopping Orientation	0.089
Loyalty Programme Quality <-> Economic Shopping Orientation	0.384
Satisfaction <-> Loyalty Programme Quality	0.735

Source: Authors own construction

Assessment of the Structural Model

After confirming the measurement model's reliability and validity, the structural model was evaluated through examination of path coefficients, coefficient of determination (R^2), and effect

sizes (f^2). The path coefficients representing the hypothesised relationships are presented in Table 4, along with their significance levels and effect sizes.

TABLE 4: PATH COEFFICIENTS, SIGNIFICANCE LEVELS, AND EFFECT SIZES

Relationship (Hypothesis)	Path Coefficient (β)	t-value	p-value	Effect Size (f^2)	Hypothesis Support
H1: Economic Shopping Orientation -> Loyalty Programme Quality	0.393	7.439	0.000***	0.177	Supported
H2: Apathetic Shopping Orientation -> Loyalty Programme Quality	-0.134	1.942	0.136	0.021	Not supported
H3: Loyalty Programme Quality -> Satisfaction	0.679	18.668	0.000***	0.856	Supported

*Note: *** $p < 0.001$

Source: Authors own construction

H1 posited a positive relationship between economic shopping orientation and loyalty programme quality. The results strongly support this hypothesis ($\beta = 0.393$, $t = 7.439$, $p < 0.001$), with a medium effect size ($f^2 = 0.177$). This indicates that economically-oriented shoppers tend to perceive higher quality in loyalty programmes. H2 proposed a positive relationship between apathetic shopping orientation and loyalty programme quality. Contrary to expectations, this relationship was negative and not statistically significant ($\beta = -0.134$, $t = 1.942$, $p = 0.136$), with a small effect size ($f^2 = 0.021$). Therefore, H2 was not supported. H3 hypothesised a positive relationship between loyalty programme quality and customer satisfaction. This hypothesis was strongly supported ($\beta = 0.679$, $t = 18.668$, $p < 0.001$), with a large effect size ($f^2 = 0.856$), indicating that perceived loyalty programme quality substantially influences customer satisfaction. The model explained 15.4% of the variance in loyalty programme quality ($R^2 = 0.154$) and 46.1% of the variance in customer satisfaction ($R^2 = 0.461$). The R^2 value for satisfaction is substantial, indicating that loyalty programme quality is a significant predictor of customer satisfaction in the South African supermarket context. The Standardized Root Mean Square Residual (SRMR) value for the estimated model was 0.081, which is marginally above the conservative threshold of 0.08 (Hu and Bentler, 2009) but within the acceptable range for complex models, indicating adequate model fit.

Discussion

The findings regarding economic shopping orientation's positive impact on loyalty programme quality perception ($\beta = 0.393$, $p < 0.001$) align with theoretical expectations. Economic shoppers, who are value-conscious and price-sensitive, appreciate the tangible benefits offered by loyalty programmes. These consumers actively evaluate the cost-benefit ratio of programme participation, leading to greater engagement with programmes that offer clear economic value. This finding supports previous research suggesting that economically-

oriented shoppers are more likely to perceive value in loyalty programmes that offer monetary incentives and discounts (Ladhari *et al*., 2019). Contrary to expectations, apathetic shopping orientation showed a negative, though non-significant, relationship with loyalty programme quality perception ($\beta = -0.134$, $p = 0.136$). This suggests that apathetic shoppers, who view shopping as a necessary but undesirable task, may perceive loyalty programmes as an additional complication rather than a value-adding feature. In addition, loyalty programmes in its current form may only be seen as "rewarding" rather than addressing the needs of a variety of shoppers. This aligns with research indicating that apathetic shoppers prefer simplified shopping experiences with minimal cognitive effort (Menoe and Barnard, 2020). The non-significant result may reflect heterogeneity within the apathetic shopper segment or variations in programme design across different South African supermarkets. The strong positive relationship between loyalty programme quality and customer satisfaction ($\beta = 0.679$, $p < 0.001$) underscores the strategic importance of well-designed loyalty programmes in the South African supermarket context. This finding corroborates previous research highlighting the impact of loyalty programme quality on customer satisfaction (Faramarzi and Bhattacharya, 2021). The substantial effect size ($f^2 = 0.856$) indicates that investing in loyalty programme quality can yield significant returns in terms of enhanced customer satisfaction.

MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

This study provides several practical implications for South African supermarket retailers seeking to enhance customer satisfaction through improved loyalty programme design. The findings offer evidence-based guidance for developing differentiated loyalty strategies that address the distinct preferences of economically-oriented and apathetic shoppers.

Economic shoppers demonstrated a strong positive association with loyalty programme quality perception. To effectively engage this significant market segment, South African retailers should:

- Emphasise value proposition: Prominently highlight rand-value savings in all programme communications to address heightened price sensitivity in the current South African economic climate with inflation pressures. This can include implementing exclusive combination offers that provide discounted rates on complementary products for loyalty members, appealing to value-conscious South African shoppers.
- Implement tiered reward structures: Develop clearly defined benefit tiers that incentivise increased spending while providing transparent progression criteria, similar to successful programmes like Clicks ClubCard.

- Offer immediate redemption options: Provide "instant gratification" rewards redeemable at checkout rather than requiring extended accumulation periods, particularly important in the South African context where immediate value realisation is highly valued.

Given the negative (though non-significant) relationship between apathetic shopping orientation and loyalty programme quality, retailers should focus on removing resistance from the loyalty programme experience. South African retailers should consider:

- Simplify enrolment processes: Enable one-tap registration through ubiquitous platforms like WhatsApp to minimise required effort from apathetic shoppers.
- Automate reward applications: Implement automatic discount application at checkout without requiring voucher activation or code entry, addressing the preference among apathetic shoppers for simplified transactions.
- Reduce programme complexity: Design straightforward programmes with simple earning and redemption rules, avoiding complicated points calculations that deter participation.

Given the strong relationship between loyalty programme quality and customer satisfaction, South African supermarkets should focus on:

- Localise rewards: Tailor rewards to South African preferences and seasonal occasions (e.g., braai supplies during Heritage Month, school supplies during back-to-school season).
- Enhance digital accessibility: Ensure programme accessibility via USSD codes for feature phone users (still common in many South African communities), not exclusively through smartphone apps.
- Offer utility vouchers: Provide electricity, water, and airtime vouchers as rewards, addressing South Africa's predominant prepaid utility model.
- Implement sustainability initiatives: Include eco-friendly rewards that align with growing environmental consciousness among South African urban consumers while addressing practical needs.

These targeted recommendations offer South African supermarket retailers' practical strategies for enhancing loyalty programme effectiveness across different shopper segments, ultimately driving increased customer satisfaction in this highly competitive market.

CONCLUSION

This study contributes meaningful insights into the relationships between shopping orientations, loyalty programme quality, and customer satisfaction within South African

supermarkets. However, there are limitations to the study. The use of a snowball sampling method limited the generalisability of the results. In addition, due to the nature of loyalty programmes in their current form, apathetic orientated shoppers may not identify with the items measuring loyalty programme quality. The findings demonstrate that economic shopping orientation significantly influences loyalty programme quality perception, which in turn strongly affects customer satisfaction. Conversely, apathetic shopping orientation revealed a negative, though non-significant, relationship with loyalty programme quality perception. These results underscore the importance of tailoring loyalty programme strategies to address diverse shopping orientations within the South African market. By enhancing programme accessibility for apathetic shoppers while maintaining strong value propositions for economic shoppers, retailers can optimise their loyalty initiatives to drive customer satisfaction. As South African supermarkets continue to invest substantially in loyalty programmes, this research provides evidence-based guidance for developing differentiated strategies that effectively engage distinct customer segments, ultimately enhancing competitive advantage in this dynamic retail landscape. Future studies should consider the motivations and behaviours of apathetic shoppers and identify how current loyalty programmes can be modified to reach this market.

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TRANSITIONING TO SUGAR FREE BEVERAGES THROUGH MESSAGE FRAMING: CONSUMER RESPONSES AND PROPOSED SOCIAL MARKETING INTERVENTIONS

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ABSTRACT

This study examined the influence of message framing on consumer attitude, openness to change and purchase behaviour of sugar free beverages. Data was collected from 268 consumers who were recruited from three fitness training facilities located in a metropolitan city in South Africa. Standard multiple regression analysis was used to test posited hypotheses. Health warning labels were found to have more influence in influencing consumer attitudes towards sugar free beverages. Openness to change emerged as the major factor that inhibit the purchase behaviour of sugar free beverages. Consumers' reluctance to change may signal the prevalence of entrenched habits associated with the consumption of sugar sweetened beverages. The mainstream consumption of sugar free beverages maybe enhanced by engaging in consumer education on the health benefits associated with sugar free beverages. Message priming through the use of effective social marketing cues and enhancing self-efficacy perceptions are recommended as key strategies to promote mainstream consumption of sugar free beverages.

Keywords: message framing; marketing stimuli; openness to change; sugar free beverages; South Africa

INTRODUCTION AND BACKGROUND

The growth in the consumption of unhealthy food has emerged as a major global concern (Alvarado *et al*., 2021; Kawa *et al*., 2022). Unhealthy food refers to food with high fat content and low nutritional value (Myers *et al*., 2017; Kawa *et al*., 2022). Sugar-sweetened beverages (SSBs) are categorised as unhealthy food (World Health Organisation, 2022). SSBs refers to any non-alcoholic beverages which are manufactured by adding sugar as a way of enhancing nutritional value and taste (Alvarado *et al*., 2021). A corpus of empirical evidence identifies the excessive consumption of SSBs as one of the major contributing factors to the increase in non-communicable diseases (NCDs) such as cardiovascular, diabetes and obesity (Park & Yu, 2019; Claudy *et al*., 2021; Moonesar *et al*., 2024). Large multinational companies

producing SSBs often target vulnerable markets in developing countries with weak regulations and inadequate strategies to curb the overconsumption of SSBs (Moonesar *et al*., 2024). It is for this reason that this study focuses on South Africa, an emerging market in Southern Africa with a high consumption rate of SSBs.

South Africa is ranked among the top twenty of the most sugar consuming countries in the world and it surpasses the approved World Health Organisation guidelines of 19 grams per day (Erzse *et al*., 2021; World Health Organisation, 2023). As a result, there has been a noticeable increase in non-communicable diseases (NCDs) such as cardiovascular, diabetes and obesity in South Africa (Myers *et al*., 2017; South African National Department of Health, 2022). This surge in diet-related NCDs mirrors the global trend (World Health Organization, 2023). Due to higher levels of sugar consumption, South Africa has an unenviable position of being the third most obese country in Africa, with almost 40 percent mortality rate attributed to NCDs (Myers *et al*., 2017; Erzse *et al*., 2021). Conservative statistics also indicate that diabetes accounts for more than 2000 leg amputations and over 8000 cases of blindness in South Africa (Myers *et al*., 2017). The over consumption of SSBs is categorised as a form of unhealthy lifestyle which is at odds with United Nations' Sustainable Development Goals 3 and 12. Sustainable Development Goals 3 and 12 promote quality of life and responsible consumption respectively (United Nations, 2015).

Due to the health risks associated with SSBs, several upstream and downstream interventions were implemented globally to discourage consumption (World Health Organization, 2023). The interventions range from producer responsibility schemes, taxation, introduction of sugar free alternatives, demarketing of SSBs and consumer education among others (Myers *et al*., 2017; Moonesar *et al*., 2024). Of these interventions, sugar tax is the most common fiscal tool that has enjoyed widespread implementation (Moonesar *et al*., 2024; Jensen *et al*., 2024). As of 2022, the World Health Organization (2023) report that 108 countries had implemented sugar tax at national level to discourage the consumption of SSBs. In South Africa, sugar tax was introduced in 2018 at the rate of 2.1 cents per gram as part of the health promotion levy (South Africa Revenue Service, 2019). The implementation of sugar tax was met with criticism in several jurisdictions (Alvarado *et al*., 2021; Claudy *et al*., 2021; Jensen *et al*., 2024). Specifically, sugar tax was linked to high cost of production, price hikes and job losses in the beverages industry (Alvarado *et al*., 2021; Moonesar *et al*., 2024). Consumer rights groups claimed that the tax is a ploy by national governments to raise revenue (Blecher *et al*., 2017; Jensen *et al*., 2024). Sugar tax critics also regard it as retrogressive arguing that it often places the financial burden on low income consumers who are the major consumers of SSBs (Lin *et al*., 2011; Moonesar *et al*., 2024).

Despite the implementation of a several measures to discourage the consumption of SSBs, the demand for SSB remains high including the prevalence of NCDs (World Health Organisation, 2023). Moreover, the consumption of sugar free alternatives remains low in major markets including South Africa (World Health Organisation, 2023). To address this persistent challenge, public health policymakers advocate for an increased focus on the use of behavioural change interventions as opposed to fiscal instruments (Moonesar *et al*., 2024). In this regard, public health policy researchers (e.g., Claudy *et al*., 2021; Moonesar *et al*., 2024) argue that responsible marketing has the potential to stimulate behavioural change. For example, Claudy *et al*. (2021) argue that downstream interventions such as sugar tax and sugar free alternatives elicit behavioural change through consumer psychological mechanisms, which are significantly influenced by marketing stimuli. Similarly, Moonesar *et al*. (2024) argue that the use of stealth marketing tactics is partly blamed entrenching consumer habits of SSBs. Informed by the foregoing insights, this study, adopts the stimulus-organism-response and framing theory to examine the role of message framing in promoting the consumption of sugar free beverages. This study sets out to address the following primary research question: Are consumers with exposure to sugar free marketing stimuli more likely to buy sugar free beverages?

Specifically, the primary research question was addressed through the following research objectives:

To examine consumers' responses to sugar free beverages marketing cues,

To examine consumers' response to sugar free beverages marketing stimuli, and

To examine the impact of consumers' psychological responses on purchase behaviour of sugar free beverages.

The contribution of this study is twofold. First, the findings of this study are expected to assist marketers of sugar free beverages to develop effective strategies that entice consumers to switch to healthy sugar free beverages. Second, the results are expected to provide valuable insights to policymakers tasked with the development of fiscal and nutritional policies aimed at promoting public health in emerging markets such as South Africa. The remainder of this manuscript is structured as follows: The next section reviews literature on marketing strategies employed to promote the consumption of sugar free beverages. This is followed by the development of study hypotheses and conceptual framework. Thereafter the research methodology is outlined. The last sections focus on discussion of results, implications of the study and conclusion.

LITERATURE REVIEW

Sugar free beverages message frames and underpinning theories

The consumption of SSBs is characterised as a complex and habitual practice influenced by the interaction between marketing messages and consumer lifestyles (Alvarado *et al*., 2021; Moonesar *et al*., 2024). Drawing from the prospect theory (Tversky & Kahneman, 1981), messages to promote the consumption of healthy food such as sugar free beverages are usually structured using gain or loss frames (Alvarado *et al*., 2021). Gain-framed marketing messages emphasise the benefits of consuming less sugar such as the increased quality of life (Claudy *et al*., 2021). In contrast, loss-framed messages elicit behavioural change by emphasising the adverse effects of consuming SSBs (Rampersaud *et al*., 2014). There are mixed results in literature on the effectiveness of using gain or loss framed messages (Trope & Liberman, 2010; Rampersaud *et al*., 2014; Zhang *et al*., 2020). According to Trope and Liberman (2010), the effectiveness of messages frames depends on the context and the behaviour of interest.

Due to the position of marketing as the final lop in the value chain with a direct interface with consumers, marketers are often blamed for enticing consumers to buy SSBs (World Health Organisation, 2023). This explains why several countries have instituted regulations to control the marketing of SSBs (Rampersaud *et al*. 2014; Claudy *et al*., 2021). These regulations focus on the structuring of marketing stimuli related to advertising, labelling and packaging (World Health Organisation, 2023). To understand the role of marketing stimuli and consumers' responses, this study also utilises the stimulus-organism-response (S-O-R) model. The S-O-R model argues that desired behavioural change is achieved when an individual respond to primed environmental stimuli (Mehrabian and Russell, 1974).

In this study, environmental stimuli refer to marketing messages that are used to promote the consumption of sugar free beverages. The role of advertising messages, product placement, packaging and health warning labels is considered in this study. In this context, organism refers to emotional and cognitive changes that occur in consumers' psyche as they interact with sugar free beverages marketing stimuli. This study also examines the changes in consumers' attitudes and the personality trait of openness to change to change after being exposed to sugar free beverages marketing stimuli. The response refers to the behavioural outcomes which can be favourable or unfavourable (Mehrabian & Russell, 1974). Moreover, this study examines the changes in sugar free beverages consumption behaviour of after consumers were exposed to sugar free beverages marketing stimuli.

HYPOTHESISES DEVELOPMENT

Advertising, openness to change and consumer attitudes

Due to its persuasive power, advertising is regarded as one of the key drivers of SSBs consumption (Alvarado *et al*., 2021). Prior research found a positive relationship between advertising and the consumption of SSBs (Claudy *et al*., 2021; Jensen *et al*., 2024; Moonesar *et al*., 2024). Specifically, advertising was found to increase consumers' exposure, selection and repeat purchase behaviour of SSBs (Moonesar *et al*., 2024). This is aided through the use of celebrity endorsements usually accompanied by promotional inducements (Claudy *et al*., 2021; Erzse *et al*., 2021). Due to its informative and persuasive roles, advertising plays a key role in influencing consumer attitudes towards products (Borg *et al*., 2020). Advertising also acts as a behavioural change strategy that influences consumers to be receptive to new consumption cultures. Sugar free beverages are a new product which is aimed to improve the quality of life and we argue that advertising has the potential to assist to promote mainstream consumption. Thus, it is posited that:

H_{1a}: *Advertising positively influences openness to change related to consumption of sugar free beverages*

$H_{1b:}$ *Advertising positively influences consumers' attitudes towards sugar free beverages*

Health warning labels, openness to change and consumer attitudes

Health warning labels are also used to discourage the consumption of SSBs (Grummon & Hall, 2020; Hall *et al*., 2023). Health warning labels are considered as an important informational cue that empower consumers to understand the nutritional value associated with a particular product or service (Mantzari *et al*., 2018). Health warning labels play an educational role because they inform consumers about the risk profile of the product (Hall *et al*., 2023). Health warning labels were found to be effective in reducing the consumption of other healthy products such as alcohol and tobacco cigarettes (Stafford & Salmon, 2017; Zhao *et al*., 2020). However, to be effective, health warning labels need to be more objective and conveying accurate information about the negative effects of a product (Mantzari *et al*., 2018; Grummon & Hall, 2020). Health warning labels were found to be effective in eliciting behavioural change in previous studies (Noar *et al*., 2016; Stafford & Salmon, 2017; Hall *et al*., 2023). Thus, the following hypotheses are proposed:

H_{2a}: *Health warning labels influences openness to change related to consumption of sugar free beverages*

H_{2b}: *Health warning labels influences consumers' attitudes towards sugar free beverages*

Product placement, openness to change and consumer attitudes

Product placement refers to the deliberate act of including brands in entertainment, informational or educational content with the objective of influencing consumer attitudes (Weinberger & O'Dell, 2012). Product placement is a common technique used by marketers to associate their products with popular movies or sporting major events (Royne *et al*., 2017). Through, product placement, marketing is particularly blamed for consciously or subconsciously entrenching the habitual consumption of SSBs (World Health Organisation, 2023). According to the social learning theory (Bandura, 1991), behavioural change is significantly influenced by repeated exposure to stimuli. Thus, we argue that through product placement, marketers' can improve the visibility and stimulate favourable attitudes. Thus, it is hypothesised that:

H_{3a}: *Health warning labels influences openness to change related to consumption of sugar free beverages*

H_{3b}: *Health warning labels influences consumers' attitudes towards sugar free beverages*

Openness to change, consumer attitudes and purchase behaviour

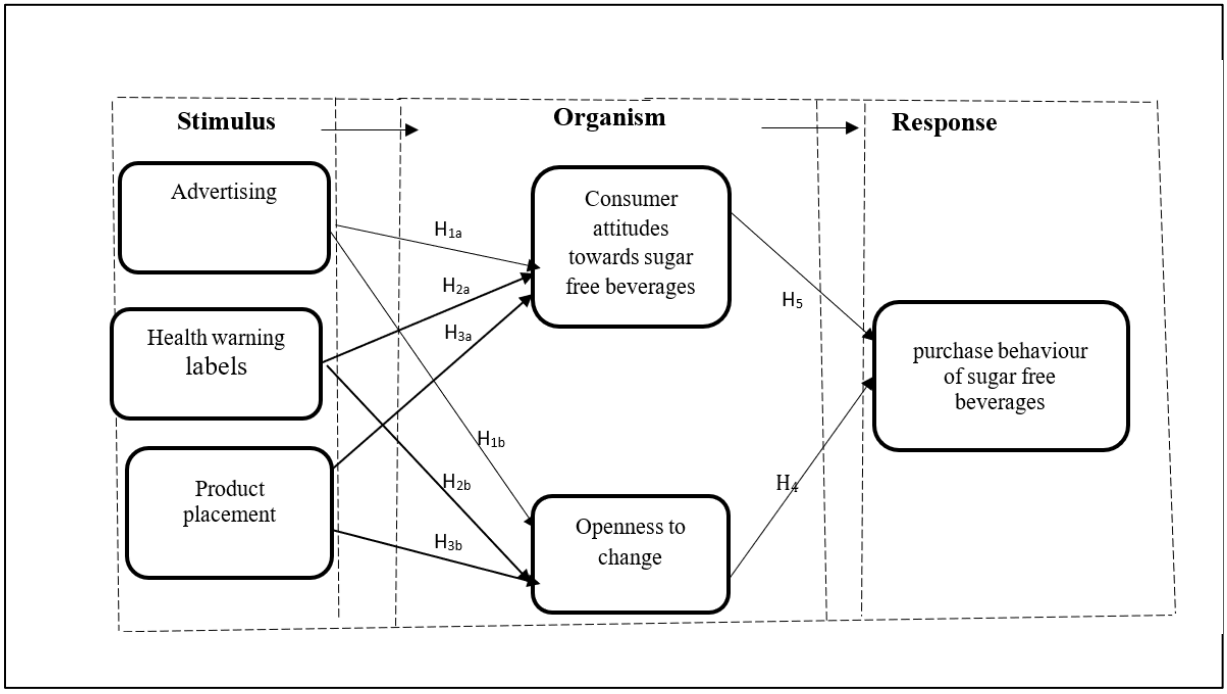
The adoption of healthy consumption lifestyles demands the change of human behaviour (Weinberger & O'Dell, 2012). This can be achieved when individuals are open to change their established habits and consumption behaviours (World Health Organisation, 2023). Openness to change is a personality trait that measures the willingness of an individual to embrace new consumption values (Schwartz, 2012). In this study, openness to change refers to the willingness of consumers to switch from the consumption of SSBs to sugar free alternatives. Attitude refers to the favourable or unfavourable evaluation of a product or service (Weinberger & O'Dell, 2012). Attitude is regarded as one of the major predictors of behavioural intention (Ajzen, 1992). When individuals are open to change and develop favourable attitude towards sugar free beverages, we argue that purchase behaviour is enhanced. Thus, we posit that:

H_4: *Openness to change has a positive influence on purchase behaviour of sugar free beverages*

H_4: *Consumer attitude has a positive influence on purchase behaviour of sugar free beverages*

Drawing from the prospect theory and S-O-R model, advertising messages, product placement, and health warning labels are proposed as stimuli (S) that influences consumers' internal states (attitudes towards sugar free beverages and openness to change), leading to consumers' response (purchase behaviour of sugar free beverages). Figure 1 shows the conceptual framework that guides this study.

FIGURE 1: CONCEPTUAL MODEL



RESEARCH APPROACH

Consistent with the objective of this study of testing posited hypotheses in between study constructs in the conceptual model. A positivistic research philosophy and a quantitative approach was adopted. Quantitative research approach involves the collection of numerical data from a large sample with the aid of survey methods (Leedy & Ormrod, 2014). This approach was selected because it is associated with the advantages of objectivity and the ability to produce results that can be generalised (Saunders *et al*., 2016).

Sample and sampling procedures

Participants were recruited from three fitness facilities located in a metropolitan city in South Africa. Due to their healthy consciousness, these respondents were perceived to be more knowledgeable about the health benefits of consuming sugar free beverages. A probability sampling method, simple random sampling was used to select respondents. This method was selected because probability sampling methods are recommended for quantitative studies and

are regarded as objective as they minimise bias during the selection of respondents (Kumar, 2015).

Data collection procedures

After receiving permission to conduct the research from the managers of selected fitness training facilities. Subtle priming marketing stimuli was implemented at the selected fitness training facilities. Three weeks before the collection of survey data, respondents were exposed to both SSBs and sugar free beverages stimuli. The were no significant price differences between the two competing beverages. In the refreshment areas, the information messages from South Africa's Ministry of Health warning the about the health risks of sugar uptake were frequently played. Health warning labels were also attached to the fridges of SSBs. A popular movie featuring commercials of consumers drinking popular SSBs brands was also regularly aired on the television sets in the refreshment areas.

Following a three-week exposure to the marketing stimuli of SSBs and sugar free beverages, a structured self-administered questionnaire was used to collect survey data. Advertising was measured using a 4-item scale that was adapted from Alvarado *et al*. (2021). The impact of health warning messages was measured using a 5-item scale which was adapted from Mantzari *et al*. (2018). Product placement was measured with the aid of a 4-item scale that was adapted from Hudson and Elliott (2013). Openness to change was measured using a 3-item developed by Claudy *et al*. (2015). Attitude towards sugar free beverages was measured using a 5-item differential scale adapted from Alvarado *et al*. (2021). Lastly the purchase behaviour of sugar free beverages was measured using a 4-item scale adapted from Moonesar *et al*. (2024). All questions were answered using a 5-point Likert scale. A pilot study was conducted with 15 respondent's and minor adjustments related to the phrasing of the scale items were done. Out of the 302 questionnaires that were distributed, 268 were valid for analysis.

Data analyses

Data was analysed using the Statistical Package for Social Sciences (SPSS) Version 25. Data analyses procedures include normality test, multicollinearity, reliability and validity assessment, correlation analysis and regression analysis.

RESULTS

Sample profile

A total of 268 valid responses were attained. The majority of the respondents (72 percent; n = 193) were black Africans, 18 percent (n = 48) were coloured and 10 percent (n = 27) were coloured. In terms of gender, 60 percent (n = 161) were male while 40 percent (n = 107) were

female. The age of respondents was fairly spread. 30 percent (n = 80) were aged between 18-25 years, 38 percent (n = 102) were in the 26-35 years' age category, 32 percent (n = 86) were aged between 36-45 years. With regards to education level, 30 percent (n = 80) were matric certificate holders, 36 percent (n = 97) reported having a diploma and 34 percent (n = 91) were degree holders.

Data normality

Data normality was assessed as it is one of the major pre-conditions for conducting standard multiple regression analysis (Pallant, 2011). Data normality was assessed using measures of skewness and kurtosis. Skewness measures the degree of data symmetry while kurtosis assesses the distribution of data (Hair *et al*., 2013). Skewness values were all within the -2 to +2 range, while the kurtosis were all below 3. These results are within the acceptable criterion as recommended by George and Mallery (2010). Thus, the normality of data was evident in this study.

Multicollinearity

Multicollinearity is another pre-condition for conducting standard multiple regression analysis. It was assessed by inspecting the variance inflation factor (VIF) and Tolerance values. Multicollinearity was evident as tolerance values were all below 1 and VIF values were all below 10 (Hair *et al*., 2014). Table 1 shows the collinearity statistics.

TABLE 1: MULTICOLLINEARITY STATISTICS

Variable	**Collinearity Statistics**	
	Tolerance	VIF
Advertising	.850	1.177
Product placement	.490	2.041
Openness to change	.475	2.104
Health warning labels	.810	1.235
Attitude	.820	1.322
Purchase behaviour	.680	1.500

Reliability statistics

The internal consistencies of measurement scales were measured using the Cronbach Alpha coefficient. Table 2 presents reliability assessment results.

TABLE 2: RELIABILITY OF MEASUREMENT SCALES

Variable	**Cronbach's Alpha Coefficient**	**Number of items**
Advertising	0.848	4
Product placement	0.850	4
Openness to change	0.880	3
Health warning labels	0.920	5

Attitude	0.890	5
Purchase behaviour	0.902	4

As shown in Table 2, reliability the of measurement scales were confirmed with Cronbach's alpha coefficients above the recommended threshold of 0.7 (Bryman & Bell, 2014).

Convergent validity

Convergent validity was assessed using the inter-item correlation. The inter-Item Correlation measures the degree of association between measurement scale items (Pallant, 2011). As shown in Table 3, convergent validity was attained because the inter-item correlations were all above the recommended threshold of 0.5 (Pallant, 2011). This shows that the measurement scale items converged well in measurement their respective constructs.

TABLE 3: INTER-ITEM CORRELATIONS

Variable	Scale item identifier	Inter-item correlations
Advertising	ADT1	0.632
	ADT2	0.701
	ADT3	0.688
	ADT4	0.689
Product placement	PP1	0.630
	PP2	0.588
	PP3	0.628
	PP4	0.700
Openness to change	OTC1	0.660
	OTC2	0.700
	OTC3	0.688
Health warning labels	HWL1	0.602
	HWL2	0.632
	HWL3	0.800
	HWL4	0.588
	HWL5	0.640
Attitude	ATT1	0.658
	ATT2	0.650
	ATT3	0.639
	ATT4	0.688
	ATT5	0.640
Purchase behaviour	PB1	0.660
	PB2	0.700
	PB3	0.688
	PB4	0.602

Correlation analysis

The degree of association and the direction of relationships between study constructs was assessed using the Pearson Product Moment coefficients. The highest correlation coefficient

was r = 0.680. This indicates that discriminant validity was achieved because the variables were not highly correlated (Pallant, 2011). Table 4 summarises the results of correlation analysis.

TABLE 4: CORRELATION MATRIX

Variables	ADT	HWL	PP	OTC	ATT	PB
Advertising (ADT)	1.0					
Health warning labels (HWL)	0.231**	1.0				
Product placement (PP)	0.099	0.680**	1.0			
Openness to change (OTC)	0.281**	0.084	0.286**	1.0		
Attitude (ATT)	0.356**	0.650**	0.400**	0.300**	1.0	
Purchase behaviour (PB)	0.174*	0.505**	0.601**	0.601**	0.505**	1.0
****. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).**						

Hypotheses testing results

Standard multiple regression analysis was used to test the study hypotheses. Three regression models were specified. Model 1 included advertising, product placement and product placement as independent variables attitude towards sugar free beverages as the dependent variable. Model 2 included advertising, product placement and product placement as independent variables and attitude towards sugar free beverages as the dependent variable. Model 3 included openness to change and attitude as independent and purchase behaviour as the dependent variable. Table 5 summarises the results of correlation analysis.

TABLE 5: HYPOTHESES TESTING RESULTS

Coefficients							
Model		Unstandardised Coefficients		Standardised Coefficients	T	Sig.	R-square
		B	Std. Error	Beta			43.3%
1	(Constant)	1.612	0.359		3.938	.000	
	Advertising	.098	.087	.083	1.108	.201	
	Health warning labels	.450	.110	.479	4.846	.000	

	Product placement	.035	.044	.408	.098	.072	
a. Dependent Variable: Attitude towards sugar free beverages							
Coefficients							
Model		Unstandardised Coefficients		Standardised Coefficients	T	Sig.	R-square
		B	Std. Error	Beta			52.8%
1	(Constant)	1.413	0.359		3.938	.000	
	Advertising	.080	.068	.063	1.108	.080	
	Health warning labels	.313	.110	.389	4.802	.000	
	Product placement	.445	.144	.106	3.580	.062	
a. Dependent Variable: Openness to change							
Coefficients							
Model		Unstandardised Coefficients		Standardised Coefficients	T	Sig.	R-square
		B	Std. Error	Beta			32.1%
1	(Constant)	1.413	0.359		3.938	.000	
	Openness to change	.096	.087	.083	1.108	.090	
	Attitude	.313	.110	.279	2.846	.001	
a. Dependent Variable: Purchase behaviour							

DISCUSSION OF RESULTS

Advertising was found to have an insignificant influence on consumer attitudes towards sugar free beverages and openness to change. Therefore, H1a and $H1_b$ were not supported. This result challenges marketers to develop effective advertising messages and establish clear channels of communication to promote mainstream consumption of sugar free beverages. This can be done by leveraging on the power of social networks and emphasis the loss in disposable income associated with buying taxed sugar sweetened beverages. Social marketers and public health policymakers should reinforce the health benefits associated with the consumption of sugar free beverages. This, according to Moonesar *et al*. (2024), can be done by emphasizing the long-term benefits associated with the consumption of sugar free

beverages such as a reduced public health bill for the government, and improved quality of life for the citizenry which lead to improved human capital productivity.

In support of H2a and $H2_b$, health warning labels was found to have a positive influence on consumer attitudes towards sugar free beverages and openness to change. This result suggests that the use of health warning labels is more effective in encouraging consumers to switch to sugar free beverages. This may be complimented through the use of in-store marketing cues such as product labelling, plain packaging of sugar sweetened beverages, and displays can also be used to assist consumers to differentiate between sugar sweetened beverages and sugar free alternatives (Alvarado *et al*., 2021). The use of plain packaging proved to be effective as a strategy for reducing smoking behaviour (Hagger & Armitage, 2007).

Product placement was found to have an insignificant influence on consumer attitudes towards sugar free beverages and openness to change. This result refutes H3a and $H3_b$. This result challenges to social marketers to find influential media events to associate sugar free beverages such as Olympics and FIFA World Cup which continue to be dominated with sugary alternatives.

The major worrisome result that emerged from this study is the insignificant influence openness to change on purchase behaviour of sugar free beverages. This result points to the need for concerted marketing efforts to weaken the entrenched habits of consuming SSBs. Social marketers and policymakers may need to engage in consumer education with a focus on the health threats associated with sugar sweetened beverages. Such proposed educational programs may use compelling evidence from the World Health Organisation (2022) that suggests that the consumption of sugar sweetened beverages is associated with the increase in non-communicable diseases such as diabetes and cardiovascular diseases.

LIMITATIONS OF THE STUDY

This study has limitations worth noting. This study relied on cross sectional data which is limited in tracking possible changes in consumption behaviour. Future studies may follow a longitudinal study to shed more light on the perceived benefits of consuming sugar free beverages. Longitudinal data will be useful in assessing whether the consumption of sugar free beverages reduce the prevalence of non-communicable diseases such as diabetes and cardiovascular diseases. Data used in this study is limited in terms of generalisability. To enhance the generalisability of the results, future studies may focus on other geographical areas in South Africa. Such a wide geographical focus has the potential to reveal other socio-cultural and situational factors that influence the consumption of sugar free beverages.

CONCLUSION

The consumption of sugar free beverages is promoted as a healthy alternative to sugar sweetened beverages. This study examined the influence of message frames and marketing stimuli on consumer attitude, openness to change and purchase behaviour of sugar free beverages. Health warning labels were found to have more influence in influencing consumer attitudes towards sugar free beverages. Openness to change was found as the major factor that inhibit the purchase behaviour of sugar free beverages. Consumers' reluctance to change may signal the prevalence of entrenched habits associated with the consumption of sugar sweetened beverages. This implies that consumers are yet to understand the health benefits associated with the consumption of sugar free beverages. The mainstream consumption of sugar free beverages maybe enhanced by engaging in consumer education on the health benefits associated with sugar free beverages, reinforcing the health benefits of sugar free beverages, message priming through the use of effective social marketing cues and enhancing self-efficacy perceptions.

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TRACK 7: DIGITAL MARKETING MANAGEMENT

APPLICATION OF THE THEORY OF CONSUMPTION VALUE (TCV) DIMENSIONALITY IN THE SOUTH AFRICAN FOOD DELIVERY SERVICE ENVIRONMENT

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ABSTRACT

This study explores the applicability of the theory of consumption value (TCV) in understanding consumer perceptions of food delivery applications (FDAs) among South African users. Using a quantitative approach, particularly a cross-sectional design and a sample of 353 respondents, this paper identifies functional, emotional, epistemic and conditional values as significant contributors to positive consumer perceptions towards FDAs. Notably, social value appears less influential. The multidimensional nature of global perceived value was confirmed through exploratory factor analysis, reliability and validity assessments. The study offers practical recommendations for managers to enhance user experience through application functionality, emotional connection, innovative features and situational benefits. These findings provide theoretical and managerial insights into the factors driving FDA usage in emerging markets, contributing to the broader discourse on consumption behaviour towards online food delivery services.

Keywords: food delivery applications (FDAs); theory of consumption value (TCV); consumer perceptions; global perceived value

INTRODUCTION

Technology plays an increasingly central role in shaping consumers' daily lives. This transformation is largely driven by the widespread accessibility of mobile applications and web-based platforms, which empower consumers to conduct transactions and access online services at any time, regardless of their physical location (Çelik and Özköse 2023). The on-demand nature of these technologies aligns seamlessly with the evolving demographics and lifestyles of modern consumers, who often face time constraints due to their busy schedules (Taheri, Banerji, Hosen and Sharma, 2025). In response to these shifting consumption patterns, there has been a significant rise in the prominence of third-party logistics providers,

particularly food delivery applications (FDAs) in the food sector (Tsang, Tavitiyaman and Lo, 2024).

Food delivery applications (FDAs) are digital platforms that allow consumers to order meals from various restaurants through mobile or web-based interfaces, facilitating seamless and often contactless delivery services (Cho, Bonn and Li, 2019). FDAs have revolutionised the food service industry by streamlining operations, reducing the need for physical dining infrastructure and expanding restaurant market reach (Tsang *et al.*, 2024). These platforms assume an intermediary role by enabling consumers access to a wide variety of food options, offering unparalleled convenience and flexibility (Bannor and Amponsah, 2024). Further to that, FDAs allow online-to-offline (O2O) interaction, which integrates consumer usage of their smartphones, mobile internet and navigational services to select, purchase and receive food orders of their choice remotely (Tandon, Kaur, Bhatt, Mäntymäki and Dhir, 2021).

With the growing popularity of online food delivery services across the globe, accelerated by the global COVID-19 pandemic, the restaurant sector has experienced a significant shift towards these platforms as a strategic response to reach and engage a broader customer base (Tsang *et al.*, 2024). The pandemic not only accelerated the adoption of FDAs but also reshaped consumer expectations, compelling restaurants to innovate their delivery models to remain operational and competitive (Chiu, Badu-Baiden and Cho, 2024). This trend has been evident across both developed (Rungruangjit and Charoenpornpanichkul, 2024) and developing (Zaheer, Anwar, Iantovics, Raza and Khan, 2024) countries, as FDAs offer a dual advantage of convenience, contactless food delivery directly to consumers' homes, as well as allowing restaurants to expand their revenue streams without the need to increase physical seating capacity (Bannor and Amponsah, 2024). This shift highlights the growing importance of FDAs in the food service industry and underscores the need for businesses to embrace technology as a core component of their operational model to offer a competitive edge in the post-pandemic era.

While the FDAs allow restaurants to position food orders at a specific place with high accuracy and efficiency in the operational processes, which is an important aspect of the supply chain, there is little understanding of why consumers utilise them (Ramesh, Prabhu, Sasikumar, Devi, Prasath and Kamala, 2023). In keeping with the growing trend of FDAs, Gunden, Morosan and DeFranco (2020) emphasise the importance of evaluating how both consumers and restaurant stakeholders perceive and derive value from these digital platforms. Understanding these perceptions is critical to the stakeholders, particularly as the food delivery market in South Africa is projected to sustain its upward growth trajectory in the coming years, with a projected 23.6 million FDAs users by 2029 (Statista, 2024). This growth is being driven by a confluence of factors, including shifting consumer preferences, unique

local market dynamics and broader macroeconomic trends that influence consumer spending behaviour (Foroughi, Yadegaridehkordi, Iranmanesh, Sukcharoen, Ghobakhlo and Nilashi, 2024). Be that as it may, Bannor and Amponsah (2024) conducted a systematic review of the existing literature, characterising research on FDAs across African countries as limited yet emergent. Notably, prior studies conducted in the South African context, such as those by Madinga, Blanckensee, Longhurst and Bundwini (2023) and Musakwa and Petersen (2023), provide valuable insights into consumer adoption and acceptance of FDAs, indicating a developing area of scholarly inquiry. This aligns with the call by Ngo (2024) for further research into consumer behaviour concerning FDAs, underscoring the need for further research in the sector.

This study contributes meaningfully to both theoretical and practical domains. From a theoretical standpoint, the integration of the TCV enhances the understanding of the underlying factors that drive consumer decision-making. TCV, as proposed by Sheth, Newman and Gross (1991), provides a comprehensive framework that explains how consumers evaluate and choose among various products and services based on different dimensions of global perceived value namely: functional, emotional, social, epistemic and conditional values. By applying TCV, this study moves beyond the limitations of traditional technology acceptance models and sheds light on the complex cognitive and affective mechanisms that influence consumer preferences. Recent scholarship, such as Bahoo, Umar, Mason and Zamparo (2024), reaffirms the utility of TCV in capturing the multi-faceted nature of consumer behaviour, particularly in digital and service-driven markets. Thus, this study not only enriches the academic discourse on consumer choice but also offers a robust lens through which to interpret the selection of FDAs. Practically, the findings of this study can guide restaurants and app developers in designing value-driven strategies that align with consumers' preferences and expectations. By understanding the distinct values consumers seek, businesses can tailor their offerings to enhance user satisfaction with the FDAs. The study explores and evaluates the applicability of the theory of consumption value (TCV) dimensions in understanding consumer perceptions of food delivery applications (FDAs) usage.

The study begins with a comprehensive literature review, providing theoretical foundations for the research. This is followed by a clear outline of the research objectives, which guide the overall direction of the research. The study then details the research methodology, explaining the design, data collection and analysis techniques employed. Next, the results and findings are presented, offering insights into key patterns and relationships observed. Based on these findings, the study discusses practical managerial implications and recommendations,

highlighting actionable strategies for industry practitioners. Finally, the study concludes with a summary of key contributions, limitations and suggestions for future research.

LITERATURE REVIEW

The theory of consumption values (TCV) proposed by Sheth *et al.* (1991) provides a comprehensive framework for understanding consumer choices. The theory proposes that consumer decisions are influenced by multiple, independent yet simultaneously operating consumption values. It integrates both cognitive and affective dimensions of consumption (Bahoo *et al.,* 2024), supporting a multi-dimensional view of value. The five values comprise; functional, social, emotional, epistemic and conditional values as discussed next.

Functional value encompasses a product or service's practical utility, including aspects such as performance, reliability and durability (Mason, Oduro, Umar and Zamparo, 2023). It reflects the extent to which a consumer perceives a product to deliver tangible benefits that meet their utilitarian needs. As highlighted by Rungruangjit and Charoenpornpanichkul (2024), consumers' rational purchasing decisions are largely influenced by elements such as price, quality and overall value. These factors play a crucial role in shaping preferences and driving product choice. In the context of intangible products such as services, functional value is predominantly shaped by economic factors, with pricing playing a critical role (Ahmad, Kumar, Bellamkonda and Kumari, 2025). FDAs enhance value by allowing consumers to conveniently compare prices across various food options available on the app, thereby empowering them to make informed and economical choices (Tsang *et al.,* 2024). Through these mechanisms, FDAs position themselves as providing competitive pricing and delivering a competitive edge of value for money, which ultimately reinforces their appeal to price-conscious consumers (Sharma, Dhir, A., Talwar and Kaur, 2021). These factors play a crucial role in shaping consumer behaviour, as individuals are more likely to engage with products and services that offer valuable experiences (Roh, Seok and Kim, 2022). Resultantly, this positions functional value as a critical driver of consumer choices (Sheth *et al*., 1991).

Hamari, Hanner and Koivisto (2020) assert that social value "consists of the perceptions of how the product or service positively affects one's conception of self, as well as the conceptions that one projects others to have of oneself". This understanding aligns closely with the social presence theory, which posits that individuals are fundamentally concerned with how they are perceived in social contexts. As Tan and Chiu (2024) explain, individuals strive to present themselves in ways that elicit favourable social impressions, aiming to be seen as likable, competent or socially desirable. In the context of FDAs, social value is observed through perceived prestige and enhancement of self-image boost that individuals experience after engaging with the order and delivery platforms by their social circles (Tsang

et al., 2024). This implies that elements such as self-image, which include concerns about reputation, social approval and personal identity, are key drivers of the social value associated with FDAs (Kim and Jan 2024). Resultantly, it can be inferred that individuals who seek to elevate their social standing through their consumption behaviours are more likely to favour products and services that reinforce their self-worth (Bannor and Amponsah, 2024). In this regard, the use of FDAs becomes a form of social symbolism, where the act of using the service is not just about convenience (functional value) but also about signaling elevated social status (prestige).

Emotional value alludes to the “perceived utility acquired from an alternative’s capacity to arouse feelings or affective states” (Sheth *et al*., 1991). These feelings will determine consumers’ states of mind and affect their behaviour. Most importantly, the concept goes beyond the product utility (functional value), emphasising the potential to connect with customers on affective state and generate emotional experiences within a specific consumption context (Mason *et al.,* 2023). In some instances, this value is associated with hedonic factors such as enjoyment (Palos-Sanchez, Saura and Velicia-Martin, 2022). Essentially, emotional value encompasses the overall product experience, shaped by the individual feelings (whether positive, negative, or neutral) that arise from a given consumption setting (Troung *et al.*, 2021). This suggests that the emotional connection consumers

Epistemic value refers to a product's or service's capacity to invoke curiosity, provide a sense of novelty and fulfil the inherent desire for information search (Tsang *et al.*, 2024). This is because value knowledge-seeking and trial behaviour play a fundamental role in consumer decision-making and overall consumption experiences (Gonçalves, Lourenço and Silva, 2016). In the context of online services, which FDAs form part of, epistemic values refer to the consumer's desire for novel experiences and the fulfillment of their curiosity or cognitive growth (Chakraborty and Paul 2023). In the FDA context, epistemic value is reflected through interactive features such as pop-up notifications that inform users about newly available food options or menu updates, or promotional items (Rungruangjit and Charoenpornpanichkul, 2024). Therefore, products and services that can fulfil consumers' need for knowledge and novelty can affect their consumption behaviour (Thomé, Pinho and Hoppe 2018).

Conditional value refers to the perceived utility of a product or service that arises in response to specific situations, contexts or external circumstances (Kaur, Dhir, Talwar and Ghuman, 2021). This suggests that consumer purchasing decisions are often shaped by temporary or situational factors, such as seasonal demand, special occasions, economic conditions or immediate personal needs (Mason *et al.,* 2023). For instance, conditional value of FDAs can be triggered by temporal benefits such as delivery for prime users, customised orders, lower delivery costs for large orders and timely delivery in the FDA context (Ahmad *et al*., 2025).

This suggests that the perceived value of a product or service is largely dependent on contextual factors, implying that the same offering may be more or less appealing depending on the specific circumstances in which it is evaluated. In support of this view, Kaur *et al.* (2021), found that conditional value has a significant impact on consumer choice behaviour, reinforcing its role as a key determinant in decision-making processes.

RESEARCH OBJECTIVES

The study's primary aim is to examine and evaluate the applicability of the theory of consumption value (TCV) dimensions in understanding consumer perceptions of food delivery applications (FDAs) usage. To achieve this research aim, the study sets out the following specific objectives:

- To conduct a survey that elicits customers' perceptions about the value of FDAs.
- To determine the dimensionality of FDA global value.

RESEARCH METHODOLOGY

The study adopted a quantitative research approach, aligning with its objective of systematically investigating phenomena through numerical data analysis. This approach is well-suited as it employs deductive reasoning, progressing from broad theoretical concepts to specific, empirically derived conclusions (Malhotra, Nunan and Birks, 2017). A descriptive research design was employed for this study, utilising a single cross-sectional approach to collect and analyse data. This method involved gathering information from participants at a single point in time.

Target population and sampling

The target population comprised selected South African adults aged 18 and above who had a memorable experience with using an FDA to purchase a meal at least six weeks before the survey. Primary data was collected using a structured online questionnaire, chosen for its efficiency, cost-effectiveness and ability to generate high-quality responses compared to traditional face-to-face methods (Malhotra *et al.*, 2017). A non-probability sampling technique was employed, with purposive sampling used to select relevant participants based on their self-reported experiences of FDAs (Whitaker and Fitzpatrick, 2021). This approach allowed the researcher to effectively apply the inclusion criteria. Before the questionnaire was fielded, ethical clearance was obtained. By the survey's closing date, a total of 562 responses were collected. After filtering out ineligible participants who did not meet the inclusion criteria and eliminating inconsistent responses, 353 responses were deemed valid for analysis. Consequently, the study achieved a usable response rate of 63%.

Measurement instrument

The questionnaire utilised in this study was accompanied by an information leaflet, serving as an introductory section to provide respondents with a concise overview of the study. This leaflet outlined the research objectives and included a section for participants to indicate their voluntary participation and consent to the study. To enhance the study's credibility, the information leaf*let al*so specified the affiliated ethical clearance number. Additionally, it presented the research title and purpose, ensuring that respondents were fully informed before proceeding with the survey.

The questionnaire design was premised on the reviewed literature. In particular, the measurement of various value dimensions in this study was based on established scales from prior research, ensuring reliability and consistency in measurement. The scale items were anchored on a 5-point Likert scale. Functional value was assessed using four scale items derived from Iyer, Davari and Mukherjee, (2018). Social value was measured through four items adapted from Pura (2005) and Sweeney and Soutar (2001). Emotional value was captured using five items from Wang, Liao and Yang (2013), which were originally validated by Pura (2005) and Sweeney and Soutar (2001). Epistemic value was evaluated using three items adapted from Chakraborty, Kayal, Mehta, Nunkoo and Rana, 2022, with their origins traced to Lin and Huang (2012) and Talwar, Dhir, Kaur and Mäntymäki, (2020). Finally, conditional value was measured using four items adopted from Chakraborty *et al.,* (2022). Before the actual data collection, a pilot test was conducted among a cohort of 41 respondents to ensure the reliability of the instrument (Whitaker and Fitzpatrick 2021).

RESULTS

The section covers several analyses, premiering with sample description, exploratory factor analysis (EFA), descriptive statistics, correlation analysis and reliability and validity assessment, which are discussed next.

Sample profile

An analysis of the sample profile reveals several key demographic trends. Of 353 valid responses obtained, it was predominantly female participants, accounting for 50.4% of the total sample (n =178), while one respondent (0.3%) opted not to disclose their gender. Additionally, three participants (0.8% of the sample) indicated the non-binary option. In terms of age distribution, the majority of respondents fell between the 18 to 24 years age group, comprising 79.6% of the total sample (n = 281). Regarding educational background, a significant proportion of participants held a Matric/Senior Certificate (n=199; 56.4%), followed by those with a diploma (n=117; 33.1%), indicating that the sample was largely comprised of individuals with secondary or tertiary education. This sample data suggests that younger

individuals, particularly those within the age range of 18 to 24 years, constitute a large proportion of FDAs users. The educational background of respondents further implies that FDAs appeal to individuals with at least a high school qualification, owing to factors such as digital literacy.

Exploratory factor analysis (EFA)

To examine the underlying structure of the data, an exploratory factor analysis (EFA) procedure was conducted using the Principal Component Analysis (PCA) method by using SPSS (Version 28.0) (Pallant, 2020). To assess the suitability of the data for factor analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity were utilised. According to Tabachnick and Fidell (2019), a KMO value between zero and one is acceptable, while a statistically significant Bartlett's Test of Sphericity ($p < 0.05$) indicates appropriateness for factor analysis. In this study, the KMO value was reported at 0.913, demonstrating excellent sample adequacy. Notably, the study reported a substantial Chi-square value of 3875.630 with 190 degrees of freedom, which was statistically significant ($p < 0.01$), confirming the suitability of the data for EFA. The rotation converged in 7 iterations, yielding a five-factor solution.

The first component, which has been labelled conditional value, has statistically significant factor loadings (ranging between 0.520 and 0.793) and significant communalities (ranging between 0.567 and 0.749). This factor reflects the participants' appreciation for deals, promotions and competitive offers, explaining 38.1% of the variance. The second component, labelled emotional value, demonstrated statistical significance with factor loadings (ranging between 0.528 and 0.812) and significant communalities (ranging between 0.549 and 0.740). It included five variables capturing the positive emotions derived from FDA usage, accounting for 15.4% of the variance. The third component was labelled social value, with four variables. The component had statistically significant factor loadings (ranging between 0.829 and 0.905) and significant communalities (ranging between 0.717 and 0.820), measuring the influence of social groups on FDA usage, contributing 6.6% to the variance. The fourth component was labelled functional value, had statistically significant factor loadings (ranging between 0.600 and 0.850) and significant communalities (ranging between 0.754 and 0.802). It consisted of three variables relating to the practical benefits of using FDAs, explaining 5.1% of the variance. Lastly, the component was labelled epistemic value factor, with two variables with factor loadings of 0.581 and 0.609 as well as high communalities of 0.609 and 0.621. Two variables reflected participants' curiosity about FDA terms and benefits, contributing 4.3% of the total variance. All components demonstrated statistically significant loadings and aligned with theoretical expectations.

Reliability and validity assessment

To assess the reliability and validity of the measuring constructs in the study, Cronbach's alpha coefficient values were calculated and reported. The Cronbach's alpha indicates that the constructs of social value (α = 0.889), emotional value (α = 0.862) and conditional value (α = 0.862) exhibit high internal consistency, exceeding the commonly accepted threshold of 0.70. Thus, demonstrating strong reliability. Epistemic value also shows acceptable reliability with an alpha of 0.706. However, functional value reported a lower alpha coefficient of 0.601, which falls below the recommended threshold. While this may indicate limited internal consistency, it is still considered acceptable for exploratory research (Sarstedt, Ringle and Hair, 2021), especially when constructs are measured using fewer items. Content validity was established through a pilot study involving 41 respondents who shared similar purchasing behaviour on FDAs with the participants. Last, construct validity was assessed using questions adapted from previously validated scales.

Descriptive statistics

Descriptive statistics were employed to summarise the responses from the dataset. Three forms of descriptive statistical analyses were conducted in this study, including measures of central tendency, measures of variability, and measures of distribution shape (Burns, Veeck and Bush 2017) as presented in Table 1. The questionnaire items were measured using a five-point Likert scale, where 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree and 5 = Strongly agree).

TABLE 1: DESCRIPTIVE STATISTICAL ANALYSIS

Variable label	N	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
Functional value	353	1.0	5.0	4.064	0.621	-1.337	1.652
Social value	353	1.0	5.0	2.021	0.910	1.027	0.250
Emotional value	353	1.0	5.0	4.051	0.773	-1.601	1.786
Epistemic value	353	1.0	5.0	4.125	0.886	-1.465	1.920
Conditional value	353	1.0	5.0	4.432	0.668	-1.701	1.808
Recommended threshold				**≥ 3.0**	**Close to 1.0**	**Between -2 and +2**	**Between -2 and +2**

Source: Author's compilation (2024)

The descriptive statistics provide valuable insights into the multi-dimensionality of global perceived value assessing functional, social, emotional, epistemic and conditional values. The mean values for functional value ($\check{x}$=4.064; SD=0.621), emotional value ($\check{x}$=4.051, SD=0.773),

epistemic value ($\check{x}$=4.125, SD=0.886) as well as conditional value ($\check{x}$=4.432, SD=0.668) all exceed the recommended threshold of 3.0, suggesting that respondents perceive these value dimensions positively. Conversely, social value ($\check{x}$2.021, SD=0.910) falls below the threshold, indicating a lower perceived importance or influence of social factors in shaping global perceived value. This implies that consumers do not place significant emphasis on the extent to which using the FDAs service enhances their social status. A possible explanation for this finding could be that consumers prioritise other dimensions of value, such as functionality of the applications and convenience provided by the delivery platforms, over social considerations. This is particularly relevant in cases where the consumption experience is personal or practical in nature rather than socially driven. The standard deviations reflect moderate variability in responses, with epistemic value displaying the highest dispersion (SD=0.886) and functional value the lowest (SD=0.621), implying greater consensus among respondents regarding the latter.

The skewness and kurtosis values further confirm the normality of the data within acceptable limits (-2 to +2), supporting the validity of the dataset for inferential analysis. Functional (-1.337), emotional (-1.601), epistemic (-1.465) and conditional (-1.701) values exhibit negative skewness, indicating that responses are concentrated on the higher end of the scale, reinforcing the strong perceived value of these value dimensions. In contrast, social value (1.027) demonstrates positive skewness, suggesting that responses are more concentrated on the lower end of the scale. The kurtosis values range from 0.250 to 1.920, suggesting a moderate distribution with neither excessive peakedness nor flatness. These findings provide empirical support for the multidimensionality of global perceived value a five-factor structure of, highlighting the significant influence of functional, emotional, epistemic and conditional values while suggesting that social value may play a lesser role in this specific context.

Correlation analysis

As prescribed by Hair, Black, Babin and Anderson (2019), the linear relationships between the variables were examined using the Pearson correlation matrix. The results of this correlation analysis are presented in Table 2, as extracted from the current study.

TABLE 2: PEARSON'S CORRELATION ANALYSIS RESULTS

Variable	Correlation				
	Functional value	**Social value**	**Emotional value**	**Epistemic value**	**Conditional value**
Functional value	1				
Social value	0.019^{ns}	1			
Emotional value	0.568**	0.095^{ns}	1		
Epistemic value	0.457**	-0.235**	0.610**	1	
Conditional value	0.626**	-0.182**	0.687**	0.645**	1
**** Correlation is significant at the 0.01 level (2-tailed)** *** Correlation is significant at the 0.05 level (2-tailed)**					

Source: Author's compilation (2024)

The Pearson correlation results, as outlined in Table 2 reveal several statistically significant relationships among the five dimensions of global perceived value. Notably, functional value demonstrated a strong positive correlation with conditional value (r=+0.626; p<0.01) and a moderate correlation with emotional value (r=+0.568; p<0.01) and epistemic value (r=+0.457; p<0.01), suggesting that as functional perceptions increase, customers are likely to also perceive greater conditional, emotional and epistemic value associated with the FDAs. Emotional value demonstrates strong positive associations with conditional value (r=+0.687; p<0.01) and epistemic value (r=+0.610; p<0.01), implying that emotions and feelings toward the FDAs are intertwined with the novelty or knowledge-seeking aspects and situational relevance. Conversely, social value fails to demonstrate any significantly correlation with both functional (r=+0.019; p<0.01) and emotional value (r=+0.095; p<0.01) and shows a weak negative correlation with epistemic (r=+0.687; p<0.01) and conditional value (r=-0.182; p<0.01), indicating that social aspects may not align with the other four value dimensions in this context. These findings collectively suggest that social value may play a less influential role, while functional, emotional, epistemic and conditional values are closely interrelated in shaping customer perceptions of FDAs.

DISCUSSION

The following discussion presents key insights derived from the analysis of value dimensions influencing consumer perceptions of FDAs. Each value dimension: functional, emotional,

conditional, epistemic and social offers a unique lens through which customer experiences and behaviours can be better understood. By examining the strength and impact of these dimensions, this section highlights strategic areas where FDAs and partnering restaurants can focus their efforts to enhance the customer experience of the food delivery service.

First, functional value emerged as a key driver of positive perceptions toward FDAs, congruent to Rungruangjit and Charoenpornpanichkul (2024) findings. As such, FDAs and restaurants should focus on enhancing functional value, which encompasses elements such as convenience and efficiency (Foroughi *et al.*, 2024). This can be done by improving core functionalities of FDAs such as ease of use, reliability and order accuracy. Restaurants can contribute significantly by ensuring that meal orders are prepared promptly and efficiently, meeting customer expectations for speed and reliability. One effective recommendation for improving the timeliness of deliveries is to streamline kitchen operations through the implementation of advanced order management systems. Such systems enable real-time tracking of orders, optimize cooking and preparation sequences and enhance coordination with delivery partners, ultimately reducing waiting times and improving the overall customer experience.

Second, the strong influence of emotional value suggests that customers' emotions play a vital role in shaping their FDA experiences. This outcome can be ascribed to multiple functionalities such as convenience, personalisation and time-saving benefit offered by FDAs, which appears to play a pivotal role in stimulating favourable affective responses among consumers (Kumar, Jain and Hsieh 2021; Chakraborty and Paul 2023). To strengthen emotional value, FDAs are encouraged to consistently create a positive and engaging user experience that connects with consumers on a deeper emotional level. This can be accomplished by personalising the user interface to reflect tailored food options as well as past orders, thereby making the platform feel more customer centric. Examples of such strategies include providing personalised meal recommendations based on previous purchases, sending customized promotions and discounts on consumers' favourite items, and incorporating interactive features like gamification elements that reward frequent usage. In addition, FDAs can strive to reduce their order waiting time. These enhancements will strengthen the positive perception of the FDAs.

Third, the conditional value was identified as the most positively perceived dimension. This finding is largely explained by consumers' motivation to obtain financial incentives, such as cashbacks and comparable reward mechanisms, which serve as key drivers of online purchase (Kapoor and Vij 2018). FDAs and restaurants must continue to leverage promotions, discounts bundle deals and limited-time offers, particularly during high-demand periods (e.g., weekends and public holidays). They should also employ targeted, situation-based marketing

strategies such as weather-based promotions (e.g., "rainy day discounts") to maximise conditional value perceptions. These incentives can make ordering through the app more appealing than other options. Furthermore, epistemic value linked to customers' curiosity and desire for novel experiences highlights an opportunity for FDAs to introduce new menus, partnerships with unique restaurants and exclusive, time-limited offerings. FDAs that regularly reinvent new menu options and communicate "newness" can maintain positive perceptions towards their platforms.

Last, the relatively weak role of social value indicates that consumers do not prioritise the influence of peer perceptions or social approval when using FDAs. This observation can be attributed to the nature of social value, which is typically assessed through indicators such as prestige and social image. However, since FDAs are characterised as fast-consumption and low-visibility products, their ability to convey social value is minimal, rendering the influence of social value on consumer decisions relatively insignificant (Akdoğan and Yılmaztürk 2025). As such, FDAs should reconsider positioning their services primarily as status-enhancing activities. Instead, greater emphasis and resources should be directed toward strategies that enhance functional and conditional benefits, as these dimensions have been shown to exert a more substantial influence on customer perceptions of FDA usage.

THEORETICAL AND MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The study's findings offer both theoretical and practical contributions. Theoretically, it supports the applicability of the TCV model within a digital consumption context, particularly among young, digitally literate South African consumers. Specifically, the prominence of functional, emotional and conditional value underscores the utility of value-based frameworks in understanding consumer attitudes toward FDAs. The results reinforce prior studies (e.g. Foroughi *et al.,* 2024) that emphasise the critical role of convenience, user experience and perceived promotional benefits in shaping positive user perceptions. Interestingly, the weaker influence of social value suggests that, unlike many other consumer platforms, FDA usage is less driven by peer approval or social recognition, prompting scholars to re-evaluate the role of social influence in low-involvement, convenience-based services. This insight encourages future theoretical inquiry into situational and context-specific drivers of perceived value in app-based consumption environments.

From a practical standpoint, FDA developers and restaurant partners should prioritise improvements in functional and emotional value to strengthen positive experiences. This includes investing in robust, user-friendly interfaces, enhancing order accuracy and implementing real-time delivery tracking systems. Personalisation features such as customized food suggestions can foster deeper emotional connections with users. Moreover,

leveraging conditional value through time-sensitive promotions, weather-based discounts and exclusive deals can boost short-term engagement and app usage during peak times. Given the low impact of social value, managers are advised to redirect resources from social status marketing toward operational enhancements and emotionally engaging campaigns that resonate with individual user preferences.

CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

This study set out to explore how the TCV dimensions: functional, social, emotional, epistemic and conditional value influence consumer perceptions regarding FDAs in South Africa. The research confirmed that customer perceptions of FDAs are indeed multi-dimensional in nature. However, not all dimensions carry equal weight. Functional, emotional, epistemic and conditional values positively influence FDA perceptions, while social value appears less significant.

The results reinforce the importance of practical benefits, emotional satisfaction, curiosity fulfilment and situational incentives in shaping the global perceived value of FDAs. Consumers prioritise the efficiency, emotional resonance, innovative aspects and situational attractiveness of services over social validation or status enhancement. These insights suggest that successful FDA strategies should be less about "being seen" and more about "being useful, delightful, novel and affordable" to consumers.

While the study achieved its objectives, it is not without limitations. The sample was largely dominated by young, Black African, single participants, which may limit the generalisability of the results across all South African consumers. Future research could employ more diverse samples and adopt longitudinal designs to examine changes in perceived value over time. Furthermore, integrating qualitative methods could uncover deeper insights into the nuanced motivations behind FDA usage.

Acknowledgements:

The study was completed with the guidance of the following individuals:

Professor Nobukhosi Dlolo **Professor Chengedzai Mafini**

Disclosure statement

No potential conflict of interest was reported by the author(s).

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DIGITAL MARKETING OF SMALL BUSINESSES IN THE RETAIL SECTOR: UNDERSTANDING THE ENABLERS

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ABSTRACT

This study investigates the enablers of digital marketing by small retail businesses. The aim was to identify the enablers or aspects that contribute to optimal digital marketing implementation. Small retail businesses significantly contribute to employment in the country. However, these businesses face many challenges and often minimally pursue digital marketing. Furthermore, there is limited research on digital marketing and small businesses in the retail sector. This qualitative study used a survey strategy to interview 15 owners of small retail businesses by using a semi-structured interview schedule. This paper considered the themes which emerged as findings from a thematic data analysis to delve into the enablers of digital marketing. This study contributes by suggesting practical strategies linked to the enablers that could contribute to the optimal implementation of digital marketing by small retail businesses. By focusing on these enablers, small retail businesses' marketing could improve, possibly aiding long-term success.

Keywords: digital marketing; implementation; practices; retail; small businesses; tools

INTRODUCTION

Several business functions contribute to the success of businesses, and marketing is a key area or department in all businesses (Desai, 2019:196). Marketing is defined as an interaction and process that recognises customer needs and wants, focuses on a product or service to meet these needs and wants, and attempts to persuade customers to purchase the product or service offered (Veleva and Tsvetanova, 2020:3). There has been a transition, with businesses shifting away from traditional marketing practices such as television, radio and newspapers, towards digital marketing practices, which include Search Engine Optimisation (SEO), Search Engine Marketing (SEM), social media marketing and many other digital marketing tools (Naveena, Devi, Raj, Natarajan, Sathyakala and Dhinakaran, 2024:87-88).

Digital marketing creates new ways of attracting and engaging with customers, through the use of technology (Naveena *et al*., 2024:86-87). Wuisan and Handra (2023:22) further describe digital marketing as the use of marketing principles and techniques through electronic

media, specifically the internet. The introduction of digital marketing has created new opportunities for businesses, as the internet is a powerful tool for businesses (Wuisan and Handra, 2023:23). Digital marketing has become important to any business, especially small businesses (Warokka, 2020:1181).

Small businesses are crucial for economic growth, job creation, innovation, and local community development (Enaifoghe and Ramsuraj, 2023). Small businesses drive market expansion, create new ventures, and provide income and employment for millions of people (Thaha Maulina, Muftiadi and Alexandri, 2021). Given the vital role small businesses play in economic growth and job creation, adopting digital marketing strategies has become essential for their continued success and expansion. In addition, businesses that do not have a digital marketing strategy may miss opportunities for growth as more people use digital technology to find information, buy products and evaluate the services they use (Junusi, 2020:20). According to Warokka (2020:1181), businesses must invest skills and time in developing a digital marketing strategy to capitalise on the internet and understand the latest marketing practices to make more informed decisions in the future.

PROBLEM INVESTIGATED

As marketing can present a variety of opportunities for businesses, it should be considered an integral part of every business strategy (Dimitrios, Loannis, Angelos and Nikolaos, 2023:689-690). Marketing is a dynamic business element; hence, the shift from traditional marketing to digital marketing (Dimitrios *et al*., 2023:690). As a result, businesses are required to work in a more complex and dynamic environment where they no longer have complete control over media and messages (Veleva and Tsvetanova, 2020:4). In addition, customers are becoming more critical, knowledgeable and proactive owing to technology. Businesses need to navigate the evolving and technologically enabled marketing environment (Dimitrios *et al*., 2023:690), and have become compelled to implement digital marketing because of globalisation and technological advancements. Furthermore, in 2020, the world was faced with a global pandemic, and businesses had no alternative but to utilise digital marketing practices (Junusi, 2020:16). Digital marketing has contributed to the growth of small businesses, specifically small businesses in the retail sector (Bhosale, Raverkar and Tamondkar, 2020:81). The retail sector is one of the fastest growing sectors and the majority of retailers are small businesses (Ganapathy, 2017:52). It is, therefore, crucial that businesses – also small retail businesses – understand and follow current digital marketing trends (Saravanakumar and Sungantha-Lakshmi, 2019:444).

Previous studies focused on the shift from traditional marketing to digital marketing and the use of specific digital marketing tools in various sectors. A study conducted by Johnson and

Van Zyl (2020) focused on the benefits of using social media in retail. A study by de Ridder (2018) focused on investigating digital marketing practices of selected municipalities and communities. Additionally, Sharma (2021) conducted a study on the marketing shift in small, medium and micro businesses. However, these studies did not focus on aspects enabling digital marketing and were conducted prior 2020. Post the pandemic, it is evident how it impacted digital marketing (Khan and Nawaz, 2021:34). Furthermore, most studies were quantitative and focused on the tools of digital marketing such as social media and, thus, lacked clarification on the enablers of digital marketing. For the purpose of this study, enablers refer to aspects and benefits that could enable, enhance, drive, facilitate or contribute to optimal digital marketing implementation. This qualitative study aimed to fill the research gap by conducting an in-depth digital marketing related study. Moreover, it aimed to gain a deeper understanding of digital marketing enablers, relevant to small retail businesses.

RESEARCH OBJECTIVE

The primary objective of this paper was to assess the *enablers of digital marketing by small retail businesses*. Therefore, it was important to explore and understand the perceptions of small retail business owners/managers regarding digital marketing practices and tools.

LITERATURE REVIEW

Small businesses, categorised within small, medium and micro enterprises (SMMEs), account for approximately 90% of all businesses (Enaifoghe and Ramsuraj, 2023:5), contribute around 40% to Gross Domestic Product (GDP) and employ nearly 50% of the workforce in South Africa (Vacu-Ngqila and Ho, 2024:215). Small businesses in developing countries contribute up to 40% of national income. Owing to their economic contribution and number of employees, small businesses have become a subject of study and a high priority for many governments (Thaha *et al*., 2021:7).

However, small businesses are faced with a number of challenges. The most common challenges include the lack of finances, time and other resources to acquire and implement digital technologies (Telukdariea, Dubea, Matjutaa and Philbin, 2022:697), which could also be attributed to the lack of expertise about how and where to invest resources, should they be available. Owing to the lack of resources in small businesses, there has been a lack of formal marketing processes and, thus, a reliance on the skills and abilities of owners/managers to conduct marketing. The use of digital marketing has presented opportunities for small businesses, including improving marketing systems relating to advertising and communication (Telukdariea *et al*., 2022:691). As a result, digital marketing has contributed to the continuous and rapid growth of small businesses (Patil, Navalgund and Mahantshetti, 2022:58), also retail businesses.

Charumbira (2021) refers to retailing as the sale of products/services to customers. The retail sector uses the marketing mix to reach customers, which includes decisions concerning the product, price, promotion and place (Kaliji, Mojaverian, Amirnejad and Canavari, 2023). When products are placed in the correct environment, the likelihood of converting prospects into customers increases. As a result, the retail sector relies heavily on the promotion aspect of the marketing mix, which usually takes place through radio or television (Charumbira, 2021), thus traditional marketing. However, by adopting digital marketing practices, the retail marketing mix is improved for both business and consumers (Samadi and Akhtar, 2023). As competition increases, digital marketing campaigns should be well established, be distinct, grab attention, and have an impact on customers (Saleem and Siddik, 2021:165). Digital marketing has become extremely competitive to ensure businesses and their marketing strategies are relevant to customer needs and respond quickly to meet customer needs (Singla, Chaudhary and Juneja, 2021:4). Therefore, the retail sector should continuously test the potential of digital marketing.

The use of digital marketing in businesses has increased, mainly due to globalisation, technological advancements and Covid-19 (Ayush and Gowda, 2020:225; Salahuddin *et al*., 2021:620). The main digital marketing practices that businesses can choose from are Search Engine Optimisation, Search Engine Marketing, social media-, content-, affiliate-, email- and mobile marketing (Ponde and Jain, 2019:260). Each of these includes digital marketing tools, for example, Facebook is a social media marketing tool. Digital marketing implementation can lead to various benefits for businesses. These benefits include limited costs (Jothi, 2019:5), the reach of new markets and additional geographical areas (Arora, 2021:167; Ponde and Jain, 2019:264), engagement with customers (Vinayagalakshmi, 2022:6), as well as the speedy update and evaluation of a business' marketing (Desai, 2019:196). Despite these benefits, digital marketing also poses some limitations. Digital marketing efforts could experience strain with poor technology and the internet connectivity (Singla *et al*., 2021:4). Customers' trust of business information, the lack of privacy and security are major concerns in digital marketing (Saleem and Siddik, 2021:168). The internet is also often clustered, and it might be difficult for businesses to stand out, so marketers need to ensure digital marketing efforts are unique (Desai, 2019:197), and that they enable or incorporate aspects which could enhance digital marketing.

RESEARCH METHODOLOGY

Proposed by Saunders, Lewis, and Thornhill (2019), the research onion was adopted for this study's research design and methodology. Table 1 briefly outlines the key methodology aspects of the study.

TABLE 1: RESEARCH DESIGN AND METHODOLOGY OF THE STUDY

Aspect	Application to study
Research paradigm/ philosophy	*Interpretivism* Objective to find various perceptions and an understanding on the enablers of digital marketing in small retail businesses in South Africa.
Research approach	*Descriptive research* Describes digital marketing phenomena relevant to small retailers, based on their lived experiences.
Approach to theory development	*Inductive research* Collected data using an interview schedule, studied and interpreted it, and formed an analysis by seeking patterns regarding enablers of digital marketing by small retail businesses.
Methodological choice	*Mono-method* – Qualitative research Rich/in-depth data obtained from 15 small retail business owners through semi-structured interviews.
Research strategy	*Survey* Interested in the meaning of the experiences of the participants (small retail business owners) rather than the general perceptions of other industry stakeholders.
Time horizon	*Cross-sectional study* Understanding perceptions regarding digital marketing enablers at a specific point in time.
Techniques and procedures	
Population	All small retail businesses operating in South Africa (no data base).
Sampling	*Non-probability sampling* *Purposeful sampling* – selected on basis of experience, accessibility and availability. ➢ Own and/or manage small retail business operating in South Africa. ➢ Present on Google My Business and/or Yahoo Local. *Snowball sampling*
Data collection	*Secondary data collection*: ➢ Books, Journals, Internet. *Primary data collection*: ➢ Semi-structured interviews online via Microsoft Teams or in-person. ➢ Data recorded through field notes and audio recordings.
Data analysis	*Thematic analysis* Finding and examining common themes within the data.
Ethics	➢ Full ethical clearance. ➢ Anonymity of participants. ➢ Confidential information. ➢ Voluntary participation and with-drawl at any time. ➢ Consent to conduct and record interviews. ➢ Secondary data was accurately presented - no reputational damage to authors. ➢ Turnitin used to note similarity index.
Research rigour	➢ Interviews audio recorded; diverse participants and perspectives; audit trail of procedures

EMPIRICAL FINDINGS

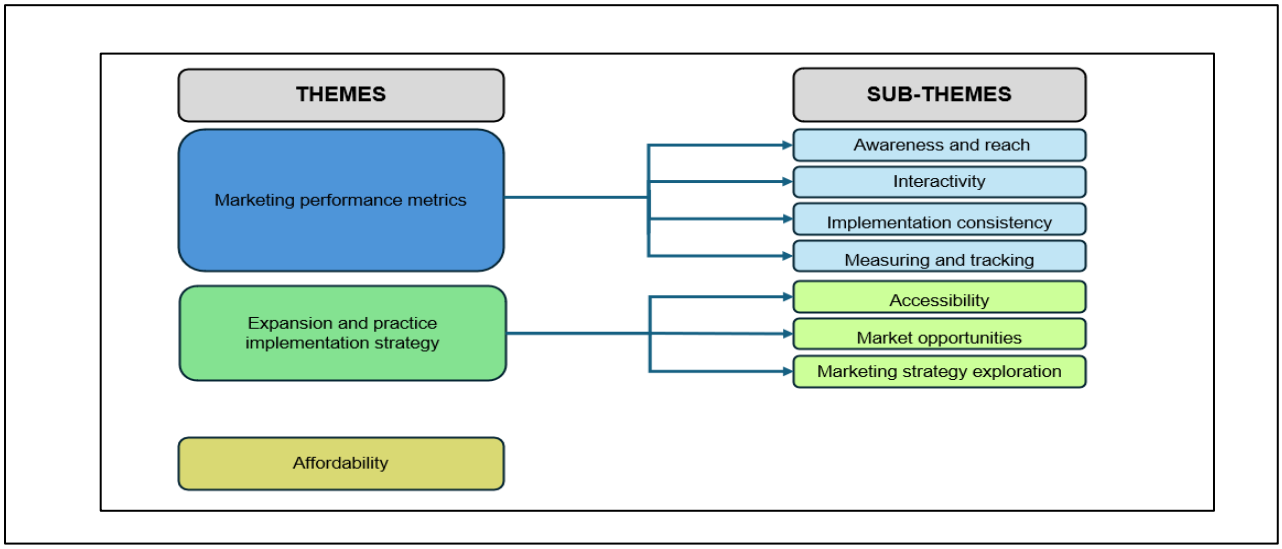
Sample description

Most of the businesses operated in the clothing and accessories (33%) as well as the skin, hair and beauty (20%) industries. All participants had retail experience and were part of their specific businesses since start-up. Significant portions of participants had obtained matric certificates (six) and bachelor's degrees (six), indicating that these educational levels were most common among the participants. The majority of small businesses (nine) implemented digital marketing but six of the participants did not implement digital marketing.

Enablers of digital marketing by small retail businesses: Owners' views

Figure 1 presents the themes and sub-themes relating to digital marketing enablers. Each of these enablers can result in digital marketing implementation.

FIGURE 1: ENABLERS OF DIGITAL MARKETING: THEMES AND SUB-THEMES



Source: Researchers' construction

Based on the participants' perceptions, it was possible to understand the enablers of digital marketing by small retail businesses. It is important to note that, as per literature, some of these enablers were also regarded as benefits of digital marketing. In other words, as a result of digital marketing implementation businesses could reap these benefits. However, the other way around was also relevant, and, therefore, all were regarded as enablers, since the existence of these, as per the participants' perceptions, enabled, enhanced, drove or facilitated the optimal implementation of digital marketing.

Marketing performance metrics

A theme that resulted from the data is Marketing performance metrics. The ability to measure and evaluate the effectiveness of marketing strategies is crucial for driving business success (Desai, 2019:200). Businesses can optimise their plans, distribute resources more effectively, and accomplish their strategic objectives by evaluating multiple aspects of marketing efforts (Saura, 2021:100). Marketing performance metrics also provide insights into how well a business's marketing is resonating with target audiences and if desired outcomes are achieved (Kotler and Keller, 2016:223). The metrics include a wide range of insights such as audience engagement, business visibility, execution consistency, and procedures' efficacy (Saura, 2021:100).

Corresponding to the literature, the participants of this study revealed that marketing performance metrics were beneficial for small businesses for measuring and evaluating digital marketing practices and tools. The fact that metrics could be applied to digital marketing enabled its implementation. Participants highlighted that with the use of digital marketing, it had been easier for the business to use marketing performance metrics, which assisted in improving the business. Participant B stated, "*With digital marketing it is easy to see and analyse things…in that way I get to improve my business*". Participants that had implemented digital marketing expressed confidence in experiencing results with digital marketing, however, participants that had not implement digital marketing remained uncertain, for example, Participant K stated, "*a lot of businesses seem to use digital marketing so there must be something about it that works or provides returns…I need evidence that it works and evidence that it has brought success to a business like mine"*. The theme Marketing performance metrics emerged with the four sub-themes, namely, Awareness and reach, Interactivity, Implementation consistency as well as Measuring and tracking.

The first sub-theme that emerged was Awareness and reach. To evaluate the impact of marketing campaigns, it is essential to discover the awareness created by and reach of marketing efforts (Terrance, Shrivastava and Kumari, 2017:155). Awareness shows how a marketing message has become visible in the market (Kim, 2017:15). Conversely, reach measures the quantity of people who have encountered a marketing message (Terrance *et al*., 2017:155). Awareness and reach are critical components of digital marketing efforts, as they significantly influence consumer behaviour such as loyalty (Naveena, *et al*., 2023:91). In addition, social media marketing tools play a pivotal role in enhancing awareness and expanding reach, enabling businesses to connect with wider audiences through targeted content (Saura, 2021:94).

In support of the literature, eight of the participants highlighted that they had implemented digital marketing practices and used digital marketing tools for reach and awareness. Participant A elaborated, *"I believe it is very important … digital marketing. It is easier to increase reach and awareness. We use all four platforms [social media marketing tools] …. We can reach different people and customers through social media".* Participant N elaborated, *"People have become more aware of the business and what we offer".* Participant A further highlighted social media marketing tools as the preferred options to gain awareness and reach. In addition, Participant C added, *"TikTok and Instagram* [both also mentioned by Participant H]*, … allow me to reach my audience. My … followers are growing which means that people are becoming more aware of my products".* Participants C and J also highlighted TikTok and Instagram as the main tools that aided awareness and reach. Participant B stated, *"I use Instagram for awareness and reach, on Instagram I use the hashtags to ensure that I reach a wider range of clients"*. Overall, the findings revealed the role of digital marketing in facilitating visibility and customer connection, contributing to increased inquiries and sales. The capability that digital marketing offered to ensure customers noticed small retail businesses made awareness and reach an enabler of optimally implementing digital marketing.

Interactivity also emerged as a sub-theme. Digital marketing practices are perceived as interactive since they enable businesses to engage with customers through a variety of tactics (Vinayagalakshmi, 2022:6). Interactivity is two-way communication that allows customers to engage with businesses in real-time (Lemon and Verhoef, 2023:69).

Consistent with the existing literature, four participants highlighted that the implementation of digital marketing had fostered interactivity between the business and its customers. The opportunity for businesses to constantly and intentionally engage and interact with customers led to relationship building with customers, as explained by Participant E, "*… being able to connect and build relationships with clients*." Participant C further explained that digital marketing gave a business a sense of personality, which led to customers believing they knew the business and, thus, interactivity was more likely. Participant H stipulated digital marketing's interactivity and elaborated, *"I guess people feel like they know the business more as they see the products on the various tools of social media marketing, they can communicate with us, and we interact with our customers even before walking into the store".* The data revealed a consensus among participants that digital marketing facilitates communication and engagement with customers. This interactivity helped create a sense of familiarity and trust, enabling customers to feel connected with a business. The findings emphasised that interactivity was a marketing performance metric that served as an enabler of digital marketing because it allowed businesses to intentionally maintain consistent customer interactions.

Relating to Marketing performance metrics, the sub-theme Implementation consistency emerged. Implementation consistency in digital marketing refers to the uniform execution of marketing efforts and messaging across various digital marketing practices (Ponde and Jain, 2019:260). The regular use of digital marketing tools assists to keep a business top-of-mind, reinforcing its identity and message (Tafesse and Wood, 2021:138).

In alignment with the literature, five participants believed that consistency played a role in implementing digital marketing optimally. Participant C explained that a business needed to remain consistent, "*I would be more consistent, and I would ensure that I use digital marketing effectively and efficiently"*. Participant A stated, *"…with digital marketing it just takes consistency in order to be successful".* Participant E acknowledged that the business did not utilise digital marketing tools consistently and stated, "*I use Instagram to post picture content of the products that I offer, I however don't post consistently".* Participants stated that consistent digital marketing efforts are useful. Despite this acknowledgement, Participant E admitted to inconsistencies in their use of the tools, highlighting a gap between the understanding of consistency's importance and its practical application. The ability of businesses to consistently implement digital marketing practices and tools aids better results, thus, enabling the optimal implementation of digital marketing.

Measuring and tracking resulted as a sub-theme of Marketing performance metrics. With web analytics and online tools, businesses can quickly analyse customer feedback and assess marketing success in real time (Todor, 2016:54). This feature enables businesses to make informed decisions based on data, optimise their campaigns, and allocate resources more efficiently, ultimately, enhancing marketing performance and yielding a higher return on investment (Arora, 2021:167).

Similar to the literature, six participants expressed opinions on the various ways of measuring and tracking marketing. Participants highlighted that they measured and tracked digital marketing efforts by considering the growth of various social media marketing tools. Participant N stated, "*To measure and track, we simply look at our growth on social media and the stats social media will give … the number of likes and views".* Participant A further explained, *"We have one tool that we use to only measure … social media marketing. It will show us how many people have recently followed our page, how many people viewed our profile and how many people visited the website from the social media tools".* Measuring enables digital marketing implementation, as evident from Participant J who mentioned, *"… traffic to our website, we do look at the growth in our business and the sales and we relate it to our performance on digital marketing practices".* Many participants focused on website traffic, follower growth and sales conversions to assess their marketing. The ability to measure

and analyse results was viewed as essential for optimising performance, and, thus, the measuring and tracking feature enabled the optimal implementation of digital marketing.

Expansion and practice implementation strategy

An inductive theme that emerged from the data was Expansion and practice implementation strategy. To enhance digital marketing, businesses must develop a strategic approach that encompasses both expansion and practice utilisation (Jacob and Maji, 2023:962). This relates to businesses exploring digital marketing practices and tools while simultaneously targeting new geographic segments and diverse customer demographics (Yousef, Rundle-Thiele and Dietrich, 2023:6). This involves broadening their marketing by exploring new digital practices (Jacob and Maji, 2023:962).

Aligned with the literature's sentiment, 11 participants expressed that digital marketing could be enabled by an expansion and practice implementation strategy. Participant D stated that digital marketing offered more opportunities than limitations, and stated, *"with digital marketing there's been more opportunities than limitations"*. Participant E supported this statement and commented, "*I feel like if small businesses are not using digital marketing they are losing out on opportunities"*. However, Participant N highlighted a lack of knowledge on various digital marketing practices that could offer various expansion opportunities, and mentioned, *"I didn't know there were so many digital marketing tools that could offer …different opportunities, a business can really grow and expand"*. Participant F highlighted that digital marketing allowed businesses to market their products with relative ease. The participant stated, "*The nice thing about it* [digital marketing] *is that businesses can decide to use it anytime they want, and they won't struggle*". The findings suggested that as small businesses continued to embrace digital marketing, those that prioritised both expansion and the use of varied digital marketing practices would likely achieve greater marketing success and growth. By further analysing participants responses, three sub-themes were identified, namely, Accessibility, Market opportunities, and Market strategy exploration, illustrating how businesses could leverage digital marketing to drive their expansion efforts.

A sub-theme that emerged from the data was Accessibility. According to Ravi and Rajasekaran (2023:10), digital marketing practices and tools has lowered barriers for small businesses, allowing them to engage with potential customers across various demographics and geographic locations. This increased accessibility not only empowers businesses to implement digital marketing but also fosters innovation in how they approach their target markets (Holliman and Rowley, 2014:290). Additionally, accessibility ensures that businesses can adapt to the changing digital landscape by leveraging social media and other tools (Ravi and Rajasekaran, 2023:15).

Similar to literature, the participants of this study highlighted that they were driven to use digital marketing because it was accessible to small businesses. Specifically, eight participants expressed that accessibility had been an enabler for small businesses to implement digital marketing. Participant G explained that owing to the accessibility of digital marketing, there was a shift from traditional marketing to digital marketing and stated, "*The accessibility of digital marketing and the evident growth of digital marketing. The transition from traditional marketing to digital marketing was evident and as a business we had to adjust to the shift"*. *"It was easier to use social media … for a business that was just starting off*", confirmed by Participant H. Participant E explained that when the business started, "the world" was already digitally led and, therefore, digital marketing was accessible to the small business, namely, *"I started my business in an era that was already digitally led. Therefore, my business started with digital marketing".* Participants indicated that digital marketing was easily accessible at all times, and therefore this was an enabler of, and reason to use, digital marketing. The findings showed that the low entry barriers of digital marketing facilitated immediate marketing efforts and fostered innovation.

A sub-theme that emerged from the data was Market opportunities. Digital marketing, according to Ponde and Jain (2019:264), enables small businesses to discover new markets. Digital marketing also enhances market opportunities by tapping into diverse markets, increasing potential customer bases (Ponde and Jain, 2019:264). In addition, digital marketing eliminates geographic boundaries by allowing businesses to target consumers anywhere with internet access (Arora, 2021:167).

According to five of this study's participants, their small businesses had grown owing to the elimination of geographic boundaries, similar to evidence from the literature provided. For Participant E, "*being able to connect and build relationships with clients as well as grow the clientele through reaching clients in other cities and countries"* was a benefit of digital marketing. Participant J elaborated on how their business had grown outside of South Africa, *"Tapping into different markets, people from different parts of the world can come across your business page. I now have customers from outside of South Africa, I had to find ways to get the product to them. I now ship outside of South Africa".* Participant A supported this and stated, *"When you are online you reach people in different parts of the world and that has grown our customer base significantly".* Overall, the findings suggested that digital marketing provided small businesses with new and diverse market opportunities by allowing them to grow in a competitive market. This capability allowed small retail businesses to connect with previously untapped markets and, therefore, it allowed for tailored and targeted marketing. As a result, market opportunities is an enabler towards the optimal implementation of digital marketing.

Another sub-theme that emerged from the data was Marketing strategy exploration. It was closely linked to the main theme of Expansion and practice implementation strategy, as it involved exploring and implementing new digital marketing practices that facilitated growth (Jacob and Maji, 2023:962). By exploring diverse strategies, businesses adapt to changing conditions and needs, thereby enhancing their use of various digital marketing practices (Holliman and Rowley, 2014:290).

Four participants indicated that to improve the implementation of digital marketing in their businesses, they would explore and implement various digital marketing practices, thus, supporting the sentiments of literature. Participant A explicitly stated*, "…digital marketing… explore with other tools"*. Participant H elaborated on how the business could explore digital marketing, and specifically expressed interest in affiliate marketing and its influencers tool by stating, *"I would look into implementing more practices of digital marketing, more especially influencer marketing. I think it is one of the practices that a lot of businesses are using now, and it is an effective way of marketing."* In addition, Participant B mentioned that the tools currently implemented in the business were limited. It was evident that the exploration of marketing strategies enabled further implementation of digital marketing. There was a notable interest in adopting digital marketing, such as influencer marketing. The findings indicated that a more comprehensive approach to digital marketing, incorporating a variety and practices and tools, could enhance small retail businesses' marketing. The capability to implement various practices and tools enabled the optimal implementation of digital marketing.

Affordability

The final theme that emerged from the data was Affordability. Jothi (2019:5) highlights that digital marketing has relatively low costs as it does not require significant expenditure, which enables businesses to conserve their resources (Bostanshirin, 2014:786). The other way around is also prevalent, since digital marketing's affordability drives or enables its optimal implementation.

In correspondence with the literature, six participants highlighted that digital marketing was inexpensive. In particular, Participant A explained that small start-up businesses did not have a budget for marketing and, therefore, implementing digital marketing was easier for the businesses as it had low costs. Participant A supported this and stated, "*It is less expensive, so it made sense as a start-up to focus on digital marketing".* Participant C elaborated by explaining that when starting the business, the participant had no additional capital for marketing, and, therefore, digital marketing had low costs which allowed the business to advertise its products at a low cost. According to Participant D, *"Digital marketing is a low-cost practice that made it easy … instead of traditional marketing".* Participant N further mentioned

that the implementation of digital marketing was a process that had limited requirements, for example, "*We initially just started with social media. This was done at a very low cost, and we saw that it was a form of marketing. We did not need much to start a social media page, just a phone and internet connection".* It is clear that affordability aids small businesses to engage in marketing efforts with minimal financial resources. This allows businesses to adapt their marketing strategies, also by upgrading their digital marketing, thereby responding to evolving market conditions without significant financial constraints. Therefore, affordability enables the optimal implementation of digital marketing.

MANAGERIAL IMPLICATIONS

Table 2 presents the implications, through recommendations and discussions, applicable to each of the enablers of digital marketing by small retail businesses.

TABLE 2: RECOMMENDATIONS LINKED TO ENABLERS OF DIGITAL MARKETING

Enablers		Recommendations and discussions
Marketing performance metrics	**Awareness and reach**	• Invest in strategies and content that enhance visibility, for example utilise various content formats, such as images and videos to capture audiences' attention. • Regularly monitor the awareness and reach achieved by marketing efforts, to make adjustments in real time.
	Interactivity	• Personalise interactions by tailoring marketing campaigns to individual preferences, for example, personalised email marketing. • Expand engagement channels, such as live chat, social media messaging and personalised emails. • Implement tools to monitor and analyse business-customer interactions for valuable insights into customer needs and behaviours, enabling continuous improvement of marketing performance indicators such as engagement rates, click-through rates, customer feedback and purchase patterns. • Invest in relationship building strategies such as creating opportunities for engagement with customers, sharing valuable and relevant content, and fostering two-way communication. By actively interacting with and encouraging customer feedback, businesses create a sense of community and trust, which makes customers feel valued. In addition, competitions and surveys are also relationship building strategies, which drive interactivity.
	Implementation consistency	• Create digital marketing strategies that ensure uniform messaging across all tools. This involves establishing guidelines for content creation and execution. • Invest sufficient time and resources into maintaining consistency in digital marketing efforts. For example, businesses should create a content calendar to plan and schedule regular postings across digital tools, ensuring consistent interactions with their audiences. • Employ marketing automation tools to maintain consistency in posting schedules and content delivery, reducing the workload of employees while ensuring communication between the business and its customers. Could use Meta Business Suite to manage accounts.

	Measuring and tracking	• Continue to use social media as a way of tracking and measuring marketing efforts, however, consider integrating more web analytics and tracking tools that provide deeper insights into marketing performance, customer behaviour and specific marketing campaign results. Data driven web analytics measure indicators such as ROI, customer acquisition costs, and the performance of different digital marketing tools. • Use Meta business suite to measure and track marketing efforts. • Conduct training sessions to enhance the understanding and interpretation of the available analytics to make informed marketing decisions. • Review and adjust marketing campaigns based on the insights gathered from measuring and tracking tools, ensuring that business (and marketing) strategies remain relevant and aligned with market trends.
Expansion and practice implementation strategy	**Accessibility**	• Leverage the accessibility of digital marketing to engage with customers and embrace flexible and constantly available practices and tools. Staying updated on digital marketing is crucial for maintaining competitiveness. Learn about new marketing trends, like video content or personalisation. Use Artificial Intelligence (AI) analytics to tailor campaigns and create dynamic content. • Integrate the most accessible tools to maximise efforts without significant financial investments. Businesses could use these tools to create content using a smartphone. The email marketing tool Mailchimp offers free plans for small email lists, to keep customers updated on new products or promotions. • Establish a digital presence as quickly as possible for a competitive edge and growth in customers and sales.
	Market opportunities	• Implement analytical tools to understand audiences and tailor marketing efforts for specific demographic groups. • Refine marketing based on data insights to stay responsive to the needs of diverse markets and evolving customer behaviours.
	Marketing strategy exploration	• Explore an integrated digital marketing approach by integrating various practices and tools. This strategy involves analysing data from all touchpoints to understand customer behaviour and preferences. By integrating data, businesses could identify trends and insights that inform messaging. • Stay informed about competitor strategies to learn from best practices. • Invest in training staff, to ensure that employees are knowledgeable about digital marketing practices and tools, and how these should be implemented.
Affordability		• Invest in training staff, to ensure that employees are knowledgeable about digital marketing practices and tools, and how these should be implemented.

If small retail businesses implement these recommendations, enablers for digital marketing would be in place, and long-term marketing success and growth of these businesses could be enhanced.

CONCLUSION

This study aimed to assess the enablers of digital marketing by small retail businesses. The participants of this study were initially identified using Google My Business and Yahoo Local. These platforms did not have all the updated details of businesses, and consequently, participant recruitment was difficult. Future studies could make use of other sampling techniques that aid accessibility to potential participants and increase the sample size.

However, previous research conducted within the South African context regarding digital marketing was limited, and by focusing on the South African context this study may contribute to the theoretical understanding and body of knowledge of how digital marketing practices are implemented locally, as well as specify which and how aspects could enable its implementation. The findings of this study could be used to increase awareness among small business owners on how the various practices and tools of digital marketing could be tailored in the retail sector. Furthermore, the findings of this study could be useful to professional bodies, which assist in providing education and training on digital marketing to the retail sector. This study could encourage small retail businesses to implement digital marketing continuously and optimally, contributing to the businesses' success.

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DRIVING SELF-BRAND CONNECTION, LOYALTY AND WORD-OF-MOUTH THROUGH SOCIAL MEDIA ENGAGEMENT AMONG MILLENNIALS

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ABSTRACT

The study empirically examined the impact of consumer social media brand engagement on consumers' behavioural responses among Generation Y consumers, such as word of mouth, loyalty, and self-brand connection. The study further examined the indirect effect of consumer-brand relationship (CBR) on the nexus between consumers' social media brand engagement and brand loyalty, self-brand connection, and word-of-mouth. Using Ipsos (an ISO-accredited organisation), we collect and analyse data from 508 respondents who actively engage with brands on social media using AMOS 29. The results show that, apart from word of mouth, CBR significantly mediates the relationship between consumer social media brand engagement, self-brand connection, and brand loyalty. The study contributes to the existing literature by empirically examining the indirect effect of CBR on the link between consumer-social media brand engagement and behavioural outcomes.

Keywords: Generation Y consumers; social media brand engagement; consumer-brand relationship

INTRODUCTION

In today's increasing "media-centric lifestyle," social media (SM) plays a critical role in altering the way and manner consumers engage with brands and companies (Jain, 2024). This has led to an increased interest in the consumer-social media brand engagement phenomenon by practitioners and researchers (Hollebeek *et al*., 2014; Mishra, 2019; Tsai &Men, 2013). The emergence and escalation of social media communication, which, according to Statista (2024a), have about 5.4 billion of the world's population as active users that spend most of their time on these social platforms, means that businesses are required to modify the way they engage with both business and consumer markets by leveraging on these new technological tools (Mishra, 2019; Schivinski *et al*., 2016). Research has shown that engaging with consumers in interactive online settings like SM leads to a 30% higher rise in revenue

and a 14% decrease in revenue if consumers are not engaged on these platforms (Kumar & Pansari, 2016). Social media, thus, has become an effective digital marketing communication tool that allows marketers to engage with consumers in creating and sharing content.

Though past research has examined the direct link between social media brand engagement and behavioural outcomes like brand loyalty, self-brand connection (SBC), and positive word-of-mouth offering important insights, their results are mixed mainly and mostly with weak relationship between consumer-social media brand engagement and these variables (*et al*., 2019; Nadeem *et al*., 2021). For instance, while the result of Nadeem *et al*. (2021) shows that consumer-social media brand engagement has no direct significant influence on the behavioural loyalty of consumers, the findings of Gómez *et al*. (2019) show a significant positive relationship between social media brand engagement and brand loyalty. The findings of Farzin *et al*. (2022) also show that though social media brand engagement significantly influences eWOM, the direct relationship only explains 14% of the variance in consumers' willingness to share positive word-of-mouth.

As noted by Leckie *et al*. (2022), in an era of multi-social media platforms, consumer-social media brand engagement is more likely to produce a greater impact on behavioural responses like brand loyalty, self-brand connection, and WOM when they first lead to CBR. In other words, when consumers build strong relationships with brands, they maintain their commitment and loyalty and spread positive word-of-mouth (Farzin *et al*., 2022). This suggests that the outcome might be greater when activities seeking to enhance consumer brand engagement are done to build quality relationships. This notwithstanding, empirical investigations and validation of the impact of CBR on the link between consumer-social media brand engagement and behavioural outcomes like loyalty, self-brand connection, and WOM are scarce, limiting our understanding of whether CBR exerts an influence on the relationship between consumer-social media brand engagement and behavioural outcomes. The study addresses this knowledge gap in the literature by examining the indirect effect of consumer-social media brand engagement on these behavioural outcomes through CBR.

Finally, the study focuses on Generation Y consumers, also known as Millennials (people born between 1981 and 1996) (Al Karim *et al*., 2023). Focusing on this segment is important because, according to statistics, they constitute the largest adult cohort globally and represent about 75% of the total global workforce, with the majority now entering their prime spending years, making them a key segment that cannot be ignored by businesses seeking to drive sales and revenue growth (Jain, 2024; Statista, 2024a). Additionally, research has shown that most of this consumer segment spends about 3 to 4 hours online (Statista, 2024a). They depend heavily on technology for social interaction and actively engage with social media platforms by contributing, sharing, and consuming content. Their brand preferences are

strongly shaped by the influence of friends and peers on social media (Chahal *et al*., 2020). Suggesting that targeting how to engage and build relationships with consumer segments through online platforms such as social media (SM) is a step in the right direction. Despite their importance and the increasing relevance of building relationships with this consumer segment, particularly on social media, studies examining factors that could effectively influence and build effective brand relationships with them have received limited attention (Leckie *et al*., 2022).

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Theoretical foundation

The study draws on the social exchange theory (SET), which posits that an individual's decision to form relationships is based on subjective cost-benefit analysis and comparing alternatives to explain consumer-social media brand relationship (Cook & Hahn, 2021; Harrigan *et al*., 2018). The SET provides a theoretical lens to understand and address Generation Y's unique engagement patterns in social media brand engagement and how these patterns can be nurtured by focusing on creating valuable and reciprocal interactions that align with their unique motivations and behaviours. Since this consumer segment values social interaction (Al Karim *et al*., 2023), in the context of social media brand engagement, they are likely to evaluate their interactions based on the rewards they will receive and the cost they will have to incur (effort, time, and energy). They will only be willing to engage in those interactions if they perceive the benefits to outweigh the cost (Harrigan *et al*., 2021). A significant aspect of the theory is the notion of "reciprocal exchange" (Cook & Hahn, 2021). The reciprocal exchange could be social, economic, or a mix (Harrigan *et al*., 2018). For instance, a social exchange a consumer may expect from engaging with brands on social media could be personalised responses to his/her comments or acknowledgement of their feedback. In contrast, economic exchange could be tangible rewards like exclusive content or promotional offers. For this study, the social exchange theory is used to explain that consumers will exchange their time and effort to effectively engage with a brand only if they perceive the engagement to be useful.

Consumer-Social Media Brand Engagement and Consumer-Brand Relationship

The need to build strong consumer-brand relationships has received increased attention and interest in the marketing literature since the 1990s (Fournier, 1998), particularly after Fournier (1998) theoretically established the basis of the importance of understanding consumer-brand relationships (CBR). A consumer-brand relationship is a connection that develops between consumers and brands over time with mutual benefit for both firms and consumers (Hudson

et al., 2016, p.63). The mutual benefit lies in consumers gaining greater satisfaction through stronger ties with the brand. Companies that understand and build strong relationships with consumers can also achieve higher brand loyalty from consumers. In their unidimensional conceptualisation of the CBR construct, Hudson *et al*. (2016, p.256) define a brand relationship as "the degree to which the consumer views a brand as a satisfactory partner in an ongoing relationship". Research indicates that consumers usually view their possessions as an extension of themselves and an integral part of their identity (Khamitov *et al*., 2019; Robertson *et al*., 2022). For instance, Robertson *et al*. (2022) demonstrate that consumers often tend to ascribe their personality traits to their brands when discussing those brands, suggesting that brands could become active partners of consumers through CBR. Similarly, Aaker (1997) argues that as consumers engage with brands, they cultivate active relationships with these brands just like people develop relationships through interactions.

Achieving CBR, however, requires more frequent and meaningful interactions between consumers and brands, as true and strong connections between consumers and brands are developed through effective and frequent interactions. Social media brand engagement plays a key role in that regard. As acknowledged in the brand relationship conceptualisation by Aaker (1997), effective interaction and communication are the basis for formulating strong consumer-brand relations. The work of Gómez *et al*. (2019), for instance, examined the relationship between consumer-social media brand engagement and CBR in the airline industry and shows that consumer-social media brand engagement is a positive significant predictor of CBR, without which it is practically difficult to achieve a strong brand relationship with consumers. The findings of Hudson *et al*. (2016) from a three-country perspective show that consumer-social media brand engagement significantly influences consumer-brand relationships. Despite the growing interest in consumer-social media brand engagement and CBR, limited scholarly attention has been given to examining the phenomenon in the context of Generation Y consumers (Chahal *et al*., 2020). Given these theoretical discussions, arguments, and findings, it is hypothesised that:

H_1: Consumer-social media brand engagement has a positive significant influence on brand relationships with Generation Y consumers.

The mediating role of consumer-brand relationship

Past studies have shown consumer-relationship as a foundation or predictor for other important brand-related constructs like brand attachment, brand love, brand loyalty, brand trust, and increased customer satisfaction (Fournier, 1998; Gómez *et al*., 2019; Khamitov *et al*., 2019).

Brand loyalty is considered a vital indicator of brand performance for firms, as it leads to higher repurchase rates, enhanced customer acquisition, reduced price sensitivity, lower cost of investment, and increased profitability (Khamitov *et al*., 2019). Brand loyalty is the strong commitment behaviour exhibited by consumers to repurchase the same brand, notwithstanding competitors' marketing efforts, which can trigger switching behaviour (Fournier, 1998). Thus, Brand loyalty is a valuable asset for any business, and achieving it requires more than quality products. Building quality and meaningful brand relationships with consumers is an integral and powerful mechanism for achieving brand loyalty from consumers (Khamitov *et al*., 2019). For instance, Gómez *et al*. (2019) show a significant positive relationship between brand relationship, brand loyalty, and repeat purchase intention. Notwithstanding its importance, the role of CBR in translating consumer brand engagement into behavioural outcomes like brand loyalty has received limited scholarly attention.

Word-of-mouth (WOM), which involves sharing positive brand communications, including opinions, brand experiences, and brand endorsement from the trusted community or other consumers, is a critical factor in brand performance (Farzin *et al*., 2022). Prior research suggests that WOM and, more recently, eWOM, including the sharing of online reviews, are considered a reliable source of information about brands that significantly influence consumer purchase decisions and new product success (Jain, 2024; You *et al*., 2021). Given its influence on brand success, companies increasingly encourage consumers to share brand-related content, suggesting that CBR is critical to encouraging consumers to share positive WOM with other consumers. As acknowledged by Gómez *et al*. (2019), consumers with a good relationship with a brand are more likely to share positive WOM about the brand. Similarly, the work of Jain *et al*. (2018) also shows CBR as a significant predictor of brand loyalty and WOM. These empirical arguments suggest that CBR will play a central role in the relationship between consumer-social media brand engagement and behavioural responses like WOM.

Self-brand connection (SBC), according to Escalas and Bettman (2003, p. 71), is the degree to which individuals integrate a brand into their self-identity using those brands or products to create and express their self-images to achieve identity goals. Thus, using brands to express a self-concept is a form of SBC. This suggests that SBC results from the quality relationship a consumer builds with a brand. In other words, before a consumer has a self-connection with a brand, the consumer must first have a relationship with the brand, without which it may be difficult for the consumer to have such a connection with the brand. Escalas and Bettman (2003) further explain that SBC reveals a strong and "meaningful relationship between the consumer and the brand." However, past studies examining the self-brand concept have largely examined the concept as a mediator, moderator, or direct antecedent of brand relationships (Kumar & Pansari, 2016). Based on the argument and explanation provided by

Escalas and Bettman (2003), we believe that SBC results from a solid and quality relationship with the brand. So, rather than testing the SBC concept as a moderator or direct antecedent of brand relationship, we examined the concept as an outcome variable of consumer engagement mediated through quality CBR. We, therefore, hypothesised, as depicted in Figure 1, that:

H_{2a}: CBR mediates the relationship between consumer-social media brand engagement and consumer brand loyalty.

H_{2b}: Consumer-social media brand engagement has a significant direct influence on consumer brand loyalty.

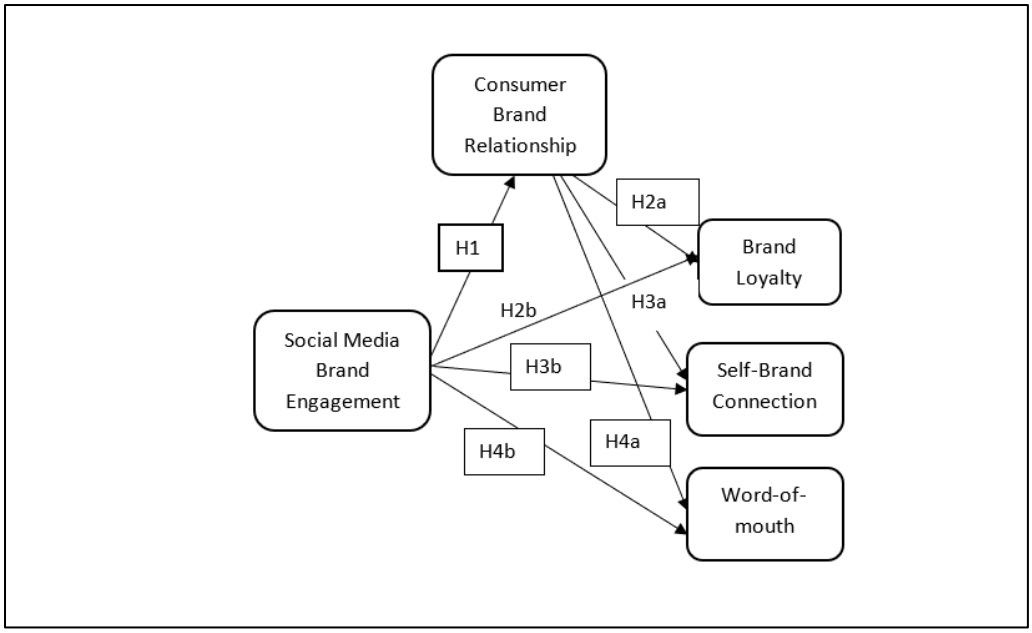
H_{3a}: CBR mediates the relationship between consumer-social media brand engagement and self-brand connection.

H_{3b}: Consumer-social media brand engagement has a significant direct influence on self-brand connection.

H_{4a}: CBR mediates the relationship between consumer-social media brand engagement and word-of-mouth.

H_{4b}: Consumer-social media brand engagement has a significant direct influence on word-of-mouth.

FIGURE 1: CONCEPTUAL FRAMEWORK



METHODOLOGY

Procedure for sampling and data collection

Data for the study was collected from online smartphone users through Ipsos (an ISO-accredited organisation well noted for its adherence to ethical standards during its data collection process). The study focuses exclusively on smartphone users, as statistics indicate that over 70% of the global population owns a smartphone, with 62% of users replacing their devices at least once every two years (Nevis, 2022; Statista, 2024b). These figures establish smartphones as one of the most widely used products worldwide. Additionally, a multimethod content analysis by Ilhan *et al*. (2018) across five industries highlights the smartphone telecommunication sector as one with the highest levels of consumer engagement with brands on social media.

The respondents received remuneration in the form of a point which they could exchange for vouchers at various stores. The respondents were recruited for the study using the following eligibility criteria. (1) Must subscribe to any social media page of a brand (2) posted or commented on a post, like, or shared something on the brand's social media page at least once in the last week. (3) must be between ages 24 and 44 since the study seeks to examine Generation Y consumers' social media brand engagement. Respondents who did not meet the above criteria were not qualified to participate in the survey. By following this criterion, we ensured that only active engagers were recruited.

Measurement items

The measurement items were established items from previous studies. The items used to measure consumer-social media brand engagement were adapted from Tsai and Men (2013) and Hollebeek *et al*. (2014). The items for CBR were adapted from Gómez *et al*. (2019) and Hudson *et al*. (2016). Finally, relationship quality outcome variables (loyalty, self-brand connection, and positive WOM) were measured using items adapted from Algesheimer *et al*. (2005), Escalas and Bettman (2003), and You *et al*. (2021). We used a six-point Likert scale to measure all the items.

Common method bias

Common method biases (CMB) usually occur when the same respondents answer questions on both the independent and dependent constructs (Gómez *et al*., 2019). Based on the recommendation of Podsakoff *et al*. (2003), several steps were taken to ensure that CMB does not substantially influence the identified relationships. Pilot testing was done, which led to the deletion of four double-barreled and ambiguous items (e.g., I see myself as a part of X's brand community and actively contribute to its activities; I recommend X to others when they need something). We used simple language, kept the questions simple, specific, and short,

guaranteed the respondents' anonymity, and assured them that no answer was wrong. As stated earlier, steps were also taken to reduce response bias. Statistical analysis was also conducted using Harman's single-factor test to identify factors with eigenvalues above 1 and detect the potential impact of CMB (Podsakoff *et al*., 2003). The result showed that 9 factors with an eigenvalue exceeding 1 accounted for 63.6% of the variance, with the initial factor explaining 11.5% of it, suggesting that CMB is negligible.

RESULTS

Measurement model (model fitness, validity, and reliability)

Model fitness was first assessed as a starting point. The model fitness and the validity and reliability of the measurement items were assessed using AMOS Version 29. The final model has a good fit, indicating that the data fits the model reasonably (χ2/d.f. = 2.1; GFI = .91; CFI = .92; TLI = .91; IFI = .93; RMSEA = .05) (see Table 2). The confirmatory factor analysis (CFA) further showed that the validity and reliability of the measurement were achieved. The standardised factor loadings of the various items exceeded the minimum recommended threshold of .50 (Brown & Moore, 2012) (see Appendix 1). The Cronbach's alpha and CR values were also above the .70 threshold (Brown & Moore, 2012). The AVE values of the contracts were also above the .50 threshold, suggesting convergent validity was achieved (see Table 1). Discriminant validity was achieved as the correlations between the constructs are less than 1 and the squared root of each corresponding AVE (Table 1).

TABLE 2: VALIDITY AND RELIABILITY OUTPUTS

	α	CR	AVE	1	2	3	4	5
Consumer Brand Relationship	.853	.858	.549	***0.741***				
Social Media Brand Engagement	.872	.873	.501	.416**	***0.702***			
Word-of-mouth	.869	.871	.629	.355**	.527**	***0.797***		
Self-brand connection	.740	.745	.501	.234**	.313**	.205**	***0.707***	
Brand Loyalty	.727	.765	.523	.231**	.284**	.379**	.104*	***0.715***

The structural analysis

Since the measurement model results were satisfactory and acceptable, we tested the proposed hypothesised paths in the conceptual model using AMOS 29. Again, the fit indices indicate that the data has a relatively good fit for the model (χ2/d.f. = 2.650, [GFI] = .927, [CFI] = .877; [TLI] = .868 [IFI] = .878, [RMSEA] = .057). Although CFI, TLI, and IFI are slightly below the recommended threshold of >.90, they are still within an acceptable value of >.85 (Kline, 2015). The result further shows that consumer-social media brand engagement explains 35% of the variance in CBR, 20%, 17%, and 46% in SBC, brand love, and word-of-mouth, respectively (see Figure 2).

The analysis of the direct hypothesised paths (Table 3) showed that consumer-social media brand engagement has a direct positive significant impact on CBR (β =.521, p<.001), providing support for H5. Consumer-social media brand engagement also has a significant positive effect on SBC (β = .374, p<.001), brand loyalty (β = .328. p<.001), and positive word-of-mouth (β = .698, p<.001). The result also shows that CBR has a significant positive effect on SBC (β = .522, p<.001), brand loyalty (β = .277, p<.001), and WOM (β = .118, p<.001).

TABLE 3: RESULTS OF THE DIRECT RELATIONSHIPS

Hypotheses	The direct relationships			*β*	S.E.	CR.	P	Decision
H5	CBR	<---	CSMBE	.521	.049	10.551	***	Accepted
H6a	BL	<---	CBR	.277	.080	4.642	***	Accepted
H6b	BL	<---	CSMBE	.328	.074	4.449	***	Accepted
H7a	SBC	<---	CBR	.522	.067	7.791	***	Accepted
H7b	SBC	<---	CSMBE	.374	.066	5.700	***	Accepted
H8a	WM	<---	CBR	.118	.068	1.737	.082	Not Accepted
H8b	WM	<---	CSMBE	.698	.070	9.972	***	Accepted

Note: *** = p<.001; CSMBE= Consumer-social media brand engagement; PU = Perceived usefulness; CBR = consumer-brand relationship; BL = brand loyalty; WM = word-of-mouth; SBC = self-brand connection

Mediation analysis

After examining the direct hypothesised paths, we tested the effect of consumer-social media brand engagement on brand loyalty, SBC, and word-of-mouth through the mediation effect of CBR. Following the approach suggested by Zhao *et al*. (2010), we examined the mediation effect by analysing the direct and indirect effects with 5000-bootstrap samples using AMOS (version 29). According to Zhao *et al*. (2010), partial mediation occurs when both direct and indirect effects are significant; full mediation occurs when only the indirect effect is significant; and no mediation occurs when only the direct path is significant. The result in Table 4 shows that CBR partially mediates the relationships between consumer-social media brand engagement and SBC (β =.272, p<.05) as well as brand loyalty (β =.144, p<.05). No significant mediation effect was found between consumer-social media brand engagement and word-of-mouth through CBR (β =.062, p>.05). The combined effect of consumer-social media brand engagement and CBR on brand loyalty, SBC, and WOM is greater than the individual direct effects of these variables.

TABLE 4: RESULTS, MEDIATION ANALYSIS

	Total effect	**Indirect effect**	**Direct effect**	**Results**
CBE <-- CBR<-- BL	β = .421***	β = .144***	β = .277***	Partial mediation
CBE <-- CBR <--SBC	β = .794***	β = .272***	B = .522***	Partial mediation

CBE <-- CBR <--WOM	β = .760***	β = .062 .190	β = .698***	No mediation
Note: *** = p<.001				

DISCUSSION

The current study empirically examined the effect of consumer-social media brand engagement through CBR as a mediator on behavioural outcomes like brand loyalty, self-brand connection, and word-of-mouth.

The result shows that consumer-social media brand engagement has a significant effect on brand loyalty, SBC, and willingness to spread positive word-of-mouth. The finding suggests that effectively engaging with consumers on social media platforms will significantly influence building brand relationships with consumers. This confirms past studies such as (Lee & Hsieh, 2022; Mishra, 2019; Tsai &Men, 2013). The finding reiterates past findings that active engagements on brands' social media platforms stand a greater chance of building stronger consumer relationships (Kim *et al*., 2021).

Concerning the mediation effect, the result expands on the existing understanding of consumer-social media brand engagement (Lee & Hsieh, 2022; Mishra, 2019; Schivinski *et al*., 2016) to show that CBR partially mediates the relationships between consumer-social media brand engagement and brand loyalty and SBC. The partial mediation effect highlights the complementary role of CBR in these relationships. Specifically, it suggests that while consumer-social media brand engagement directly influences brand loyalty and SBC, the presence of a strong CBR enhances the impact. In other words, while consumer-social media brand engagement can directly influence brand loyalty and SBC, the relationship is enhanced when consumers perceive a meaningful relationship with the brand. The finding expands on existing knowledge (Gómez *et al*., 2019; Jai *et al*., 2022; Kim *et al*., 2021) to show the dual importance of focusing on and promoting active social media participation and meaningful brand relationships.

CBR, however, has no mediation effect on the relationship between consumer-social media brand engagement and word-of-mouth, suggesting that the impact of consumer-social media brand engagement on WOM is direct and does not rely on the intermediary role of CBR. In other words, effectively engaging with consumers on social media alone is sufficient to drive WOM behaviour. This implies that social media engagement can drive consumers to share their opinions, recommendations, or experiences about the brand without necessarily depending on a strong emotional bond or relationship with the brand. This finding contradicts past findings (Gómez *et al*., 2019) to show that unlike brand loyalty or self-brand connection (SBC), which may require deeper relational foundations to be fully realised, Generation Y consumers' WOM about a brand might not be dependent on a relationship with the brand.

THEORETICAL AND PRACTICAL IMPLICATIONS

Using the social exchange theory as a theoretical foundation for the study, the study expands on the existing literature on the relationship between consumer-social media brand engagement and relational outcomes such as brand loyalty, SBC, and word-of-mouth (see Leckie *et al*., 2022; Lee & Hsieh, 2022) to show that except for word-of-mouth, consumer-social media brand engagement has a greater impact on these relational outcomes if it first leads to CBR. In other words, the combined consumer-social media brand engagement and CBR have a greater impact on relational dimensions rather than just focusing on consumer-social media brand engagement.

Based on the findings, we recommend that to effectively enhance brand engagement among this consumer cohort on social media, managers should focus on strategies that align with their tech-savvy, value-driven, and experience-focused preferences. Specifically, since Generation Ys value content relevant to enhancing their daily lives, managers should create posts, videos, and stories that provide practical tips, exclusive insights, or educational value. For instance, providing AR-based features like virtual try-ons can significantly appeal to this generation's desire for functional and social engagement.

The study finds that consumer-brand relationships partially mediate the link between engagement initiatives and outcomes like self-brand connection and loyalty. Managers targeting Generation Y consumers should leverage data analytic tools to understand consumer preferences and develop targeted messages or activities that promote a sense of belonging and emotional connection to the brand. The partial mediation also means that managers of brands need to adopt a dual approach of integrating engagement initiatives and relationship-building techniques to build and maintain strong consumer relationships.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

One limitation of this study lies in the conceptual model and the potential for reverse causality between specific constructs. For instance, it is worth considering whether social media brand engagement might increase the perceived strength of the brand rather than the other way around, as proposed in the model. Similarly, the study assumes that the strength of consumer-brand relationships (CBR) is a consequence of social media brand engagement. However, it is equally plausible that CBR strength could serve as an antecedent, driving consumers to engage with the brand on social media platforms. Furthermore, the model positions self-brand connection as a consequence of CBR strength; however, it could be argued that it might act as a precursor, influencing the strength of the consumer-brand relationship. These alternative causal pathways suggest further exploration and theorising to clarify the directional relationships between these constructs. Future research should address these possibilities to

enhance our understanding of the dynamic interplay between social media brand engagement, brand community strength, CBR strength, and self-brand connection.

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APPENDIX 1: Standardised factor loadings

Items	Std. FL
Consumer-social media brand engagement *(Tsai and Men (2013) and Hollebeek et al. (2014)*	
I spend a lot of time on the social media brand page of X	0.725
I feel very positive when I use the social media page of X	0.720
I engage in conversations on X social media page	0.714
I share comments on the social media page	0.721
Using the X's social media page stimulates my interest to learn more about X	0.627
Consumer-brand relationship *Gómez et al. (2019), Hudson et al. (2016)*	
X plays an important role in my life	0.782
It feels like I have known X for a long time.	0.779
Something would be missing if I don't visit X's social media page	0.721
X has always been good to me	0.754
Holding the brand makes me feel like an important and valuable customer.	0.662
Brand loyalty *Algesheimer et al. (2005), Escalas and Bettman (2003), and You et al. (2021)*	
I am very loyal to X	0.748
I recommend X to someone who seeks my advice	0.721
X will be my first choice in the future.	0.675
Self-brand connection *Algesheimer et al. (2005), Escalas and Bettman (2003), and You et al. (2021)*	
X reflects who I am	0.772
I feel a personal connection to X	0.726
I use X to communicate who I am to other people	0.614
Word-of-mouth *Algesheimer et al. (2005), Escalas and Bettman (2003) and Jain et al. (2018)*	
Most people whom I know have suggested buying X	0.821
I encouraged friends and relatives to use X	0.828
I say positive things about X to other people	0.763
I encourage people to join the social media brand page of X	0.774

EXAMINING ADVERGAMING EFFICACY: THE MODERATING ROLE OF USER CONTROL ON FLOW EXPERIENCE AND BRAND ATTITUDE AMONG YOUNG (GENERATION Z) BURGER KING MOBILE PLAYERS

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ABSTRACT

This study explores the efficacy of mobile advergames among South African Burger King players aged 18–30, focusing on flow experience, user control, satisfaction, brand attitude, and purchase intention. Data from 201 youths show that brand attitude strongly predicts purchase intention, while flow experience significantly enhances satisfaction but does not directly influence brand attitude. Satisfaction moderately affects brand attitude, though limited variance explained suggests other factors' influence. User control does not significantly moderate the flow–brand attitude relationship, revealing unique dynamics in fast-food advergames. This study's originality lies in examining user control's moderating role within mobile fast-food advergames targeting Generation Z, offering novel insights for gamified marketing. Limitations include convenience sampling and a modest sample size, potentially limiting generalisability. Future research should investigate diverse samples, longitudinal designs, and additional gameplay features to deepen understanding of advergaming's impact on consumer behaviour, particularly for digitally fluent youth in fast-food marketing contexts.

Keywords: advergaming; advergames; user control; flow experience; brand attitude

INTRODUCTION

Overview of Advergames

Advergaming, a fusion of "advertising" and "gaming," has become an increasingly prominent digital marketing tool that merges entertainment and promotional content to engage consumers through interactive gameplay. Unlike traditional advertising formats that rely on passive consumption, advergames embed branded messages into enjoyable gaming experiences, encouraging users to actively engage with the brand while playing. This form of branded entertainment has grown rapidly in both popularity and strategic importance, as it offers a means to influence brand perceptions and consumer behaviour through immersive and enjoyable interactions (Hsiao, Lin and Wu, 2022).

This growth is evident in global trends, with investment in advergaming rising to $12 billion in 2021 (Lubbe, 2023) from just under $5 billion the year before (Statista, 2019). The rising popularity of mobile technology and widespread access to smartphones have further fuelled the adoption of advergames. Globally, smartphone penetration is expected to surpass 7.2 billion by 2025 (Gill, 2025), while in South Africa, around one-third of the population, between 20 and 22 million people, already own smartphones (Statista, 2020). Additionally, 93% of South African internet users access the web via mobile devices, highlighting the potential reach of mobile-based advertising strategies like advergames. The country's mobile penetration rate, which stood at 60.71% in 2021, is expected to grow to nearly 67.5% by 2026 (Statista, 2021a). Such statistics suggest a favourable environment for mobile advergames to flourish as an engaging and accessible marketing channel.

Generation Z, defined as individuals born between 1995 and 2010, represents a core target demographic for mobile advergames (Jami, Kazemi and Moeini, 2023; Hsiao et al., 2022). This cohort has grown up with digital technology, exhibits high levels of mobile device usage, and prefers interactive and personalised digital content. They are especially receptive to gamified marketing approaches that offer autonomy, challenge, and reward (Jami et al., 2023; Hsiao et al., 2022). Studies have consistently shown that advergames can foster positive brand attitudes and influence purchase decisions when designed to align with users' intrinsic motivations for enjoyment and control (Goh, Tan and Tan, 2023). Consequently, fast-food brands such as Burger King have turned to mobile advergames to attract and retain this tech-savvy audience.

Despite the growing prevalence of advergames in marketing, several conceptual and empirical gaps remain. While previous research has examined the roles of flow experience, satisfaction, and brand attitude in advergame contexts (Catalán, Martínez and Wallace, 2019), limited attention has been given to how these dynamics operate specifically in mobile advergames for fast-food brands. Even less is known about how user control, defined as the degree to which players can make meaningful decisions during gameplay, might moderate the relationship between flow experience and brand attitude. Flow, a psychological state characterised by deep immersion and optimal engagement, has been linked to positive brand outcomes. However, the extent to which this relationship is enhanced or hindered by the level of user control offered within a game remains insufficiently understood (Putra, Naweswara and Willy, 2024; Hartini, 2020).

This study responds to this gap by investigating the effectiveness of Burger King's mobile advergames among South African youths aged 18 to 30. Specifically, it explores whether user control enhances the influence of flow experience on brand attitude. In doing so, the study integrates flow theory, self-determination theory (SDT), and the theory of planned behaviour

(TPB) to provide a comprehensive framework for understanding the psychological mechanisms underpinning advergame engagement and brand-related outcomes.

The originality of this research lies in its focused examination of user control as a moderating variable within a fast-food mobile advergame context, targeting a digitally native Generation Z audience. By concentrating on a real-world branded game in an emerging market, this study provides practical insights for marketers aiming to refine gamified advertising strategies. Additionally, it addresses the relatively underexplored domain of mobile advergaming in the South African context, where the convergence of rising mobile adoption and an increasingly digital youth presents significant opportunities for interactive brand engagement.

LITERATURE REVIEW AND PROBLEM INVESTIGATED

This literature review offers a comprehensive overview of the core concepts and theoretical frameworks underpinning this study. It begins with an exploration of the evolving concept of advergaming, with a particular emphasis on its relevance in emerging markets. The review then introduces Flow Theory as the primary theoretical lens, supported by Self-Determination Theory (SDT) and the Theory of Planned Behaviour (TPB), to understand how psychological mechanisms within gamified experiences shape satisfaction, brand attitude, and purchase intention.

Advergaming

The term *advergaming* first emerged in 2000 through the work of Anthony Giallourakis (Sharma, 2020), although Terlutter and Capella (2013) provided an early definition, describing it as a game developed to enable product placement. More recent literature broadens this view, defining advergaming as the use of digital games by advertisers to foster brand awareness and engagement (Sreejesh, Ghosh and Dwivedi, 2021). Advergaming represents a form of gamified advertising whereby brands leverage interactive gameplay to deepen customer connection with minimal disruption (Jami Pour, Kazemi and Moeini, 2023; Alcoverro, 2023). The rise of mobile technology has significantly contributed to the growth of advergaming. Mobile devices offer wide accessibility and repeated interaction opportunities, enabling consumers to develop reinforced brand associations through ongoing gameplay (Catalán, Martínez and Wallace, 2019; Kowert and Quandt, 2020). Estimates suggest that the global mobile gaming market could exceed USD 173 billion by 2026 (Clement, 2023). This growth is particularly relevant for emerging markets like South Africa, where rising mobile penetration and youth engagement in gaming create fertile ground for mobile-based brand strategies (Statista, 2024).

Internationally, advergaming has been successfully employed by brands such as Magnum, whose 2011 campaign attracted over 7 million users (O'Reilly, 2011). Locally, Nedbank's foray

into advergaming via the Roblox platform illustrates growing adoption among South African firms, achieving over 100,000 gameplay sessions in three months (Bizcommunity, 2024). These cases highlight how cultural awareness and market-specific tailoring are essential for effectiveness (Rabideau, 2023).

Flow Experience

Flow experience, conceptualised by Csikszentmihalyi (1975), describes a psychological state of deep concentration, enjoyment, and immersion in an activity. Though originally rooted in psychology, the concept has been widely adopted in marketing to explain engagement with digital experiences, particularly in gamified environments (Novak, Hoffman and Yung, 2000). Within mobile advergaming, flow manifests when players become absorbed in gameplay that matches their skill level, leading to heightened satisfaction (Catalán et al., 2019).

Flow theory is highly relevant for understanding consumer responses in digital marketing. Research suggests that flow can drive brand engagement and purchase behaviour by creating pleasurable experiences that influence brand evaluations (Mao et al., 2020). However, it has limitations—it may overlook how advertising messages are processed during gameplay or how varying difficulty levels affect flow states (Çadırcı and Gungor, 2019). Nevertheless, sustained engagement in advergames often results in fulfilment and enjoyment, thus reinforcing the player's satisfaction with the brand experience. This study proposes the following hypothesis:

H1: Flow experience positively influences satisfaction among young Burger King mobile advergame players.

Satisfaction

Satisfaction, in marketing, refers to the consumer's evaluation of whether their expectations are met or exceeded by the brand experience (Hamzah and Shamsudin, 2020). In the context of advergaming, satisfaction is a key driver of brand loyalty and post-interaction behaviours (Jami Pour et al., 2023; Kim and Leng, 2017). Research shows that satisfied players are more likely to engage in repeat behaviour and promote the brand through word-of-mouth (Violinda et al., 2022; Dash, Kiefer and Paul, 2021).

Flow experience plays a pivotal role in fostering this satisfaction. Studies have demonstrated that when players enter a flow state during advergame play, their enjoyment translates into higher levels of satisfaction (Hyun, Thavisay and Lee, 2021; Lu, Wang and Lu, 2019). Moreover, generational cohorts such as Millennials and Generation Z—who are accustomed to digital platforms—tend to derive greater satisfaction from interactive content (Zhang and

Rahman, 2022). Hence, the positive influence of flow on brand evaluations is likely mediated by satisfaction.

H3: Satisfaction positively influences brand attitude among young Burger King mobile advergame players.

Brand Attitude and Purchase Intention

Brand attitude reflects a consumer's enduring evaluation of a brand, shaped by their perceptions, past experiences, and emotional responses (Keller and Swaminathan, 2020). Positive brand attitudes are linked with higher loyalty, brand advocacy, and purchase intentions (Machi et al., 2022; Arachchi and Samarasinghe, 2023). Advergames can be particularly effective in shaping these attitudes by offering enjoyable, immersive experiences that enhance the consumer's association with the brand (van Berlo et al., 2021; Vanwesenbeeck et al., 2017).

A central objective of this study is to assess how satisfaction and flow contribute to brand attitude, and whether this, in turn, leads to stronger purchase intentions. As noted by Jung and Seock (2016) and Hsiao et al. (2022), a positive brand attitude often precedes behavioural outcomes such as product trial and repeat purchasing. Accordingly:

H2: Flow experience positively impacts brand attitude among young Burger King mobile advergame players.

H4: Brand attitude positively influences purchase intention among young Burger King mobile advergame players.

User Control and Theoretical Integration

User control refers to the extent to which players perceive autonomy in navigating gameplay—through options such as avatar customisation, difficulty adjustment, or narrative decisions (Putra et al., 2024). Aligned with the principles of Self-Determination Theory (SDT), such autonomy supports the psychological needs of competence and independence, both of which are essential for maintaining intrinsic motivation and sustaining flow experience (Susilo et al., 2024). When effectively implemented, user control can strengthen immersion and engagement, reinforcing the positive effects of flow. However, if the interface is overly complex or poorly integrated, it may interrupt gameplay and diminish the player's connection to the brand.

Despite its conceptual importance, limited empirical research has explored user control as a moderating factor in the relationship between flow experience and brand attitude, particularly in the context of mobile advergaming within emerging markets. This presents a notable gap,

given that control mechanisms are increasingly embedded in mobile game design, especially for engaging digital-native consumers.

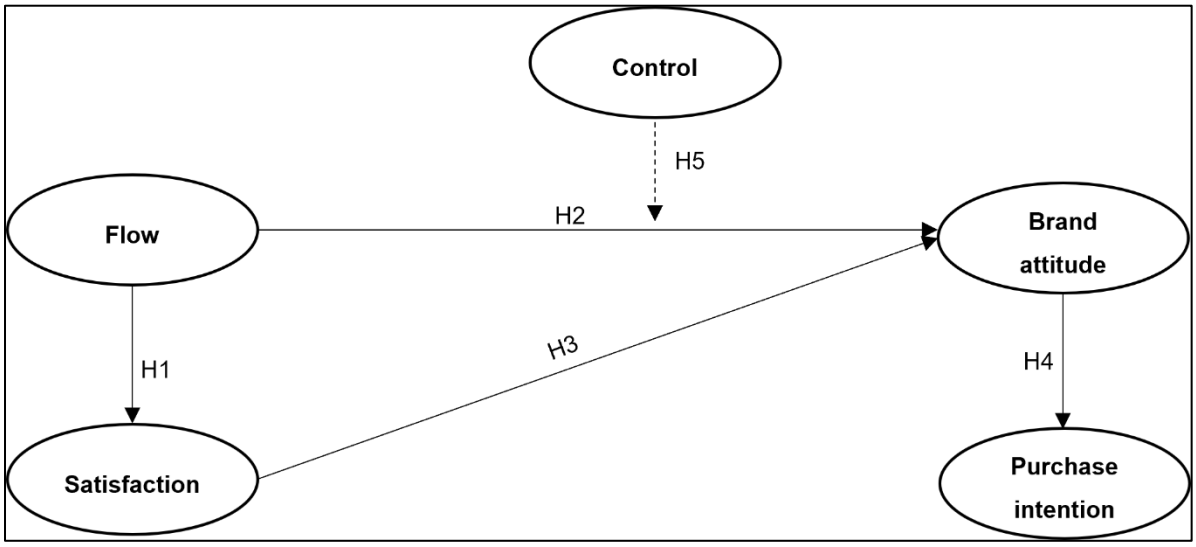
In addition, the Theory of Planned Behaviour (TPB) highlights the role of perceived behavioural control, alongside attitudes and satisfaction, in shaping consumer intentions. Within gamified environments, user control may influence how flow translates into more favourable brand perceptions. By enhancing a player's sense of agency and decision-making power, control features have the potential to amplify the emotional and attitudinal impact of the gaming experience.

To address this gap, the present study proposes the following hypothesis:

H5: User control moderates the relationship between flow experience and brand attitude among young Burger King mobile advergame players.

Figure 1 presents a visual illustration of the proposed model, highlighting the relationships among the key variables discussed in the preceding sections.

FIGURE 1. HYPOTHESISED MODEL



Source: Author's work

RESEARCH METHODOLOGY

This study employed a quantitative, survey-based approach to investigate the relationships between flow experience, user control, satisfaction, brand attitude, and purchase intention among South African youths (aged 18–30) engaging with Burger King's mobile advergames. A sample of 201 participants, recruited via convenience sampling through WhatsApp, Instagram, and X, participated in the study. Respondents were invited to download and play the free Burger King Jr Club mobile game, available on iOS and Android platforms. They were

informed that downloading and playing the game, which takes approximately 5 minutes, was at their own risk and that they should avoid navigating to any in-app shopping pages. After gameplay, respondents completed an online questionnaire, designed to take no more than 5 minutes, to assess their experiences. Participation was voluntary and anonymous, with respondents confirming their consent, age (18 or older), and willingness to download the app via checkbox responses.

The survey instrument, detailed in Appendix 1, was developed to measure the constructs of flow experience, user control, satisfaction, brand attitude, and purchase intention, drawing on validated scales from prior research (e.g., Catalán et al., 2019; Park and Lee, 2011; Wise et al., 2008; Novak et al., 2000; Dodds et al., 1991). A pilot test with 30 participants was conducted to refine the questionnaire, ensuring clarity and reliability of the items. The final sample size of 201 was deemed sufficient for partial least squares structural equation modelling (PLS-SEM), which was used to analyse both direct and moderating effects within the context of mobile gamification in youth-focused fast-food marketing.

RESULTS/FINDINGS

As shown in Table 1, all factor loadings exceed 0.70, confirming strong item reliability (Hair, Babin, Anderson and Black, 2019). Cronbach's alpha values range from 0.87 to 0.93, and composite reliability scores exceed 0.91, indicating high internal consistency. Discriminant validity was supported through the Fornell-Larcker criterion (Fornell and Larcker, 1981) and HTMT values (see Appendices 2 and 3), all below the 0.85 cut-off (Henseler, Ringle and Sarstedt, 2015). The highest HTMT value was 0.74 between satisfaction and flow. Overall, the constructs demonstrated strong reliability and validity for further structural analysis.

TABLE 1: FACTOR LOADINGS, CRONBACH'S ALPHA, AND COMPOSITE RELIABILITY

Items	Constructs	Factor Loading	Cronbach's alpha	Composite Reliability	Average variance extracted (AVE)
BAT1	Brand attitude	0.96	0.91	0.91	0.91
BAT2		0.96			
Flow1	Flow experience	0.94	0.93	0.93	0.87
Flow2		0.94			
Flow3		0.93			
PI1	Purchase intention	0.91	0.88	0.89	0.81
PI2		0.89			
PI3		0.90			
SAT1	Satisfaction	0.88	0.87	0.87	0.79
SAT2		0.89			
SAT3		0.90			

Source: Author's own work

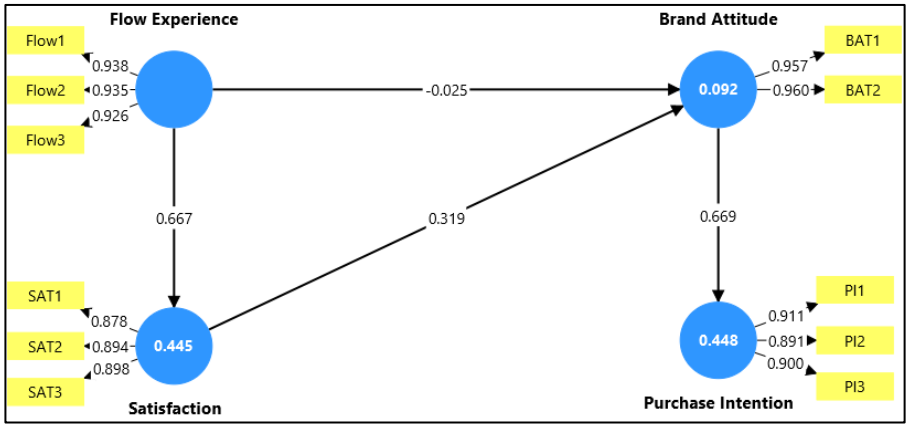
The results of the path analysis (see Table 2) indicate that brand attitude positively influences purchase intention (β = 0.67, p < .001, f² = 0.81), demonstrating a strong effect size. Similarly, flow experience significantly predicts satisfaction (β = 0.67, p < .00, f² = 0.80). In contrast, flow experience does not significantly impact brand attitude (β = -0.03, p = .80, f² = 0.00), suggesting that flow does not directly influence brand attitude. Satisfaction has a moderate positive effect on brand attitude (β = 0.32, p = .00, f² = 0.06). The predictive relevance (Q²predict) values indicate that satisfaction has the highest predictive power (Q² = 0.44), while brand attitude (Q² = 0.02) and purchase intention (Q² = 0.08) have relatively low predictive relevance. The R² values suggest that the model explains 45% of the variance in purchase intention, 45% of the variance in satisfaction, and 9% of the variance in brand attitude.

TABLE 2: PATH ANALYSIS, PREDICTIVE RELEVANCE (Q²PREDICT), AND R-SQUARE (R²)

Path	Beta Value	p-value	f²	R²	Constructs	Q²predict
Brand attitude → Purchase intention	0.67	0.00	0.81	0.45	Brand attitude	0.02
Flow experience → Brand attitude	-0.03	0.80	0.00	0.09	Purchase intention	0.08
Flow Experience → satisfaction	0.67	0.00	0.80	0.45	Satisfaction	0.44
Satisfaction → Brand attitude	0.32	0.00	0.06	0.09		

Source: Author's own work

FIGURE 2: STRUCTURAL MODEL



Source: Author's own work

The moderation analysis results presented in Table 3 and visualised in Figure 3 indicate that the interaction effect between user control and flow experience on brand attitude is statistically non-significant (β = -0.06, *p* = 0.46). This means that user control does not significantly

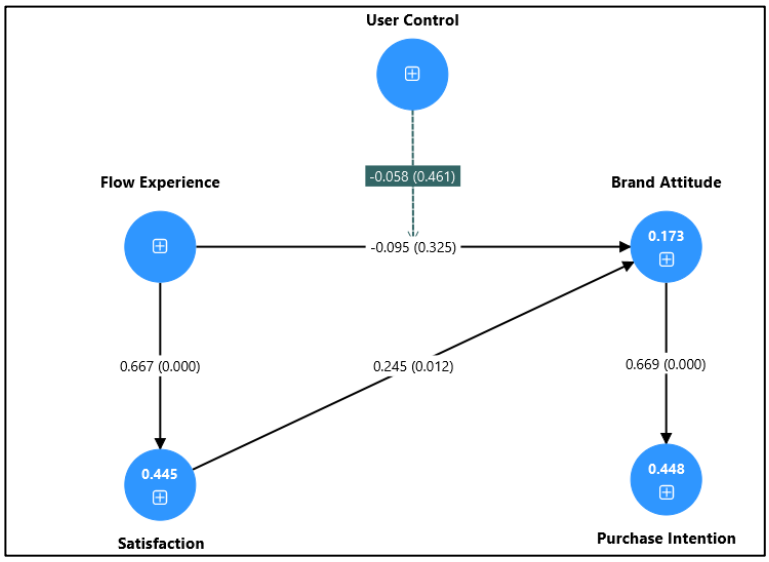
moderate the relationship between flow experience and brand attitude among young South African Burger King mobile game players. Despite initial assumptions that higher perceived control during gameplay might enhance the impact of immersive experiences on brand evaluations, the data do not support this hypothesis. This finding is visually reinforced in Figure 4, which plots the interaction effect of user control and flow experience on brand attitude across three levels of user control (low, mean, and high). The slopes of the three lines are nearly parallel and slightly negative, indicating that variations in user control have minimal influence on the relationship. Even at high levels of user control (+1 SD), there is no substantial change in the strength or direction of the flow–brand attitude relationship. Overall, the results suggest that flow experience influences brand attitude independently of perceived control in the context of this advergame.

TABLE 3: MODERATION ANALYSIS

Moderation Path	Beta Value	p-value
User control x Flow experience -> Brand attitude	-0.06	0.46

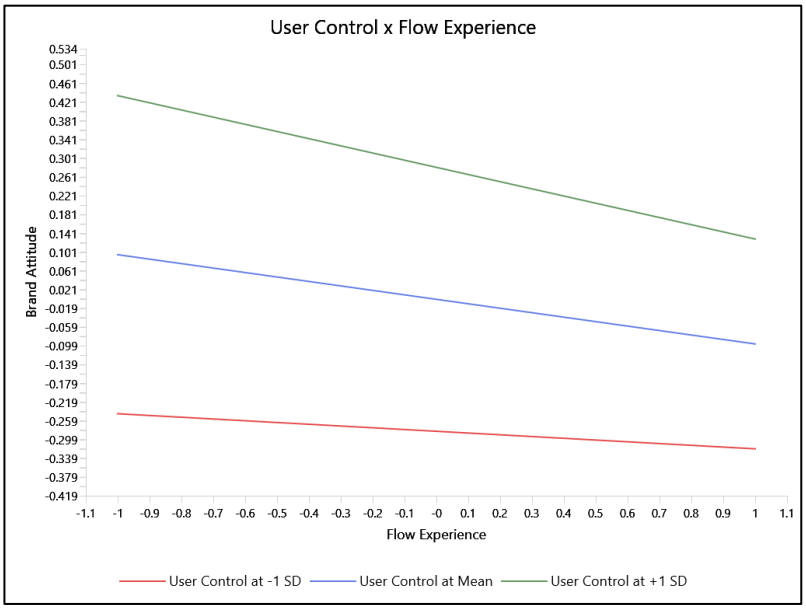
Source: Author's own work

FIGURE 3: MODERATION MODEL



Source: Author's own work

FIGURE 4: INTERACTION PLOT



Source: Author's own work

The findings from this study on young Burger King mobile advergame players offer valuable contributions when compared with recent literature on advergaming and related psychological effects. The clear association observed between brand attitude and purchase intention is consistent with the work of Catalán et al. (2019), who demonstrated that positive impressions formed through interactive gameplay can translate into actual purchase behaviour. This is particularly significant for Generation Z, who are highly proficient with digital technologies and generally prefer interactive media over passive forms of advertising (Sharma et al., 2024). These results indicate that Burger King's advergames effectively transform positive perceptions into an increased likelihood of purchase among young users who appreciate engaging digital experiences (Suryani, Hurriyati, and Hendrayati, 2023).

The strong influence of flow experience on satisfaction supports the idea that complete immersion, resulting from a balance between challenge and player skill, enhances enjoyment. This aligns with findings by Hanbazazah et al. (2022), who noted that immersive gaming can generate favourable emotional reactions, and Van Berlo and Chen (2024), who linked flow directly to greater satisfaction. Given that Generation Z reportedly spend around nine hours each day on mobile applications (Talmon, 2019), this level of absorption fits well with their preference for quick, engaging digital entertainment (Suryani et al., 2023).

However, the lack of a direct effect of flow on brand attitude differs from earlier findings by Catalán et al. (2019), who reported that sustained flow could directly reinforce brand attitude. In this context, it seems possible that while Burger King's advergame successfully created immersive experiences, these moments did not integrate brand elements closely enough to

influence attitudes toward the brand itself. This is a point that may warrant more focused investigation, especially given the attention in recent studies to the importance of meaningful brand placement during key gameplay moments (Hu, Wang, Chan, Chen, Tang, and Li, 2022; Khezrian, Farzinnejad, and Baghaei, 2022).

An important aspect of this study was the examination of user control as a moderating factor. The data showed that user control did not significantly change the relationship between flow and brand attitude. This contrasts with studies such as Hu et al. (2022) and Farzinnejad, Khezrian, Kasiri, and Baghaei (2024), who highlighted that greater player control over the gaming environment can strengthen the way immersion affects perceptions of a brand. It may be that Burger King's advergame did not provide the depth of control, such as choice-driven narratives or strategic decision-making, that would have allowed autonomy to meaningfully influence how flow shaped attitudes. Since Generation Z place particular value on experiences where they can direct outcomes themselves, this limitation could help explain why user control did not play a larger role here.

Additionally, the relatively low variance accounted for in brand attitude ($R^2 = 0.09$) suggests that other factors might be more influential in shaping how players perceive a brand. Prior familiarity with Burger King, the presence of social features within the game, or peer opinions might have greater impact than the variables tested in this study. Khezrian et al. (2022) pointed out that familiar gameplay structures and subtle brand interactivity can be crucial in strengthening brand outcomes, especially when combined with elements like social competition or co-play, which were not central features of this particular advergame.

Taken together, these findings imply that while Burger King's mobile advergame effectively promoted satisfaction and indirectly encouraged purchase intentions, there remains room to improve its ability to shape brand attitudes directly. Future advergames might benefit from deeper integration of brand features within the most engaging gameplay moments and offering richer opportunities for players to make meaningful choices that affect the outcome. Such enhancements could be particularly effective for Generation Z, who are not only accustomed to high-quality digital entertainment but also seek experiences that give them greater control and personal involvement.

LIMITATIONS

This study's reliance on convenience sampling via social media platforms may introduce selection bias, potentially limiting generalisability to broader populations. The modest sample size (201 participants) may restrict the detection of subtle effects, particularly for the non-significant moderation of user control. The focus on a single brand (Burger King) and a specific mobile advergame limits the applicability of findings to other contexts or industries.

Additionally, the cross-sectional design precludes insights into long-term effects of advergaming on brand loyalty or purchase behaviour.

RECOMMENDATIONS FOR FUTURE RESEARCH

Future studies should employ probability sampling and larger, more diverse samples to enhance generalisability. Longitudinal designs could explore the sustained impact of advergaming on brand loyalty and purchasing behaviour. Investigating additional gameplay features, such as social interactions or advanced customisation options, could clarify the role of user control in moderating flow and brand attitude. Comparative studies across different brands and industries would provide broader insights into advergaming efficacy. Exploring external factors, such as prior brand familiarity or cultural influences, could address the low R^2 for brand attitude. Additionally, it would be valuable to examine the influence of flow experience, user control, and satisfaction on attitude towards the game itself, and how this, in turn, affects brand attitude, following the attitude towards the ad model, to better understand the pathways through which advergames shape brand perceptions.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

These findings provide practical guidance for Burger King and similar fast-food brands seeking to engage Generation Z through mobile advergames. The clear connection between brand attitude and purchase intention highlights the importance of integrating authentic brand features into gameplay. Drawing from the ‘Keep It Real Meals’ initiative, managers should incorporate distinctive elements, such as iconic menu items or campaign-specific promotions, within the game’s framework to reinforce brand identity, aligning with Generation Z’s preference for meaningful and value-oriented interactions (Axcell and Ellis, 2023). Linking in-game milestones to real-world incentives, such as discount codes or complimentary items, could further strengthen this relationship, converting positive attitudes into purchasing behaviour.

The significant relationship between flow experience and satisfaction highlights the need for designing immersive gaming experiences. Inspired by Nike’s approach (Catalán et al., 2019), Burger King should focus on mechanics that sustain absorption, such as time-sensitive tasks or interactive features like burger creation, to maintain engagement, aligning with Generation Z’s extensive mobile usage (Talmon, 2019). However, the missing link between flow and brand attitude indicates that immersion must be deliberately tied to brand messaging. Managers could achieve this by highlighting Burger King-specific identifiers, such as logos or taglines, during key flow-inducing moments, such as level completions, ensuring that brand visibility complements rather than detracts from the gaming experience (Mauroner, 2019).

The contribution of satisfaction to brand attitude suggests that fostering enjoyment can indirectly bolster brand objectives. To enhance satisfaction, managers should introduce adaptable features, such as variable difficulty settings or character customisation, tailored to Generation Z's desire for autonomy (Sailer et al., 2017). Implementing regular feedback channels, such as in-game surveys, could refine these elements, ensuring alignment with a demographic that values genuine digital interactions (Jami et al., 2023). Given the unconfirmed moderating effect of user control, exploring greater player agency, through options like narrative decision-making or personalised game paths, could potentially enhance the flow-to-brand attitude relationship, as proposed by Hu and Wise (2021). With smartphone adoption continuing to grow (Quenum, 2025), these refinements can establish advergames as an effective tool for fostering sustained loyalty among young, mobile-oriented consumers.

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APPENDIX 1: CONSTRUCTS MEASURES

CODES	CONSTRUCTS	ITEMS	SCALES	SOURCES
Flow1	Flow Experience	1. Do you think you have ever experienced "flow" while playing the Burger King game?	1 - Not at all 7- Very much	Catalan et al., 2019; Novak et al., 2000
Flow2		2. In general, how frequently would you say you have experienced "flow" while playing the Burger King game?	1 - Not frequently 7- Very frequently	
Flow3		3. Most of the time I play the Burger King online game, I feel I am in "flow"	1 - Strongly disagree 7- Strongly agree	
BAT1	Brand Attitude	1. My brand attitude towards the Burger King brand is (1) Unfavourable or (7) Favourable	1 - Unfavourable 7 - Favourable	Wise et al, 2008; Catalan et al., 2019
BAT2		2. My brand attitude towards the Burger King brand is (1) Bad or (7) Good	1 - Bad 7 - Good	
BAT3		3. My brand attitude towards the Burger King brand is (1) Negative or (7) Positive	1 - Negative 7 - Postive	
C1	User Control	1. I felt in control of what I was doing when I was playing the Burger King online game	1 - Strongly disagree 5 - Strongly agree	
C2		2. I could easily control the information that was provided to me when I was playing the Burger King online game	1 - Strongly disagree 5 - Strongly agree	
C3		3. I felt I could control my use of the information I received from the Burger King game when playing it	1 - Strongly disagree 5 - Strongly agree	
C4		4. The level of information provided by the Burger King online game, helped me to feel in control when playing the game	1 - Strongly disagree 5 - Strongly agree	
PI1	Purchase Intention	1. My likelihood of purchasing Burger King's products is . . .	1 - Very low 5 - Very high	Doods et al.,1991
PI2		2. The probability that I would consider buying Burger King's products is . . .	1 - Very low 5 - Very high	
PI3		3. My willingness to buy Burger King's products is. . .	1 - Very low 5 - Very high	
SAT1	Satisfaction	1. Overall I am satisfied with the Burger King online game I have played	1 - Strongly disagree 7 - Strongly agree	Park and Lee, 2011
SAT2		2. The Burger King online game I have played, exceeded my expectations	1 - Strongly disagree 7 - Strongly agree	
SAT3		3. The Burger King online game I have played, is close to my ideal interaction with an online game	1 - Strongly disagree 7 - Strongly agree	

APPENDIX 2: FORNELL AND LARCKER TABLE (DISCRIMINANT VALIDITY)

	Brand Attitude	Flow Experience	Purchase Intention	Satisfaction
Brand Attitude	0.959			
Flow Experience	0.188	0.933		
Purchase Intention	0.669	0.398	0.901	
Satisfaction	0.303	0.667	0.432	0.890

APPENDIX 3: HTMT

	Brand Attitude	Flow Experience	Purchase Intention	Satisfaction
Brand Attitude				-
Flow Experience	0.204			-
Purchase Intention	0.743	0.440		-
Satisfaction	0.334	0.740	0.485	-

OPPORTUNITY IN COMPLEXITY: UNDERSTANDING GERMAN CONSUMERS' ONLINE SHOPPING QUALITY EXPECTATIONS THROUGH A DEMOGRAPHIC LENS

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ABSTRACT

This study investigates how demographic complexity influences online shopping quality expectations in Germany's online shopping environment. Using a survey (n=250), the research examines the statistical and practical significance of age, gender, employment status, and education across eight online quality expectation elements. Analysis using ANOVA, post-hoc Tukey tests, and Cohen's D identified significant differences, particularly among younger, female, employed, and more educated consumers. Younger users valued usability and satisfaction more, while female shoppers prioritised security and usability. Results reveal that consumer expectations are not uniform and call for segmented strategies in interface design and service delivery. This paper contributes to solving the managerial puzzle of aligning online shopping quality expectations with complex consumer needs. By understanding the practical significance of demographic influence, online retailers can personalise their platforms to enhance customer satisfaction, improve conversion rates, and strengthen market competitiveness.

Keywords: demographics; e-shopping; Germany; quality expectations

INTRODUCTION AND PROBLEM STATEMENT

The advent of the internet, and in particular the World Wide Web, has revolutionised the world of retailing (Ntumba, Aguayo and Maina, 2023). Year-on-year, consumers are increasingly adopting online shopping (Venkatesh, Speier-Pero and Schuetz, 2022), which has resulted in an increase in the number of major e-commerce companies and a growing number of online retailers entering the digital marketplace (Susiang, Suryaningrum, Masliardi, Setiawan and Abdillah, 2023). This trend is evident in Germany as well, where post-COVID-19 consumers' online shopping has remained higher than what it was before the pandemic (Shaw, Eschenbrenner and Baier, 2022), and more retailers are providing e-shopping experiences (Kráľ and Fedorko, 2023). The German e-commerce market is ranked as one of the largest in the world, with an estimated 80% of the population adopting online shopping and generating a total sales value of USD 141.2 billion (International Trade Administration,

2023). The primary motivators for Germans to shop online include convenience and the availability of a wider variety of products (Zaharia, 2019).

Consumers in the 21st century have higher quality expectations in relation to online shopping (Susiang *et al*., 2023). These expectations can be driven by numerous factors, including complex demographic factors (Rowley, 2009). For example, in a study conducted by Hult, Sharma, Morgeson and Zhang (2019), it was found that women have higher quality expectations than men when it comes to online shopping, and older consumers were found to rely less on their expectations when shopping online compared to younger consumers. German consumers tend to be risk-averse and have high quality expectations from online stores (International Trade Administration, 2023). The German population consists of approximately 83.5 million people, 42.3 million of whom are female and 41.2 million of whom are male. The country has an ageing population, and at present, an estimated 62% of the population is between 20 and 66 years of age, while 20% is 67 years and older, and a smaller percentage (19%) is younger than 20 years old (Statistishes Bundesamt, 2025a). The German employment rate is 77.2% (Statistishes Bundesamt, 2025b), and nearly half (47.5%) have a vocational qualification, a lower percentage (31.9%) have a higher education entrance qualification, and 17.6% have a higher education degree (Statistishes Bundesamt, 2025c). It is important to determine what this population expects from online shops as a failure to identify customer quality expectations can result in lost sales and dissatisfied customers (Susiang *et al*, 2023). Despite its widespread adoption, there remains a substantial amount to learn about the complexity of online shopping (Venkatesh, *et al*, 2022), particularly related to the relationship between demographics and online shopping, as demographics have been identified to play an instrumental role in online shopping (Zhai, Kanij and Grundy, 2022). Jadil, Rana and Dwivedi (2022) study focused solely on the role that trust plays in the online shopping environment and suggests that a study be conducted that includes more online shopping expectation variables. In addition, Braun and Osman (2024) conducted a study in Germany focusing on respondents aged 50 and older. They recommend conducting a study that includes respondents from different age groups to provide a more holistic view of German online quality expectations. Gruntkowski and Martinez (2022) conducted a study that employed Spearman's rank correlation analysis to investigate six customer-oriented factors influencing online grocery purchase intentions in Germany. They suggested employing a statistical analysis method, such as Analysis of Variance (ANOVA), to explore the relationships between demographic factors and variables related to online shopping quality expectations. The research gap identified is the lack of comprehensive studies examining the statistical and practical significance of the relationship between specific demographic factors, such as age, gender, income, and education, and e-shopping quality expectations in Germany. While previous research has explored aspects of online shopping behaviour, there has been an insufficient focus on how these demographic variables influence consumer perceptions of online shopping quality. Therefore, the paper aims to determine whether the selected demographic variables have

statistically significant relationships with online shopping quality expectations and if these have practical significance in the German online shopping environment.

LITERATURE REVIEW

The rapid digitalisation of the world, combined with consumers' increasing preference for online shopping and the increasing entry of new competitors (Ventkatesh *et al*., 2022), is exerting a lot of pressure on organisations to adapt and innovate their business practices (Susiang *et al*., 2023). Online stores must now stand out through differentiation and exceptional customer experiences to survive in the complex and ever-changing digital landscape (Ferreira and Jonas, 2024). However, to provide these experiences requires an understanding of what customers expect in terms of service quality in the online shopping environment. According to Jaiswal and Singh (2020) online shoppers have numerous expectations when it comes to online shopping. These expectations are briefly discussed in the following section.

User Experience encompasses all the interactions a consumer has with a brand, starting from browsing products on a website to post-purchase follow-up. It involves easy website navigation, intuitive user interfaces, and seamless, secure payment processes (Susiang *et al*., 2023). Website usability refers to how easy a website is to use (Monsuwé, Dellaert and De Ruyter, 2004). Key aspects include user-friendly navigation, quick response times, a structured and clear layout, search and comparison options, and an efficient checkout process (Shaw *et al*., 2022). Website security focuses on protecting consumers' financial information (Okoye, Nwankwo, Usman, Mhlongo, Odeyem and Ike, 2024). This includes safeguarding personal information, ensuring the safe transmission of data, and protecting information from unauthorised access by third parties (Almugari, Khaled, Alsyani, Al-Homaidi, and Qaid, 2022). Product information consists of providing consistent, sufficient, updated, and easily understood details (Almugari *et al*., 2022). This information should cover product attributes, consumer recommendations, and evaluation reports (Ntumba *et al*., 2023). Customer service is crucial in the online shopping experience. It involves efficiently resolving complaints, responding to queries in a timely manner, and providing personalized recommendations. All these factors contribute to a positive customer experience (Peña-García, Gil-Saura, Rodríguez-Orejuela, and Siqueira-Junior, 2020). Complaint handling is the process that an organization follows to address complaints. A complaint occurs when a customer is dissatisfied with a product or service, and the dissatisfaction can be expressed either verbally or in writing (Cieśla, 2019). A product offering includes the complete range of products or services sold by a company. It encompasses not only the physical products and services but also the features, benefits, and any associated services that accompany them (Launch Notes, 2025). E-customer satisfaction is a subjective assessment by customers regarding the quality of their online shopping experience. It reflects consumers' feelings, perceptions, and attitudes (Lin and Wang, 2012).

Demographic factors such as age, gender, employment status and level of education influence online shopping (Nagra and Gopal, 2013). It is important to determine the effect of these factors on online shopping quality expectations as it can assist in explaining consumer trends (Karaaslan, 2021) and aid marketers in customising their strategies to ensure enhanced shopping experiences. Previous research by Pradhana and Sastiaono (2019) found that males are more risk-averse than females, and therefore, security in online shopping is a more important expectation for them. In contrast to this study, Shaw *et al*. (2022) identified security as an expectation among both male and female e-customers in the context of online shopping. In a different study, Varma and Gupta (2019) found that younger e-customers had higher expectations than older e-customers regarding ease of use in the context of online shopping. This could be due to the fact that younger individuals might be more technologically savvy and therefore expect higher performance from online stores. In an earlier study, Kumbhar (2011) found that younger e-customers expect more diverse product offerings from online stores compared to older e-customers. In the case of education, e-customers with a lower level of education were found to have lower expectations than e-customers with a higher level of education concerning ease of use in relation to online shopping (Varma and Gupta, 2019). This finding contradicts the finding of Kumbhar (2011), who found that low and highly educated e-customers expect ease of use related to online shopping. Related to education, e-customers with a higher education level had higher expectations than e-customers with a lower level of education concerning security (Varma and Gupta, 2019).

Based on the literature review, thirty-two hypotheses were developed to test whether demographic factors can influence the online shopping quality expectations of German online shoppers. Four sets of hypotheses were developed:

H_{1a}-H_{1h}: Age influences German online shoppers' online shopping quality expectations.

H_{2a}-H_{2h}: Gender influences German online shoppers' online shopping quality expectations.

H_{3a}-H_{3h}: Employment status influences German online shoppers' online shopping quality expectations.

H_{4a}-H_{4h}: The level of education can predict German online shoppers' expectations for online shopping quality.

METHODOLOGY

The study follows the positivistic research philosophy and is therefore quantitative in nature. Data was collected with a newly developed online survey based on contemporary literature on the subject matter. The study employed judgment and snowball sampling, as the rationale was the good physical infrastructure and telecommunication in Germany, which made it easy to send a questionnaire link to other respondents. To participate in the study, respondents had to be a German citizen aged 18 years or older and have previously shopped online. Initial respondents who met the study's participation criteria were identified and asked to share the link with other respondents who also met

the same criteria. The landing page for the online survey clearly explained the purpose of the study. It stated that participation was voluntary, and respondents could withdraw from the survey at any time. Additionally, it emphasised that no responses could be traced back to any individual, as no contact information was required to complete the survey. The demographic data was collected by making use of multiple-choice questions (nominal data) and the online shopping quality expectation elements were measured by a 5-point Likert scale ranging from unimportant (1) to utmost important (5). After data cleaning, 250 questionnaires were analysed using the SPSS statistical analysis software. To ensure the validity of the measuring instrument, an exploratory factor analysis (EFA) was conducted. Only items with factor loadings of 0.4 or higher were retained, ensuring no cross-loadings were present (Liew and Idris, 2017). For a variable to be considered valid, it must have retained at least three items. The study adopted a Cronbach's alpha of 0.7 as advised by Barbera, Naibert, Komperda and Pentecost (2021).

ANOVA was performed to determine whether significant differences ($p < 0.05$) exist between the demographic factors and the online shopping quality expectation elements. Thereafter, a post-hoc Tukey test was conducted to identify where the significant mean score differences occurred. Cohen's d values were calculated in terms of practical significance, which bridges the gap between statistical results and real-world application (Lee and Lee, 2018). Cohen's D values of $0.2 < d < 0.49$ were considered as a small effect size; $0.5 < d < 0.79$ as a moderate effect size, and $d > 0.8$ as a large effect size (Cohen, 1988).

EMPIRICAL RESULTS

Most respondents were in the 18-25 age group (60%), followed by the 26-35 age group (18%). Few respondents were aged 66 years and above (2%). The gender of the respondents was almost equally split, with 51% female respondents and 49% male respondents. With regards to employment status, just over half of the respondents were students (53%), followed by full-time employed respondents (28%), part-time employed respondents (13%) and only 3% of the respondents were retired. When evaluating education, 43% of the respondents were high school graduates, and 37% had obtained a degree. Only 2% of the respondents had a post-graduate diploma/degree. Table 1 presents the results of the validity and reliability tests of the variables.

TABLE 1 VALIDITY AND RELIABILITY

Online shopping quality expectations elements	Number of items retained	Range of factor loadings	Cronbach's alpha values
User experience	8	0.480-0.754	0.861
Website security	6	0.452-0.831	0.785
Website usability	5	0.432-0.683	0.706
Product information	4	0.469-0.693	0.704
Customer service	4	0.530-0.662	0.747
Complaint handling	4	0.461-0.805	0.775
Product offering	4	0.460-0.636	0.701
E-Customer satisfaction	5	0.411-0.715	0.705

As Table 1 shows, all the variables had more than three retained items, factor loadings above the 0.4 threshold and Cronbach's alpha values that exceeded the 0.7 thresholds adopted in the study. A collinearity test is essential before conducting the ANOVA tests to ensure that the variables are not excessively correlated. The variance inflation factor (VIF) values should be below 10, and the tolerance values must be greater than 0.1 (Kyriazos and Poga, 2023). The results of the collinearity test indicated that all VIF values were below the threshold of 10, and the tolerance values exceeded 0.1. Thus, ANOVA testing could be performed. Table 2 presents the ANOVA results of the demographic variable age and the online shopping quality expectations elements.

TABLE 2: ANOVA'S FOR AGE AND THE ONLINE SHOPPING QUALITY EXPECTATIONS ELEMENTS

Grouping variable: Age			
Variables	**P-value**	**Hypothesis no.**	**Hypotheses**
User experience	0.060	H_{1a}	Rejected
Website security	0.038*	H_{1b}	Accepted
Website usability	0.000*	H_{1c}	Accepted
Product information	0.509	H_{1d}	Rejected
Customer service	0.219	H_{1e}	Rejected
Complaint handling	0.396	H_{1f}	Rejected
Product offering	0.398	H_{1g}	Rejected
E-Customer satisfaction	0.000*	H_{1h}	Accepted

As can be seen from Table 2, three statistically significant relationships exist between age and online quality expectations. Statistically significant relationships exist between age and website security (0.038), website usability (0.000) and e-customer satisfaction. The post-hoc Tukey test was not powerful enough to detect any group mean differences for website security. The results of the post-hoc Tukey test for specific mean differences for website usability revealed three group differences. Respondents in the age group 18 to 25 ($\dot{x}$ = 4.407) scored a higher mean score than respondents in the age group 56 to 65 ($\dot{x}$ = 3.989) and 66 years and above ($\dot{x}$ = 3.520). Therefore, younger respondents, aged 18 to 25, place higher importance on website usability than those aged 56 to 65 and 66 in enhancing online quality expectations. In addition, respondents aged 26 to 35 ($\dot{x}$ = 4.180) also place more importance on website usability to enhance online quality expectations than those aged 66 years and above ($\dot{x}$ = 3.520).

The results of the post-hoc Tukey test for specific mean differences for e-consumer satisfaction revealed five group differences. Respondents in the age group 18 to 25 ($\dot{x}$ = 4.047) scored a higher mean score than respondents in the age groups 56 to 65 ($\dot{x}$ = 3.578) and 66 years and above ($\dot{x}$ = 3.066). This indicates that respondents aged 18 to 25 regard e-consumer satisfaction as very important in enhancing online quality expectations compared to those aged 56 to 65 and 66 years and above, who regard e-customer satisfaction as important or slightly important, respectively. Furthermore, respondents aged 26 to 35 ($\dot{x}$ = 4.068) also place higher importance on e-customer satisfaction in enhancing online quality expectations than those in the age groups 56 to 65 ($\dot{x}$ = 3.578) and 66 years and above ($\dot{x}$ = 3.066). Similarly, respondents aged 36 to 45 ($\dot{x}$ = 4.116) also place higher importance on e-customer satisfaction in enhancing online quality expectations than those aged 66 years and above ($\dot{x}$ = 3.066). Table 3 displays the Cohen D effect sizes for age and the online shopping quality expectations elements.

TABLE 3: COHEN D EFFECT SIZES FOR AGE AND THE ONLINE SHOPPING QUALITY EXPECTATIONS ELEMENTS

Online shopping quality expectations elements	Age groups with effects	Cohen D	Effect size
Website usability	18 to 25 > 56 to 65 18 to 25 > 66 and above 26 to 35 > 66 and above	0.78 0.58 0.59	Moderate Moderate Moderate
E-customer satisfaction	18 to 25 > 56 to 65 18 to 25 > 66 and above 26 to 35 > 56 to 65 26 to 35 > 66 and above 36 to 45 > 66 and above	0.90 0.98 0.81 0.96 0.98	Large Large Large Large Large

As can be seen from Table 3, there are eight practical significant mean group differences age and online quality expectations elements website usability and e-customer satisfaction. From these practical significant mean group differences only e-customer satisfaction had large practical significance. Table 4 displays the ANOVA results of the demographic variable gender and the online shopping quality expectations elements.

TABLE 4: ANOVA'S FOR GENDER AND THE ONLINE SHOPPING QUALITY EXPECTATIONS ELEMENTS

Grouping variable: Gender			
Variables	**P-value**	**Hypothesis no.**	**Hypotheses**
User experience	0.052	H_{2a}	Rejected
Website security	0.042*	H_{2b}	Accepted
Website usability	0.010*	H_{2c}	Accepted
Product information	0.001*	H_{2d}	Accepted
Customer service	0.007*	H_{2e}	Accepted
Complaint handling	0.425	H_{2f}	Rejected
Product offering	0.038*	H_{2g}	Accepted
E-Customer satisfaction	0.107	H_{2h}	Rejected

As can be noted from Table 4, five statistically significant relationships exist between gender and online quality expectations elements: website security (0.042), website usability (0.010), product information (0.001), customer service (0.007), and product offering (0.038). The results of the post-hoc Tukey test for specific mean differences in website security revealed that female respondents place a higher importance ($\dot{x}$ = 3.163) on website security in enhancing online quality expectations in Germany than male respondents ($\dot{x}$ = 2.987). The post-hoc Tukey test for specific mean differences in online website usability indicates that female respondents ($\dot{x}$ = 4.407) in Germany perceive website usability as slightly more important in enhancing online quality expectations compared to male respondents ($\dot{x}$ = 4.226). Similarly, the post-hoc Tukey test for specific mean differences revealed that female respondents ($\dot{x}$ = 4.408) place higher importance on product information to enhance online shopping quality expectations than male respondents ($\dot{x}$ = 4.163). Likewise, the post-hoc Tukey test for specific mean differences revealed that female respondents ($\dot{x}$ = 4.641) place higher importance on customer service in enhancing online shopping quality expectations than male respondents ($\dot{x}$ = 4.464). The same trend was evident for the post-hoc Tukey test results for product information. Female respondents ($\dot{x}$ = 4.054) in Germany regard product offering as more important in achieving online quality expectations compared to their male

counterparts (ẋ = 3.884). Table 5 displays the Cohen D effect sizes for gender and the online shopping quality expectations elements.

TABLE 5: COHEN D EFFECT SIZES FOR GENDER AND THE ONLINE SHOPPING QUALITY EXPECTATIONS ELEMENTS

Online shopping quality expectation elements	Gender groups with effects	Cohen D	Effect size
Website security	Females > Males	0.84	Large
Website usability	Females > Males	0.55	Moderate
Product information	Females > Males	0.41	Small
Customer service	Females > Males	0.34	Small
Product offering	Females > Males	0.26	Small

As can be noted from Table 5, there are five practical significant mean group differences for gender and online quality expectations elements: website security, website usability, product information, customer service, and product offering. Only website security has large practical significance. Table 6 displays the ANOVA results of the demographic variable employment status and the online shopping quality expectations elements.

TABLE 6: ANOVA RESULTS OF THE DEMOGRAPHIC VARIABLE EMPLOYMENT STATUS AND THE ONLINE SHOPPING QUALITY EXPECTATIONS ELEMENTS

Grouping variable: Employment Status			
Variables	**P-value**	**Hypothesis no.**	**Hypotheses**
User experience	0.196	H_{3a}	Rejected
Website security	0.591	H_{3b}	Rejected
Website usability	0.000*	H_{3c}	Accepted
Product information	0.526	H_{3d}	Rejected
Customer service	0.477	H_{3e}	Rejected
Complaint handling	0.393	H_{3f}	Rejected
Product offering	0.329	H_{3g}	Rejected
E-Customer satisfaction	0.016*	H_{3h}	Accepted

Table 6 shows that two statistically significant relationships exist between employment status and online quality expectations elements: website usability (0.000) and e-customer satisfaction (0.016). The results of the post-hoc Tukey test for specific mean differences for website usability revealed four group differences. Retired respondents (ẋ = 3.575) had the lowest mean score compared to full-

time employed (ẋ = 4.202), students (ẋ = 4.375), part-time employed (ẋ = 4.419) and self-employed (ẋ = 4.425). This indicates that retired respondents regard website usability as important, while the other groups regard it as very important. It is of interest to note that self-employed respondents had the highest mean score, followed by part-time employed respondents for website usability. The results of the post-hoc Tukey test for e-customer satisfaction were not powerful enough to detect specific mean scores. Table 7 shows the Cohen D effect sizes for employment status and the online shopping quality expectations elements.

TABLE 7: COHEN D EFFECT SIZES FOR EMPLOYMENT STATUS AND THE ONLINE SHOPPING QUALITY EXPECTATIONS ELEMENTS

Online shopping quality expectations elements	Language groups with effects	Cohen D	Effect size
Website usability	Retired < Full-time	0.54	Moderate
	Retired < Student	0.52	Moderate
	Retired < Part-time	0.51	Moderate
	Retired < Self-employed	0.50	Moderate

As can be observed from Table 7, there are four significant practical mean differences between employment status and website usability. All four have moderate practical significance. Table 8 displays the ANOVA results of the demographic variable education and the online shopping quality expectations elements.

TABLE 8: ANOVA RESULTS OF THE DEMOGRAPHIC VARIABLE EDUCATION AND THE ONLINE SHOPPING QUALITY EXPECTATIONS ELEMENTS

Grouping variable: Education			
Variables	**P-value**	**Hypothesis no.**	**Hypotheses**
User experience	0.017*	H_{4a}	Accepted
Website security	0.808	H_{4b}	Rejected
Website usability	0.175	H_{4c}	Rejected
Product information	0.405	H_{4d}	Rejected
Customer service	0.893	H_{4e}	Rejected
Complaint handling	0.740	H_{4f}	Rejected
Product offering	0.037	H_{4g}	Rejected
E-Customer satisfaction	0.024*	H_{4h}	Accepted

As depicted in Table 8, there are two statistically significant relationships between education and online quality expectation elements: user experience (0.017) and e-customer satisfaction (0.024).

The results of the post-hoc Tukey test for specific mean differences in user experience revealed one group difference. Respondents with certificates ($\dot{x}$ = 2.768) had a lower mean score than high school graduates ($\dot{x}$ = 3.219). This suggests that high school graduates consider user experience to be important, whereas respondents with certificates view it as only slightly important. The post-hoc Tukey test was not powerful enough to detect any group mean differences for e-customer satisfaction. Table 9 presents the Cohen D effect sizes for education and the online shopping quality expectations elements.

TABLE 9: COHEN D EFFECT SIZES FOR EDUCATION AND THE ONLINE SHOPPING QUALITY EXPECTATIONS ELEMENTS

Online shopping quality expectations elements	Language groups with effects	Cohen D	Effect size
User experience	Certificate < High School graduates	0.88	Large

As Table 9 shows, there is only one practical significant relationship between education and user experience, and it is of large practical significance.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The results indicate that there are twelve statistically significant relationships between the selected demographic factors and the eight elements of online shopping quality expectations. However, statistical significance does not always have a practical real-world application, so it is imperative to test for practical significance. The results revealed eighteen practical significant effect sizes for age, gender, employment status and education. This discussion will focus exclusively on moderate and large effect sizes, as small effect sizes have limited practical significance in real-world applications.

Age strongly affects website usability and e-customer satisfaction with moderate to large practical significance effect sizes. Younger consumers (18-35) place significantly greater importance on these quality expectation elements. Varma and Gupta (2019) confirm this finding, as their results indicate that younger e-customers have higher expectations regarding online shopping compared to older e-customers. This indicates that younger users not only expect but demand high satisfaction across all online shopping touchpoints. It is recommended that online shopping platforms implement responsive designs that feature clear calls to action that require minimal steps to complete a purchase. Additionally, they should utilise Artificial Intelligence (AI) to personalise interfaces and enhance the overall shopping experience. For older or retired users, it may be beneficial to include a simple view toggle, which offers larger fonts and simpler layouts to reduce cognitive load.

Females had a large practical significant effect size with website security and a moderate practical significant effect size with website usability. The findings are confirmed by Makhitha and Ngobeni (2021), who indicate that males are more risk-tolerant than females when it comes to online

shopping. Female consumers are likely to respond more positively to platforms that are secure, informative and customer-centric. It is recommended that online shopping platforms highlight security protocols such as Secure Sockets Layer (SSL) encryption and verified payment methods. In addition, they should include rich product descriptions, video content and customer testimonials to attract and retain female consumers. They should also customise marketing messages for women, emphasising safety, product range and responsive support. Online shopping platforms that ignore gender-based expectations may alienate a significant and influential segment of the market.

Employed respondents (including those working full-time, part-time, and self-employed) and students placed higher importance on website usability than retired individuals. Cohen's D values for usability were moderate between the retired respondents and all other working groups. This finding aligns with the work of Bajrami, Haxhidauti, and Bajrami (2020), who explain that individuals in paid employment may have more disposable income for online spending. This leads to heightened expectations regarding service quality, delivery speed, and product availability. Respondents in the workforce or studying expect efficient and seamless platforms. Retired individuals may not use the same digital tools or value the same features. It is recommended that online shopping platforms segment their user interface to allow customisation so users can choose between a basic and advanced layout depending on the user's digital literacy. They can also offer educational pop-ups or tutorials for less tech-savvy users and launch specific campaigns targeting retirees with messaging focused on simplicity.

High school graduates place higher importance on user experience than certificate holders, with large practical significance. This finding contradicts Apergis (2019), who proclaims that individuals with higher education levels are typically more tech-savvy. It seems that user interface perceptions are not always aligned with technological fluency. Those with basic formal qualifications still desire a robust and intuitive experience. It is recommended that online shopping platforms simplify complex design elements without reducing functionality and avoid jargon or technical language in interface design. They can also use visual cues such as icons and colour-coded progress bars to guide user behaviour.

THEORETICAL IMPLICATIONS

While prior studies (e.g., Braun & Osman, 2024; Gruntkowski & Martinez, 2022) have explored online shopping behaviour in Germany, this article adds new knowledge by examining a broader and more diverse age range and testing the statistical and practical significance of multiple demographic variables (age, gender, employment status, and education) across eight specific online shopping quality expectations. This addresses gaps left by earlier studies that were limited to older adults or a smaller number of variables. In addition, the study goes beyond merely identifying statistically significant relationships by also applying Cohen’s d to assess practical effect sizes. This enhances the real-world relevance of the findings and provides actionable insights for e-retailers. The results bridge academic theory and business practice by providing specific, demographic-targeted design

and marketing recommendations (e.g., AI-based interfaces for younger users, simplified designs for retirees, security emphasis for female shoppers). This adds applied value to literature that often lacks direct managerial implications.

LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The study utilised a non-probability sampling method (judgment and snowball sampling), which may limit the generalisability of findings to the broader German population. The study employed a cross-sectional design, which may limit the ability to understand how demographic influences on online shopping expectations evolve over time or in response to market shifts (e.g., technological advancements or economic changes). Future studies should employ random or stratified sampling methods to enhance representativeness. Conducting longitudinal research would help assess how demographic influences on online quality expectations change over time, especially in response to digital transformation or socio-economic changes

CONCLUSION

This study addressed the growing need to understand German online shoppers' quality expectations as e-commerce adoption increases, with particular focus on demographic influences. Key findings revealed statistically significant relationships between demographic variables (age, gender, employment status, and education) and online shopping quality expectations, with younger respondents prioritising website usability, female shoppers having higher expectations across multiple dimensions, retired individuals placing less importance on usability and educational background affecting user experience expectations. Practical implications suggest German-targeting retailers should prioritise user experience for younger and more educated consumers, ensure robust security, particularly for female shoppers and maintain efficient customer service systems to meet high German quality standards.

This study provides insights for online shopping platforms operating in Germany on how different demographics value different aspects of online shopping. It is evident that a "one-size-fits-all" approach may not meet the diverse and complex needs of customers' quality expectations. The findings underline the necessity of segmentation, not just in marketing but also in user experience design, service quality and product communication. By aligning platform features and service processes with the practical significant expectations of demographic segments, online shopping platforms can drive loyalty, reduce cart abandonment and gain a competitive advantage in the increasingly crowded German e-commerce space.

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SOLVING THE SOCIAL MEDIA PUZZLE FOR SOUTH AFRICAN WINE BRANDS: UNCOVERING BRAND ENGAGEMENT OPPORTUNITIES

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ABSTRACT

The South African wine industry faces persistent challenges, such as declining exports, shrinking domestic consumption, and international reputational challenges. Building strong consumer-brand relationships through brand engagement, especially via social media, may help address these hurdles. Understanding consumers' motivations for engaging with brands on social media is an imperative starting point for brand engagement. Such understanding is, however, nuanced and highly contextual, necessitating a qualitative approach for deeper insight. Drawing on the Uses and Gratifications Theory, this study explores South African consumers' motivations for engaging with South African wine brands on social media using online focus groups. Findings reveal that distinct motivations are linked to different online brand-related activities. Notably, aesthetically appealing content emerges as a new motivator, whilst empowerment is not supported. The findings highlight the importance of context in applying established theories and offer guidance for wine brands seeking to boost social media engagement by targeting specific consumer motivations.

Keywords: social media; consumer brand engagement; South African wine; uses and gratification theory; consumer motivations

INTRODUCTION

The South African wine industry is a significant contributor to the country's gross domestic product and employment opportunities (Vinpro, 2020). However, the industry faces several challenges, including a decline in exports (OIV, 2022), the lagging effects of COVID-19's ban on wine sales (SAWIS and Vinpro, 2022), and a perception of inferiority amongst global wine drinkers (Johnson and Bruwer, 2021). To weather these challenges, wine brands are encouraged to develop revenue streams by increasing sales in domestic wine markets (Myburgh, 2022). The domestic wine market in South Africa is especially lucrative, given that it accounts for approximately 66% of the wine industry's total sales (Vinpro, 2020). Merely increasing sales, however, is not necessarily a straightforward process. Studies in the field of

relationship marketing underscore the importance of cultivating strong customer-brand relationships before reaping benefits such as long-term sales (Hollebeek, Glynn and Brodie, 2014). Because customer brand engagement (CBE) is often regarded as a proxy for strong customer-brand relationships, securing CBE has become integral in the marketing communication strategies of brands (Cheung, Pires, Rosenberger and De Oliveira, 2022).

The prevalence of social media usage in consumers' everyday lives has made it a dominant consideration in CBE strategies (Cheung *et al*., 2022). While social media offers many opportunities for connecting with customers (Voorveld, Van Noort, Muntinga and Bronner, 2018), the environment is also fragmented and cluttered (Colicev, Kumar and O'Connor, 2019), often resulting in discoverability challenges for brands (Ha, 2017). Since it is ultimately the customer who decides to engage with a brand on social media or not (Hollebeek *et al*., 2014), understanding their motivations for doing so represents an important puzzle piece for wine brands to achieve CBE. The Uses and Gratification Theory (UGT) offers a comprehensive framework for exploring motivations and gratification that customers derive from media consumption (Katz, Blumler and Gurevitch, 1973). Specifically, UGT posits that media choices are driven by consumers actively seeking to fulfil needs, including entertainment, integration, social interaction, personal identity, information-seeking, remuneration and empowerment (Buzeta, de Pelsmacker and Dens, 2020).

Although UGT is frequently employed in studies examining consumer motivations and CBE (Buzeta *et al*., 2020; Hollebeek *et al*., 2014), it is important to understand the research context within which theory is applied (Arnould, Price and Moisio, 2006; Jacoby, 1978). Without due consideration of the research context, scholarly understanding of phenomena may be misinterpreted and oversimplified (Arnould *et al*., 2006). Moreover, quantitative studies (Buzeta *et al*., 2020; Hollebeek *et al*., 2014) that have utilised UGT to investigate CBE in a social media setting have focused on the platform level (Facebook or Instagram), not on the brand level. Nuances related to the product category, or the brand itself, may therefore be lost. Against this background, this study explores South African consumers' motivations for engaging with South African wine brands on social media.

THE SOUTH AFRICAN WINE INDUSTRY

As the world's seventh-largest wine producer, the South African wine market contributes significantly to the global wine market; the local industry is also viewed as an important source of wine imports to several countries (OIV, n.d.). In numbers, the South African wine market accounted for about 3.3% of global wine output in 2020 (Myburgh, 2022). Furthermore, it is estimated that the local wine industry contributed R36 billion to South Africa's gross domestic product in 2020 (Vinpro, 2020).

It is also interesting to note that the South African wine industry has been identified as an important growth contributor factor to the South African economy. The 2024 report by the South African Wine Industry Information and Systems reveals that South Africa's wine industry is key in driving the country's GDP (SAWIS, 2024). According to this report, the local wine industry contributed about R56.5 billion in value-added to the national GDP in 2022, whilst 270 364 people were employed directly and indirectly in the wine industry (approximately 1.8% of national employment) (SAWIS, 2024). Despite this important role, the local wine industry faces severe challenges which threaten the survival of many wine brands. Firstly, within one year, the South African wine export volume declined by 8.7% from 2021, reaching 4.4 million hectolitres (OIV, 2022). This decline in exports is apparent in both wine volume and value. In 2022, export volumes fell to 368.8 million litres, some 20 million litres less than in 2021, which totalled R9.9 billion in value, down from R10.2 billion in 2021 (Vinpro, SAWIS and WoSA, 2022).

Secondly, the South African wine industry remains focused on its road to recovery following the COVID-19 pandemic-related challenges (Mahlaka, 2024). A loss in sales volume of 132m litres between March 2020 and July 2021 occurred due to COVID-19-related bans on local sales and exports (SAWIS and Vinpro, 2022). The pandemic regulations propelled a significant decline in domestic wine consumption in South Africa, dropping from 6.64 litres per capita in 2019 to 5.26 litres in 2020 (SAWIS, 2021). It is generally assumed that it will take considerable time for the South African wine industry to recover from the detrimental effects of the COVID-19-related domestic alcohol prohibitions.

Finally, South African wine brands continue to battle a persistent negative international perception, rooted in past exports of lower-quality wines (Johnson and Bruwer, 2021). This legacy, combined with their historic positioning as lower-priced alternatives in global markets, undermines consumer trust and engagement, particularly on digital platforms (Vecchio, Annunziata, Mariani and Sogari, 2022; Atkin and Thach, 2020). Despite notable improvements in wine quality and increasing recognition through global awards such as the Decanter World Wine Awards and International Wine Challenge (WOSA, 2023), the shadow of earlier poor-quality exports still affects the brand image of South African wines abroad (Johnson and Bruwer, 2021).

From a South African consumer perspective, wine appears to be one of the country's favourite alcoholic beverages. However, beer remains the preferred choice for many South Africans (WESGRO, 2021). Despite this preference, the domestic market is important for the wine industry, with approximately 66% of South African wine brand sales occurring locally (Vinpro, 2020). This statistic underscores the importance of understanding and engaging South African consumers to drive growth within the sector.

However, research demonstrates that context plays an important role in shaping wine consumers' behaviour (Fairbairn, Brand, Ferreira, Valentin and Bauer, 2024). Specifically, South African wine consumer behaviour appears to be shaped by a complex interrelationship of cultural, emotional, and economic factors. Local wines especially hold significant symbolic and emotional value, often associated with national identity and pride, which fosters a strong emotional connection between consumers and domestic brands (Le, Thi Nguyen and Van Nguyen, 2013). Such connections can influence purchasing decisions, with some consumers willing to pay a premium for locally produced wine (Everett, Jensen, Boyer and Hughes, 2018).

Considering these complex and nuanced wine consumer dynamics, wine brands need to analyse South African consumers' specific behaviours and motivations to build on consumer brand relationships. By doing so, they can tailor marketing strategies, strengthen consumer engagement, and ultimately expand their presence domestically in new markets.

SOCIAL MEDIA AS A MARKETING TOOL

With 5.2 billion people using social media around the globe in 2025 (about 64% of the global population), social media has become an integral part of society (Larson, 2025). South Africa is no exception, with a projected 40.77 million users active on social media in South Africa by 2026 (Galal, 2022). From a brand perspective, social media is popular due to technological ease of use, cost-effectiveness and accessibility to many customers (dos Santos and Duffet, 2021). Therefore, it is unsurprising that many brands actively incorporate social media marketing into their advertising strategies to reach customers (Voorveld *et al*., 2018).

Social media has fundamentally transformed consumer-brand interactions, shifting from one-way to two-way communication (Parackal, Parackal, Mather and Eusebius, 2021). Moreover, such one-to-one engagement on social media has changed users' roles in social media marketing (Parackal *et al*., 2021). Previously, most social media users were passive content viewers (Dolan, Conduit, Frethey-Bentham, Fahy and Goodman, 2019). However, users have recently become more active participants by, for example, writing reviews or creating posts (Dolan *et al*., 2019).

However, the social media environment is fragmented and cluttered (Colicev *et al*., 2019; Meire, Hewett, Ballings, Kumar and Van den Poel, 2019), and the volume of content produced and shared on these platforms presents a discoverability challenge to brands (Ha, 2017). As more consumers use social media, more brands use social media to compete for their attention (de Vries, Peluso, Romani, Leeflang and Marcati, 2017). This *almost perfect storm* of customer and brand usage has created advertising clutter that causes behavioural effects, including advertising avoidance and reactance, such as not clicking through advertisements (Ha, 2017). Since consumers can effortlessly visit a different website with the click of a mouse

or the touch of a finger via mobile applications, the rivalry for users' attention online is fierce (Ha, 2017). Therefore, brands need to understand what motivates consumers to engage on social media to remain competitive.

Furthermore, consumers' motivations to engage with brands are not uniform; they vary significantly according to the industry in which a brand operates (Oba, Howe and Fitzsimons, 2024). Research shows that psychological drivers can influence engagement, but these motivations manifest differently across various product categories and industries (Kumar and Nayak, 2019). For example, motivations to engage with luxury brands may centre on personal identity, while engagement with community-oriented brands may be driven by a sense of belonging or shared values (Leach, 2023). As a result, understanding the specific industry context is essential for brands aiming to foster meaningful consumer engagement, as motivations are shaped by the unique characteristics and expectations associated with each sector (Kumar and Nayak, 2019).

CONSUMER BRAND ENGAGEMENT

Because social media has altered how businesses interact with their clients, consumer brand engagement (CBE) plays an important role in digital marketing communications (Schivinski, Christodoulides and Dabrowski, 2021). However, the fragmentation and lack of literature on CBE in a South African wine context create a strong need to generate knowledge about consumer brand engagement behaviours towards wine brands.

CBE is often viewed as an important indicator of the strength of the relationship between customers and brands (Hollebeek *et al*., 2014). Furthermore, consumer engagement behaviour is a concept that reflects consumers' behavioural enthusiasm toward the brand and subsequent social media content (Cheung *et al*., 2022). CBE behaviours have been linked to several potential advantages for brands, including financial, reputational, and competitive advantages (Eigenraam, Eelen, van Lin and Verlegh, 2018).

Marketing practitioners use a behavioural indicator of digital customer engagement to gauge the success of their social media marketing initiatives (Schivinski *et al*., 2021). This behavioural indicator uses three categories marked by escalating levels of interactivity and engagement with brand-related material, called consumers' online brand-related activities (COBRA) (Buzeta *et al*., 2020). Consumption, contribution, and creation comprise the three levels of COBRA, with increasing interactivity and involvement with brand-related content (Schivinski *et al*., 2021).

Consumption represents a low level of online behaviour where users are passively exposed to brand-related content without further participation or involvement (Buzeta *et al*., 2020). For example, watching a brand-related video, reading product and service reviews or searching

for information. The contribution level refers to actions with moderate involvement when consumers react to brand stimuli from their peers or the brand (Buzeta *et al*., 2020). The contribution level typically includes leaving reviews and ratings, commenting on brand-related content, or participating in brand-sponsored events and campaigns. The creation COBRA type represents the highest level of online brand-related activeness (Muntinga *et al*., 2011). Examples of this creation include writing brand-related articles, creating posts and uploading brand-related videos, audio, pictures, or images (Muntinga *et al*., 2011).

USES AND GRATIFICATION THEORY MOTIVATIONS

The Uses and Gratifications Theory (UGT) is a theoretical framework that aims to comprehend the motivations and methods by which humans actively pursue and utilise different forms of media to fulfil specific requirements (Han, Mahamed, Abdullah, and Abas, 2023). Subsequently, it has been employed to investigate many forms of communication in diverse contexts and uses (Han *et al*., 2023). More recently, the UGT has been utilised in studies involving the adoption of technology, as well as specific social media platforms such as Facebook (Dhir and Tsai, 2017), X, Instagram (Phua, Jin and Kim, 2017), and YouTube (Chiang and Hsiao, 2015).

Since motivations drive consumer decision-making and behaviour (Schiffman and Kanuk, 2014), consumer motivations should be considered when examining social media engagement with wine brands. Therefore, to augment consumer engagement behaviours toward social media marketing efforts, wine brands must identify what motivates consumers to use social media (Pelet, Taieb, Lecat, Terblanche and Alkhudary, 2024). This study refines the work of Buzeta *et al*. (2020), who also applied the UGT to classify consumers' motives for social media engagement behaviours, namely entertainment, integration and social interaction, personal identity, information-seeking, remuneration and empowerment.

Consumers' *entertainment* motivation encompasses their need for relaxation and enjoyment when engaging with media content (Dolan *et al*., 2019). In a social media context, consumers are motivated to have fun and amuse themselves by browsing intriguing posts, such as comedies, humour and jokes, or sharing amusing videos, animations and stories with like-minded peers (Qin, 2020).

Consumers' *social interaction* motives pertain to their desire to establish connections with individuals who share similar interests and values (Qin, 2020). For example, the sense of belonging and integration into a social community (e.g., connectedness), the supportive peer groups (e.g., bandwagon effect), and the enhanced interpersonal connections associated with media usage (e.g., community building) (Buzeta *et al*., 2020).

The drive to shape one's identity by projecting a specific personality and gaining acceptance from others is referred to as *personal identity* (or self-identity) (Jensen Schau and Gilly, 2003). According to these authors, personal identity is driven by consumers' need for, for example, self-expression, social recognition, self-presentation, and self-assurance.

A consumer's *information-seeking* motive is defined as the desire to learn more about trends and product advancements (Vale and Fernandes, 2018). For example, it satisfies the users' information seeking, information sharing, obtaining communicatory utility, gaining social information, surveillance (i.e., knowledge about others), and self-documentation (i.e., lifelogging) needs (Aydin, 2020) and drives the intention to browse social media content (Gummerus, Liljander, Weman and Pihlström, 2012).

The *remuneration* motive refers to the users' intention to receive a future advantage or external reward (Muntinga, 2016). Examples of these are obtaining economic incentives (such as gaining direct discounts and coupons, accessing sales promotions, participating in competitions), job-related benefits, or personal wants (specific software) (Muntinga *et al*., 2016). Communications that offer incentives such as discounts and gifts through social media platforms have a higher probability of enticing customers to explore and distribute content (Muntinga *et al*., 2011).

The concept of *empowerment* refers to individuals' purpose of exerting their influence or power on others' perceptions (e.g., consumers, companies, brands) by expressing their viewpoints and advocating for enhancements in products, services, and business policies (Muntinga *et al*., 2011).

Against this background, the objective of this study is to identify what motivates consumers to engage with South African wine brands on social media. Specifically, the six UGTs' motivations to engage with brands on social media to uncover rich, nuanced insights directly from a consumer perspective.

RESEARCH METHODOLOGY

This study followed a qualitative approach utilising online focus groups. Online focus groups allowed for the inclusion of participants from across the country, thereby capturing a broader spectrum of perspectives (Stewart and Shamdasani, 2017). Moreover, focus groups allow an in-depth exploration of motivations for engaging with South African wine brands on social media from the customer's perspective. Participant recruitment was facilitated by a professional market research agency, which utilised an existing online panel. To qualify for inclusion in the study, participants had to be 18 years or older, wine drinkers, and have at least one active social media account. To promote participant ease and openness, groups were homogeneous by age and gender (Belk, Fischer and Kozinets, 2013). While conventional in-

person focus groups typically consist of six to ten participants (Babin and Zikmund, 2015), smaller online groups are often preferred to allow for more active engagement and spontaneous discussion (Stewart and Shamdasani, 2017). Groups of four to six participants are considered ideal for generating rich, detailed input in virtual settings (Krueger and Casey, 2015). Participant demographics for each focus group are summarised in Table 1.

TABLE 1: PARTICIPANT COMPOSITION OF ONLINE FOCUS GROUPS

Group	Age range	Gender	Number of participants
1	18 – 24	Female	4
2	18 – 24	Male	4
3	25 – 40	Female	5
4	25 – 40	Male	6
5	41+	Female	3
6	41+	Male	6

Following a deductive approach, UGT served as a departure point for drafting a discussion guide. This guide facilitated group discussions and included follow-up prompts designed to elicit deeper responses from participants. Questions centred around topics such as social media usage and perceptions of local wine brands. A projective technique was also employed, whereby participants were asked to imagine that a wine brand approached them, asking for marketing advice to increase engagement on their social media pages.

Each focus group session was audio and video recorded using Microsoft Teams' built-in transcription feature, with an additional mobile phone used as a secondary recording device. To establish credibility, several methods, including peer debriefing and investigator triangulation, were used. Peer debriefings occurred immediately following each session, during which team members shared detailed observations and reflections. These discussions were also recorded and transcribed for transparency and further analysis. For investigator triangulation, each co-author independently reviewed and coded the transcripts. Their individual findings were then discussed collectively to reach agreement and to develop a consistent codebook, thereby reducing the likelihood of bias (Turner, 2021). Video recordings of the sessions further enabled the researchers to revisit and interpret subtle participant cues, which might otherwise be lost in text-based data (Stewart and Shamdasani, 2017). Data saturation was reached after conducting six online focus groups, and thematic analysis was used to interpret the data. Transcriptions were transferred into Microsoft Excel, where they were coded according to the established codebook. Through multiple coding stages, key themes were identified (Tracy, 2019).

FINDINGS FROM THEMATIC ANALYSIS

Findings are structured for South African wine brands and social media usage, followed by motivations to engage with brands on social media and with South African wine brands specifically.

South African wine brands and social media usage

Favourite South African wine brands that emerged included Nederburg, Robertsons, Fourth Street, Four Cousins and Drostdy-Hof. Brand familiarity played a dominant role in wine purchase decisions, followed by affordability and availability. South African wine brands were regarded as more favourable than international wines, underscored by perceptions of the country as a premium tourism wine destination. Overall, there is a sense of pride that South African wines are holding their ground against international ones. Further, Facebook and Instagram emerged as the preferred social media platforms used for distinct reasons. Facebook is primarily used to connect with family and friends, whereas Instagram is used to follow celebrities and view their pictures. Interestingly, participants had more favourable perceptions of Facebook than Instagram, with the latter regarded as superficial, owing to a perception that its users tend to 'brag' about their lifestyle using visual content.

Motivations to engage with brands in general on social media

Participants were asked about their online brand-related activities and what motivates them to like, share or create branded content in general. Distinct motivations existed for contribution and creation, but not for consumption. Consumption (i.e., watching, reading, searching) occurs automatically without any clear thought as to why it occurs in the first instance. For contribution (i.e., leaving reviews, commenting, and participating in brand campaigns), clear motivations emerged for personal identity, aesthetics, information and entertainment. For personal identity, emotive content and whether the brand is related to the self, emerged. Interestingly, aesthetics transpired as a new motivator, with participants indicating that they are drawn to visually appealing, eye-catching content with bright and interesting colours. Participants also emphasised that information must be valuable to someone else to warrant sharing. Moreover, social media content must include functional hyperlinks for participants to learn more. Regarding entertainment, humorous content that elicits a laugh was highlighted. However, participants cautioned that the content must be appropriate as their social media accounts are available to friends, family and church members. Finally, it was clear that participants would only be enticed to create if an explicit reward was offered, be it financial (i.e., prizes, competitions, discounts) or free product samples.

Motivations to engage with South African wine brands on social media

Several motivations emerged from the projective technique, akin to those suggested by UGT. For remuneration, explicit rewards such as free samples and discounts were highlighted once more. Participants, however, stressed that 'proper' discounts must be offered, not only 10%, as they have 'seen better'. For personal identity, wine was highlighted as a social status signal used for self-expression. Participants also suggested that wine brands 'flip the table', focusing more on the consumer who is drinking the wine than the attributes of the wine itself. Emotive stories about locals who personify the wine brand's target market were also suggested. Regarding aesthetics, the attractiveness of visual cues relates to two aspects: the product itself (i.e. appealing wine packaging, wine farm, vineyards), and the person shown in the content. Participants associated celebrities and attractive ladies as ideal persons to showcase in content. Regarding information, participants suggested storytelling about the wine's origin (where it is from, how it is made and by whom), and details about ideal food pairing. For integration and social interaction, the need for authenticity and 'to be seen as part of the brand' emerged. The entertainment value of humorous content was stressed as instrumental to going viral, especially when a spin is given to everyday struggles faced by South Africans. Finally, no motivation related to empowerment emerged.

THEORETICAL AND MANAGERIAL IMPLICATIONS

Financial rewards were the main driver of social media engagement for South African wine brands. Specifically, participants listed promotions, competitions, samples, discounts, and gifts as examples of attracting social media users' attention. However, participants indicated that the size of the financial reward had to be sizeable; otherwise, it may not be worth it to them. Participants also noted that wine can signal status to others and that self-expression may be a prevalent motivator of social media engagement in the context of local wine.

Participants highlighted the importance of information for engagement and the power of the wine-related, interesting information. Furthermore, humour was highlighted as an important driver of social media engagement for local wine brands. Nando's' humorous ads were used as an example of funny posts that attract engagement. Interestingly, empowerment was not a prominent motivator for social media engagement unless participants could altruistically raise their opinion in favour of someone or a brand.

Finally, an additional influential motivation to engage with wine brands on social media, namely, aesthetics, was identified from the focus group discussions. Aesthetics refers to the quantity and quality of visual content and the level of interaction (Aljukhadar, Bériault, Poirier and Senecal, 2020). Such aspects of visual content have been reported to enhance presence and foster engagement (Aljukhadar *et al*., 2020). On social media, photos serve as a mode of

interpersonal communication (Schreiber, 2017), drive consumer cognition and shape consumer preferences (Aljukhadar *et al*., 2020). Moreover, aesthetically pleasing pictures posted on social media tend to be more popular and increase user involvement (Hidayati, Chen, Yang and Hua, 2017).

At the start of this paper, it was mentioned that this study is highly contextual. These findings of this study highlight that contextuality might be even more relevant than previously imagined. The lack of support for empowerment and the emergence of aesthetics as a key motivator re-emphasise the need for caution when applying the motivations to engage across different contexts. By focusing on the appropriate motivations, wine brands could use this new knowledge as the missing puzzle piece when cultivating consumer-brand relationships.

LIMITATIONS OF THIS STUDY AND RECOMMENDATIONS FOR FUTURE RESEARCH

We followed a deductive approach and utilised UGT. However, different motivators and contextual nuances could be uncovered if an inductive approach is followed. Moreover, it is acknowledged that the study's findings are limited to the context of South African wine brands, thus hindering trustworthiness in terms of transferability. Future studies should, therefore, explore contexts beyond South African wine brands. Other factors might also be at play, including culture, subjective wine knowledge, etc, that can be fleshed out in phenomenological and ethnographic studies. Finally, data collection was limited to online focus groups only. Using triangulation, future studies could expand on the phenomenon of motivations to engage with brands on social media using netnography and document analysis.

CONCLUSION

The South African wine industry is at a pivotal moment. Despite its substantial contribution to the national economy and global wine production, it faces numerous challenges, ranging from declining exports and domestic consumption to the lingering effects of COVID-19 restrictions and reputational issues abroad. In this complex environment, fostering stronger connections between local wine brands and South African consumers has never been more important.

This study provides a unique perspective on South African wine brands' use of social media to engage with their customers. Understanding what drives consumer interaction with wine brands in the highly cluttered digital space is key to revitalising domestic demand and to repositioning South African wine brands globally. This study provides new insights into the motivations that guide South African consumers to engage with wine brands on social media. The study also highlights the importance of considering context when marketing strategies are

created, which provides wine brands with the opportunity to unlock new prospects for growth and resilience within a rapidly changing market landscape.

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THE IMPACT OF AI-DRIVEN CONSUMER BEHAVIOUR ON ONLINE PURCHASE DECISIONS: A STRUCTURAL EQUATION MODELLING APPROACH

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ABSTRACT

The rapid advancement of artificial intelligence (AI) is revolutionising consumer behaviour in e-commerce. This study examines the impact of AI-driven factors, namely clickstream behaviour, sentiment analysis, pricing, and demographics, on online purchase decisions using structural equation modelling (SEM) with data from 5 000 global respondents. Results show that abandoned carts and negative sentiment scores have a significant negative effect on purchase decision, while discounts, page visits, and ratings have no significant effect. Age and income do not significantly moderate these relationships. A multigroup analysis reveals no significant gender-based differences in how these factors influence purchase decisions, indicating universal applicability of strategies to reduce cart abandonment and improve sentiment management. The findings highlight the importance of minimising checkout hesitation and leveraging sentiment analysis to enhance conversion rates. Managerial implications include optimising checkout processes and proactively managing customer feedback. Future research could explore additional moderators to deepen the understanding of AI's role in e-commerce.

Keywords: AI-driven consumer behaviour; online purchase decisions; clickstream; sentiment analysis

INTRODUCTION

The rapid progress of artificial intelligence (AI) is reshaping the global e-commerce landscape, fundamentally changing how consumers make online purchasing decisions (Oanh, 2024). This transformation is driven by AI's capacity to automate decisions with precision, efficiency, and adaptability, using advanced analytics to improve performance (Kaur, Khullar, and Verma, 2020). E-commerce growth, fuelled by fast delivery, user-friendly platforms, and diverse product offerings, has been further supported by mobile devices that enable constant shopping access (Raji, Olodo, Oke, Addy, Ofodile and Oyewole, 2024).

Tailored services and recommendations, enabled by analysing past purchases and consumer preferences, are influencing sectors such as beauty, fashion, and electronics (Ameen, Tarhini, Reppel and Anand, 2021) and prompting a major rethink of consumer behaviour models (Bai, 2022). Companies increasingly leverage detailed consumer profiles to forecast trends and personalise shopping experiences, enhancing engagement through targeted advertising and customised content (Teepapal, 2025). Research also shows that AI enhances buying intent and satisfaction through tools such as chatbots and ethical business practices, thereby building trust (Da and Liu, 2024). Personalised data and prior shopping experiences further increase willingness to purchase (Farrukh, Raf and Chand, 2024), while AI-driven accuracy and interactivity contribute to consumer value, as explained by the stimulus–organism–response (SOR) model (Kavya, 2024; Mohsin, 2024).

However, few studies have holistically examined clickstream activity, sentiment, pricing, demographics, and cart abandonment in a single analytical framework, with most focusing narrowly on personalisation (Farrukh, Raf and Chand, 2024) or preferences (Mohsin, 2024) without an integrated structural equation modelling (SEM) approach. This study addresses this gap by analysing these factors collectively to provide a comprehensive understanding of AI's impact on decision-making and to inform improved digital marketing and recommendation strategies.

Importantly, this research moves beyond simply acknowledging that cart abandonment may hinder sales by aiming to explore the behavioural and psychological factors that contribute to this phenomenon. Identifying such drivers, ranging from perceived risk and pricing expectations to choice overload and website usability, offers the potential for deeper insights into consumer decision-making and more targeted strategies to improve purchase completion rates.

While AI has significantly transformed e-commerce, research examining its influence on purchase decisions remains fragmented. Existing studies tend to isolate single drivers, such as personalisation or sentiment, without integrating multiple AI-related factors into a unified, theoretically grounded model. Although the stimulus–organism–response (SOR) framework is mentioned in prior literature, it is rarely applied in full to explain how AI-driven stimuli influence consumer responses in an e-commerce context. The lack of an integrated, theory-based approach creates a gap in understanding how clickstream behaviour, customer sentiment, pricing, and demographics jointly shape purchase decisions. This study addresses this gap by employing structural equation modelling (SEM) to examine these relationships and their practical implications for reducing cart abandonment and enhancing online sales performance.

LITERATURE REVIEW AND PROBLEM INVESTIGATED

AI's role in e-commerce and consumer behaviour

Artificial intelligence (AI) has transformed e-commerce, enhancing the interactions between businesses and consumers. Tools, such as recommendation engines, search functions, and virtual assistants, allow platforms to gather and analyse consumer data, enabling personalised experiences and improving satisfaction, loyalty, and conversion rates (Bunea, Corboș, Mișu, Triculescu, and Trifu, 2024; Sinha, Sinha, and Dalmia, 2024). Machine learning refines product recommendations, boosting engagement and the competitive edge (Raj et al., 2024; Y and Liu, 2020). When used ethically, chatbots and predictive analytics increase purchase intent and satisfaction (Da and Liu, 2024). Despite concerns about data privacy, A remains pivotal in modernising e-commerce.

The role of social media in sustainability communication

Social media has revolutionised organisational communication, providing real-time engagement and global reach for promoting sustainability efforts (Jha and Verma, 2023; Kushwaha, Mandal, Pharswan and Ilavarasan, 2020). A enhances these platforms by automating content delivery, personalising user experiences, and increasing engagement (Sadiku, Ashaolu, Ajayi-Majeb and Musa, 2021; Chatterjee and Kar, 2020). As digital marketing investment grows, AI's strategic importance continues to increase (Cramer, 2021; Bhattacharjee, 2020). Consumers increasingly co-create brand narratives through social media, deepening brand engagement and trust (Lim and Rasul, 2022). Research shows that 60% of consumers consider a brand's environmental stance in purchasing decisions (Jha and Verma, 2023; Edelman, 2021). Social media supports ethical branding and transparency, driving social accountability due to heightened environmental awareness, legislative pressure, and consumer activism (Al-Haddad, Sharabati, Al-Khasawneh, Maraqa,and Hashem, R. 2022; Yang, Hayat, Mamun, Makhbul, and Zainol, 2022). Companies, such as Patagonia and Tesla exemplify these practices (Sipos, 2024). However, regional disparities exist, with fewer than 20% of top Australian and UK firms referencing sustainability in their posts (Hogarth, Lodhia, Kaur, and Stone, 2025; Amin, Mohamed and Elragal, 2021). Companies must adopt culturally sensitive, interactive communication strategies to build credibility and foster sustainable consumer behaviour (Wagobera, Chibundom, Courage, and Tochukwu, 2024).

Customer sentiments and pricing influences

In e-commerce, customer sentiment expressed through reviews, ratings, and AI-driven sentiment scores, and pricing factors, such as discounts and product cost, play a critical role in shaping purchase behaviour. Online reviews often driven by emotional or altruistic motives,

are a key form of electronic word-of-mouth (e-WOM), influencing consumers by reflecting brand perceptions and assisting less-informed buyers (Ma, Ma, Li, Wang, Wang and Zhang, 2022; Han and Anderson, 2020; Chatterjee, 2019).

AI-powered sentiment analysis enables the extraction of consumer opinions from text data, helping businesses adapt products to meet customer preferences (Li, Xu, Zeng, Tse and Chan, 2023; Hassonah, Al-Sayyed, Rodan, Al-Zoubi, Aljarah and Faris, 2020). Positive sentiment boosts trust, ratings, and purchase intention, while negative feedback increases perceived risk (Rachmiani, Oktadinna and Fauzan, 2024). Chatbot-driven sentiment tools enhance engagement (Da and Liu, 2024); and positive sentiment correlates with brand loyalty (Kumar and Thakur, 2025). While pricing affects intent (Kavya, 2024; Aggarwal, 2020), its influence is often outweighed by product ratings (Afrinald and Wiratha, 2024; Purba and Safrin, 2024). However, limited research has examined the impact of sentiment and pricing on each other within AI-driven systems, which has presented opportunities for further study.

Demographic influences on AI-driven behaviour

Demographic factors, such as age, gender, income, and education significantly shape consumer engagement with AI-powered e-commerce. Age, in particular, influences behaviour; Generation Z's A familiarity boosts online buying (Bunea et al., 2024), with younger users seeking convenience, compared with older, more cautious shoppers (Lin, Tseng, Shirazi, Hajl and Tsai, 2022). In Saud Arabia, females, unmarried adults, and those aged 21 to 30 years with lower incomes show higher engagement with A financial services, though having a higher education reduces adoption (Alkadi, 2025).

Income also affects preferences, higher earners favour luxury goods, while lower brackets focus on essentials (Ye and Kim, 2024; Chi, Gerard, Yu and Wang, 2021). Although age influences satisfaction and repurchase intent, gender has little impact (Ye and Kim, 2024). Nationality and occupation also shape A app perceptions (Salem and Elkhattat, 2024). However, limited research has explored how demographics affect A behaviour concerning sentiment and clickstream analysis, highlighting a key research gap.

Behavioural pathways to purchase decisions

Clickstream data, i.e. tracking session length, page views, and cart activity, offer key behavioural insights into consumer purchase decisions in AI-driven e-commerce. It helps identify patterns and predict buying intent through machine learning models (Ehsan and Hosseini, 2024; Liu, Huang, Zhang, Luo and Fan, 2024). Behaviours, such as time spent and device type, differentiate hesitant from impulsive buyers (Hendriksen, Kuiper, Nauts, Schelter and De Rijke, 2020; Chu, Yang and Peng, 2019). A critical barrier is cart abandonment, with

average rates of 71.4%, often driven by trust issues, high costs or poor website design (Goel, Patti, Garg and Sharma, 2024; Jiang, Zhang and Wang, 2021). However, previous research essentially isolates clickstream data from other behavioural drivers. This study uses structural equation modelling (SEM) to examine the combined influence of clickstream, sentiment, pricing, and demographics on AI-enhanced purchase behaviour. This study adopts the Stimulus–Organism–Response (SOR) model as its guiding framework. In this context, AI-driven inputs, such as clickstream behaviour, customer sentiments, and pricing, are conceptualised as stimuli. These stimuli influence internal consumer evaluations and perceptions (organism), such as trust, purchase confidence, and perceived value, which in turn shape the response, the decision to purchase or abandon a cart. Applying the SOR model in this integrated manner enhances the explanatory depth of the study and positions the findings within a robust theoretical foundation.

Figure 1's conceptual model shows how A shapes e-commerce purchase decisions by combining clickstream behaviour, customer sentiments, pricing, and demographics. Clickstream data, like page views and cart abandonment, predict buying intent, while reviews and ratings build trust. Discounts drive purchases, and factors like age and income influence these effects. Using structural equation modelling, the model highlights AI's role in tailoring experiences and guiding consumer choices.

RESEARCH HYPOTHESES

The following hypotheses are proposed to examine the factors influencing online purchase decisions:

H1: Clickstream behaviour (pages visited and abandonment status) positively influences purchase decisions.

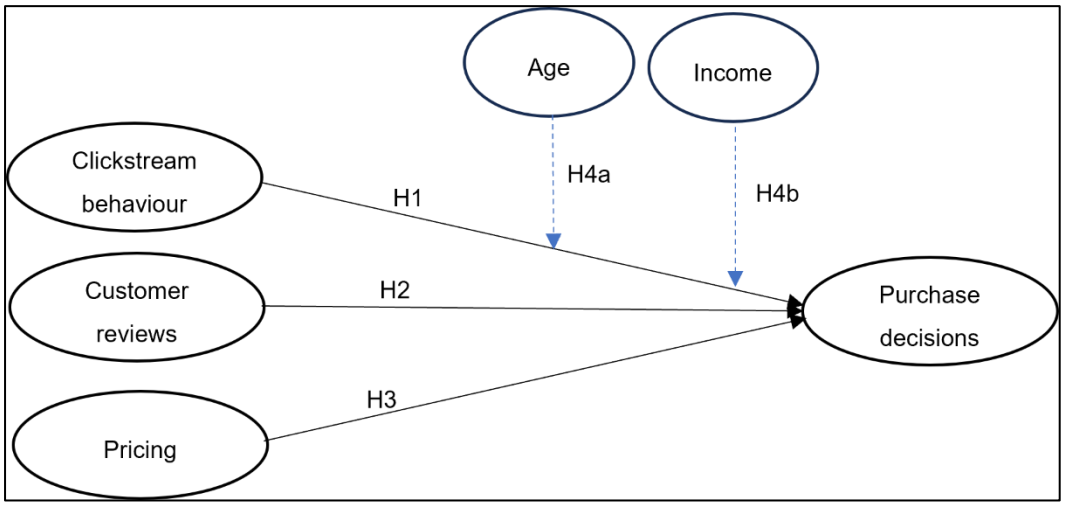
H2: Customer reviews (ratings and sentiment analysis scores) positively affect purchase decisions.

H3: Pricing factors (discounts) positively influence purchase decisions.

H4: Demographic factors (age and income) moderate the relationship between clickstream behaviour and purchase decisions.

H5: The effect of key online purchase decision factors (clickstream behaviour, customer reviews, pricing) varies across gender groups.

FIGURE 1: CONCEPTUAL MODEL



Source: Author-generated

RESEARCH METHODOLOGY

This quantitative study employs Structural Equation Modeling (SEM) via SmartPLS to test five hypotheses on the influence of clickstream behaviour, sentiment, pricing, and demographic moderators on AI-driven purchase decisions. Using secondary data from Kaggle's AI-driven consumer behaviour dataset (5 000 global entries), key variables include purchase outcomes, browsing metrics, sentiment-scored reviews, pricing, and demographics. Analysis begins with confirmatory factor analysis (CFA), followed by structural modelling, with interaction terms used to assess the moderating demographic effects.

RESULTS/FINDINGS

The study sample comprised 5,000 respondents, with a mean age of 41.55 years (range: 18–65). Gender representation was relatively balanced, with 33.2% identifying as male, 32.6% as female, and 34.2% identifying as other. Income levels were similarly distributed across low (32.2%), medium (33.3%), and high (34.5%) categories. Product ratings were evenly spread, with each rating category (1–5) accounting for approximately 19–21% of the sample (see Table 1). The structural equation modelling (SEM) analysis revealed that cart abandonment had a significant and negative effect on purchase decisions ($\beta = -0.33$, $p < .001$), representing the most influential predictor in the model. Sentiment score also exhibited a small but statistically significant negative effect ($\beta = -0.01$, $p = .01$). In contrast, discount applied ($\beta = 0.01$, $p = 0.16$), pages visited ($\beta = 0.00$, $p = 0.41$), and rating ($\beta = 0.00$, $p = 0.30$) did not significantly predict purchase decisions.

The model explained 10.9% of the variance in purchase decisions ($R^2 = 0.11$), indicating a modest explanatory power. Effect size (f^2) analysis confirmed that cart abandonment had a small-to-medium effect ($f^2 = 0.12$), while sentiment score had a negligible effect ($f^2 = 0.001$). The remaining predictors (Discount applied, pages visited, and rating) had no meaningful effect ($f^2 = 0.000$). Variance Inflation Factor (VIF) values for all constructs were 1.00, well below the conservative threshold of 3.3, confirming the absence of multicollinearity concerns in the model. The model demonstrated excellent fit, with a Standardised Root Mean Square Residual (SRMR) of 0.004, far below the 0.08 threshold, indicating minimal difference between the observed and predicted correlation matrices. Moderation testing (Table 2) revealed no significant moderating effects of age or income on the relationships between clickstream behaviour variables (abandoned cart, pages visited, and rating) and purchase decisions.

Overall, the findings suggest that purchase decisions are predominantly shaped by customers' cart abandonment behaviour and, to a lesser extent, the sentiment expressed in reviews. Other behavioural indicators, such as discount usage, the number of pages visited, and product ratings, were not influential predictors in this context. The graphical representation of the path analysis and interaction path is also depicted in Figures 2 and 3 below.

TABLE 1: DEMOGRAPHIC INFORMATION

		N	%
Rating	1	1040	20,8
	2	1004	20,1
	3	986	19,7
	4	990	19,8
	5	980	19,6
	Total	5000	100
Gender	Male	1661	33,2
	Female	1630	32,6
	Other	1709	34,2
	Total	5000	100
Income Level	Low	1609	32,2
	Medium	1665	33,3
	High	1726	34,5
	Total	5000	100
Age	Minimum	Maximum	Mean
	18	65	41,55

Source: Author generated

TABLE 2: STRUCTURAL EQUATION MODELLING (SEM) RESULTS FOR PATH AND MODERATION ANALYSIS

Path/Parameter	β	p-value	f²	VIF	Notes
Direct Effects (Path Analysis)					
Abandoned Cart → Purchase Decision	-0,33	< ,00**	0,12	1,00	Significant
Sentiment Score → Purchase Decision	-0,01	,01*	0,00	1,00	Significant
Discount Applied → Purchase Decision	0,01	0,16	0,00	1,00	Non-significant
Pages Visited → Purchase Decision	0,00	0,41	0,00	1,00	Non-significant
Rating → Purchase Decision	0,00	0,30	0,00	1,00	Non-significant
Moderating Effects					
Age × Abandoned Cart → Purchase Decision	0,01	0,07	-	-	Non-significant
Age × Pages Visited → Purchase Decision	0,00	0,26	-	-	Non-significant
Age × Rating → Purchase Decision	0,00	0,23	-	-	Non-significant
Income_1 × Abandoned Cart → Purchase Decision	0,02	0,20	-	-	Non-significant
Income_1 × Pages Visited → Purchase Decision	-0,02	0,09	-	-	Non-significant
Income_1 × Rating → Purchase Decision	-0,01	0,38	-	-	Non-significant
Income_2 × Abandoned Cart → Purchase Decision	0,03	0,08	-	-	Non-significant
Income_2 × Pages Visited → Purchase Decision	-0,01	0,20	-	-	Non-significant
Income_2 × Rating → Purchase Decision	-0,01	0,28	-	-	Non-significant
Model Indices					
R^2 (Purchase Decision)	0,11	-	-	-	Explained variance
SRMR	0,00	-	-	-	Standardized Root Mean Square Residual

Note: $p < .05$ (*), $p < .001$ (**). Non-significant results are included for reference but not interpreted in the main analysis.

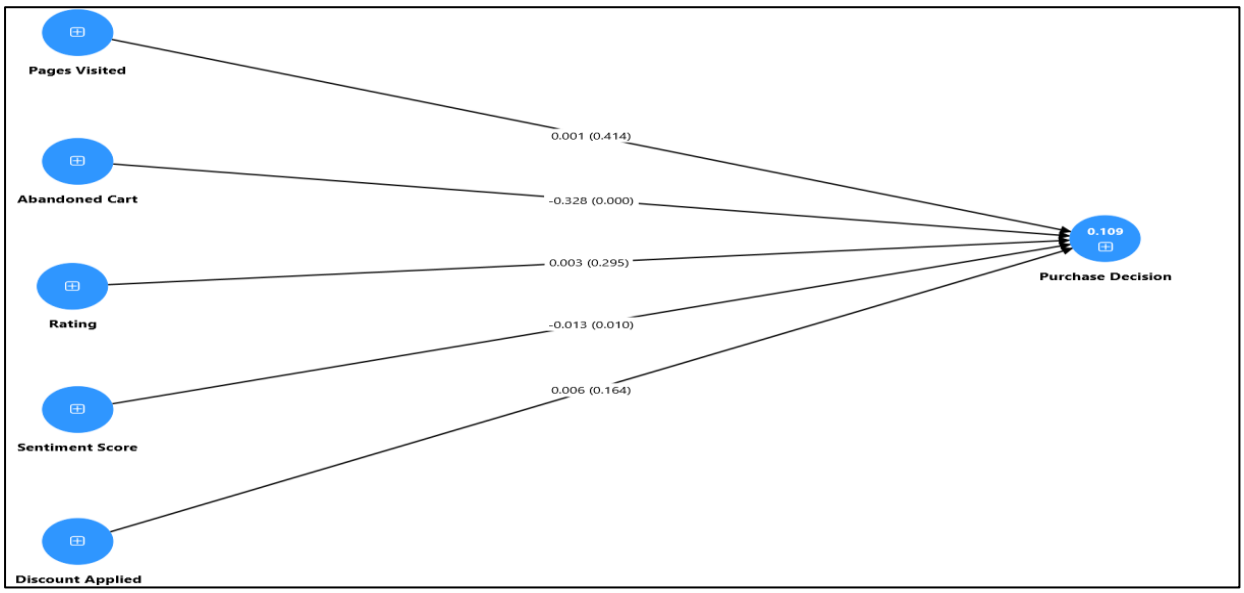
Source: Author generated

Shopping cart abandonment negatively impacts purchase decisions, supporting previous research on online shopping behaviour (Scheinbaum and Chabalier, 2022; Xu and Huang, 2015). Motivating factors, such as goal-driven and hedonic factors influence abandonment, with price anticipation and choice overload also playing a role (Wang et al., 2022; Jiang et al.,

2021). Sentiment scores also affect purchase likelihood, with less favourable user-generated content decreasing transaction completion. This aligns with studies indicating that sentiment enhances decision-making and reflects consumer preferences (Al-Barrak and Al-Alawi, 2024; Gao, Wang and Liu, 2024). Age and income did not moderate the relationship between clickstream behaviour and purchase decisions, suggesting demographic factors do not significantly alter cart abandonment or sentiment impact, contrary to Goel et al. (2024).

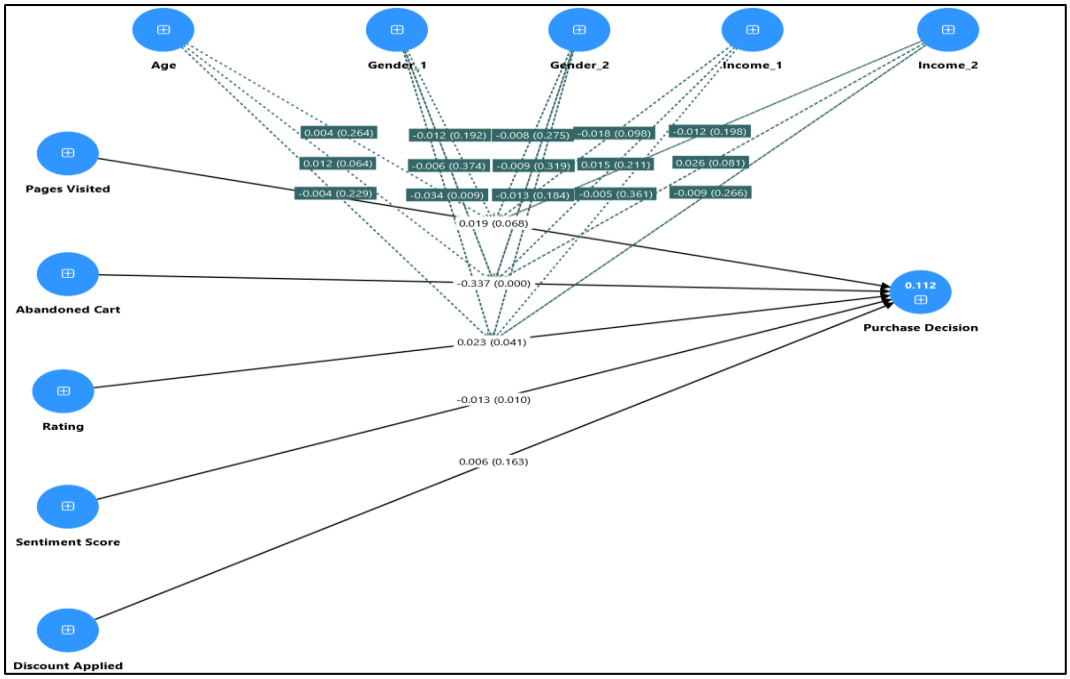
While the results confirm that cart abandonment strongly predicts reduced purchase likelihood, future research should further explore the underlying reasons for this behaviour. Possible explanations include perceived high shipping costs, concerns over payment security, complex checkout processes, or distractions during the decision-making process. Understanding these causes would allow for the development of more precise and effective interventions.

FIGURE 2: STRUCTURAL MODEL



Source: Author generated

FIGURE 3: MODERATION MODEL



Source: Author generated

The lack of significant gender differences (see Table 3) implies that the relationships between key factors and purchase decisions are consistent across gender groups. This suggests that e-commerce strategies to reduce cart abandonment and enhance sentiment management can be implemented universally without necessitating gender-specific adjustments. Future research could explore additional moderators or contextual factors to refine the understanding of AI-driven consumer behaviour.

TABLE 3: MULTIGROUP ANALYSIS

	Difference (Female - Male)	Difference (Female - Other)	Difference (Male - Other)	(Female vs Male) p-value	(Female vs Other) p-value	(Male vs Other) p-value
Abandoned Cart -> Purchase Decision	-0.01	0.00	0.01	0.346	0.491	0.34
Discount Applied -> Purchase Decision	-0.02	0.00	0.02	0.18	0.48	0.12
Pages Visited -> Purchase Decision	-0.01	-0.01	0.01	0.18	0.36	0.28

Rating -> Purchase Decision	-0.03	-0.02	0.01	0.01	0.07	0.17
Sentiment Score -> Purchase Decision	0.00	-0.00	-0.00	0.49	0.42	0.41

Source: Author generated

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

This study provides actionable insights for e-commerce businesses aiming to reduce cart abandonment, manage sentiment, and enhance conversion rates. Key recommendations include:

- **Reducing checkout hesitation**: To address cart abandonment, businesses should use dynamic pricing strategies, such as time-sensitive discounts, a simple checkout process, and optimise for mobile devices to cater to a growing mobile shopping segment.
- **Proactive sentiment management**: Real-time sentiment monitoring can detect negative feedback early, allowing businesses to respond swiftly. Positive sentiment, such as reviews and social media endorsements, should be showcased to build trust and credibility, turning hesitant buyers into loyal customers.
- **Behaviour-driven personalisation**: AI-powered recommendation systems should tailor product suggestions based on browsing patterns and sentiment. Personalised emails, especially targeting cart abandoners, can reignite interest and drive conversions.
- **Enhancing digital user experience**: A seamless digital experience is crucial to minimise barriers. Intuitive website design, fast loading times, transparent pricing, and trust signals, such as security badges, can boost user confidence and conversion rates.
- **Leveraging analytics**: Predictive modelling and A/B testing of checkout designs and pricing strategies can optimise the customer journey. Tracking KPIs, such as conversion rates, ensures alignment with business goals.
- **Cross-platform consistency**: Maintaining a consistent experience across platforms (desktop, mobile, and social media) helps build trust and reduces friction in the purchase process.
- **Building relationships**: Loyalty programmes and personalised outreach encourage repeat business. Post-purchase follow-ups foster long-term customer loyalty, turning one-time buyers into advocates.

By integrating A tools, businesses can enhance customer engagement, adapt to consumer behaviour, and maintain a competitive edge in the dynamic e-commerce market. Beyond the immediate managerial actions, the study would benefit from deeper conceptual integration in future iterations. Specifically, applying the SOR model consistently throughout the research process, explicitly stating the problem in a standalone section, and linking hypotheses directly to the conceptual model would improve clarity and theoretical robustness. Furthermore, exploring the psychological and contextual factors behind cart abandonment, rather than treating it solely as a behavioural outcome, would yield richer insights for both academics and practitioners.

CONCLUSION

This study explores the impact of AI-driven factors, clickstream behaviour, sentiment analysis, pricing, and demographics of online purchase decisions, using SEM with 5 000 global respondents. Results show that cart abandonment and negative sentiment significantly decrease purchase likelihood, while discounts, page visits, and ratings have no impact. Age and income do not moderate these effects, and no gender-based differences were found. The study emphasises the need for e-commerce platforms to reduce checkout friction and manage sentiment to improve conversion rates, providing evidence-based strategies for enhancing AI-driven consumer engagement in a competitive market.

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THE INFLUENCE OF AUGMENTED REALITY ON PURCHASE INTENTION AMONG SOUTH AFRICAN GEN Z: RETAILING PERSPECTIVE

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ABSTRACT

This research investigates the impact of Augmented Reality (AR) on the purchase intentions among South African Generation Z consumers within the retail industry. AR technology, which overlays digital content onto the physical world, transforms the retail experience by offering immersive product interactions. This study explores how perceived usefulness, ease of use, and attitudes towards AR influence purchase intentions among Gen Z, a tech-savvy demographic highly responsive to digital innovation. Using the Technology Acceptance Model (TAM) and the Theory of Planned Behaviour (TPB) as guiding frameworks, the research examines AR's role in enhancing the retail experience, thereby shaping consumer behaviour. The study employed a quantitative research approach and utilised non-probability sampling. A representative sample of 221 participants was chosen from a population of 27.5 million Gen Z's. Convenience sampling methods was employed. The data collection process involved the utilisation of structured questionnaires, while the subsequent data analysis was conducted using SPSS version 28. Usefulness, attitude, ease of use and skill are statistically ($p<0.05$) relevant to purchase intention. Furthermore attitude ($\beta=.412$) is the strongest predictor of purchase intention, followed by usefulness ($\beta= .306$) while ease of use is the weakest predictor of purchase intention.

Keywords: augmented reality, generation z, technology acceptance model, theory of planner behaviour

INTRODUCTION

Augmented Reality (AR) has captivated consumers worldwide by offering a unique combination of virtual and real-world experiences. This technology has revolutionised how humans see and interact with their environment, revolutionising customers' engagement with products, brands, and peers (Poushneh, 2018). As technological breakthroughs continue to change consumer behaviour, augmented reality stands out as a major innovation in the retail

industry. AR delivers immersive experiences by combining the physical and digital worlds, allowing consumers to explore and engage with products in unprecedented ways (Hoffman et al., 2022). AR technology overlays digital information onto real-world environments, allowing users to interact with virtual elements through smartphones, tablets, smart glasses, and other devices (Eru, Topuz & Cop, 2022; Schwarz, 2022; Hilper & Zumstein, 2023). This interactive element enhances the consumer journey, offering both convenience and engagement by allowing customers to envision products in their own space before purchasing. Brands integrating AR into their platforms, transforming the typical buying experience into a dynamic, interactive engagement (Lavoye, Mero & Tarkiainen, 2021). The global AR industry is witnessing substantial growth, with forecasts estimating it will expand from $31.97 billion in 2019 to $375.90 billion by 2031. Additionally, retail stands to gain from this expansion, with a projected increase of more than $12 billion by 2027 (SkyQuest, 2024). Leading brands namely, L'Oréal, Adidas, and Macy's have successfully implemented AR technologies, enhancing customer engagement through virtual fitting rooms, interactive product displays, and personalised shopping experiences. This approach reduces product returns by allowing customers to make informed decisions (Lee & Xu, 2020).

AR's popularity is especially high among Generation Z, a group recognised for its digital proficiency and demand for immersive experiences. Generation Z, born between the mid-1990s and early 2010s, is now a dominant force in the consumer market, driven by their affinity for innovation and new technologies (Schwarz, 2022). Therefore, understanding how this generation engages with augmented reality in retail environments is crucial given their increasing spending power. In South Africa, the retail industry is undergoing a significant transformation, driven by technologies like AR, artificial intelligence, and contactless payments (Dabo, 2024). According to Statista (2023), the AR and VR market in South Africa is expected to generate US$95.5 million in revenue by 2024. This growth is fuelled by younger consumers' enthusiasm for digital experiences, making AR a critical tool for retailers aiming to capture this tech-savvy audience (Baykal, 2020; Weaver, 2022; Uzunoglu, 2024). Despite the global adoption of AR in retail, there is a significant gap in research focused on its impact within the South African environment, particularly among Generation Z consumers. While studies in regions such as Asia and Europe have explored AR's adoption in retail experiences around the world, limited attention has been paid to how this technology influences consumer behaviour in emerging markets such as South Africa (Mekonnen, 2024; Wun, 2022; TechNavio, 2024). This study aims to fill this gap by investigating how Augmented Reality (AR) influences the purchase intentions of Generation Z in South Africa. Furthermore, the study will explore how AR can enhance retail experiences and drive engagement among this demographic.

LITERATURE REVIEW

Technology acceptance model

The Technology Acceptance Model (TAM), which was first introduced by Fred Davis in 1986, is a widely recognised framework that aims to offer a comprehensive explanation of the process of how an individual comes to use, accept and utilise new technological innovations (Zaineldeen, Hongbo, Koffi, & Hassan, 2020). The Technology Acceptance Model (TAM), which was first introduced by Fred Davis in 1986, is a widely recognised framework that aims to offer a comprehensive explanation of the process of how an individual comes to use, accept and utilise new technological innovations (Zaineldeen, Hongbo, Koffi, & Hassan, 2020). This model includes two main variables: perceived usefulness and ease of use. Teo & Wong (2023) highlight how TAM proposes that the decision to utilise technology is shaped by the following constructs: attitude, behavioural intention to use perceived usefulness (PU), and perceived ease of use (PEOU). A technology's ease of use and perceived usefulness shape a user's beliefs about it. These beliefs then influence the user's overall attitude towards the technology, ultimately determining whether they will adopt it. The theory further suggests that a person's intention to use a particular framework mediates their actual usage, influencing their behaviour (Zaineldeen et al., 2020; Teo & Wong, 2023). Davis (1985) suggests that attitudes ‘is the emotional state towards adopting a technology’ and perceived usefulness is described as ‘the amount to which the system will benefit the individual’ influence intention. Consequently, a positive attitude and high perceived usefulness result in a high intention to use technology (Rejali et al., 2023).

Theory of Planned Behaviour

Theory of planned behaviour (TPB), which was established to explain human behaviour. Icek Ajzen developed the TPB in 1980 as an extension of the Theory of Reasoned Action (TRA).). It has since become a popular model for explaining and forecasting human behaviours in various fields, notably health, consumer behaviour, and environmental behaviour (“Theory of Planned Behaviour - The Behavioural Scientist,” 2024). Azjen's (1985) cognitive theory of planned behaviour (TPB) suggests that an individual's decision to engage in a specific behaviour is based on their intention to engage in that behaviour (Brookes, 2023). TPB is an explanatory and predictive model of attitudinal-behavioural reactions based on the following factors: attitude, subjective norm, and perceived behavioural control (Mohr and Kühl, 2021). Saleem et al., (2021) claim that people's actions are influenced by their intentions, which are shaped by their attitude towards the behaviour, the opinions of those around them, and their perception of their ability to carry out the behaviour. Furthermore, Bosnjak, Ajzen, and Schmidt (2020) claim that behavioural beliefs produce a positive or negative attitude towards the

behaviour, while normative beliefs produce perceived social pressure or subjective norms. Lastly, control beliefs promote perceived behavioural control or self-efficacy. Perception of behavioural control moderates the impact of attitude towards behaviour and subjective norms on intention. In addition, The Theory of Planned Behaviour stipulates that consumers form their opinions about their attitudes based on their personal beliefs about a specific product or service and their evaluation of the potential outcomes. These attitudes can be influenced by the social norms derived from the objective standards of faith in consumption and the motivation to comply with them (Ruangkanjanases, You, Chien, Ma, Chen, Chao, 2020). Therefore, in conjunction with perceptions of behavioural control, these determinants significantly contribute to the variability observed in individuals' actual behavioural manifestations (Gu & Wu, 2019).

HYPOTHESES DEVELOPMENT

The interrelationship between Usefulness and Purchase intention

The connection between usefulness and the intention to purchase holds great significance since it provides marketers and businesses with insights into how consumers make purchasing decisions. According to Kamel, Elsayeda, & Enaba (2022), usefulness refers to how a consumer's perception and decision to learn or utilise a specific system or technology will enhance their performance or actions based on its functionality, effectiveness, and efficiency (Keni, 2020). Purchase intention refers to the likelihood of consumers planning or being willing to buy a specific product or service in the future based on how they perceive its usefulness (Kamel et al., 2022). Abbot (2022) has demonstrated that when customers perceive a product or service associated with AR as valuable, they are more likely to intend to buy it. The study further emphasises that AR offers consumers a captivating, interactive, and absorbing experience with the product, which influences behavioural intention. This enhances their overall shopping experience and builds confidence in consumers' purchasing decisions (Abbot, 2022). Consumers' satisfaction and ongoing use of technology are directly affected by its usefulness, which is a crucial factor in technology usage and adoption (Yim, Chu, & Sauer, 2017). Customers are naturally practical and focused on their goals, so they actively seek informative, valuable, helpful, and worthwhile experiences (McLean, Al-Nabhani, & Wilson, 2018). When consumers find a product or service useful, it leads to a positive attitude towards it, influencing their intention to purchase (Kamel et al., 2022). Therefore, it is hypothesised that:

H_1: Usefulness has a positive and significant influence on purchase intention.

The interrelationship between Attitude and Purchase intention

The link between attitude and purchase intention is important in consumer behaviour and marketing. Attitude is a psychological construct influenced by various elements, including cognitive assessment (thinking process), beliefs and values, and emotional attachment to any object (Khan, Hameed & Akram, 2022). Furthermore, an internal mental state determines an individual's choice of action, assessment and evaluation of the costs and benefits of doing that action, and perception of a product or service (Nosi et al., 2020; Jose et al., 2022; Huang, 2022). According to Khan et al., (2022), a positive attitude towards a product or brand can result in a positive purchase intention. In other words, when a consumer has a favourable attitude towards a product, they are more likely to intend to purchase it (Khan et al., 2022). Therefore, a favourable attitude to a product or service can lead to a higher purchase intention, whereas a negative attitude can result in a lower purchase intention (Kotler et al., 2020; Solomon et al., 2020). After considering this discussion, the following hypothesis is proposed:

H_2: Attitude has a significant and positive influence on purchase intention.

The interrelationship between Ease of Use and Purchase intention

The correlation between Ease of Use and Purchase Intention in augmented reality (AR) retailing is a crucial element in consumer behaviour research. According to Ghobadi, Shirowzhan, Ghiai, Ebrahimzadeh, & Tahmasebinia (2023), Ease of Use refers to an individual's personal perception of how effortless it is to use an object or system. In the context of their study, it pertains to the ease of acceptance of AR with minimal effort. Their findings indicated that users are more likely to accept AR technology and develop an intention to use it when they perceive it to be easy to use and effective in assisting them. Similarly, Kamel et al. (2022) emphasised that the absence of difficulty in this aspect is a critical determinant that influences user intentions when adopting new technology. According to research conducted by Raška & Richter (2017) and Butt, Ahmad, & Muzaffar (2024), AR applications that are user-friendly tend to generate a positive attitude among consumers, especially if they improve the shopping experience. Abbott (2022) corroborated this finding, revealing that interactive and immersive experiences with AR increased consumers' perception of its usefulness, ultimately leading to higher satisfaction and a greater likelihood of purchase. In addition, Trivedi, Kasilingam, Arora, & Soni (2022) discovered that the ease of use of AR has a positive effect on purchase intentions, as it increases consumers' willingness to buy products. Therefore, it is hypothesised that:

H_3: Ease of use has a significant and positive influence on purchase intention.

The interrelationship between Skills and Purchase intention

The intention to use and modify product usage is largely dependent on how effectively a product's ease of use and usefulness are communicated (Davis, 1989; Lindh et al., 2020). Lindh et al. (2020) highlighted the critical role of usability and adapting to consumers' digital skills, emphasizing that users with higher digital proficiency can navigate and utilize technology more effectively. Similarly, McLean and Wilson (2019) explored the impact of AR features in brand mobile applications, finding that interactive AR elements significantly enhance user engagement and positively influence technology acceptance factors, such as perceived ease of use and perceived usefulness. In the context of augmented reality (AR), the skills required to interact with AR-enabled platforms can be a decisive factor in shaping purchase intention, particularly among Gen Z consumers who are more accustomed to technology. According to Abrar (2018), consumers with proficient AR skills tend to have greater confidence when engaging with AR interfaces, which in turn boosts their purchase intention. This increased skill level allows users to fully engage with AR features, such as virtual try-ons or product demonstrations, making the shopping experience more immersive and personalized. The higher engagement level and smoother interaction foster a sense of control and trust, leading to stronger purchase intentions and positive word-of-mouth (Abrar, 2018; Konstantoulaki et al., 2024). Thus, when Gen Z consumers possess the necessary skills to effectively navigate and use AR technology in retail, they are more likely to engage deeply with the content, feel confident in their shopping decisions, and ultimately be persuaded to complete a purchase. Based on this understanding, the following hypothesis is proposed:

H_4: Skill has a positive and significant influence on purchase intention

PROBLEM INVESTIGATED

In today's rapidly transforming digital world, integrating augmented reality (AR) technology into consumer experiences has become a focal study of interest for marketers worldwide. As an immersive technology, AR enhances consumers' buying decisions and interactions (Barta, Gurrea & Flavian, 2023). Consumers use augmented reality applications on smartphones, tablets, smart glasses, and mirrors (Eru, Topuz, & Cop, 2022; Schwarz, 2022; Hilpert & Zumstein, 2023). A study by Goga, Paelo & Nyamwena (2019) states that the transformation of the retail landscape has been facilitated by introducing digital and online platforms driven by the influence of e-commerce. As discussed in the introduction, it is crucial to understand that this evolution has created opportunities for companies to expand their reach, engage with a broader customer base, customise offerings to individual preferences, implement competitive pricing strategies, and enhance consumer experiences, ultimately leading to elevated overall consumer satisfaction (Goga et al., 2019). However, the absence of research

on expanding and utilizing digital tools within the retail sector represents a critical problem in determining whether AR has a significant or positive influence on the purchase intentions of South African Gen Z consumers. This presents an opportunity for retailers to innovate and utilize tools such as augmented reality as a strategic resource to gain a competitive advantage, given the rise of e-commerce, and to bridge the engagement and loyalty gap between retailers and South African Generation Z consumers.

Tan, Chandukala, & Reddy (2022) suggest that AR bolsters sales by mitigating uncertainty and instilling consumer confidence in purchases. On the contrary, marketers within the retail sector can monitor consumer behaviour, ignite curiosity, and position specific brands as innovative or distinctive, thereby enhancing the engagement of the in-store shopping experience and providing companies with a competitive edge. A study was undertaken by Watson, Alexander, and Salavati (2018) to demonstrate how adopting an experienced AR retail application may favour purchasing intentions. The findings indicate positive emotional reactions determine the impact (Watson et al., 2018). Lavoye, Mero, & Tarkiainen (2021) note that as the academic study on augmented reality in retail and e-commerce expands, it is important for researchers to perform literature reviews to assess previous findings and identify domains for future research. Despite this growing interest in augmented reality mobile applications, an in-depth study of its impact on the purchasing habits of South African Gen Z remains unexplored. South Africa, with a substantial Generation Z demographic (Reporter, 2020), represents a pivotal market for examining the impact of augmented reality on purchasing intentions. Given the continually evolving consumer preferences of this cohort, traditional retail strategies may not resonate as effectively. Consequently, comprehending the role of augmented reality in shaping their purchase intentions is of critical importance. From a retail perspective, the lack of sufficient insight and empirical data pertaining to this subject matter constrains the capacity of South African retailers to drive purchase intentions, capitalize on AR's ability to reduce uncertainty in online shopping, and create a more immersive, personalized shopping experience that resonates with this tech-savvy demographic (Goga et al., 2019; Eru et al., 2022). Moreover, limited research in the South African context diminished the potential for businesses to engage with their intended audience effectively. Ultimately, without a clear understanding of how AR can impact purchasing behaviour, retailers may struggle to differentiate themselves in an increasingly competitive and digitalized market, leaving a significant gap. This gap limits the ability of South African retailers to leverage AR as a tool for driving purchase intention, engaging customers, and enhancing overall sales outcomes through practical examples such as virtual try-ons before making a purchase, which can reduce the number of product returns for online purchases, a major pain point for retailers (Schwarz, 2022; Hilpert & Zumstein, 2023). Crucially, this digital and virtual experience can

be highly appealing to the tech-savvy younger generation of consumers, who are increasingly demanding cutting-edge shopping experiences before they spend their money. AR technology has expanded beyond retail, with the banking and telecommunications industries increasingly adopting it to enhance customer engagement and improve services. Alam et al., (2021) research contributes to the growing body of knowledge on AR marketing and its impact on consumer behaviour, particularly among young consumers in Malaysia's beauty and makeup sector. The study emphasises the necessity to grasp consumer perceptions and behaviours in the context of AR marketing, particularly in influencing purchase intention among Malaysian Gen Z consumers (Alam et al., 2021; Teo & Wong, 2021). Conversely, Kamel, Elsayed, and Enaba (2022) investigated the impact of AR advertising features on purchase intention in the Egyptian furniture industry. Findings suggest that the impact of entertainment and informativeness of AR commercials on purchasing intention, emphasising the value of delivering engaging and information positively influences consumer behaviour within the Egyptian market (Kamel, Elsayed & Enaba, 2022). Further, Erdmann, Mas, and Arilla, (2023) studied the impact of AR on consumers' online purchase intention by assessing the impact of immersion of the Spanish eCommerce consumers, taking into account the effect of AR devices and technological complexity to determine the role of individual preferences on online purchase intention using AR technology in Spain (Erdmann et al., 2023; Schwarz, 2022). In banking, AR is used for data visualization, ATM location, and interactive financial services (Butt, Ahmad & Muzaffar, 2024), while in telecommunications, it's used for immersive product demonstrations and virtual tech support (Palma, Spallone, Cicone, Lops, & Rinauro, 2022). Despite extensive research in these sectors, AR's impact on the retail industry, particularly in South Africa, remains underexplored. This gap in research is significant as Gen Z's evolving preferences highlight the need to understand how AR influences retail purchase intentions, especially in areas like product interaction and experiential shopping. Nonetheless, various research on augmented reality has been conducted in different countries, but its impact on purchase intention in the South African market, particularly the Gen Z cohort, is unknown. Therefore, this research aims to determine the link between AR technology and consumer behaviour within the South African Gen Z demographic. This study seeks to bridge a gap in research by performing a thorough analysis of the impact of augmented reality on purchase intention among South African Gen Z consumers. The research seeks to provide insights for organisations within the retail industry looking to utilise AR technology to engage and appeal to this generation effectively. As a result, to gain an understanding of the key forces influencing purchase intention among South African Gen Z.

RESEARCH OBJECTIVES

- To determine how augmented reality influences the attitudes of Generation Z towards purchasing decisions.
- To assess the impact of augmented reality on the purchasing skills of Generation Z.
- To evaluate the influence of the perceived usefulness of augmented reality on the purchase intentions of Generation Z.
- To examine how the perceived ease of use of augmented reality affects the purchase intentions of Generation Z.

RESEARCH METHODOLOGY

Positivism is a scientific method that looks at observable and measurable facts (Saunders et al., 2019). This method is suitable as we are seeking truthful outcomes that are independent of the research as hypothesis testing will be conducted and empirical data will be analysed in our research. A deductive method was suitable as it supports the positivist research philosophy. Deduction is a method that is highly structured, consisting of a large sample. This research project employed a survey research strategy to determine the influence of augmented reality on purchase intention among South African Generation Z in the retail perspective. A survey research project is associated with the deductive approach to quantitative research as it enables researchers to collect data that can be quantitatively analysed to find explanations of the relationships that exist between variables (Saunders et al., 2019).

A quantitative research method was applied as compared to the other existing options which are qualitative or mixed method approaches (Saunders et al, 2019). The subset can be identified to be specifically Generation Z residing in South Africa who are between the ages of 18-27 who are frequent retail shoppers. A non-probability sampling method, convenience sampling, was applied for the distribution of the questionnaires. The questionnaire was distributed electronically with a link being sent to the respondents. The maximum sample size was 221 South African Generation Z respondents.

RESULTS AND FINDINGS

TABLE 1: DEMOGRAPHIC PROFILE OF RESPONDENTS

Respondents' characteristics	Number of respondents	Percentage

Gender		
Male	79	35,7
Female	140	63,3
Other- Prefer not to say	2	0,9
Total	**221**	**100%**
Age		
18 – 20	36	16.3
21 – 23	93	42.1
24 – 26	73	33.0
27 and older	19	8.6
Total	**221**	**100%**
Highest level of Education		
No Formal schooling	0	0.0
Primary	0	0.0
Secondary	25	11.3
Tertiary	183	82.8
Trade Qualification complete	13	5.9
Other	0	0.00
Total	**221**	**100%**
Province		
Eastern Cape	4	1.8
Gauteng	163	73.8
Kwa-Zulu Natal	9	4.1
Limpopo	28	12.7
Mpumalanga	6	2.7
Northern Cape	2	0.9
North-West	5	2.3
Western Cape	4	1.8
Total	**221**	**100%**

Exploratory factor analysis was employed in the research as factors that influence purchase intentions among Gen-Z consumers have not been researched from a South African perspective, or a retailing perspective. Additionally, the principal component extraction method was used for the EFA due to the use of a large sample size of 221. Therefore, the strength of the intercorrelations, factor analysis could be applied to this research.

According to Hidayah, Utami & Fajrisani (2020), the Kaiser-Meyer-Olkin (KMO) test evaluates whether factor analysis is suitable. The results of the Kaiser-Meyer-Olkin (KMO) test indicated that the factor analysis for the five constructs was adequate, with a measure of sampling adequacy of 0.855, confirming the suitability of the data for factor analysis. Bartlett's Test of Sphericity yielded a chi-square value of 581,513 with 10 degrees of freedom and a significance level of $p < .001$, further supporting the factorability of the correlation matrix. High KMO values between 0.5 and 1.0 indicate that factor analysis is appropriate, while values below 0.5 suggest it is not (Sutisna, Amriely, & Awaluddin, 2020). The Bartletts' test score of above 0.6 and the p-value of less than 0.05, as shown in Table 2, further supports this conclusion.

TABLE 2: KMO AND BARTLETT'S TEST

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,855
Bartlett's Test of Sphericity	Approx. Chi-Square	581,513
	Df	10
	Sig.	<.001

Reliability

According to Rose and Johnson (2020), a construct is considered reliable if its Cronbach's Alpha is 0.7 or higher. For an item to be valid in factor analysis, it must have a factor loading of at least 0.4.

TABLE 4: CRONBACH'S ALPHA COEFFICIENT OF RELIABILITY

Construct	Number of items	Sample reliability using Cronbach alpha (α)
Ease of Use	3	,850
Usefulness	8	,826
Skills	3	,827
Attitude	5	,795
Purchase Intention	4	,813

EXAMINATION OF THE RESEARCH HYPOTHESES

Based on the results of the Pearson Product Moment correlation and multiple regression results discussed in the previous sections, Table 5 presents the results for the following hypotheses.

TABLE 5: RESULTS OF CORRELATION ANALYSIS

Hypothesis	Statistical analysis technique used	Result of the analysis	Comment
H_1: Usefulness has a positive and significant influence on purchase intention.	Pearson correlation Sig. (2-tailed) Multiple regression β	.699** <.001 .306	**Accepted**
H_2: Attitude has a significant and positive influence on purchase intention.	Pearson correlation Sig. (2-tailed) Multiple regression β	.696** <.001 .412	**Accepted**
H_3: Ease of use has a significant and positive influence on purchase intention.	Pearson correlation Sig. (2-tailed) Multiple regression β	.424** <.001 .035	**Accepted**
H_4: Skill has a positive and significant influence on purchase intention	Pearson correlation Sig. (2-tailed) Multiple regression β	.566** <.001 .074	**Accepted**

Based on the results, usefulness, attitude, ease of use and skill are statistically ($p<0.05$) relevant to purchase intention. As presented in Table 5, attitude ($\beta=.412$) is the strongest predictor of purchase intention, followed by usefulness ($\beta= .306$) while ease of use is the weakest predictor of purchase intention.

PRACTICAL MANAGERIAL IMPLICATIONS, RECOMMENDATIONS AND CONCLUSIONS

Retailers should actively integrate Augmented Reality into their online and in-store experiences to cater to the tech-savvy Generation Z. Given AR's potential to enhance customer engagement and reduce uncertainty in online shopping, businesses should focus on developing user-friendly, immersive AR applications that offer personalized experiences. This can be achieved through virtual try-ons, product demonstrations, and interactive features tailored to the preferences of Gen Z consumers. Additionally, continuous improvements in digital literacy initiatives and AR-related marketing strategies could further boost adoption rates, making AR an essential tool for driving purchase intentions and long-term customer loyalty in South Africa's evolving retail landscape. These suggestions can help retailers optimize their digital strategies, enhance customer satisfaction, and remain competitive in a rapidly evolving market. The incorporation of augmented reality in retailing offers an unconventional and interactive purchasing experience that could significantly change consumer behaviour, particularly among the tech-savvy Generation Z cohort (Riar et al., 2022). Given the growing body of literature on AR in retail, there is a clear gap in understanding its unique implications on purchase intention within the South African environment, particularly for Gen-Z customers (Fan et al., 2020). By concentrating on this group, the study addresses the need to investigate how AR technology can be exploited to optimise retail tactics and generate sales (Lavoye, 2023). The outcomes of the investigation present valuable information to retail establishments seeking to engage with and attract Gen-Z shoppers, who are recognized for possessing distinct buying tastes and exceptionally high expectations for digital experiences (McLean & Wilson, 2019). Furthermore, this study will contribute to the understanding of the digital revolution within retail and its effects on consumer involvement (Sozer, 2021; Yoo, 2023). Considering the rapidly evolving capabilities of AR technology and its ability to transform the retail sector, this study is both modern and paramount (Heller et al., 2024). This research aims to address the missing knowledge by investigating the relationship between AR technology, purchase intention, and Gen-Z consumer behaviour in South Africa. The findings of this research will not only elevate academic knowledge but will have implications for retailers intending to break new ground to stay competitive in a progressively digital world (Hoffmann & Mai, 2022).

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TRACK 9: OPERATIONS AND SUPPLY CHAIN MANAGEMENT

CROWDSOURCING IN LAST MILE DELIVERY: A BIBLIOMETRIC REVIEW AND RESEARCH AGENDA

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ABSTRACT

Last mile delivery faces numerous economic, social, and environmental challenges. As a result, crowdsourcing has become a widely recognised solution to address these challenges. Current studies on this topic are fragmented, investigating diverse aspects of crowdsourcing in different contexts, and giving divergent results. Thus, an in-depth review is necessary to identify the underlying themes and future research agendas. A bibliometric analysis was performed on 217 publications exported from the Scopus database for the period 2000 to 2025. Results revealed four key themes from crowdsourcing in last mile delivery research: optimisation, sustainability, policy integration, and user acceptance. Despite their importance, user acceptance, and technological innovations themes remain underexplored in current research. Future research should prioritise investigating the integration of emerging technologies to enhance user trust, transparency, and willingness to participate in crowdsourcing. This review provides a structured framework to guide the development of user-centered, efficient, sustainable, and policy-aligned crowdsourced last mile delivery systems.

Keywords: crowdsourcing; last mile; bibliometric; review

INTRODUCTION

The rise of electronic commerce (e-commerce), urban population growth, and increasing customer expectations have resulted in unprecedented pressure on logistics systems, particularly the last mile. Last mile delivery (LMD) is the last transportation leg of goods delivery from a transportation hub (e.g., order fulfilment centre or store) to an end customer (e.g., customer's home or collection point) (Sorooshian *et al*., 2022; Mogire, Kilbourn & Luke, 2023; Wang & Alidaee, 2023). LMD faces numerous economic, social, and environmental challenges (Alharbi, Cantarelli & Brint, 2022). It is one of the most expensive and challenging aspects when delivering online orders (Wang & Alidaee, 2023). The increasing volumes of parcels and short order notices cause tight deadlines and considerable time pressures, which cause delivery delays (Boysen, Fedtke & Schwerdfeger, 2021). The increasing volume of

online orders adds more pressure on LMD, affecting road congestion, air, and noise pollution (Mogire, 2022; Mogire, Kilbourn & Luke, 2022; Puram *et al.*, 2022).

Among other options, such as parcel lockers, drones, cargo bikes, and electric vehicles, crowdsourcing is increasingly being explored as a solution to these last mile delivery challenges. According to the Collins Dictionary, crowdsourcing refers to the practice of getting ideas or help with a project from a large number of people, usually through the Internet. In the last mile delivery context, crowdsourcing involves temporary hiring of individuals by a company to deliver products, with appropriate compensation (Seghezzi *et al.*, 2021; Pamucar *et al.*, 2024). It is an innovative delivery option that relies on individuals who frequently travel for various reasons, to deliver parcels during their usual trips for payment (Bajec, Pivtorak, & Svadlenka, 2025). This implies that many people are used to performing delivery services as a secondary activity.

For customers, crowdsourced delivery has the potential to offer faster, and more affordable deliveries while enhancing service levels (Seghezzi *et al.*, 2021; Ghaderi *et al.*, 2022; Pamucar *et al.*, 2024). Reducing the number of dedicated trips from e-commerce businesses helps to lower carbon emissions and transportation costs (Ghaderi *et al.*, 2022; Pamucar *et al.*, 2024). Crowdsourcing also provides flexible working opportunities to society (Seghezzi *et al.*, 2021). Crowdsourced delivery can reduce traffic congestion and delivery time, thus contributing to sustainability (Mogire, Kilbourn & Luke, 2025b). The increasing customer demand for cost-effective last mile delivery options has resulted in the development of green innovations (such as crowdsourcing) in last mile delivery (Mogire, 2026).

PROBLEM STATEMENT AND RESEARCH OBJECTIVES

Despite their potential benefits, crowdsourcing is hindered by numerous challenges, such as trust between actors, regulation issues, and supply and demand management for the service (Pamucar *et al.*, 2024). Regional studies show differing adoption factors, for instance, in China, perceived value and trust enhance continued use of crowdsourcing (Liu *et al.*, 2024), while perceived risk negatively affects its use (Liu *et al.*, 2024). In Saudi Arabia, the implementation of crowdsourcing faces legislative issues, driver availability, trust concerns, and cultural issues (Alharbi *et al.*, 2022). In South Africa, mobile-based delivery systems face legal, security, and connectivity obstacles (Okoche *et al.,* 2024). In Turkey, detailed identification and security checks were recommended among the solutions to resolve safety, security, and trust issues in crowdsourced delivery (Göçer, İzcan, & Vural, 2025). In addition, customer satisfaction is essential to the widespread use of crowdsourcing (Göçer *et al.*, 2025). In some emerging e-commerce markets, such as Kenya, crowdsourced delivery is valued by very few online customers (Mogire,2022; Mogire, Kilbourn & Luke, 2024a). The authors recommended future

research to explore the use of crowdsourcing to better understand the concept of last mile delivery.

While existing studies on crowdsourcing in last mile delivery have addressed the benefits, challenges, and feasibility, the findings are fragmented and show regional differences, limiting a holistic understanding of the topic. A keyword search in the Scopus database (Article title: ("crowdsourcing*") AND ("last mile" OR "last-mile") AND (“bibliometric”) failed to identify a study directly aligned with the focus of this review. Given the growth in research on this area over the past decade and the lack of an integrative review, a bibliometric review is necessary to map the knowledge structure, identify influential research, and synthesise existing literature to identify research gaps and inform future research. This is meant to guide policy development to encourage the broader adoption of crowdsourcing in last mile delivery. The specific objectives of this review are:

i. To identify the themes that have been used in crowdsourcing in last mile delivery research.

ii. To propose future research agendas on crowdsourcing in last mile delivery.

LITERATURE REVIEW

Crowdsourcing, as proposed by Howe (2006), relates to outsourcing a company’s value-creation activities to an undefined network of people. The undefined network of people referred to as ‘common’ people is available to bring parcels from a point of collection (such as a store or warehouse) to a point of delivery. The network of people, usually natural persons, is hired by a company for delivery, with appropriate compensation (Pamucar *et al.*, 2024; Bajec *et al.*, 2025). In addition, they often deliver parcels as a secondary activity as they travel (Pamucar *et al.*, 2024; Bajec *et al*., 2025). This may involve the crowd travelling in cars, vans, bicycles, scooters, public transport, or even walking (Gläser, Jahnke & Strassheim, 2023). Likewise, Pamucar *et al*. (2024) assert that it includes private cars, public buses, public trains, taxi drivers, and taxi passengers. However, Seghezzi *et al.* (2021) indicate that the crowd may involve: the use of friends and acquaintances to deliver parcels for free, or people on social platforms delivering to members of their community, or a ‘hybrid’ that combines e-commerce vehicles with a group of occasional riders that deliver parcels in small quantities along their route at a fee.

A systematic review on the dynamics of crowdsourcing in last mile distribution within mobility found factors such as consumer satisfaction, operational and technological efficiency, environmental impact and sustainability, and economic profitability influence the success of crowdsourcing (García-Herrera, Serrano-Hernandez, & Faulin, 2025). A systematic review on sustainability benefits and risks of crowdsourcing emphasised the need for sustainable

practices encompassing the economic, environmental and social dimensions (Göçer *et al.*, 2025). A systematic review by Gläser, Jahnke, and Strassheim (2023) on opportunities and challenges of crowdsourcing on the last mile service providers found opportunities for using CLD to lower operating costs, reduce emissions, improve delivery service quality, and serve new customers. However, CLD faces challenges such as a lack of laws and regulations, privacy and trust issues, and a lack of appropriate compensation schemes to attract the crowd (Gläser *et al*., 2023). A review of platforms and academic literature on crowdsourced delivery found that most studies overlook important operational decisions like driver scheduling, routing, and compensation (Alnaggar, Gzara & Bookbinder, 2021). However, the review was limited to platforms of North American companies and systems.

A review of operational challenges and opportunities of crowdsourcing in last mile delivery identified unresolved issues concerning courier's working conditions and pricing models (Pourrahmani & Jaller, 2021). The review only explores operational challenges and opportunities in 98 studies. A systematic review on crowdsourcing for sustainability emphasises the need to understand trust mechanisms, user behaviour, and environmental implications of crowdsourcing systems to enhance sustainability in urban logistics (Mohri *et al.*, 2023). A bibliometric review on green innovations in last mile delivery for e-commerce found that crowdsourcing co-occurs with keywords like sustainability and emerging topics like service quality and efficiency (Mogire, Kilbourn & Luke, 2024b). A bibliometric analysis of sharing economy logistics and crowdsourcing emphasises that sharing mobility for last mile delivery is a source of performance for generating innovative solutions to environmental impacts (Saglietto, 2021). However, the review was limited to 85 articles between 2007 and 2019.

From the preceding discussion, there are inconsistencies in the terminology used on the topic. While some studies use crowdsourcing, others have used 'crowd shipping' or 'crowd logistics'. In addition, some studies have a narrow focus, such as operational challenges and sustainability dimension in last mile delivery, with a small number of articles. The majority of the reviews are systematic literature reviews with limitations on relationships among themes, authors, and keywords.

RESEARCH METHODOLOGY

A bibliometric analysis was conducted to map knowledge, highlight key studies, and identify gaps to guide future research on the topic. Bibliometric analysis utilises quantitative methods to explore large volumes of scientific data to shed light on emerging areas in a field (Donthu *et al.*, 2021). The bibliometric analysis techniques include performance analysis descriptives (e.g., authors, journals, institutions, and countries), and science mapping used to visualise

relationships on the topic (e.g., citation analysis, co-citation analysis, bibliographic coupling, co-word analysis, and co-authorship analysis) (Donthu *et al*., 2021; Saglietto, 2021).

The required data was extracted from the Scopus database on 15 April 2025 using the following keywords: (Article title, Abstract, Keywords ("crowdsourc*" OR "crowd sourc*" OR "crowd-sourc*" OR "crowdlogistics" OR "crowd logistics" OR "crowd-logistics" OR "crowdshipping" OR "crowd shipping" OR "crowd-shipping" OR "crowddelivery" OR "crowd delivery" OR "crowd-delivery" OR "peer-to-peer delivery" OR "p2p delivery" OR "gig delivery" OR "decentralised delivery" OR "peer assisted delivery") AND ("last mile" OR "last-mile") resulting to 240 publications. This was limited to articles, review papers, conference papers, and book chapters published in English from 2000 to 2025. The Scopus database was used because it is a trusted source of bibliometric data (Baas, Schotten, Plume, Côté & Karimi, 2020). The 240 publications were examined manually. Those that lacked topics, titles, and were irrelevant were deleted, resulting in 217 publications. The irrelevant articles relate to crowdsourcing in non-logistics sectors such as telecommunication and energy/ electricity networks. These were downloaded as CSV Excel file for bibliometric analysis using the Bibliometrix package version 4.3.0 (specifically the Biblioshiny app version 4.3.0).

TABLE **1** summarises the main information about the publications and results presented in the next section. Research on the topic has grown since 2013, with a high average growth rate of 27.81%. Journal articles account for the majority of publications (66.4%), whereas review papers represent the least share (5, 2.3%).

TABLE 1*:* MAIN INFORMATION ABOUT THE PUBLICATIONS ON CROWDSOURCING IN LMD

Description	Results
Timespan	2013:2025
Sources (Journals, Books, etc)	132
Documents	217
Annual Growth Rate %	27.81
Document Average Age	3.26
Average citations per document	22.29
References	9053
DOCUMENT CONTENTS	
Keywords Plus (ID)	1152
Author's Keywords (DE)	574
AUTHORS	
Authors	553
Authors of single-authored docs	10
AUTHORS COLLABORATION	
Single-authored docs	10
Co-Authors per Doc	3.48
International co-authorships %	31.34
DOCUMENT TYPES	
Article	144

Book chapter	7
Conference paper	61
Review	5

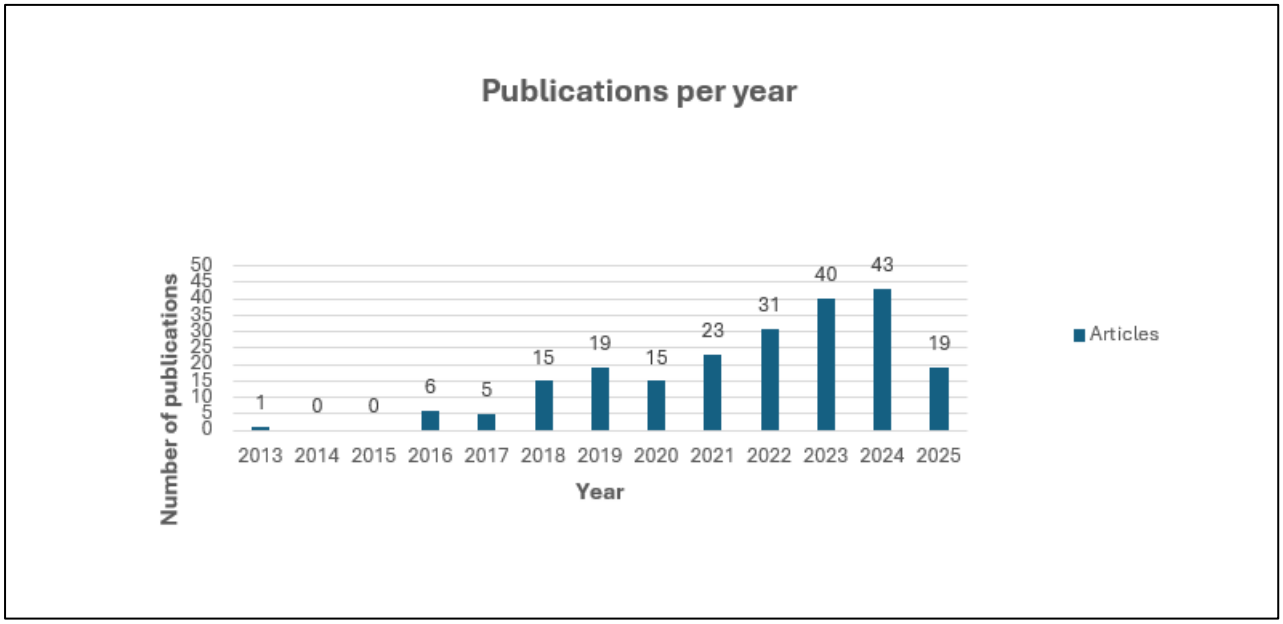
RESULTS

This section presents results: performance analysis and science mapping on the topic.

Performance analysis

The initial research period from 2013 to 2015 recorded minimal research, with below one publication per year (Figure 1). Crowdsourcing was a relatively new concept during this stage, as e-commerce was still new. A slight growth in research started in 2016 with six publications and ended in 2017. Most researchers were attracted to e-commerce research during this period as more growth was recorded in the sector. A steady increase in research output started in 2019, with 15 publications until 2022, before peaking in 2024 with 43 publications. There was widespread adoption of crowdsourcing driven by technological advancements, growth in e-commerce, and growing urban and sustainability challenges. The post-2024 can be attributed to more AI-driven logistics, smart urban mobility planning, the regulatory focus of the gig economy, and urban delivery challenges.

FIGURE 1: NUMBER OF PUBLICATIONS ON CROWDSOURCING IN LMD



Top-cited journals

TABLE 2 shows that *Transportation Research Part E: Logistics and Transportation Review* is the most productive journal on the topic with 13 publications, an h-index of 8, a g-index of 13, and 756 total citations counted from 2016. The journal mainly focuses on optimising logistics systems. *Transportation Research Part A: Policy and Practice* is an emerging journal with four publications, m-index of 0.8, and 77 total citations counted from 2021. The journal focuses on

policy analysis, planning, and the management of transportation systems. Thus, most existing studies focus on optimising logistics systems, with policy analysis emerging as a growing theme on the topic.

The journals can be classified into four themes based on their scope: the logistics and supply chain optimisation theme comprises journals like the *Journal of Business Logistics, Transportation Research Part E: Logistics and Transportation Review, Computers and Operations Research,* and *International Journal of Logistics Research and Applications*. The sustainability and smart transportation systems theme includes journals like *Sustainability Journal, Transportation Science,* and *Transportation Research Part B: Methodological*. The transportation policy and planning theme covers journals like *Transportation Research Procedia,* and *Transportation Research Part A: Policy and Practice*. The last theme, user behaviour and social aspects, includes the *Travel Behaviour and Society Journals*. This shows that most existing studies focus on logistics and supply chain optimisation, while few focus on user behaviour and social aspects.

TABLE 2: TOP 10 MOST CITED JOURNALS ON CROWDSOURCING IN LMD

Rank	Journal	h-index	g-index	m-index	TC	NP	PY-start
1	Transportation Research Part E: Logistics and Transportation Review	8	13	0.8	756	13	2016
2	Sustainability (Switzerland)	6	9	0.75	270	9	2018
3	Transportation Research Procedia	5	10	0.625	240	10	2018
4	Transportation Research Part A: Policy and Practice	4	4	0.8	77	4	2021
5	Transportation Research Part B: Methodological	4	5	0.5	119	5	2018
6	Transportation Science	4	4	0.571	395	4	2019
7	Travel Behaviour and Society	4	4	0.571	141	4	2019
8	Computers and Operations Research	3	4	0.75	46	4	2022
9	International Journal of Logistics Research and Applications	3	4	0.6	110	4	2021
10	Journal of Business Logistics	3	3	0.375	230	3	2018

Top-cited authors

TABLE 3 shows that *Pedroso J.* is the most productive author with seven publications, an h-index of 6, a g-index of 7, and 178 total citations calculated from 2018. The author focuses on optimising crowdsourcing systems by modeling uncertainty and using advanced algorithms to improve last mile delivery efficiency. However, it was noted that even though *Gatta V*. and *Marcucci E*. co-authored four publications, they have 418 total citations, an h-index of 4, and a g-index of 4 calculated from 2018. Most of their studies evaluate the environmental, economic, and operational impacts of public transport-based crowdsourcing for last mile deliveries. *Liu J.* is a veteran author who started publishing on the topic in 2016. *Fessler A.* is

the most productive emerging author with five publications, an m-index of 5, and 65 total citations calculated from 2022. *Fessler A.* focuses on public transport-based crowdsourcing as a sustainable solution to last mile delivery challenges

TABLE 3: TOP 10 MOST CITED AUTHORS ON CROWDSOURCING IN LMD

Rank	Element	h-index	g-index	m-index	TC	NP	PY_start
1	Pedroso J.	6	7	0.75	178	7	2018
2	Viana A.	5	6	0.625	168	6	2018
3	Fessler A.	4	5	1	65	5	2022
4	Gatta V.	4	4	0.5	418	4	2018
5	Haustein S.	4	4	1	65	4	2022
6	Liu J.	4	4	0.4	48	4	2016
7	Marcucci E.	4	4	0.5	418	4	2018
8	Mizouni R.	4	7	1	49	8	2022
9	Otrok H.	4	7	1	49	8	2022
10	Singh S.	4	7	1	49	8	2022

Word cloud

The word cloud highlights three key research themes on the topic. The sustainability theme includes keywords like *sustainability, sustainable development, economic and social effects, traffic congestion, urban transportation,* and *public transport* (FIGURE *)*. The optimisation theme covers keywords like *vehicle routing, optimisation, efficiency, economics, cost-effectiveness, routings, combinational optimisation, sensitivity analysis,* and *fleet operations*. The technological innovation theme includes keywords like *heuristic algorithms, intelligent systems, algorithm, dynamic programming,* and *blockchain*. Regarding frequency, larger words like *logistics, fleet operations,* and *vehicle routing* appear at the centre of the word cloud, an indicator that these are the most frequent concepts on the topic. Keywords like *intelligent systems, blockchain, algorithm,* and *optimisation* are located at the edges of the word cloud, an indicator that they are less frequent concepts representing emerging or specialised topics.

FIGURE 2: WORD CLOUD ON CROWDSOURCING IN LMD



Top-cited countries

TABLE 4 shows that China is the most productive country in crowdsourcing research for last mile delivery, followed by China. While most studies in the USA focus on crowdsourcing platform design and user behaviour, China focuses on operational optimisation, such as algorithm development and route planning in dense areas. European countries such as Italy, Germany, Portugal, and the Netherlands also show significant contribution, focusing on how crowdsourcing can be integrated into sustainability, public transport, and urban mobility policies. Africa, South America, and Asia are under-represented.

TABLE 4: TOP 10 COUNTRIES' SCIENTIFIC PRODUCTION ON CROWDSOURCING IN LMD

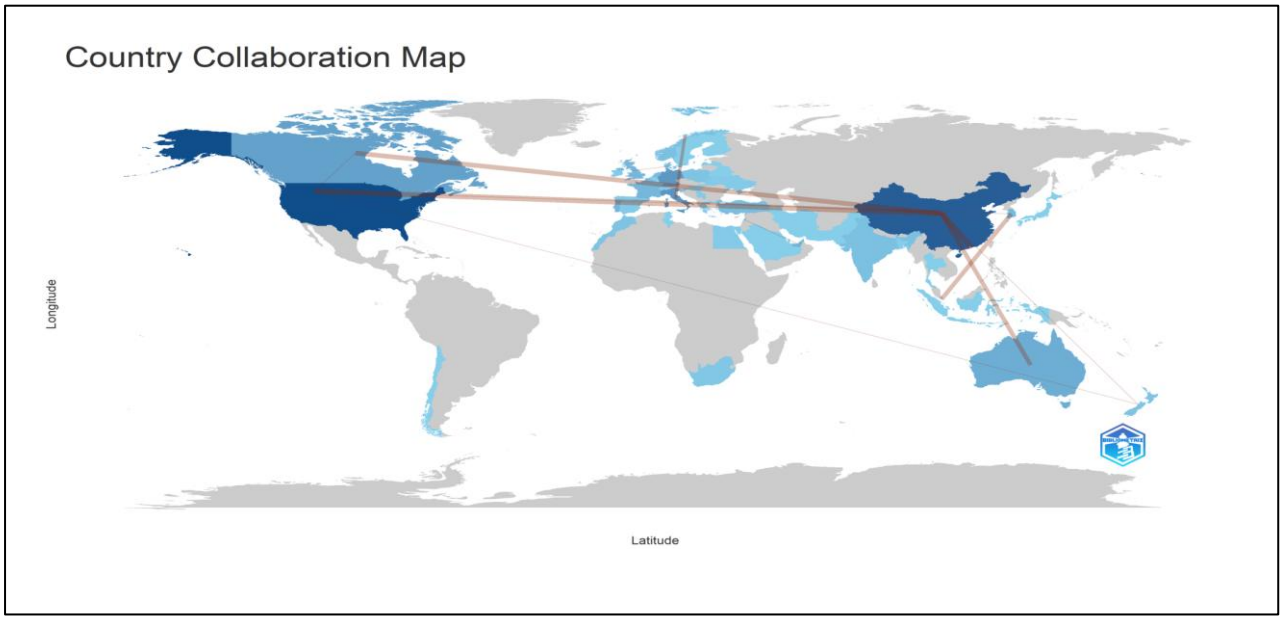
Rank	Country	Country affiliation count
1	China	114
2	Usa	106
3	Italy	58
4	Germany	48
5	Singapore	42
6	United Arab Emirates	42
7	Australia	34
8	Canada	34
9	Portugal	25
10	Netherlands	24

Science mapping

Co-authorship analysis

The country collaboration map visually represents the intensity (colours) and direction (lines) of collaboration between countries in a specific field (Mogire, Kilbourn & Luke, 2025b). The country collaboration map shows that strong collaborations (thicker lines) exist between China and the USA, Canada, and Australia (Figure 2). China and the USA collaborate on integrating advanced technologies into crowdsourcing in last mile delivery. Africa, South America, and parts of Asia are under-represented, offering potential for future collaborations. The highest research output on the topic emanates from the USA, China, and Australia (dark blue colour. In contrast, the emerging/ least research output (light blue colour) emanates from countries like South Africa, Argentina, and Thailand. Most studies in South Africa focus on sustainability, technology enhancement, and integrating public transport systems in the use of crowdsourcing in last mile delivery.

FIGURE 3: COUNTRY COLLABORATIONS MAP ON CROWDSOURCING IN LMD



Citation analysis

Table 5 shows the top-cited article by Arslan, Agatz, Kroon, and Zuidwijk (2019). In their study, the authors introduced a dynamic model for ad hoc routing in crowd-sourced delivery. This model was relevant because it captured the stochastic and real-time nature of crowd-sourced delivery, which was lacking in prior models. The top-cited publications revealed four main themes: optimisation, environmental sustainability, strategic integration, and acceptance. Most studies focus on optimisation. For instance, Arslan *et al*. (2019) and Wang *et al*. (2016) conducted studies to demonstrate that crowdsourced delivery can reduce delivery costs and improve efficiency. Studies by Devari, Nikolaev, and He (2017), Qi *et al*. (2018), and Gatta *et al*. (2018) showed that a few studies related to the environmental sustainability theme. The studies show that integrating crowdsourcing with public transport or shared mobility reduces emissions and traffic. A study by Castillo *et al*. (2018) focuses on the strategic integration theme, highlighting how crowdsourced delivery can strategically complement conventional delivery by offering flexibility and responsiveness, especially in dynamic urban contexts. Studies by Gatta *et al*. (2018, 2019) and Devari *et al*. (2017), focus on the crowdsourcing acceptance theme, exploring factors influencing user willingness to participate, including age, service features, and social network engagement.

TABLE 5: TOP 10 MOST CITED PUBLICATIONS ON CROWDSOURCING IN LMD

Rank	Authors	Global citations	Title	Summary
1.	Arslan *et al.* (2019)	321	Crowdsourced delivery—a dynamic pickup and delivery problem with ad hoc drivers	Computational experiments revealed that the use of ad hoc drivers has the potential to make last mile delivery more cost-effective compared to dedicated vehicles.
2.	Wang *et al.* (2016)	275	Towards enhancing the last mile delivery: An effective crowd-tasking model with scalable solutions.	Comprehensive experiments conducted in Singapore and Beijing datasets formulated a minimum cost flow model that assigns workers to parcels and minimises total delivery costs.
3.	Devari *et al.* (2017)	234	Crowdsourcing the last mile delivery of online orders by exploiting the social networks of retail store customers.	A survey with 104 participants in the city of Alexandria, Virginia revealed that using friends from social networks for LMD reduces delivery costs and emissions while ensuring reliable and faster service.
4.	Castillo *et al.* (2018)	177	Crowdsourcing last mile delivery: strategic implications and future research directions	Simulating same-day delivery services from a distribution centre in New York City found that crowdsourced delivery can strategically complement conventional delivery, where flexibility and responsiveness are important for dynamic urban delivery conditions.
5.	Alnaggar *et al.* (2021)	162	Crowdsourced delivery: A review of platforms and academic literature	A review of platforms and academic literature on crowdsourced delivery found that most studies overlook important operational decisions like driver scheduling, routing, and compensation
6.	Qi *et al.* (2018)	148	Shared mobility for last mile delivery: Design, operational prescriptions, and environmental impact.	The paper evaluated the impact of shared mobility of passenger cars in LMD, finding that it can create economic benefits by reducing the truck fleet size and exploiting additional operational flexibilities such as avoiding high-demand areas and peak hours.
7.	Gatta *et al.* (2018)	132	Public transport-based crowdshipping for sustainable city logistics: Assessing economic and environmental impacts.	An extensive stated preference survey and discrete choice modeling in the City of Rome were used to estimate willingness to buy crowdsourcing services and quantify potential demand, finding that older people are less interested.
8.	Gatta *et al.* (2019)	119	Sustainable urban freight transport adopting public transport-based crowdshipping for B2C deliveries	An extensive stated preference survey in the city of Rome to understand the potential of crowdsourcing as a freight transport strategy. It was found that the location of automated parcel lockers is the most relevant feature for potential crowd shippers.
9.	Frehe, Mehmann & Teuteberg (2017)	114	Understanding and assessing crowd logistics business models–using everyday	The paper evaluated the nature and characteristics of crowdsourcing business models in Europe. The study showed that crowdsourcing is a

			people for last mile delivery	complex issue influenced by economic, social, and technical factors.
10.	Gdowska, Viana & Pedroso (2018)	103	Stochastic last mile delivery with crowdshipping	The paper modelled occasional couriers' probabilistic task acceptance, reducing expected last mile delivery costs by approximately 9%.

DISCUSSION AND RECOMMENDATIONS

The results have revealed four key themes used in crowdsourcing in last mile delivery research: optimisation, sustainability, policy integration, and user acceptance. Most studies focus on refining last mile delivery systems through advanced algorithms, particularly in journals like *Transportation Research Part E*. The sustainability theme focuses on integrating public transport to reduce traffic congestion and emissions. Road congestion, air, and noise pollution are linked to increasing parcel volumes from online orders (Mogire, 2022; Mogire et *al.*, 2022; Puram *et al.*, 2022). The most productive authors, like *Pedroso J.* and *Gatta V.* highlight optimisation models and sustainable delivery solutions. The policy integration theme highlights how crowdsourcing can complement existing transportation infrastructures in urban areas. For instance, Seghezzi *et al*. (2021) indicated that a 'hybrid' crowd-sourcing model combines conventional e-commerce delivery vehicles with a group of occasional riders that deliver parcels in small quantities along their route at a fee. However, despite the importance of user acceptance and technological innovations (such as intelligent systems, algorithm, and blockchain), themes remain underexplored. While China and the USA lead research focusing on integrating advanced technologies into crowdsourcing in last mile delivery, there is a notable gap in Africa, South America, and Asian contributions, presenting an opportunity for future exploration. For instance, the implementation of crowdsourcing in Saudi Arabia faces legislative issues, driver availability, trust concerns, and cultural issues (Alharbi *et al.*, 2022).

The future research agenda will address gaps relevant to some key themes identified in the preceding paragraph.

- While the user acceptance theme is recognised as a key theme, it remains underexplored, particularly in Africa, South America, and Asia. Future research should focus on cultural dimensions of user trust, transparency, security, and willingness to participate in crowdsourcing.
- Current research predominantly concentrates on China, the USA, and some European countries. This leaves a significant gap in understanding how infrastructural limitations in underrepresented regions like Africa, South America, and Asia are underexplored. Future research can investigate how infrastructural challenges such as unreliable digital platforms and poor roads affect the feasibility of crowdsourcing in last mile delivery. In addition, future

research can examine how local labour laws, and data privacy regulations affect the uptake of crowdsourcing in last mile delivery.

- While the technological theme is emerging, current research indicates it predominantly concentrates in developed countries like China and the USA. This leaves a gap in Africa, South America, and Asia, as countries in these regions are not represented. Future research can explore the contextual applicability of emerging technologies like intelligent routing systems, blockchain, and dynamic programming in enabling crowdsourcing participation.

THEORETICAL AND MANAGERIAL IMPLICATIONS OF THE STUDY

This study highlights practical and theoretical implications for enhancing crowdsourcing in last mile delivery. Theoretically, the study presents a structured synthesis of four key themes on crowdsourcing in last mile delivery research. These include optimisation, sustainability, policy integration, and user acceptance. These identified themes provide a useful conceptual framework for interpreting current research and guiding future research directions on the topic. In addition, the study highlights regional variations in theoretical development. This highlights the importance of developing models tailored to specific infrastructural, regulatory, and cultural contexts in underrepresented regions.

The four themes identified in this review provide managers and policymakers with a comprehensive framework for designing and implementing context-specific crowdsourced last mile delivery systems that are efficient, environmentally responsible, policy-compliant, and user-centered. Without an integrated approach, crowdsourcing models in last-mile delivery may struggle to address local requirements. This can result in low adoption rates, operational inefficiencies, and reduced long-term sustainability, particularly in underrepresented regions.

LIMITATIONS OF THE STUDY

This review was limited to a potentially small sample size resulting from the novelty of the topic and the focus on the Scopus database. Future research should include additional databases such as Web of Science and ScienceDirect to include any relevant studies that were overlooked In addition, this review considered publications in English. To enhance the inclusivity and comprehensiveness of future research, non-English publications should be considered.

CONCLUSION

In conclusion, this bibliometric review highlights four key themes on existing research on crowdsourcing in last mile delivery: optimisation, sustainability, policy integration, and user acceptance. Despite their relevance, user acceptance and the role of emerging technologies

are still underexplored. Future research should focus on these gaps, especially in underrepresented regions, and examine how new technologies can build user trust and participation. This review provides a useful foundation for guiding research and practical design of more inclusive and efficient crowdsourced last mile delivery systems. However, it is limited by its focus on English-language studies and the Scopus database, which may have excluded relevant global insights.

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LEVERAGING INFORMAL INSTITUTIONS FOR VALUE CHAIN AGILITY IN SUB-SAHARAN AFRICA: EVIDENCE FROM THE COTTON INDUSTRY

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ABSTRACT

This study investigates the influence of informal institutions on industrial value chain capabilities within the cotton industry of sub-Saharan Africa. Using a quantitative survey design, data were collected from 238 stakeholders and analysed through structural equation modelling (SEM). The findings reveal that informal institutions significantly enhance relational and structural capital, fostering trust-based networks and resource integration. However, their impact on cognitive capital is comparatively weaker, suggesting the need for complementary formal mechanisms. By advancing social capital and value chain management discourse, this study provides actionable insights for policymakers and practitioners in sub-Saharan Africa to leverage informal relationships for improved industrial performance and resilience.

Keywords: Informal institutions; value chain capabilities; social capital; sub-Saharan Africa

INTRODUCTION

In the contemporary business landscape, characterised by increasing volatility, uncertainty, complexity, and ambiguity (VUCA), organisations encounter significant challenges, including supply chain disruptions, shifting market dynamics, and escalating demand for ecological and social responsibility. In this turbulent context, the capacity to navigate these challenges while simultaneously seizing new opportunities and ensuring a sustainable future is more critical than ever (Chatterjee & Chaudhuri, 2022; Godwin & Sorbarikor, 2022; Niesten et al., 2024). As global markets undergo transformation and the pace of change accelerates, organisations must adapt to an environment marked by unpredictable fluctuations, lack of clear information, interdependent issues, and outcomes that are often difficult to forecast (Woods, 2020). Both formal and informal institutions play a pivotal role in shaping this unpredictable environment, ultimately influencing the competitiveness of various markets, particularly in emerging economies where the dynamics can differ significantly from those in developed regions (Park, 2023; Xie et al., 2023; Liao & Wu, 2025).

Policymakers, practitioners, and researchers must understand how these institutions influence capabilities along firms' value chains. While much of the extant research has focused on formal institutions, such as laws, regulations, and trade policies, an expanding body of literature (e.g. Gereffi (2019), Gereffi et al. (2021), Gothár and Schanz (2024), and Li and Goerzen (2024) highlight the significant impact of informal institutions on the governance of industrial value chains. These unwritten rules, which include social norms, cultural values, and personal networks, can substantially affect value chain capabilities (VCCs) by fostering trust, promoting collaboration, and reducing transaction costs (Gereffi et al., 2005; Ritter, 2021; Mapanga, 2022; Teece, 2025). This finding is particularly crucial in resource-constrained environments in which informal relationships can facilitate smoother operations. Scholars such as Chan and Du (2022) and Dau et al. (2022) contend that informal institutions are vital to enhancing value chain agility and facilitating information flow across the value chain. Therefore, recognising the interplay between informal institutions and value chain capabilities is essential for driving competitiveness and supporting sustainable economic growth.

In sub-Saharan Africa, industrial value chains have considerable potential to stimulate economic growth. However, they encounter persistent challenges including inadequate infrastructure, limited access to finance, and susceptibility to global market fluctuations (Daniel, Fu and Dolfsma, 2018; Adegboye et al., 2020; Abreha et al., 2020; Abreha et al., 2021). Firms operating in this complex environment frequently struggle to develop and enhance their value chain capabilities (VCCs), adversely affecting their competitiveness and integration into global value chains. This issue is further compounded by the limited understanding of informal institutions' role in shaping VCCs. Although existing research has examined the effects of formal institutions, the influence of informal institutions remains underexplored. Empirical studies, for example, Erdogan and Acaravci (2022), indicate that informal institutions significantly affect economic outcomes in sub-Saharan Africa. For example, traditional authority systems have been shown to influence access to land and resources, while social norms often dictate interactions between businesses and government officials (Oniki et al., 2022). Given these dynamics, there is an urgent need to investigate how informal institutions affect firm VCCs in emerging markets within the SSA region.

This study investigates the influence of informal institutions on the configuration of firms' value chains in sub-Saharan Africa. Specifically, it explores the mechanisms through which these informal institutions affect value chain configurations by addressing the following objectives:

- To examine the influence of informal institutions on the structural and strategic configuration of industrial value chains in sub-Saharan Africa.

- To identify and analyse the mechanisms through which informal institutions shape firm-level decisions regarding value chain design, coordination, and governance.
- To evaluate the role of social capital dimensions (relational, structural, and cognitive) as mediating or moderating mechanisms in the relationship between informal institutions and value chain configuration.
- To assess the impact of informal institutional mechanisms on value chain outcomes such as resilience, adaptability, and agility across selected sub-Saharan African countries.
- To provide policy and managerial insights for enhancing value chain competitiveness and economic development through the strategic leveraging of informal institutions in emerging markets.

Analysing these mechanisms is crucial for providing policymakers, practitioners, and researchers with practical insights to promote economic development and enhance competitiveness in emerging markets. The structure of this paper is as follows. First, a review of the theoretical background and hypothesis development is presented, followed by a detailed description of the methodology. Subsequently, the results are analysed, and their implications for policy, practice, and future research within the industrial landscape of sub-Saharan Africa are discussed.

Literature review

Informal institutions, characterised by unwritten norms, trust-based relationships, and shared cultural practices (North, 1986), are pivotal in shaping value chain dynamics, particularly in contexts where formal institutions, such as contracts and legal frameworks, are weak or absent (Meagher, 2019). In such environments, informal mechanisms frequently substitute formal systems, facilitating collaboration, reducing transaction costs, and enabling resource sharing among value chain actors (Dau et al., 2022; Rahman & Aaneela, 2023). For example, informal networks and kinship ties have been demonstrated to support agricultural producers in fragile settings by providing access to markets, credit, and technical knowledge when formal systems fail (Hackman & Kramer, 2021). Moreover, informal institutions embedded within social networks are crucial for sustaining developing economies' production and distribution processes (Zaghmout, 2024).

Without robust formal institutions, value chains in sub-Saharan Africa (SSA) frequently depend on informal arrangements to coordinate activities among diverse stakeholders (De Brauw & Bulte, 2021). These arrangements often encompass trust-based relationships that facilitate collaboration and resource sharing, essential for overcoming systemic challenges. The industrial value chains in SSA operate in a complex environment shaped by structural,

functional, governance, and environmental factors (Abreha et al., 2021; Parrot et al., 2024). These elements significantly influence the resilience and adaptability of value chains to external shocks, particularly given SSA's unique characteristics such as reliance on agriculture, limited infrastructure, and underdeveloped technological capabilities. Challenges, including inadequate infrastructure, restricted access to finance, and vulnerability to global market fluctuations, impede performance and economic growth (Saka-Helmhout et al., 2020).

Furthermore, complex regulations and bureaucratic processes create barriers to entry and innovation (Kraemer-Mbula & Monaco, 2020). The limitations of SSA's industrial value chains necessitate a focus on resilience and adaptability for survival and growth through adaptive mechanisms. This approach enables informal institutions to provide essential support and flexibility for businesses to navigate adverse conditions (Dau et al., 2022).

Informal institutions contribute to the resilience and adaptability of industrial value chains by providing flexible solutions in response to complex regulatory environments, particularly in cross-border trade (Berrone et al., 2022). Organisations can navigate infrastructure and border challenges while engaging in informal markets in emerging African economies (Zhang, 2022). Although formal institutions may present obstacles, informal institutions rooted in local knowledge and trust-based relationships facilitate access to resources, information sharing, and skill development, which are essential for building resilience.

Enhancing manufacturing capabilities is crucial for improving value chain integration and overall economic progress in Sub-Saharan Africa (SSA). Informal institutions may play a significant role in fostering innovation and growth in this sector (Mustapha et al., 2022). The role of enterprise clusters in promoting industrialisation in Africa indicates that collective action and informal networks can significantly drive growth (Mustapha et al., 2020; Mustapha et al., 2022). Moreover, the pivotal role of small and medium-sized enterprises (SMEs) in economic development supports the argument that informal institutions can facilitate their integration into global value chains (McDermott & Pietrobelli, 2017).

Several theoretical frameworks can elucidate the multifaceted role of informal institutions in shaping industrial value chains within Sub-Saharan Africa. These frameworks offer complementary perspectives on how these institutions influence economic behaviour, resource access, and resilience in facing challenges.

New Institutional Economics

New Institutional Economics (NIE) (North, 1986; Williamson, 2000) provides a robust theoretical framework for analysing value chain performance by emphasising the role of institutions, governance structures, and transaction costs in shaping economic interactions. It recognises that formal institutional structures in developing economies, like those in SSA, are

often weak or ineffective (Adegboye et al., 2020). In such contexts, informal institutions such as traditional governance systems, social networks, and customary practices can fill these gaps and provide alternative mechanisms for contract enforcement, dispute resolution, and resource allocation (Daniel et al., 2018; Gereffi et al., 2021; Ponte et al., 2021). This observation aligns with the observations of Chan and Du (2022) and Saka-Helmhout et al. (2020), where informal institutions substitute for underdeveloped formal institutions, facilitating firm innovation when combined with firm-level resources.

Social Capital Theory

This framework emphasises the role of social networks and relationships in economic activities. In SSA, where formal institutions are often weak, social capital is crucial in fostering trust, facilitating access to information and resources, and enabling collective action (Davenport & Hassan, 2020). These networks can enhance the resilience of industrial value chains by enabling businesses to cope with shocks, share risk, and access critical resources. Dubey et al. (2018) further underscored the importance of social capital by highlighting the role of human agency in driving skill development within supply chains, a critical component of value-chain resilience. Dubey et al. (2018) analyse this connection within third-party logistics, offering potential insights applicable to other sectors within SSA.

Resource Dependence Theory

RDT highlights the dependence of organisations on external resources for their survival and growth. RDT is especially relevant in SSA, where firms often face resource constraints and institutional voids (Adegboye et al., 2020; Oniki et al., 2022). Informal institutions play a critical role in navigating resource dependence. For example, informal networks can facilitate access to finance, raw materials, and markets, enhancing a firm's adaptability and resilience in resource-scarce environments (Zaghmout, 2024). Informal institutions, particularly social networks, can reduce uncertainty and facilitate cooperation, effectively substituting weaker formal contract enforcement mechanisms. Nesbitt et al. (2024) indirectly explore the relationship between resource dependence and informal networks, showing how manufacturing SMEs leverage these networks for success.

Resilience Theory

The resilience theory provides a broader lens for understanding how systems, including industrial value chains, adapt to and recover from disruptions (Linkov et al., 2020; Gruchmann et al., 2024). Resilience theory emphasises the importance of diversity, redundancy, and feedback mechanisms in fostering resilience. In SSA, informal institutions contribute to value chain resilience by offering flexible and decentralised mechanisms to cope with shocks, learn

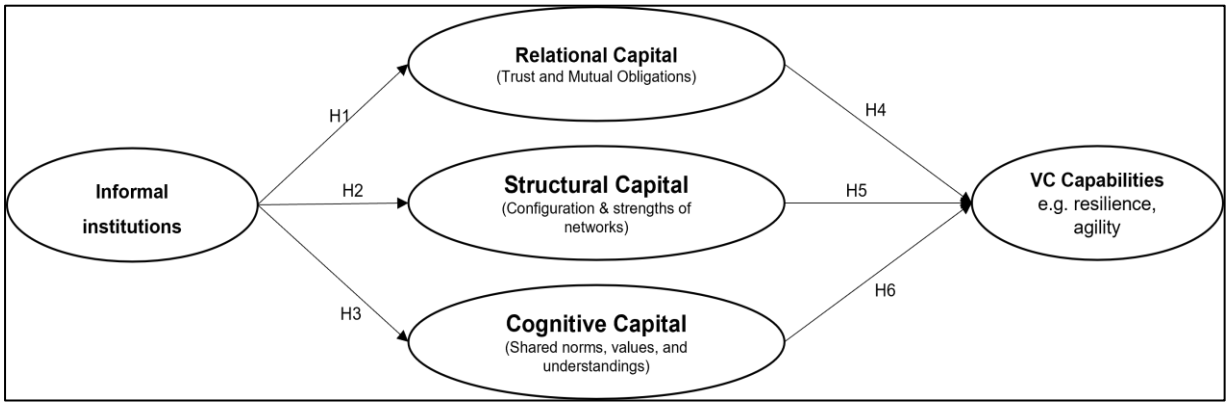
from experience, and adapt to changing conditions (Daghar et al., 2023). These informal institutions can enable knowledge sharing and innovation across business networks (McCormick, 1999), facilitating adaptation strategies within specific value chains in SSA. This adaptive capacity, highlighted by Tukamuhabwa, Mutebi, and Kwagala (2023), emphasises the need for decentralised responsive strategies that informal institutions often provide.

CONCEPTUAL FRAMEWORK

Conceptual Framework and Hypotheses Development

Based on this theoretical framework, a conceptual model (Figure 1) was developed to outline the relationships between informal institutions, relational capital, structural capital, cognitive capital, and value chain agility. This framework served as the foundation for this study and guided the formulation of the hypotheses to be tested.

FIGURE 1: CONCEPTUAL MODEL



Informal Institutions and Relational Capital

Informal institutions, including social norms and cultural practices, are critical enablers of trust-based collaboration in stakeholder networks. North's (1990) institutional theory emphasises that unwritten rules reduce transaction costs by establishing behavioural predictability in economic exchanges. Empirical studies indicate that organisations with substantial relational capital exhibit higher supply chain coordination efficiency than those that rely solely on transactional approaches (Nahapiet & Ghoshal, 1998; Ocicka & Wieteska, 2019; Saikouk et al., 2021; Pant et al., 2024). Three key mechanisms through which informal institutions enhance value chain dynamics are identified: shared cultural norms create implicit enforcement mechanisms that diminish the need for formal contracts, repeated cooperative interactions institutionalise knowledge-sharing routines, and these trust-based foundations propagate through the value chain hierarchy to enhance operational agility(Rahman & Zhang, 2021; Rahman & Aaneela, 2023). Thus, the following hypothesis is proposed:

H1: Informal institutions positively influence relational capital in industrial value chains.

Informal Institutions and Structural Capital

Building on earlier insights, informal institutions also shape structural capital by fostering trust and a shared understanding among stakeholders. North (1990) highlights that these institutions create norms that guide interactions and facilitate the development of structural capital by promoting collaboration and reducing transaction costs, as evidenced in global value chains(Barbero & Rodríguez-Crespo, 2019; Barbero & Rodríguez-Crespo, 2020). Moreover, informal institutions underpin social capital, critical for robust structural systems that enable efficient resource allocation and process standardisation (Scott, 2014; Kauppi & Luzzini, 2022; Nath et al., 2024). Enhancing structural capital via informal institutions is vital for firms aiming to improve their operational efficiency and adaptability within industrial value chains. Structural capital supports the following hypothesis:

H2: Informal institutions positively influence the structural capital within industrial value chains.

Informal institutions and cognitive capital

Informal institutions shape cognitive capital significantly by promoting trust and collaboration. North (1990) asserted that they create an environment conducive to knowledge exchange and reduce transaction costs. In global value chains, cognitive capital drives competitive advantage by facilitating high-value-added activities through innovation and collaboration (Byrum, 2021). Informal institutions support cognitive supply chains by legitimising collective learning and enhancing transparency, which are crucial for technological adaptation (Ortiz et al., 2020). Thus, the following hypothesis is proposed:

H3: Informal institutions do not positively influence cognitive capital in industrial value chains.

Relational capital represents trust, loyalty, and cooperation between firms and their partners(Qiao & Wieteska, 2019; Qiao & Wang, 2021). Relational capital enables organisations to build strong interpersonal connections that foster collaboration and reciprocity. Relational capital enhances VC capabilities in value chains by improving communication, reducing transaction costs, and facilitating resource-sharing. For example, trust-based relationships can lead to better stakeholder coordination, enabling faster decision making and smoother operations (Bolton et al., 2021). Additionally, relational capital supports knowledge sharing and joint problem solving, which are critical for adapting to dynamic market conditions (Walecka, 2021; Pant et al., 2024). Therefore:

H4: Relational capital positively influences VC capability.

Structural capital pertains to the network structure and connectivity among stakeholders, offering access to essential resources such as expertise, funding, and market insights, which are crucial for enhancing venture capital capabilities (Nahapiet & Ghoshal, 1998). Robust

network structures facilitate improved coordination and integration across the value chain, augmenting operational efficiency and responsiveness to market demands (Hackman & Kramer, 2021). For instance, firms possessing substantial structural capital can effectively leverage their networks to identify innovation opportunities or address bottlenecks in production processes (Zaghmout, 2024). Therefore:

H5: Structural capital positively influences VC capabilities.

Cognitive capital entails shared values, language, and understanding among the stakeholders in a value chain(Zirena-Bejarano et al., 2025). It fosters the alignment of goals and mutual understanding, essential for effective collaboration. Cognitive capital helps organisations create a unified vision for their operations, reduce conflicts, and enhance their strategic focus(Yang et al., 2024). For example, shared mental models among partners streamline decision-making processes and improve coordination in complex tasks(MacPherson & Duncan, 2022). Additionally, cognitive capital supports knowledge integration by aligning the interpretations of market trends and operational challenges(Daghar et al., 2023). This alignment strengthens the ability of value chains to adapt to changing environments and innovate effectively. Therefore:

H6: Cognitive capital positively influences VC capability.

Interconnections Among Forms of Capital

Relational, structural, and cognitive capital are interconnected dimensions that influence one another in value chains. Relational capital fosters trust-based networks and improves collaboration and communication, essential for developing structural capital through sustained interactions and shared norms (Nahapiet & Ghoshal, 1998). Structural capital enhances relational ties by facilitating the exchange of tacit knowledge (Amelia et al., 2024; Nahapiet & Ghoshal, 1998; Zirena-Bejarano et al., 2025). Cognitive capital drives shared goals and innovation capabilities, reinforcing relational trust (Bloom & Hinrichs, 2011; Claridge, 2020). These mutually reinforcing dimensions amplify their effects on value chain agility, leading to the following hypothesis:

H7: Relational capital mediates the relationship between informal institutions and value chain capabilities.

H8: Structural capital mediates the relationship between informal institutions and value chain agility.

H9: Cognitive capital mediates the relationship between informal institutions and value chain agility.

METHODS

Using a survey design, this study explored the relationships outlined in the conceptual framework. The target population comprises stakeholders within industrial value chains, including managers, supply chain professionals, and other relevant personnel across South Africa, Lesotho, Zambia, Zimbabwe, and Mozambique. A stratified random sampling method was employed to represent the various population segments within these countries adequately. The sample size of 238 respondents was deemed sufficient to achieve statistical power for generalisability (Krosnick, 2018). A structured questionnaire was used to capture data on informal institutions, relational, structural, and cognitive capital, as well as value chain resilience, adaptability, and agility. Respondents' perceptions and attitudes were measured using Likert-scale questions ranging from 1 (strongly disagree) to 5 (strongly agree) (Walliman, 2021). The author developed the questionnaire, guided by theoretical constructs and insights from existing literature on informal institutions and social capital in industrial value chains. While the structure and themes were informed by prior studies (e.g., Krosnick, 2018; Walliman, 2021; Hashim et al., 2022), the individual items were formulated independently to ensure contextual relevance to sub-Saharan Africa. Expert input from academics and practitioners was incorporated during the design phase to enhance validity.

To ensure clarity and reliability, the questionnaire was pretested with 12 individuals based in South Africa and Zimbabwe, selected for their familiarity with industrial value chains and informal institutional dynamics. These participants were excluded from the final survey to prevent bias or duplication. Feedback from the pretest led to several refinements: ambiguous wording in three questions was clarified, the layout was adjusted for improved readability on digital devices, and two Likert-scale items were rephrased to reduce interpretive overlap. This refinement process helped clearly define the information needed and motivated respondent participation, thereby minimising response errors and maximising data quality. While questionnaires offer simplicity and cost-effectiveness, potential non-response bias was considered during the analysis, and the implications of the chosen sampling method for generalisability were acknowledged (Hashim et al., 2022).

Data Collection

The validated questionnaire was electronically distributed to the selected respondents to ensure ease of access and to promote timely responses. Follow-up reminders were sent to maximise the response rate (Hashim et al., 2022). The data collection process was carefully monitored to ensure completeness and accuracy. Incomplete or inconsistent responses were identified and addressed through follow-up communication with respondents (Walliman, 2021). This rigorous approach aims to maintain data quality and minimise potential biases.

Detailed records of the data collection procedures were maintained, including information on respondent selection and data cleaning procedures, thus facilitating transparency and replicability (Colicev et al., 2018).

Data Analysis

The collected data were analysed using descriptive and inferential statistical techniques. Descriptive statistics summarise the basic dataset characteristics, including the mean, median, standard deviation, and frequency distributions (Fisher & Marshall, 2009). The reliability and validity of the measurement instruments were assessed using Cronbach's alpha and factor analysis (Walliman, 2021). Cronbach's alpha tested the internal consistency of the survey items, whereas factor analysis ensured construct validity (Qiao & Wang, 2021).

Inferential techniques, including correlation analysis, were applied to test the hypotheses from the conceptual framework (Lee, 2022). Multiple regression analysis assesses the impact of independent variables (e.g. relational and structural capital) on dependent variables (e.g. value chain resilience, adaptability, and agility) (Lee, 2022). Structural equation modelling tests hypothesised pathways and comprehensively explains the relationships among variables (Hoyle & Gottfredson, 2023). The results were interpreted in the context of existing literature and theoretical frameworks, providing insights into informal institutions' roles in enhancing value chain agility within industrial value chains. The data analysis process has been meticulously documented (Hoyle & Gottfredson, 2023), emphasising transparency and reproducibility in the research. This methodology aims to provide robust findings that contribute to the understanding of value chain dynamics and inform strategies for improving performance (Qiao & Wang, 2021).

FINDINGS

Based on the conceptual framework, SEM was used to evaluate direct and mediated effects within the proposed framework. Data were generated for 238 respondents in firms in the sub-Saharan Africa cotton value chain based on responses on a 5-point Likert scale to elucidate the interplay among the five constructs: informal institutions, relational capital, structural capital, cognitive capital, and value chain agility. Measurement validation involved assessing Cronbach's alpha for reliability and factor loadings for construct validity. The SEM model was estimated using maximum likelihood estimation, with mediation tested via indirect effects, following the approach of Baron and Kenny (1986). The model fit was evaluated using Hu and Bentler’s (1999) criteria (CFI, TLI ≥ 0.95, RMSEA ≤ 0.06). These results were supported by descriptive statistics reflecting the respondents' perceptions. Table 1 presents the descriptive statistics and reliability measures for the constructs examined in this study, with each construct

assessed for its mean value, standard deviation (SD), internal consistency (Cronbach's α), and factor loadings.

TABLE 1: DESCRIPTIVE STATISTICS AND RELIABILITY MEASURES

CONSTRUCT	MEAN	SD	CRONBACH'S ALPHA	FACTOR LOADINGS (RANGE)
Informal Institutions	4.06	0.688	0.811	0.71–0.86
Relational Capital	4.28	0.811	0.894	0.73–0.88
Structural Capital	4.01	0.708	0.873	0.72–0.85
Cognitive Capital	3.95	0.916	0.861	0.74–0.87
Value Chain Capabilities	4.41	0.800	0.903	0.76–0.90

Note: All scales are measured on a 5-point Likert scale (1=Strongly Disagree, 5=Strongly Agree).

As shown in Table 1, the dataset (N=238) exhibited robust psychometric properties across all the constructs. Internal consistency was strong, with Cronbach's alpha values exceeding 0.85 for all scales: relational capital (α=0.89) and structural capital (α=0.87). These values surpass the conventional threshold of 0.70, indicating reliable measurement (Hussey et al., 2025; Kilic, 2016; Kline, 2023). Exploratory factor analysis confirmed construct validity, with factor loadings ≥0.70 for all items used to measure the constructs, consistent with the tripartite social capital framework (Nahapiet & Ghoshal, 1998). These findings provide a solid foundation for hypothesis testing and structural equation modelling, which were subsequently applied to clarify how the identified constructs interact within the industrial value chains in Sub-Saharan Africa.

Hypothesis Testing

Regression analyses investigated the relationships between informal institutions, relational capital, structural capital, and cognitive and value chain capabilities. The results strongly supported all the proposed hypotheses, highlighting the importance of social and structural factors in shaping organisational capabilities. Hypothesis testing explored both the direct and indirect effects among informal institutions and relational, structural, cognitive, and value chain capabilities. The direct effects findings detailed in Table 2, supported by standardised regression coefficients (β), p-values, and coefficients of determination (R^2), confirm the significance of the factors in enhancing organisational performance.

TABLE 2: DIRECT EFFECTS: REGRESSION ANALYSIS RESULTS

Hypothesis	β	p-value	R^2	Outcome
H_1: Informal Inst. → Rel. Capital	0.480	<0.001	0.34	Supported
H_2: Informal Inst.→ Struct. Capital.	0.638	<0.001	0.40	Supported
H_3: Informal Inst. → Cog. Capital	0.291	0.003	0.18	Supported
H_4: Rel. Capital → VC Capabilities	0.556	<0.001	0.41	Supported

H_5: Struct. Capital → VC Capabilities	0.673	<0.001	0.45	Supported
H_6: Cog. Capital → VC Capabilities	0.184	0.020	0.12	Supported

*Note: **p<0.001, *p < 0.01.

As shown in Table 2, the first hypothesis (H1) posits that informal institutions positively influence relational capital. The results reveal a strong positive relationship (β = 0.480, p < 0.001), indicating that informal norms, such as trust and social networks, significantly foster relational capital. Notably, the model explained 34% of the variance in relational capital (R^2 = 0.34). Therefore, this finding suggests that an environment characterised by supportive informal institutions is fundamental for building strong relational ties within organisations, aligning with established social capital theories that highlight trust's role in enhancing collaboration (Nahapiet & Ghoshal, 1998).

Moving on to the second hypothesis (H2), which examines the impact of informal institutions on structural capital, the data indicate a robust positive effect (β = 0.638, p < 0.001). Here, 40% of the variance in structural capital was explained (R^2 = 0.40). This outcome supports the notion that informal institutions facilitate establishing organisational processes and systems, enhancing a firm's ability to manage its resources effectively (Meagher, 2019). This result reinforces the perspective that informal networks can enhance organisational structures.

In addition, Hypothesis 3 (H3) investigates whether informal institutions positively affect cognitive capital, and the results (β = 0.291, p = 0.003) confirm a significant relationship, with an R^2 of 0.18. However, this effect is notable but smaller than the relationships observed in H1 and H2. This finding indicates that informal institutions contribute to developing shared beliefs and knowledge bases within organisations, albeit to a lesser extent. This finding underscores the importance of informal contexts in fostering knowledge sharing, which is critical for innovation and learning within firms (Rahman & Aaneela, 2023).

Transitioning to the impact of relational capital on value chain capabilities, Hypothesis 4 (H4) finds a substantial positive effect (β = 0.556, p < 0.001), which explains 41% of the variance in value chain capabilities (R^2 = 0.41). This result emphasises that substantial relational capital is critical for enhancing a firm's ability to manage and optimise its value chain. Therefore, it highlights the significance of interpersonal relationships in achieving operational excellence, further corroborating the idea that collaboration is essential for effective resource allocation and performance (Qiao & Wang, 2021).

Hypothesis 5 (H5) assesses the relationship between structural capital and value chain capabilities, revealing a strong positive association (β = 0.673, p < 0.001), with 45% of the variance accounted for (R^2 = 0.45). This finding reinforces the idea that well-structured processes and systems are vital for effectively managing value chains, thus highlighting the

role of formal organisational frameworks in achieving operational efficiency (Teece, 2025). Such a strong effect suggests that companies with transparent processes are better positioned to respond to challenges in their value chain.

Finally, Hypothesis 6 (H6) explored the influence of cognitive capital on value chain capabilities. The results indicated a weaker yet significant relationship (β = 0.184, p = 0.020), with 12% of the variance explained (R^2 = 0.12). This finding suggests that shared knowledge and understanding contribute to value chain capabilities, but their impact is less pronounced than relational and structural capital. Also, this finding may reflect the complexity of translating cognitive assets into tangible outcomes in a dynamic environment (Daghar et al., 2023).

Indirect Effects Results

This study further examines the impact of institutional influence on various forms of capital and their relationship with value chain capabilities (VCC), producing results that align with the initial hypotheses. Structural equation modelling (SEM) was employed to explore the proposed mediation effects (H7–H9), focusing on the potential indirect pathways through which informal institutions affect value chain capabilities. Table 3 presents the resulting indirect effects.

TABLE 3: INDIRECT EFFECTS: MEDIATION ANALYSIS RESULTS

Hypothesis	Path	Indirect effect (β)	P- Value	Outcome
H_{a7}	Inf Inst→ Rel. Capital→ VCC	0.267	<0.001	Supported
H_{a8}	Inf Inst→ Str. Capital→ VCC	0.454	<0.001	Supported
H_{a9}	Inf Inst→ Cog. Capital→ VCC	0.184*	0.011	Supported

Note: ***p < 0.001, **p < 0.01, *p < 0.05.

The pathway from informal institutions (Inf Inst) to relational capital through Value chain capabilities (VCC) demonstrated a strong indirect effect (β = 0.267, p < 0.001). This significant result indicates that informal institutional influences foster the development of relational capital, which positively contributes to value co-creation. The findings suggest that organisations can enhance their VCC by leveraging the support and legitimacy afforded by institutional frameworks, thereby building strong relational ties.

For H8, the indirect effect of informal institutions on Structural Capital leading to VCC was even more pronounced, with an indirect effect of β = 0.454 (p < 0.001). This result highlights that informal institutions aid in forming relational ties and significantly enhance structural capital. Notably, structural capital, consisting of systems, processes, and organisational frameworks, facilitates value co-creation. Organisations that align their structural capabilities with institutional expectations will likely experience a robust increase in their capacity to create value.

Finally, Hypothesis H9 examines the pathway from informal Institutional Influence through Cognitive Capital to VCC, yielding an indirect effect of β = 0.184, with a p-value of 0.011. Although this result supports the proposed hypothesis, it indicates a comparatively minor impact compared to the other two types of social capital. This finding suggests that cognitive capital, encompassing shared beliefs, mental models, and organisational culture, benefits from institutional influence and contributes to VCC. Therefore, although this pathway remains significant, the strength of the effect underscores a potentially lower reliance on cognitive mechanisms compared to relational and structural aspects in the context of value co-creation.

Model fit analysis

Conducting a model fit analysis was essential to confirm the reliability and validity of the regression and SEM results. This process evaluates how our proposed model aligns with actual data. By employing significant fit indices, such as the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA), the model's capacity to explain and account for observed data patterns can be assessed. Model fit was evaluated using Hu and Bentler's (1999) criteria (CFI, TLI ≥ 0.95, RMSEA ≤ 0.06) to enhance confidence in the relationships identified through SEM. Thus, this process was a critical validation step to demonstrate whether the pathways suggested in our theoretical model were meaningful and consistent within the broader context of the study. Table 4 presents the fit model indices.

TABLE 4: MODEL FIT INDICES FOR STRUCTURAL EQUATION MODELLING ANALYSIS

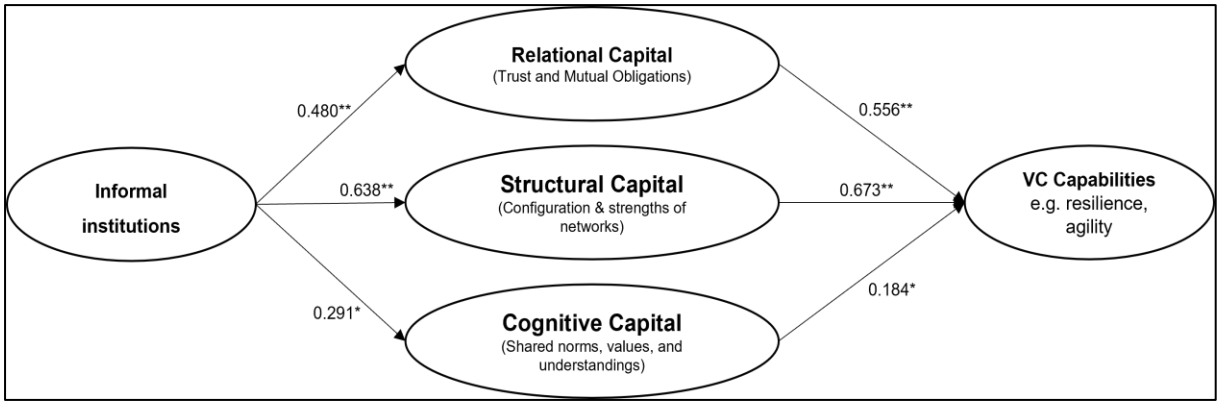
Fit Indices	Value
CFI	0.97
TLI	0.95
RMSEA (90% CI)	0.04 (0.03–0.06)

The model demonstrated excellent fit with the data, yielding the following indices: Comparative Fit Index (CFI) = 0.97, Tucker-Lewis Index (TLI) = 0.95, and Root Mean Square Error of Approximation (RMSEA) = 0.04 (90% CI: 0.03–0.06). These values satisfy Hu and Bentler's (1999) thresholds for a good model fit (CFI and TLI ≥ 0.95, RMSEA ≤ 0.06), indicating that the hypothesised structure accurately represents the underlying relationships. Table 3 presents the goodness-of-fit indices for the structural equation model (SEM) tested in this study, providing a quantitative assessment of how well the proposed framework aligns with the observed data. A Comparative Fit Index (CFI) of 0.97 indicates an excellent fit, as it exceeds the widely accepted threshold of 0.95, as proposed by Hu and Bentler (1999). This index suggests that the model accounts for 97% of the covariance among the variables relative to a null model, reflecting a high degree of structural validity. Similarly, the Tucker-Lewis Index

(TLI) of 0.95 meets the same 0.95 cutoff, reinforcing the model's robustness by comparing its fit to a baseline model while penalising for complexity.

The Root Mean Square Error of Approximation (RMSEA) was 0.04, with a 90% confidence interval of 0.03 to 0.06. This value falls below the stringent criterion of 0.06 (Hu & Bentler, 1999), indicating a close fit between the hypothesised model and data, with minimal residual error. The narrow confidence interval further supports the precision of this estimate, suggesting consistency across potential samples. These indices (CFI, TLI, and RMSEA) demonstrate that the SEM framework effectively captures the relationships between informal institutions, relational capital, structural capital, and adaptability. Compared to typical SEM studies in organisational research (e.g., Hair Jr et al., 2014), where fit indices often hover around 0.90–0.95, these results reflect a powerful model fit, lending confidence to the path analysis.

FIGURE 2: SEM PATH DIAGRAM



*Note: **p<0.001, *p < 0.01.

Figure 1 presents the structural equation model (SEM) as a path diagram, revealing a significant positive relationship between Informal Institutions and Relational Capital (β = 0.480, p < 0.01), suggesting that strong informal institutions, such as trust and shared values, facilitate the development of robust relational networks. This finding aligns with the work of Pant, Dutta, and Sarmah (2024), who found that informal relationships are crucial for fostering collaboration and knowledge sharing among supply chain members. Similarly, Sun and Zhang (2021) emphasised the role of trust in building strong relationships between supply chain partners. The model also demonstrates a strong positive relationship between Informal Institutions and Structural Capital (β = 0.638, p < 0.01), indicating that informal practices can significantly enhance an organisation’s capacity for structured resource integration and standardised processes. This finding supports Zaghmout’s (2024) argument that informal networks can help overcome bureaucratic hurdles and promote more efficient resource allocation. Finally, this study found a weaker, yet still notable, path from Informal Institutions

to Cognitive Capital (β = 0.291, p < 0.05). This finding suggests that while informal institutions contribute to shared understanding and collective cognition, their impact on these aspects is less pronounced than their influence on relational and structural capital. This finding is consistent with Tannenbaum, Mathieu, and Luciano (2024), who argued that cognitive capital is more strongly influenced by formal training and education programs than informal social interactions.

The model further illustrates the critical roles of relational and structural capital in enhancing Value Chain Capability. The path coefficient from Relational Capital to Value Chain Capability is 0.556 (p < 0.01), indicating that strong relational networks positively influence the efficiency and effectiveness of value chain activity. This relationship emphasises how collaboration and trust among stakeholders facilitate smooth operations and enhance firm performance. This finding is consistent with Yang et al. (2024), who highlight the importance of relational capital in fostering supply chain agility and responsiveness. They argue that strong relationships enable firms to adapt quickly to changing customer demands and market conditions. Similarly, Qiao and Wang (2021) and Pant et al. (2024) found that relational capital is positively associated with improved communication and coordination among supply chain partners, leading to enhanced operational efficiency.

Structural capital demonstrates an even stronger association with Value Chain Capability, with a path coefficient of 0.673 (p < 0.01). This high value suggests that well-established structures and processes within an organisation are essential for optimising value chain performance. The findings indicate that firms with robust structural capital are better positioned to execute their value chain activities effectively, underscoring the importance of formalised systems and frameworks in achieving operational excellence. This finding aligns with the work of Tekala et al. (2024), who emphasised the role of organisational structure in enabling efficient knowledge management and resource allocation. They find that firms with well-defined processes and clear lines of authority are better able to leverage their resources to create value. However, this finding contrasts with that of Dannenberg and Braun (2016), who suggested that excessive formalisation can stifle innovation and creativity within the value chain. This discrepancy may be due to the industry contexts examined in these two studies.

Finally, Cognitive Capital (CC) showed a modest pathway to Value Chain Capability, represented by a coefficient of 0.184. While this relationship is statistically significant, it indicates that the impact of cognitive resources such as shared knowledge and intelligence on value chain performance is less substantial than the influences exerted by relational and structural capital suggesting that that, while knowledge is vital, its direct application in enhancing value chain capabilities may require the support of other forms of capital to reach its full potential.

DISCUSSION

This study investigates the intricate impact of informal institutions on enhancing firms' value chain capabilities and fortifying industrial value chains in sub-Saharan Africa. Operating within an environment characterised by volatility, uncertainty, complexity, and ambiguity, these organisations can effectively capitalise on transient opportunities amidst dynamic challenges. The findings underscore the significant correlations between informal institutions and various forms of capital, namely, relational, structural, and cognitive capital, all of which are pivotal in shaping value chain capabilities.

The positive correlation between informal institutions and relational capital highlights the critical role of trust and shared values in fostering resilient networks within the value chains. This observation aligns with the perspectives of Pant et al. (2024) and Sun and Zhang (2021), who argue that nurturing informal relationships is essential for enhancing collaboration and facilitating knowledge sharing among supply chain participants. Organisations that cultivate robust relational ties are better equipped to respond to unforeseen challenges while capitalising on new opportunities in the contemporary business landscape. Furthermore, this study revealed that informal institutions significantly enhance structural capital. The high path coefficient indicates that informal norms are pivotal in resource integration and process standardisation, corroborating Zaghmout's (2024) assertion that informal networks are critical in circumventing bureaucratic obstacles in interorganizational relationships. This finding underscores the necessity of integrating informal institutions to establish more efficient organisational structures, enabling firms to adapt more nimbly to an evolving environment. While the influence of informal institutions on cognitive capital is evident, the lower impact suggests that shared understanding and collective cognition may be more significantly shaped by formal training and educational initiatives than through informal interactions alone. This nuance is supported by Tannenbaum et al. (2024), who emphasised the interplay between informal and formal mechanisms in fostering effective knowledge sharing in industrial value chains.

The implications of these findings are significant in both the theoretical and practical domains. They contribute substantially to the theoretical discourse on social capital and value chain management, reinforcing the tripartite social capital framework proposed by Nahapiet and Ghoshal (1998). The interaction between relational, structural, and cognitive capital suggests that a comprehensive approach is crucial for enhancing organisational performance. Notably, relational and structural capital have emerged as pivotal drivers of value chain capabilities, underscoring the importance of social networks and robust organisational frameworks for achieving operational excellence in complex environments. From a practical standpoint, the findings underscore the need to foster supportive informal institutional environments that

prioritise trust and collaboration within industrial value chains. Sub-Saharan African organisations should develop strategies to enhance informal stakeholder relationships, thereby effectively building relational and structural capital. By emphasising informal institutions, firms can improve their value chain capabilities and position to gain a competitive advantage in dynamic market conditions.

It is essential to recognise the limitations of this study. The analysis primarily emphasises quantitative metrics, which may neglect the qualitative complexities of informal institutions. Furthermore, the cross-sectional design limits the capacity to establish definitive causal relationships. Future research should incorporate longitudinal and mixed methods designs to understand the evolving dynamics involved comprehensively. Additional studies could investigate how contextual factors such as cultural, economic, and political environments affect the relationships identified in this research. Analysing these variables would yield more profound insights into the institutional mechanisms that facilitate or hinder value chain capabilities. Moreover, examining specific informal practices and their roles in enhancing various forms of capital would refine our understanding of the institutional influences shaping business performance in emerging markets.

CONCLUSION

This study underscores the pivotal role of informal institutions in enhancing firms' value chain capabilities in sub-Saharan Africa, particularly in complex and uncertain business environments. By leveraging relational, structural, and cognitive capital, organisations can adapt and innovate, bolstering their competitive edge. These findings emphasise the importance of fostering informal institutional environments prioritising trust and collaboration. Implementing strategies to cultivate stakeholder relationships is crucial for building resilient networks and robust structures that can effectively respond to market challenges.

However, several limitations must be acknowledged. First, the study's geographic scope was limited to five countries, namely, South Africa, Lesotho, Zambia, Zimbabwe, and Mozambique. While these countries offer diverse industrial contexts, the findings may not be fully generalisable to other sub-Saharan African regions or sectors beyond the cotton value chain. Second, the sample size of 238 respondents, although sufficient for exploratory analysis and structural equation modelling, may not provide robust statistical power for drawing definitive conclusions about broader regional dynamics. Third, the study's quantitative and cross-sectional design may overlook qualitative nuances and restrict causal inferences. Future research could benefit from longitudinal and mixed-method approaches, incorporating contextual factors and specific informal practices to deepen understanding of institutional influence in emerging markets.

Ultimately, this study offers significant opportunities for management research, providing pathways for organisations to navigate complexity and capture opportunities for sustainable growth and resilience.

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MEDIATING EFFECTS OF TRUST, INFORMATION QUALITY, AND SUPPLIER PARTNERSHIPS ON COMMITMENT AND PERFORMANCE WITHIN THE AUTOMOTIVE SUPPLY CHAIN

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ABSTRACT

The pandemic brought forth the delicateness of the existing automobile supply chain analytics, highlighting that resilience and transparency through digitisation and other agile procedures, such as supply chain collaboration, could pave way for automotive entities. The automotive industry is one of the biggest contributors in the manufacturing sector, contributing one-third within the domestic manufacturing sector. There are numerous difficulties that the South African automotive industries are concerned with, such as the long distance from their supporting networks of suppliers, causing longer lead times due to reliance on parts being delivered from all corners of the world. While supply chain strategy is regarded as a more resilient strategy for competitive advantages and business performance, this research supports that the success and sustainability of supply chain strategy depend on its buyer-supplier level of commitment, trust, quality information sharing and long-term partnership development. The research was quantitative. CFA and SEM were applied using partial least squares SMART-PLS version 3.0. The finding reveals that the mediating role and impact of buyer-supply trust, quality information sharing, and supplier partnership on supply chain performance are fundamental to the automobile industry in South Africa because they enable automobile managers to determine supply chain relationship strengths and weaknesses within interorganisational relationship activities, except that automobile managers tend to neglect the importance of trust in strengthening long-term collaboration.

Keywords: trust, quality information; supplier partnerships; commitment; supply chain performance; automotive industry; South Africa

INTRODUCTION AND BACKGROUND

South Africa is a developing country that recognises the potential to revamp the automotive industry in emerging economies. This has resulted in the development of attractive

automakers that are represented by car dealerships across the country's regions (Lamprecht 2018). Some of these automakers include BMW, Mercedes Benz South Africa, Toyota and Volkswagen in the Eastern Cape, Gauteng and KwaZulu-Natal Provinces (Wood 2021). As such, the need to compete effectively enhances the increasing need for collaborative relationships or partnerships within the South African automotive industry. A collaborative relationship is an agreement among competing organisations to enhance product, fiancé and information flow complexity.

In 2021, the South African automotive industry played a significant role, contributes 6.9% of GDP, 4.4% of manufacturing employment opportunities of 110000 individuals and contributes an estimated annual investment of R12.2 billion (Wood 2021). The automotive industry is one of the biggest contributors to the manufacturing sector, contributing one-third within the domestic manufacturing sector. The Industrial Policy Action Plan (IPAP) recognises the South African automotive industry as a critical sector contributing to various economic development constraints that are governed by multinational firms that are integrated within the value chain (The Department of Trade, Industry and Competition 2022). There are numerous difficulties that the South African automotive industries are concerned with, such as the long distance from their supporting networks of suppliers, causing longer lead times (Katiyar, Barua & Meena 2015). This is because the southern manufacturing plants are highly reliant on parts being delivered from all corners of the world.

Prior to the global pandemic, the automotive industry was already faced with numerous problems, such as environmental issues due to emissions and changing consumer requirements. Automakers had to deal with further issues as COVID-19 spread, like slumping car sales and political uncertainty (Nayak, Mishra, Naik, Swapnarekha, Cengiz & Shanmuganathan 2022). The attack has thus aggravated the existing challenges of the automotive industry, causing unprecedented uncertainty among market players. Automotive supply chains have faced more than disruption and disorganisation; they are now under additional pressure due to the bottleneck in semi-conductor manufacturing and the reinstatement of electric mobility (Burkacky, Deichmann, Pfingstag & Werra 2022). For instance, General Motors in January 2021 declared that it aimed to have a complete portfolio of zero-emission vehicles to sell by the end of 2035 (Boudette & Davenport 2021). The pandemic brought forth the delicateness of existing supply chain analytics, highlighting that resilience and transparency through digitisation and other agile procedures such as supply chain collaboration could pave way for automotive entities (Schliebener & Nickel 2021).

While supply chain strategy is regarded as a more resilient strategy for competitive advantages and business performance, this research supports that the success and sustainability of supply chain strategy to yield expected outcomes depends on its buyer-

supplier level of commitment, trust, quality information sharing and long-term partnership development. The question, therefore, was: what is the mediation impact of trust, quality information, and supplier partnerships in strengthening buyer-supplier commitment and supply chain performance within the South African automotive sector? This study aimed to:

- Examine the mediating role of buyer-supplier trust in the relationship between commitment and supplier partnerships.
- Assess the mediating effect of quality information sharing on the link between commitment and supplier partnerships.
- Investigate how supplier partnerships mediate the relationship between quality information sharing and supply chain performance.
- Evaluate the mediating role of supplier partnerships in the association between buyer-supplier trust and supply chain performance.
- Provide practical insights for automotive managers in South Africa into enhancing supply chain resilience through trust, information quality, and collaborative partnerships.

The theoretical background of this study was drawn from the commitment-trust theory. Commitment-trust theory is a traditional concept used to examine the power of conflicts in buyer-supplier collaboration (Friman, Garling, Millett, Mattsson, & Johnston, 2002). The main theory of this approach investigates the development of long-term successful partnerships among supply chain partners who are not power conscious (Wang, Wang & Liu 2016). Commitment and trust are crucial factors for the success of cooperative relationships between supply chain partners that lead the firm to achieve competitive advantage. The literature review of the research variables is presented in the next section.

SUPPLIER PARTNERSHIP

A supplier partnership is a long-term collaboration that is built between a firm and its suppliers (Orunfleh & Tarafdar 2013). Supplier partnership is influenced by strategic and operational capabilities in achieving significant ongoing operational benefits (Chicksand 2014). Successful supplier partnership facilitates a joint effort in creating value for the firms through efficient and effective flow of products, information and finance (Gallear *et al.,* 2014). Some dimensional benefits of supply chain collaboration are characterised as but unlimited to information exchange, innovation and process efficiency.

QUALITY OF INFORMATION

Quality information sharing is the extent to which information is shared or communicated in a timely, complete, accurate and reliable manner among the supply chain partners (Seppanen & Virrantaus 2015). The usefulness of the information shared across the supply chain is very

important because it reduces the risks associated with inventory management. Afshan and Chatterjee (2017) state that the quality of information sharing plays an important role in terms of judging the firm's overall supply chain performance. Dimensions of quality information are connectivity and willingness. Supply chain connectivity generates the willingness and ability to share quality information to build long-term partnerships. Supply chain readiness influences supplier collaborations in knowledge sharing, which is useful in social networks for the development of information sharing management, thereby opening opportunities for innovation (Zhao, Zhu, Peng, Xu & Liu 2018). Willingness towards knowledge sharing leads to innovation in strategic communication channels that analyse supply chain partners committed to information sharing, which is critical in the development phase of identifying new opportunity trends and reducing costs for end-users to achieve a competitive advantage.

COMMITMENT

Commitment is a key factor in the exchange of supplier partners who intend to build sustainable and long-term partnerships that are important in maximising the firm's full production power. Bouraoui, Bensemmane, Ohana and Russo (2018) state that commitment is associated either with the firm's or supplier's desire to present the willingness to integrate to enhance effective operational performance. Therefore, commitment identifies the importance of achieving positive operational outcomes, which maximise the effort to maintain and develop attributes that enhance the central relationships amongst supply chain partners. Commitment is the inclination of strategic alliances that direct their efforts towards building long-term partnerships to achieve collaborative benefits as well as operational performance (Wahyudi 2014). It is the willingness of an individual to contribute to the firm's operational performance.

TRUST

Trust refers to supply chain partners gathering, exchanging and improving operational resources through supply chain collaborations, affecting firms' supply chain positively (Uca, Cemberci & Civelek 2017). Trust positively contributes to the buyer-supplier capabilities that participate in the development of building sustainable collaborations that ensure successful operational performance (Tuan 2016). It is an indicator that analyses the performance of relationships required to produce outcomes that enhance efficiency and effectiveness within the supply chain (Ryciuk 2017). Therefore, trust is a critical factor in the collaboration of partnerships that promotes the chance to improve the ability of supply chain partners to identify risks through financial and operational measures that may achieve competitive advantage.

SUPPLY CHAIN PERFORMANCE

Supply chain performance is an operational measure that improves supplier collaborations as well as communication of information, which results in successful participation of supply chain partners (Whitten, Green & Zelbst 2012). A successful supply chain is measured through quality information shared and the level of commitment and trust among supply chain partners that creates opportunity and reduces uncertainty to ensure the firm experiences value-added performance (Dhaigude & Kapoor 2017). Therefore, supply chain partners recognise the role of trust and commitment in sharing quality information and knowledge for the efficiency and responsiveness of a particular supply chain. From the above reviews, the following research hypotheses were proposed:

H_1: Buyer-supply trust mediates the relationship between commitment and the development of a supplier partnership

H_2: The quality of the information shared mediates the relationship between commitment and supplier partnership

H_3: Supplier partnership mediates the relationship between quality of information shared and supply chain performance

H_4: The supplier partnership mediates the relationship between buyer-supplier trust and supply chain performance

RESEARCH METHODOLOGY AND DESIGN

Through a Cross-sectional survey design, the study used a quantitative method of data collection and analysis. In a five-point Likert scale (1-strongly disagree to 5-strongly agree), the structured questionnaire was divided into six sections. Section A measured the demographic information of the respondents; Section B measured supplier partnership; Section C measured the quality of information sharing; Section D measured commitment; Section E measured trust, while Section F measured supply chain performance. All measurement items were adapted from studies by several scholars (Li, Ragu-Nathan, Ragu-Nathan & Rao 2006; Smith *et al.,* 2014; Sindhuja 2014; and Mani *et al.,* 2017).

STATISTICAL ANALYSIS

From the collected data, an analysis initiates the coding of the data from the questionnaire into a Microsoft Excel spreadsheet. Data analysis was conducted using descriptive statistics that used the Statistical Package for Social Sciences (SPSS), version 25 software. Confirmatory factor analysis (CFA) was conducted to determine the psychometric properties

of the measurement scales. Structural equation modelling (SEM) was used to verify the hypotheses. The SEM proves and verifies any theoretical linkages of the anticipated study including the importance of the relationship between the identified variables (Hair 2010:20). Manually, both techniques, CFA and SEM, were applied using partial least squares SMART-PLS version 3.0.

DEMOGRAPHICAL DESCRIPTION

Out of the 127 respondents, 61% are male and 39% are female. In terms of age groups, about 17% were aged between 18-25, 35% were aged between 26-35, 32% were aged between 36-45, 11% were aged between 46-55, while 5% were aged between 56 and older. A majority of graduates enter the job market as interns, rotating through different departments to gain work experience. By this, the age group of 26-35 is either in internships or learnerships, thus roaming between various departments. About 16% have obtained a Matriculation, 17% have obtained a Certificate, 40% are Diploma holders, and 20% have Degrees. This suggests that most employees in the automotive industry are qualified, and it is essential for them to hold a qualification due to the processes and procedures that ensure every product distributed to customers is of high quality, thereby protecting their safety.

RELIABILITY AND VALIDITY

Cronbach alpha coefficient and composite reliability value were used. The acceptable Cronbach alpha coefficient should be greater than 0.70 (Iyigun, Kirmizigil, Angin, Oksuz, Can & Eker 2018:41). There are two types of validity ascertained in the study: convergent and discriminant validity. The inter-construct correlations matrix of the research variables was used to determine the discriminant validity, and convergent validity was determined using the factor loadings (Zhou, Shi, Gao, Liang & Wang 2018).

TABLE 1: INTERNAL CONSISTENCY MEASURES

Research construct	Indicators	Descriptive statistics		Reliability statistics			Validity statistics	
		Mean ($\bar{x}$)	SD	Alpha (α)	Rho	CR	AVE	Factor loading
Supplier partnership	SSP1	3.920	1.111	0.886	0.914	0.912	0.636	0.817
	SSP2	3.940	0.925					0.898
	SSP3	4.040	0.848					0.873
	SSP4	3.880	0.972					0.723
	SSP5	3.960	0.916					0.767
	SSP6	4.060	0.925					0.695

Quality of information sharing	QIS1	4.140	1.000	0.886	0.900	0.911	0.595	0.747
	QIS2	4.080	0.977					0.832
	QIS3	4.180	0.712					0.848
	QIS4	4.180	0.817					0.766
	QIS5	4.160	0.833					0.615
	QIS6	4.000	0.800					0.790
	QIS7	4.040	0.848					0.776
Commitment	COM1	4.040	0.871	0.905	0.917	0.924	0.605	0.663
	COM2	4.080	0.821					0.788
	COM3	4.000	0.849					0.645
	COM4	3.920	1.017					0.747
	COM5	4.040	0.848					0.857
	COM6	4.080	0.796					0.778
	COM7	3.960	0.937					0.862
	COM8	4.080	0.821					0.844
Trust	TRU1	3.340	1.070	0.834	0.839	0.889	0.668	0.705
	TRU2	3.520	0.943					0.759
	TRU3	3.800	0.721					0.862
	TRU4	3.960	0.662					0.846
	TRU5	3.880	0.909					0.678
Supply chain performance	SCP1	4.040	0.894	0.929	0.955	0.943	0.704	0.672
	SCP2	3.900	0.943					0.835
	SCP3	4.120	0.791					0.859
	SCP4	4.140	0.775					0.870
	SCP5	4.000	1.000					0.840
	SCP6	4.020	1.049					0.882
	SCP7	4.080	0.935					0.904

Note: Alpha (α)=Cronbach's alpha; CR=Composite reliability; AVE=Average variance

Sources: Own source

As indicated in Table 1, Cronbach alpha values for all the research variables are acceptable because they are greater than 0.6 (Taber 2018). Cronbach alpha results and the factor loadings validate the reliability of measures used in this study. The results specify that all the composite reliability values (CR) exceeded the threshold of 0.7 recommended in the study (Tsai & Huang 2007). The average variance extracted (AVE) and Factor loading value with a higher score of 0.50 and above represent the measuring construct and are treated as an indication of convergent validity. As indicated, both AVE and factor loading values are greater than the required threshold of 0.5, meaning that all constructs achieved the minimum acceptable value. To ensure that there is discriminant validity, the correlation between the research constructs should be less than 1.0. As indicated in Table 2, the inter-correlation values for all paired latent variables are less than 1.0, indicating that a discriminant validity exists.

TABLE 2: DISCRIMINANT VALIDITY

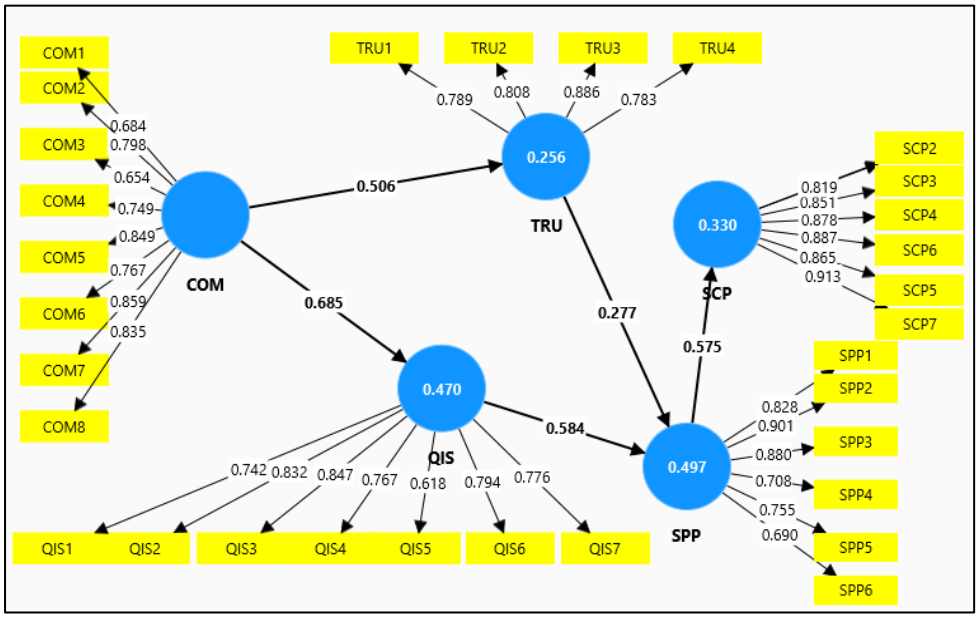
	COM	**QIS**	**SCP**	**SPP**	**TRU**
COM	√ **0.778**				
QIS	0.685	√ **0.771**			

SCP	0.465	0.419	√ **0.839**		
SPP	0.687	0.652	0.575	√ **0.798**	
TRU	0.506	0.245	0.401	0.420	√ **0.818**

Note: COM-commitment, TRU-trust, SPP-supplier partnership, QIS- quality information sharing, SCP-supply chain performance

Sources: Own source

FIGURE 1: PATH MODEL



Sources: Own source

TABLE 3: PROPOSED RELATIONSHIP OUTCOME

Proposed path relationship	Hypothesis	Path Coefficient (β)	T-Value	P-Value	Outcome
COM-TRU (Total/direct effect)	H1 (+)	0.506	4.186	0.000	Supported
COM-TRU-SPP (Indirect effect)		0.140	2.673	0.008	Supported
COM-QIS (Total/direct effect)	H2 (+)	0.685	6.958	0.000	supported
COM-QIS-SPP (Indirect effect)		0.400	4.640	0.000	Supported
QIS-SPP (Total/direct effect)	H3 (+)	0.584	6.646	0.000	Supported
QIS-SPP-SCP (Indirect effect)		0.336	4.149	0.000	Supported

TRU-SPP (Total/direct effect)	H4 (+)	0.277	3.619	0.000	Supported
TRU-SPP-SCP (Indirect effect)		0.159	2.598	0.009	Supported

Note: COM-commitment, TRU-trust, SPP-supplier partnership, QIS- quality information sharing, SCP-supply chain performance. **Sources**: Own source

DISCUSSIONS

Hypothesis one assessed the mediation role of TRU in the relationship between COM and SPP. The results in Table 3 and Figure 1, revealed a significant indirect effect of COM and SPP through TRU (β = 0.140, t = 2.673, p = 0.008). The total effect of COM on SPP with the inclusion or presence of the mediating variable was significant (β = 0.506, t = 4.186, p = 0.000). This shows a complementary partial mediating role of TRU in the relationship between COM and SPP. As such, objective one is supported. The supply chain relationship among organisations, especially within the automobile industry, has been sreemphasised as important to overcome uncertainties in the emerging market environment. The success of the supply chain depends on the commitment of its members to value creation and fostering a sustainable, long-term relationship. However, trust plays an important role as the mediator through which commitment and long-term partnership can be developed. This may be due to the high complexity, cost, and dependency within the automotive industry (Argwal & Narayana 2020). In this case, trust can lead to commitment to the buyer-supplier relationship and predictable risk-sharing ventures, as well as continuous improvement alongside the overall performance of the supply chain (Ahmad & Huvila 2019).

Hypothesis two analyses the mediation role of QIS in the relationship between COM and SPP. The results in Table 3 and Figure 1 revealed a significant indirect effect of COM and SPP through QIS (β = 0.400, t = 4.640, p = 0.000). The total effect of COM on SPP was significant (β = 0.685, t = 6.958, p = 0.000). This shows that the relationship between COM and SPP is fully mediated by QIS. Commitment maintains a valued partnership over time, often involving the willingness to invest in innovative supply chain activities to maintain sustainable supply chain performance (Mungra *et al.,* 2019). According to Sener, Barut, Dag and Yildirim (2021), committed supply chain partners tend to invest more in quality and transparent information sharing within the supply chain, while encouraging proactive responses and agile supply chains (Zhong, Lai, Guo & Tang 2020). The quality of the information shared suggests that commitment is conveyed through the information shared, which strengthens the supply chain partners and reinforces collaborative behaviour within the

automotive industry. High levels of commitment lead to improved quality information shared across a supply chain for competitive performance (Zhong *et al.,* 2020).

Hypothesis three investigates the mediating role of SPP in the relationship between QIS and SCP. The results in Table 3 and Figure 1 revealed a significant indirect positive effect of QIS and SCP through SPP (β = 0.336, t = 4.149, p = 0.000). The total effect of QIS on SCP was significant (β = 0.584, t = 6.646, p = 0.000). This shows a complementary mediating role for SPP in the relationship between QIS and SCP. As such, objective three is supported. The supplier partnership is strengthened by or influenced by the quality of information shared within the automotive industry in South Africa. According to Kankam, Kyeremeh, Som and Charnor (2023), accurate, timely, and relevant information exchange between supply chain partners can foster strong and better buyer-supplier collaboration, leading to more efficient and effective supply chain performance outcomes. Supplier partnership plays an important role in the automotive industry, because it identifies the importance of reducing operational performance costs while strengthening the firm's competitive position. It also improves the level of communication between partners by sharing quality information with trusted and committed suppliers.

Hypothesis four assessed the mediating role of SPP in the relationship between TRU and SCP. The results in Table 3 and Figure 1 revealed a significant indirect effect of TRU and SCP through SPP (β = 0.159, t = 2.598, p = 0.009). The total effect of TRU on SCP was significant (β = 0.277, t = 3.619, p = 0.000). This shows that the relationship between TRU and SCP is fully mediated by SCP. Trust enables supplier partnerships to believe that other supply chain partners will act in good faith, fulfil the required obligations within supply chain activities, and not exploit their vulnerabilities (Ngouapegne & Chinomona 2018). This means that trust strengthens the long and sustainable buyer-supplier partnership, which further enhances supply chain performance. Supplier partnerships are long-term collaborations between firms and their suppliers that influence operational capabilities that help them achieve significant ongoing operational profits. It is a strategic coalition of two or more organisations that facilitates a joint effort in creating value through activities such as product development, manufacturing, and distribution (Katiyar, Meena, Barua, Tibrewala & Kumar, 2018). Therefore, supplier collaborations are dependent on relationships that are marked by trust and long-term commitment to supply chain performance. The research findings validate the commitment-trust relationship theory, indicating that the stronghold of supplier alliances and supply chain performance is highly characterised by the success of buyer-supplier commitment, trustworthiness, quality information sharing and long-term supplier partnership.

CONCLUSION AND RECOMMENDATIONS

The research aims to evaluate the relationship between trust mediation, quality information, and supplier partnerships between buyer-supplier commitment and supply chain performance. As such, the study contributes important information, especially as the market environment has become more ambiguous, complex, volatile, and uncertain. Theoretically, the research reinforces buyer-supplier trust, commitment, and information sharing as a key resilience strategy to improve the supply chain network among the automobile industry. Practically, the mediating role and impact of buyer-supplier trust, quality information sharing, and supplier partnership on supply chain performance are fundamental to the automobile industry in South Africa because they enable automobile managers to determine the strengths and weaknesses of the supply chain relationship within interorganisational relationship activities. The conceptual model provides useful information, as the mediation effect among the research variables is more impactful than the direct relationship between the research variables. It is important for managers within the automobile industry to note the lower trust mediation path coefficients (0.140) in hypothesis 1. This result indicates that the trust between the buyer and the supplier within the automobile industry still needs improvement. Managers within this industry tend to dedicate their supply chain relationship capabilities to improving quality information sharing towards more improvement on supplier partnerships and supply chain performance, neglecting the importance of trust in strengthening long-term collaboration. Building trust can be achieved through the assurance of consistency, transparency, supplier development, and joint planning. Additionally, current research highlights that supplier partnerships are scharacterised by multiple dimensions, affected by elements such as commitment, trust, and the quality of information exchange (Jang & Lee 2022; Rungsithong & Meyer 2024). As previously mentioned, commitment arises from a readiness to implement cooperative strategies, whereas trust enhances transparency to lower potential risks, ensuring enduring collaborations between supply chain partners. High-quality information sharing guarantees accuracy, timeliness, and dependability, which are crucial for partnerships, fostering innovations and aligning operations. These aspects significantly determine the robustness and effectiveness of supplier partnerships, which can result in enhanced supply chain performance that is more agile, efficient, and reduces uncertainty.

The study's limited scope to one province, Gauteng, can be viewed as a disadvantage, as assessing the performance of a supply chain typically requires a wider geographic scope. A substantial expansion of the scope to at least two provinces would have yielded a more informative reading of the results. Furthermore, the lack of monitoring during the completion process of the questionnaires is also a limitation. It would be fitting if the researcher could guide the respondents through the questions presented to give them a holistic understanding

of the sentences and obtain honest feedback from the respondents. One of the best alternatives is to adopt a mixed-methods approach, in which respondents can be interviewed, which can be time-consuming but still provides more reliable results than responding to an extensive questionnaire.

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MODELLING THE EFFECT OF SUPPLIERS' AND CUSTOMERS' COOPERATION ON GREEN PERFORMANCE IN MANUFACTURING COMPANIES OF SOUTH AFRICA

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ABSTRACT

This research explored the effect of suppliers' and customers' cooperation on green performance within the manufacturing industry of South Africa. A quantitative approach was applied through Statistical package for Social Science (version 28.0) and SMART PLS (version 3.0). The study utilised confirmatory factor analysis and structural equation modelling to analyse survey data from 450 questionnaires from manufacturing organisations. The results revealed that supplier cooperation (SC) and customer cooperation (CC) have a positive and significant effect on green economic performance (GEP) and green environmental performance (GVP). In addition, SC has the strongest effect on GEP and GVP. This paper represents a novel area of research that highlights the importance of suppliers' and customers' cooperation in influencing GEP and GVP in South Africa. Additionally, it contributes to understanding the impact of Resource Dependence Theory (RDT) on suppliers and customers' cooperation, which in turn promotes green performance in the industry.

Keywords: suppliers; customers; green performance; Resource dependence theory; manufacturing industry; South Africa

INTRODUCTION

The significance of implementing green supply chain management (GSCM) practices arises from inadequate environmental performance. Many modern businesses attempt to incorporate GSCM practices throughout the supply chain with the aim of creating a positive organisational reputation and image while minimising negative environmental effects (Khan, Ali, Khattak, Arfeen, Chaudhary & Syed 2024). The concept of GSCM involves integrating environmental safety measures extensively into the supply chain management process. Implementing GSCM involves developing a strategy that integrates environmental standards, like ISO 14000, and contemporary theories, such as lean theory, to prioritise economic and environmental concerns (Abbas & Tong 2023). This allows organisations to tackle environmental issues

effectively without incurring additional expenses (Ahmad, Ikram, Rehan & Ahmad 2022). The early adoption of GSCM enhances market competitiveness by integrating green practices in the supply chain. Global stakeholders, including Brazil, America, France, Pakistan, and South Africa, increasingly focus on environmental issues. This study explored GCSM techniques' effects on South Africa's manufacturing green performance, guiding managers on the green supply chain's benefits and functions.

The rest of the paper proceeded as follows: problem statement, literature review and methodology. The results are presented together with the discussion. The conclusion and implications are given in the last section.

PROBLEM STATEMENT

Manufacturing organisations should secure GSCM competence and cooperate with partners to enhance green performance and supply chain practices, addressing environmental issues while improving their reputation and achieving GSCM goals, which remains an open agenda for many countries. Research on the impact of GSCM on operational, financial, social, environmental, and economic performance has been inconsistent. Some studies suggest that GSCM practices like green purchasing, distribution, manufacturing, and reverse logistics positively impact green environmental performance (Nazir, Zhaolei, Mehmood & Nazir 2024), while supplier cooperation positively impacts social performance (Phonthanukitithaworn, Srisathan, Worakittikul, Inthachack, Pancha & Naruetharadhol 2024). However, organisations struggle to defend the impact of GSCM on green performance due to insufficient conclusive data. To address the aforementioned research gaps, this study sought to investigate the effect of GSCM through cooperation with suppliers and customers, as well as green performance within the manufacturing sector of South Africa, framed within the context of resource dependence theory. It presents a novel perspective for the manufacturing industry in South Africa, providing opportunities for manufacturing firms to enhance their competitiveness and add value to their supply chains.

LITERATURE REVIEW

This section reviews literature on the research variables and also the theory used in the study.

Resource dependence theory

Resource dependence theory (RDT), developed by Jeffrey Pfeffer and Gerald Salancik in 1978, suggests that businesses mutually depend on other companies for essential resources (Dieleman & Widjaja 2019). This theory emphasises the importance of resources for industry existence and survival (Janse 2020). No company can survive alone, and a lack of resources can necessitate reliance on other companies (Onah & Gabriel 2019). The concept of

reciprocity further demonstrates mutual dependency between companies. In other words, RDT highlights the importance of companies acquiring resources to maintain their presence and gain a competitive advantage in the marketplace, considering external resources and other companies' costs.

This theory (RDT) highlights the importance of cooperation among manufacturers and other parties, such as customers and suppliers, in accessing resources within their operating environment (Lai, Wong, & Lam 2015). Additionally, Lai et al. (2015) say that because of the RDT, partners in the supply chain should be dependent and cooperate to develop long-term performance rather than look for short-term profits at the cost of partner firms. These authors add that the RDT posits that supply chain partners are incapable of being autonomous and need to depend on resources from outside parties to survive and remain competitive. On the other hand, Abu-Mahfouz (2019) suggests that while RDT suppliers can manage ecological dependencies and resources, companies should adapt internal procedures and offer new services to maintain relationships with these suppliers. Wolf (2014) argues that RDT enhances manufacturers' environmental and economic performance by understanding the roles of suppliers and customers through GSCM, highlighting their interdependencies.

Green supply chain management

The idea of green supply chain management was first presented in the early 1990s; it really took off in the year 2000, as shown by a notable increase in scientific publications on the subject (Tseng, Islam, Karia, Fauzi & Afrin 2019). GSCM is a development of supply chain management, which uses the same traditional concept but adds an environmental component to increase the environmental performance of products and services (Abbas & Tong 2023). In other words, GSCM describes how environmental factors are integrated into every stage of the supply chain, including product design, material sourcing, manufacturing processes, product delivery, and post-use product management and consumer use, and disposal (Alkandi, Alhajri & Alnajim 2025).

According to Feng, Qamruzzaman, Sharmin and Karim (2024), GSCM is not only regarded as a way to protect the environment but also as a valuable and possible way to advance, gain a competitive edge, and improve an organisation's economic performance. Through a number of channels, GSCM can greatly improve overall business performance. By improving resource efficiency and reducing waste, environmentally friendly practices reduce expenses (García Alcaraz, Díaz Reza, Arredondo Soto, Hernández Escobedo, Happonen, Rita Puig & Jiménez Macías 2022). For instance, waste reduction initiatives can reduce disposal costs, and energy-efficient procedures and materials can reduce utility bills. For Hariyani, Hariyani, Mishra and Sharma (2024), organisations demonstrating environmental responsibility attract

stakeholders, enhancing market share, customer loyalty, and profitability through green practices.

Cooperation with suppliers

Yang, Liu and Kholaif (2023), define suppliers cooperation as establishing a working affiliation with a supplier firm, whereby two firms behave like one. In other words, Cooperation with suppliers is an interactive activity between partners aimed at achieving conjointly and compatible objectives. In the view of Hariyani et al. (2024), cooperation with suppliers ensures alignment with organisational green goals and shared commitment to green objectives. For Sundus and Salma (2023), cooperation with suppliers involves providing design specifications and informing them about the benefits of cleaner production, thereby creating products with biodegradable materials that enhance the green environment of supply chains. Following the same line of thought, Asif et al. (2020) state that cooperation between businesses and their suppliers is essential for the successful adoption of green practices throughout the supply chain. This leads to a shared objective of process improvement is developed as a result of cooperation between the different supply chain entities. Cooperation with suppliers enables the achievement of improvements in environmental performance while maintaining product quality and cost goals by making purchases that take environmental issues into account and utilise resources as efficiently as possible. The improvement of green performance is directly impacted by environmental cooperation with the suppliers (Li et al., 2020).

Cooperation with customers

Cooperation with customers involves a firm's efforts to improve eco-products, adopt eco-friendly manufacturing processes, and use green packaging materials by incorporating customer feedback and technical information exchange (Abdallah & Al-Ghwayeen 2020).

A study conducted by Khan, Ali, SKhattak, Irfanullah, Arfeen, Chaudhary and Syed (2024) shows that cooperation with customers entails encouraging and involving them in GSCM practices, activities, and processes through their input. Through this, manufacturers require each participating party to make an active contribution in some way throughout the life cycle of a cooperative effort (Mejia-Giraldo & Paredes 2023). The aim of this cooperation is to work together with customers to achieve green goals that lead to environmentally friendly goods and services. Moreover, cooperation with customers is essentially a reciprocal back-and-forth process. In the view of Burki, Ersoy and Najam (2019), cooperation with customers influences supply chain professionals to accept and implement green practices; as a result, this approach would help diminish the negative effects of supply chain actions on the surrounding areas. Cooperation with customers enhances the GSCM in organisations, which consequently increases the efficiency and green performance of firms. For Zhou, Yang and Zhou (2021),

cooperation with customers is a method of learning and knowledge interpretation at the firm level, occurring before or during the production of goods, modification of strategies, and specific processes across different activity areas. It is important for management to indulge all the stakeholders, particularly customers, to promote GSCM practices in a company (Ahmad, Ikram, Rehan & Ahmad 2022).

Green environmental performance

Green environmental performance refers to an organisation's assessment of the effective usage of energy resources and the decline in emissions to reduce the consumption of dangerous or harmful materials (Omara, Alia & Jaharadak 2019). A study conducted by Muñoz-Villamizar, Santos, Garcia-Sabater, Lleo and Grau (2019) emphasises the benefits of GVP, known as higher product prices, improved corporate image, and potential market expansion. On the other hand, Sawant, Mosalikanti, Jacobi, Chinthala and Siddarth (2013) elaborated on the implementation of green technology activities, known as environmental policy and practices, which can be interpreted as green environmental performance. This means that green environmental performance involves using products and methods that do not negatively affect the environment through pollution or by the depletion of natural resources. On the contrary, they will lead to business success and green performance. These ways embrace green management of water, solid waste management, ensuring air quality, energy protection, environmental purchasing, and promoting public awareness.

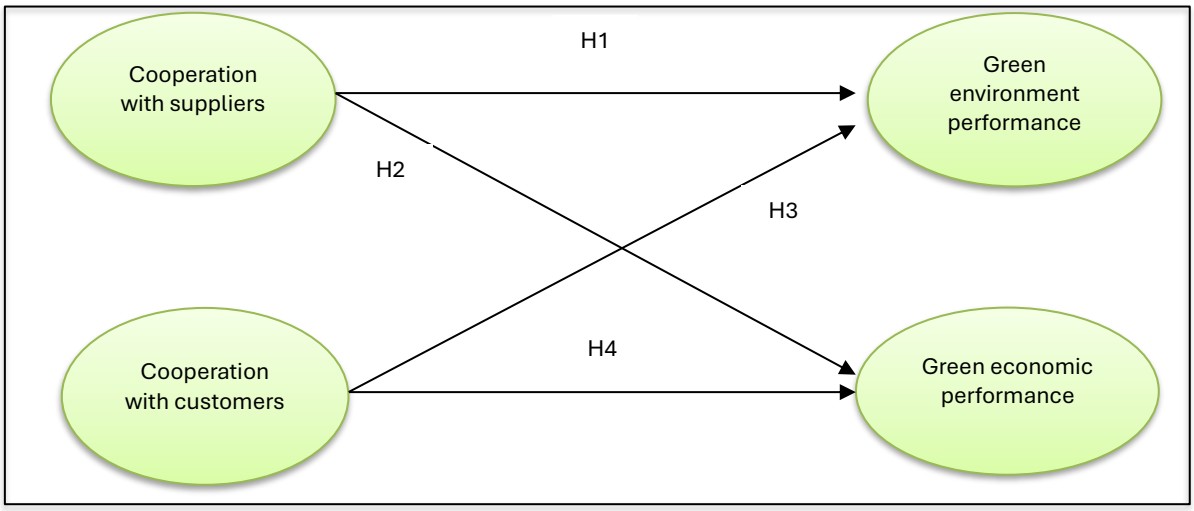
Green economic performance

The concept of GEP means promoting progress and economic development while ensuring that natural resources keep on providing the energy and environmental services that contribute to the country's prosperity (Pangarso, Sisilia, Setyorini, Peranginangin & Awirya 2022). Moreover, Zhang, Xu, Chen, Li and Chen (2022) posit that green economy enhances human well-being and social equity while substantially decreasing environmental risks and ecological scarcity. GEP also improves productivity, satisfaction, and completion times (Nigatu, Degoma & Tsegaye 2024). South Africa is a pioneer in green economic growth due to its abundant renewable resources and biodiversity (Li, He, Jin & Tsai 2021). The country's high unemployment rate and high carbon footprint make it a prime candidate for greening its economy (Huxham, Anwar & Nelson 2019). The country aims to create green jobs in agriculture, manufacturing, research, and services, leading to increased productivity, reduced waste, and the adoption of innovative technologies.

CONCEPTUAL MODEL

Following the discussion on the literature related to resource dependence theory, green supply chain management and green performance in the manufacturing industry in South Africa. This study proposes an integrated model using cooperation with suppliers and customers, as predicted to influence green environment and economic performance as outcome constructs, with four hypotheses (Figure 1).

FIGURE 1: CONCEPTUAL MODEL



Hypothesis statements

Based on the above conceptual framework, the following four hypotheses are put forward:

H1: There is a positive relationship between cooperation with suppliers and green environment performance

H2: There is a positive relationship between cooperation with suppliers and green economic performance

H3: There is a positive relationship between cooperation with customers and green environment performance

H4: There is a positive relationship between cooperation with customers and green economic performance

RESEARCH METHODOLOGY

The study used a quantitative approach to compare results and test theory in South Africa's manufacturing sector. It used 500 questionnaires distributed across various sectors, of which 450 were usable. Structural equation modelling was performed using SMART PLS (3.0) for hypothesis testing.

Ethical considerations

The World Health Organisation (2018) emphasises ethical consideration in research to protect respondents' dignity and prevent information fabrication. The main researcher obtained approval from Vaal University of Technology's Faculty Research Ethics Committee and the Faculty of Management Sciences.

Data collection method

A five-point Likert scale questionnaire that measured cooperation with suppliers, customers, and green performance was adapted. The variable, known as CS, with three questions was adopted from Islam, Karia, Fauzi and Soliman (2017), while three items on CC were adapted from Laari, Toyli and Ojala (2017). Four items on GVP were adopted from Lai, Wong and Lam (2015), while the last items of this study focused on GEP, and five questions were adapted from Zhu, Sarkis and Lai (2013).

Data analysis

Table 1 details the psychometric properties of the measurement scale, including research constructs, Cronbach alpha test, composite reliability (CR), average variance extracted (AVE), and item loadings.

TABLE 1: ACCURACY ASSESSMENT AND DESCRIPTIVE STATISTICS

Research constructs	Descriptive statistics		Cronbach's alpha test	CR	AVE	Factor loading
	Mean	SD	α Value			
Cooperation with supplier (CS)						
CS 3			0.610			0.723
CS 4	0.248	0.049		0.795	0.566	0.840
CS 5						0.686
Customer with cooperation (CC)						
CC 3			0.601			0.666
CC 4	0.257	0.049		0.778	0.541	0.821
CC 5						0.711
Green environment performance (GVP)						
GVP 2			0.683			0.687
GVP 3						0.762
GVP 4	0.348	0.058		0.808	0.513	0.740
GVP 5						0.671
Green economic performance (GEP)			0.690			
GEP 1						0.605
GEP 2	0.361	0.058		0.802	0.550	0.698
GEP 3						0.766

GEP 4						0.719
GEP 5						0.543
CS= Cooperation with supplies, CC=Cooperation with customers, GVP= Green environment performance, GEP= Green economic performance						

Table 2 reveals that all of the constructs of this study (CS= 0.610; CC= 0.601; GEP= 0.683, GEP= 0.690) have a Cronbach's alpha value above the recommended threshold of 0.6, as suggested by Zikmund, Babin, Carr and Griffin (2013). That is to say, all the values are considered good and consistent. Moreover, the study found that the CR of all constructs ranged from 0.778 to 0.808, which is above the recommended threshold of 0.7, as suggested by Hair, Black, Babin, Anderson and Tatham (2006). These indicate a satisfactory CR level for the measurement constructs and good internal reliability. The AVE values are greater than 0.5, as estimated to be acceptable by Azam et al. (2022), because they range from 0.513 to 0.566 and are greater than the recommended value of 0.5. The study confirms acceptable convergent validity, demonstrating internal reliability of measurement items, as indicated by Cronbach's alpha, CR, and AVE values, which accurately represent the latent constructs.

Path model outcomes

Table 2 presents the results of the path coefficient and T-statistics of the hypotheses testing.

TABLE 2: RESULTS OF STRUCTURAL EQUATION MODEL ANALYSIS

Suggested path	Hypothesis	Path coefficients	P-value	T-statistics	Decision on hypotheses
CS→ GVP	H1	0.346	0.000	5.344	Accept/Significant
CS→ GEP	H2	0.355	0.000	6.070	Accept/Significant
CC→ GVP	H3	0.245	0.000	5.008	Accept/Significant
CC→ GEP	H4	0.256	0.000	5.170	Accept/Significant
Note: *Significance level* p<0.001* **					

Hass and Lehner (2011) suggest that a significant path coefficient exceeds 0.1, while t-statistics should be over 1 (Winship & Zhuo 2020). This study shows significant regression path estimates between 0.245 and 0.355 and t-statistics from 5.008 to 6.070. All four hypotheses (H1-H4) are supported ($p<0.001$) and accepted, with findings detailed in the next section.

FIGURE 2: SMART PLS FIGURE FROM SOFTWARE

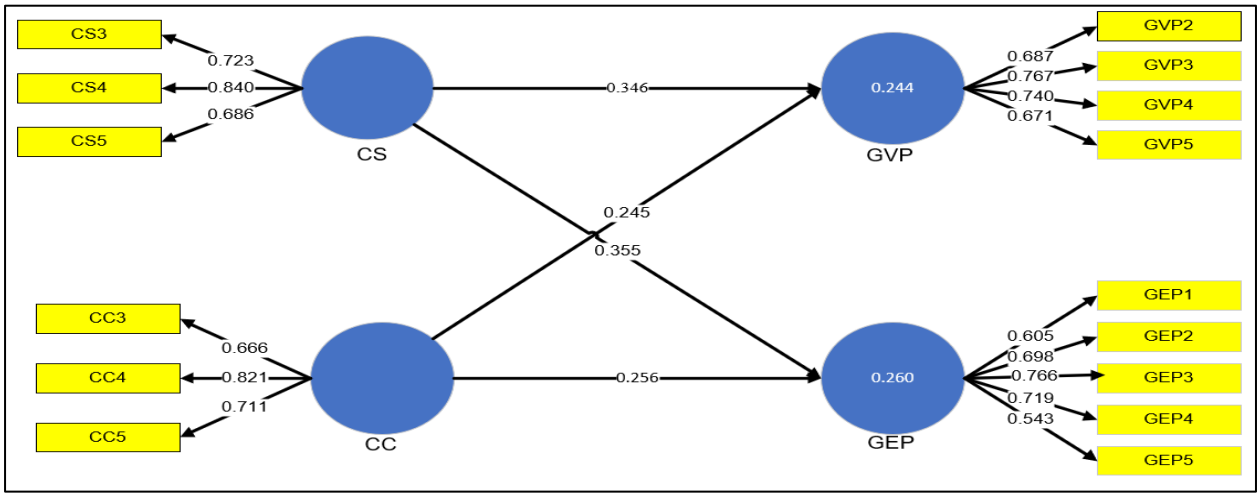


Figure 2 shows Smart-PLS results, including constructs, item loadings, pathway coefficients, and positive relationships with r-square values for each construct.

DISCUSSION OF RESULTS

The study confirms **H1**, showing that cooperation with suppliers significantly enhances green environmental performance by 34% (β = 0.346; t = 5.344; p = 0.000), aligned with the results of Dües, Tan and Lim (2013), that having a close relationship with suppliers is critical for a company to ensure the green environmental performance of their products and services. A study conducted in South Africa by Ebrahim, Niemann and Kotzé (2022) shows that cooperation between supply chain partners is the only way for organisations to enhance the competitiveness of the supply chain while simultaneously reducing green issues. If this is implemented, manufacturing businesses can offer services with efficiency because it uses a minimal number of resources. Supplier cooperation is crucial for businesses to achieve green environmental performance targets by reducing energy consumption, reusing materials, creating eco-friendly packaging, and developing waste minimisation programs (Balin & Sari 2023). In line with this, Haeri and Rezaei (2019) reported that supplier cooperation is necessary for businesses to achieve their green environmental performance targets.

Hypothesis **(H2)** is supported, cooperation with suppliers is found to have a positive influence on green economic performance (β = 0.355; t = 6.070; p = 0.000). This cooperation enhances competitiveness through environmentally friendly practices, underscoring its 35 percent significance. Moreover, these results also imply that cooperation with suppliers can help businesses integrate, build, and reconfigure internal and external capabilities to achieve green economic performance (Jiang, Jia, Blome & Chen 2020). Supplier cooperation helps businesses in accessing resources, reducing risks, and enhancing green performance. South African manufacturers can overcome challenges by embracing environmental requests and

green supply chain practices (Guzman & Castro 2022). South African greening providers enhance environmental performance through cooperation between suppliers and businesses, promoting uniform standards and practices, according to the research by Van den Berg, Labuschagne, and Van den Berg (2013).

Hypothesis three **(H3)** indicated that cooperation with customers has a positive relationship with green environmental performance (β = 0.245; t = 5.008; p = 0.000). Therefore, **(H_3)** is validated. A key component of improving green environmental performance is customer cooperation on environmental issues. Simply put, the results show that working with customers to improve performance and encourage environmentally friendly behaviours is an effective strategy at 24 percent. These results align with Hutomo, Marditama, Limakrisna, Sentosa, and Yew (2020) findings. Customers wield purchasing power, and cooperation facilitates the alignment of quality criteria with environmental concerns (Andalib Ardakani et al., 2022). This cooperation fosters shared environmental goals through coordinated planning and problem-solving and enhances creativity and compliance with environmental standards (Hutomo et al., 2020). According to Bisschoff and Fullerton's (2025) research, South African customers have a greener perspective and are more likely to engage in green conduct than other customers. This foundation supports this study in the sense that customer cooperation leads to improved environmental performance.

According to hypothesis four **(H_4)**, cooperation with customers and green economic performance are positively correlated (β = 0.256; t = 5.170; p = 0.000). Therefore, **(H_4)** is supported. These results indicate that cooperation among customers can assist companies in achieving green economy goals by exchanging knowledge and best practices, opening up new markets, boosting their reputation, enhancing initiative impact, and lowering compliance risks. This increase in the green economy is 25 percent. These results are consistent with a study conducted by Rizki, Murwaningsari and Sudibyo (2022). In a similar spirit, this study contends that cooperation with customers improves green economic performance because they are the primary stakeholders and can significantly influence business practices and manufacturing methods. Cooperation with customers enhances GSCM, boosts productivity, and reduces risks. It helps enterprises gain market knowledge, respond quickly to changing demands, and maintain knowledge partnerships for green economic performance.

CONCLUSION

In South Africa, although the green supply chain management framework may not have reached the same level of sophistication as in more developed economies, the dedication of South African manufacturing organisations to fostering green economic and environmental performance is clearly demonstrated. The study looks into how green supply chain

management affects green performance in South Africa's manufacturing industry. Based on the results of data analysis, it is concluded that cooperation with suppliers and customers has a positive and significant effect on green environmental and economic performance. The results show that the manufacturing sector's consideration of achieving green performance is primarily driven by cooperation with suppliers and customers.

Managerial implications

The study highlights the importance of green supply chain management (GSCM) in improving a business's economic and environmental performance. It suggests that adopting GSCM through supplier and customer cooperation can boost profits and market share. This is only possible by encouraging suppliers to attend training and workshops on GSCM with the support of the organisation. The study also suggests that manufacturing companies should align their cooperative strategies with ecological modernisation theory and build trust between suppliers and customers for a constructive, positive, and risk-free relationship. Organisations should implement environmental standards such as ISO 14000 in order to protect the environment and achieve green performance.

Theoretical implications

This study explores the relationship between Green Supply Chain Management (GSCM) practices and green performance in South Africa's manufacturing sector. It develops a model demonstrating that cooperation with suppliers and customers leads to green environmental and economic performance. The study also uses RDT theory to strengthen this approach, highlighting the importance of implementing GSCM and working with suppliers and customers for a competitive advantage.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Although this study contributes significantly to both academia and practice, there are some limitations that suggest areas for future research. For starters, the study explores the impact of green supply chain management techniques on the economic and environmental performance of manufacturing organisations. Future research should consider operational and social dimensions, as well as policymakers' perspectives, and incorporate new technology into GSCM processes to better understand the complex relationship between GSCM practices and organisational green performance. Moreover, the study is limited to a nonprobability sample, which cannot be claimed to be representative of the population, and this sample is prone to systematic errors and sampling biases. In line with this, future studies could use a probability sample to yield different results. Another limitation is its restriction to only the manufacturing

industry. This gives the opportunity for future studies to explore other industries such as construction and agriculture.

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NEXUS BETWEEN EDUCATION, LOGISTICS INFORMATION INTEGRATION, SUPPLY CHAIN NETWORK AND PHYSICAL DISTRIBUTION PERFORMANCE: THE CASE OF RETAIL SMES IN SOUTH AFRICA

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ABSTRACT

The significant impact of information technology integration by organisations especially in the post-Covid era has continued to gain momentum. It has become almost impossible to talk about competitive business performance without the interference of information technology. The continuous advancement of information technology calls for the upgrading of the technical and professional capabilities of Small and Medium Enterprises in South Africa. This research aims to analyse the nexus between education, Logistics information integration, supply chain network and distribution performance of SMEs. The research is cross-sectional study which considers the positivism philosophical underpinnings and the deductive approach to sampling. SMART-PLS 4.0 for structural equation modelling analyse the significance and internal consistency of the research variables. Despite the importance of product availability and the emerging need of technology application, SMEs education and logistics technology application capabilities for enhancing product availability have weaker path coefficient. The findings of the study demonstrate the need for continuous education and training programme that encourage technology application and digital transformation of retail SMEs physical distribution performance.

Keywords: SMEs; education; logistics information integration; supply chain network; physical distribution performance; South Africa

INTRODUCTION

The significant impact of information technology integration by organisations especially in the post-Covid era has continued to gain momentum (Agarwal, Swami, & Malhotra, 2024; Apriani

et al., 2024). It has become almost impossible to talk about competitive business performance without the interference of information technology. According to Khan *et al*., (2024), careful integration of appropriate information as part of enhancing internal business operational activities is regarded as the stronghold for effective risk management across a supply chain. As such, operational skills and capabilities around the use of information technology are necessary. The continuous advancement of information technology calls for the upgrading of the technical and professional capabilities of Small and Medium Enterprises (SMEs) in South African retail sector. In addition to previously studied SMEs growth challenges such as financial access, managerial skills, literacy challenges, infrastructure, competitiveness, compliance, and government support challenges, Adam & Alarifi, (2021), Etim *et al*., (2022), mentioned that SMEs are now more exposed to business uncertainties and weak resilience strategy as well as lack of digital technology exploitation. Although business challenges for SMEs persist, they can be regarded as traditional or general business challenges due to the reconfiguration and business transformation through the integration of a technology solution.

The technological tools enhanced through internet connectivity have revolutionised how SMEs address business challenges, while offering new opportunities to learn (Bhuiyan *et al*., 2024; Hendrawan *et al*., 2024). Example of these technological tools are many and include the ease of effective timely communication and marketing through cloud computing, emails, social media platforms for instant messaging and advert; networking and visibility possibilities through automation, radio frequency identification, buyer-supplier relationship management systems and vendor-managed inventory systems amongst others. The transition of business operations to the digital supply chain may require significant adjustments of resource and skill trade-offs, which may be more challenging for SMEs, resulting in new or emerging business barriers without the necessary educational support towards skills upgrade.

These operational challenging barriers not only deprive SMEs of opportunities for global and market access, but also hinder efficient productivity, superior customer service, and financial management, as well as the lack of contribution to economic growth (Hendrawan *et al*., 2024).

In South Africa, Hove-Sibanda, Motshidisi and Igwe (2021) found supply chain related challenges in among food retailers to include late deliveries, damaged stock, theft, high fuel costs and expired stock, which can be addressed through investment in innovative technologies.

However, there is limited empirical studies on technological adaptation among traditional retailers in developing countries despite its importance in contributing to the survival and competitiveness of these businesses (Isharyani, Sopha, Wibisono, & Tjahjono (2024). Yet, Eze, Chinedu-Eze, Awa, and Diarah, (2023) contend that one of the most critical challenges

facing SMEs when it comes to digital technology adoption is lack of knowledge and skills of their managers to make the right decisions in respect of the technology to adopt and how to implement that technology. Furthermore, retail SMEs serve mostly township and rural areas in the South African context. In this context education has been found to be one the of the competitive advantages for success among foreign owned businesses (Malgas & Zondi, 2020). This brings education and competence of the SME retail operators to the fore as possible determinants of their technology adoption options and integration into their supply chain networks. This study fills the knowledge gap by exploring the impact of education on SMEs supply chain integration.

Therefore, the research question is what the impact of SMEs education on logistics information integration, supply chain network, and distribution performance? From the research question, the research aims to determine the impact of SMEs education on logistics information technology adoption; to analyse the extent to which SMEs education impacts their relationship network and physical distribution performance.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Education and SMES Logistics Information Technology Integration

Education, being a social institution serving the needs of society and industry must continuously evolve to meet the challenges of the fast-changing and unpredictable globalized world. Innovation in education is the application of new ideas, methods, and technologies to enhance the learning and integration process (Piterou & Birch 2016). Industry 4.0 is prevalent in large retail companies, and SMEs are also increasingly introducing Industry 4.0 technologies and methods, creating a strong demand for skills and knowledge training and further education to develop innovative capabilities for existing workers (Gualtieri *et al*., 2018).

Innovation and information technology have led to massive investments, adoption, and developments in logistics to achieve logistics efficiency. Cano *et al*, (2021) notes that companies must make significant investments in acquiring, updating, and maintaining technological infrastructure to keep pace with disruptive technologies of Logistics 4.0 including additive manufacturing, augmented reality, Big Data analytics, cloud services, wearable technology, and IoT. Tied to these investments geared to enhance logistics efficiency through the adoption of technology is the challenge of skills to appropriately attain ROI on information technology use in Logistics. Yet, while technology investments are easily in large companies, it remains a significant challenge for SMEs due to resource constraints. For SMEs, it is not just the financial capital that is needed for investment in technologies efficiencies, the knowledge and skills required for adopting and adapting the appropriate technologies are also essential (Seethamraju & Diatha, 2018; Isharyani, Sopha, Wibisono, & Tjahjono, 2024).

As early as 2018 as digitalization was taking centre stage Kianto (2018) postulated that in an earlier experiment that more than 85% of the respondents felt that human capital (personnel competence and motivation) among other intellectual elements were either significant or very significant contributors to their firm's performance. Therefore, ***H1:*** SME Education implies that SME requires skills and knowledge to develop their innovative capabilities and improve their competitiveness through Logistics information technology integration.

Education and SMES Relationship Network Capability

Network capability is a developmental function enabling SME firms to capitalize on opportunities through strong relationships (Vesalainen & Hakala, 2014). These connections enhance performance by overcoming local barriers. Supply chain network involves integrating, forming, and leveraging organizational connections (Abbas, *et al*., 2019; Cenamor *et al*., 2019). This means that developing network capability benefits firms and improves performance which is crucial for SMEs growth and sustainability. However, according to Abid and Polo (2025), upgrading skills and continuous learning will help SMEs seize opportunities and carefully integrate appropriate supply chain practices. The supply relationship network requires critical knowledge and understanding of the supply chain practices of SMEs to outsource effective strategic partners. Information sharing capability is a key factor in enhancing relationship network, of which SMEs need technical operational skills, as well as appropriate technology integration to enhance buy-supplier long-term relationship performance. Thus, ***H2,*** education can enhance SMEs relationship network capability and competitive advantage.

Education Positively Impacts SMES Physical Distribution Performance

Higher education levels are associated with better planning and forecasting abilities which leads to improved efficiency of products availability, product timeliness, and product condition performance. Educated owners and managers can implement more effective inventory management practices that enhance distribution performance. According to Kumar and Singh (2023), SME owners or managers who have attained higher levels of education are able to plan product delivery using advanced forecasting techniques, which directly improve product availability and overall logistics efficiency. On the other hand, Nguyen and Hoang (2024) observed that educated business managers are more likely to adopt systematic inventory control measures to track and ensure product condition during distribution.

In the retail environment, the use innovative technologies have been observed to enhance the operational efficiencies in the logistics and distribution processes of retailers, but this inadequate education and skills prevent the realization of this potential especially among SMEs (Yazdani & Darbani, 2023). According to Zhang and Lu, (2023); Abdul and Ismail

(2023), education can improve not only SMEs operational efficiency but also informed strategic management, planning and decision making to efficiently and effectively enhance distribution performance.

Therefore, education positively impacts SMEs physical distribution performance in terms of timeliness ***H3,*** product availability ***H4***, and product condition ***H5***.

METHODOLOGY AND DATA ANALYSIS

The research is cross-sectional study which considers the positivism philosophical underpinnings and the deductive approach to sampling, respectively. This is appropriate because the research is quantitative in nature and therefore supports the data collection methods. Data were collected through a close-end questionnaire (Bell *et al.,* 2021). In this case, nonprobability and convenience data collection sampling methods were employed because the selection of SMEs was based on availability and ease of access (Ehlers & Lazenby, 2023). Research concepts such as SMEs education, logistics information technology and physical distribution performance were measured in a five-point Likert scale type ranging from 1 (strongly disagree) to 5 (strongly agree). A five-point Likert scale is necessary because the development and implementation of distribution strategies may differ from one retail organisation to another. The measurement items for the mentioned above concepts were adapted from previous studies (Zakaria, Zailani & Fernando 2010:140; Bienstock, Mentzer & Bird, 1997:41). However, the item of measurement of the relationship network was developed by researchers and validated by managers or owners of SMEs.

The Demographic Statistics of Participating Retail SMES

A total of 100 completed questionnaires were used. Demographic statistics show that the majority (86%) of the participating retail SMEs came from the Northern Cape, approximately 8% from the Eastern Cape and 6% from Gauteng. In terms of the position held by the SMEs, 54% were managers, 22% were supervisors, and 12% were either general manager or assistant manager. The remainder (10%) of the SMEs consist of directors, administrators, consultants, sales personnel, and executive officers. This result shows that the SMEs that participated have a good knowledge and understanding of the purpose of the study. A further validation is that about 57% of the retail SMEs, senior certificate, 23% have a national diploma, and 12% have a degree as the highest education qualification. About 49% agree to have annual turnover between R500 000 and R2million, while 51% agree to have annual turnover less than R500 000. Table 1 describes the reliability and validity of the measurement items.

TABLE 1: INTERNAL CONSISTENCY MEASURES

Constructs	Indicators	Descriptive statistics		Reliability statistics			Validity Statistics	
		Mean (x̄)	SD	Alpha (α)	*Rho*	CR	AVE	Factor loading
Supply Chain Network	SCN1	3.890	0.760	0.936	0.947	0.948	0.725	0.856
	SCN2	3.700	0.656					0.760
	SCN3	3.780	0.672					0.847
	SCN4	3.780	0.715					0.851
	SCN5	3.640	0.671					0.870
	SCN6	3.630	0.688					0.885
	SCN7	3.620	0.675					0.885
Logistics Information Technology	LICT2	3.250	0.994	0.854	0.947	0.903	0.757	
	LICT5	3.090	0.971					0.935
	LICT6	4.060	0.968					0.941
Availability performance	AVPER1	3.950	0.829	0.975	1.002	0.975	0.766	0.904
	AVPER2	3.770	0.926					0.837
	AVPER3	3.830	0.813					0.926
	AVPER8	3.800	0.837					0.842
	AVPER9	3.860	0.906					0.836
	AVPER10	3.810	0.857					0.875
	AVPER12	3.860	0.837					0.942
	AVPER13	3.900	0.854					0.947
	AVPER14	3.930	0.840					0.940
	AVPER15	3.910	0.873					0.929
	AVPER16	3.820	0.817					0.928
	AVPER17	3.720	0.722					0.807
	AVPER18	3.740	0.730					0.847
	AVPER19	3.730	0.733					0.831
	CONDPER1	3.620	0.745	0.944	0.980	0.956	0.814	0.840
	CONDPER2	3.830	0.872					0.940

Product Condition Performance	CONDPER3	3.850	0.876					0.956
	CONDPER5	3.720	0.826					0.913
	CONDPER7	3.710	0.739					0.827
Timeliness Performance	TIMEPER9	3.430	0.738	0.931	0.945	0.951	0.866	0.780
	TIMEPER10	3.390	0.720					0.843
	TIMEPER12	3.310	0.924					0.812
	TIMEPER13	3.510	0.742					0.826
	TIMEPER14	3.350	0.712					0.824
	TIMEPER15	3.380	0.718					0.778
	TIMEPER16	3.740	0.856					0.776
	TIMEPER17	3.770	0.835					0.757
	TIMEPER18	3.620	0.660					0.730
	TIMEPER19	3.350	0.589					0.724

Note: Alpha (α)=Cronbach's alpha; *CR=Composite reliability; AVE=Average variance*

Sources: Own source

SMART-PLS 4.0 for structural equation modelling was used to analyse the significance and internal consistency of the relationship of the research data (Wong, 2013). As shown, the mean statistics indicate to what extent the retail SMES agrees or disagrees (3.090 to 4.060) with each statement relating to the research variables measured. Alpha (α), composite reliability (rho_a & rho_c), average variance extracted (AVE), and factor loading values were used to assess the validity and reliability of the research measurement items. For this research, the Alpha (α) ranges from 0.854 to 0.975; CR ranges from (0.903 to 0.975); AVE values range from (0.725 to 0.866) and the factor loadings ranges from (0.724 to 0.956), are greater than 0.9, 0.7 and 0.5, respectively (Johnson & Christensen, 2012). This indicates that all the research constructs are internally consistent.

TABLE 2: DISCRIMINANT VALIDITY-FORNELL-LARCKER CRITERION

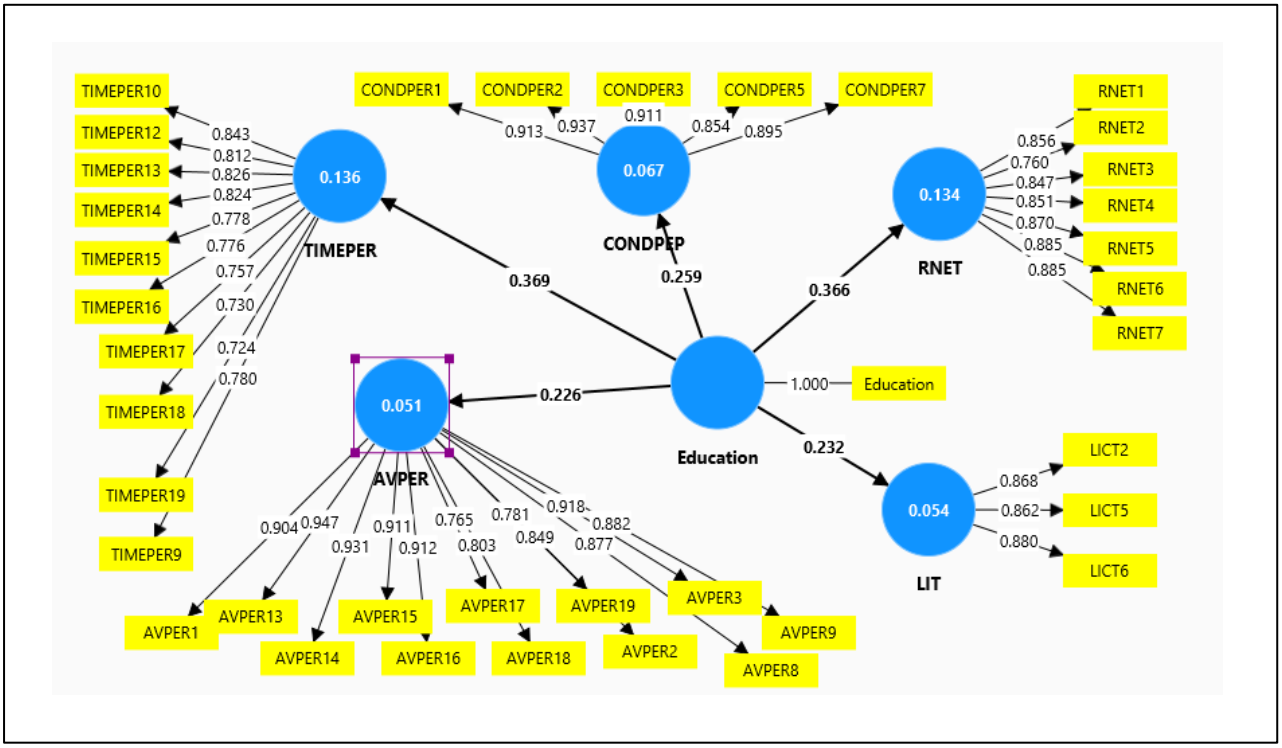
	AVPER	**CONDPER**	**Education**	**LIT**	**RNET**	**TIMEPER**
AVPER	0.875					
CONDPER	0.851	√ 0.902				
Education	0.178	0.251	√ 1.000			
LIT	0.369	0.367	0.227	√ 0.870		
RNET	0.585	0.768	0.371	0.159	√ 0.851	
TIMEPER	0.750	0.747	0.373	0.343	0.690	√ 0.786

Note: AVPER = availability performance; CONDPER = product condition performance; LIT = logistics information technology; RNET = relationship network; TIMEPER = timeliness performance

Sources: Authors' compilation

The Squared root of average variance extracted (√AVE) and the correlations statistics were used to assess the presence of discriminant among the research variables. According to Garson (2016), the correlations value should be less than 1.0 and the (√AVE) for each variable should be greater than the correlation values of each latent variable to be considered valid. Table 2 confirms discriminant validity for this research.

FIGURE 1: PATH MODEL



Sources: Authors' Compilation

TABLE 3: IMPACTS ON RELATIONSHIPS

Proposed Path Relationship	Hypothesis	Path Coefficient (β)	T-value	P-Value	Outcome
Education-LIT	H1 (+)	0.232	2.255	0.024	Supported
Education-NET	H2 (+)	0.366	4.802	0.000	Supported
Education-AVPER	H3 (+)	0.226	2.577	0.010	Supported
Education-CONDPER	H4 (+)	0.256	3.704	0.000	Supported
Education-TIMEPER	H5 (+)	0.369	3.982	0.000	Supported

Note: AVPER = availability performance; CONDPER = product condition performance; LIT = logistics information technology; RNET = relationship network; TIMEPER = timeliness performance

Figure 1 and Table 3 show the relationship significance outcomes between the research variables. The statistical relationship rule of thumb is that the inner path coefficient of the proposed relationships should be equal or less than 0.5 (P>0.05), while the outer path coefficient should be greater than 1.96 (T-statistics ≤1.96) to be considered significant (Gravetter, & Wallnau 2017). For this research, both values are highly significant, indicating strong relationship among the research variables.

DISCUSSIONS

The proposed hypothesised relationship between the education of SMEs and the level of integration of logistics information technology is statistically significant at a t value of 2.255 and an acceptable relationship (Path estimate=0.232; P=0.024>0.05). This indicates the need for continuous learning and skill enhancement among small businesses as technology and globalisation dynamically revolutionise the business environment. Researchers such as (Akpuokwe *et al*., 2024; Arini and Respatiningsih, 2024) have shown that skills development in the digital economy is informed by SMEs' ability to engage or make informed decisions through technology applications. SMEs digital literacy enhances critical thinking and business ability that will enable competitive advantages and business performance for SMEs, which can significantly impact SMEs lifelong learning (Hendrawan *et al*., 2024). Furthermore, education on logistics technology applications advances SMEs' e-commerce capabilities. With this, SMEs have the freedom to operate in the same global environment as the larger organisation to compete better, thus merging the gap between organisation operations in the formal and informal sector in South Africa (Ameh, 2024). Therefore, education in technology application enhances innovative business management, resilience, and adaptability which is essential for risk management disruptive event like Covid-19 pandemic, thereby facilities SMEs business sustainability and growth.

The proposed hypothesised relationship between the education of SMEs and their degree of relationship with the supply chain network is statistically significant at a t value of 4.802 and a predictive acceptable relationship (Path estimate=0.366; P=0.000>0.05). This hypothesised relationship has the highest significant level. This is because the supply chain network, which has been technologically reconfigured, may be regarded as a more resilient strategy for competitive advantages (Khan *et al*., 2024). Supply chain is the collaborative effort among cross-functional organisations to improve differentiation strategy through innovative value creation processes that integrate business operational activities to effectively and efficiently produce, store and control the movement of goods / services, information, finance and demand management to satisfy unique customer demands. customers. This research shows

that it is important for SMEs to improve differentiation strategy through supply chain networking, education, and skill upgrading.

The proposed hypothesised relationship between SMEs' education and the extent of their physical distribution performance in terms of product/service availability is statistically significant at a t value of 2.577 and a predictive acceptable relationship (Path estimate=0.226; P=0.010>0.05).). Product and service availability and accessibility when needed indicate good customer service, which is the goal of logistics performance (Rashid & Rasheed, 2024). The timely delivery is critical to inventory and transportation management, especially in the digital era where faster and seamless distribution enhances timely cash flows and customer satisfaction. The ability of SMEs to use effective logistics technology such as RIFD to track inventory in real time and monitor delivery schedules will enhance distribution performance and competitiveness of SMEs (Mabad, 2021; Issah *et al*., 2025). SMEs Buyer-supplier coordination and accurate demand forecasting knowledge will enable SMEs to understand customer needs, ensure product availability, and flexible delivery product/service performance.

The proposed hypothesised relationship between the education of SMEs and the extent of their physical distribution performance in terms of the condition of the product is statistically significant at a t value of 3.704 and a predictive acceptable relationship at (Path estimate=0.259; P=0.000>0.05). Product condition performance means that product/service at the destination should be timely, be in good quality, and in good condition. Damage products because of improper material handling equipment during transit, storage, or during loading and unloading of products increase customer dissatisfaction and distribution operations costs (Benallou *et al*., 2023; Hama Kareem *et al*., 2022). Therefore, the knowledge of SMEs in materials handling techniques, transport coordination skills, and overall distribution best practices will reduce distribution risk and improve product condition performance.

The proposed hypothesised relationship between the education of SMEs and the extent of their physical distribution performance in terms of timeliness is statistically significant at a t value of 3.982 and a predictive acceptable relationship (Path estimate=0.369; P=0.000>0.05).). Timely distribution performance is measured by the elapsed time from when a customer places an order until the time the customer received the order (Salari *et al*., 2022). Availability in time or on time is a critical performance metric of physical distribution. It is associated with reliable and consistent delivery performance (Bushuev *et al*., 2018). Therefore, SMEs managers should be well versed in lead time planning and management between buyers and suppliers, contingency plan, and application of distribution tracking systems for timely communication.

PRACTICAL RECOMMENDATIONS AND CONCLUSIONS

The aim of this research is to assess the impact of SMEs education on logistics information integration, supply chain network, and distribution performance among South African retailers. Although all hypotheses were statistically significant, the research is not without limitations. Despite three out of nine provinces in South Africa were represented in this research, the result is not generalisable to all because the data were conveniently collected quantitively. A mixed approach to data collection can be applied in subsequent research to deepen understanding and further evaluate the unique impact of digital education on SMEs' physical distribution strategies and competitive performance. This is because SMEs' technology education can lead to fundamental business automation for resilience and business growth. This research focus on technology education as a more resilience strategy for retail SMEs physical distribution performance. However, other research may want to consider other reliance strategies such as building stronger supply collaborations, innovation in physical and online sales, dependable energy sources, investment in 4IR technologies, strategic sourcing, and so on. Despite the importance of product availability and the emerging need of technology application, SMEs level of education and logistics technology application for enhancing product availability have weaker path coefficient of (0,232 and 0.226) respectively, indicating the need for continuous education and training programme that encourage technology application and digital transformation of retail SMEs physical distribution performance. SMEs technology capacity building and training is important and, as such, calls for government assistance in building enabling environment to aid effective SMEs collaboration with universities in South Africa for co-creation through skills development workshops.

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PROFILING THE IMPACT OF DRIVER FATIGUE ON DRIVER ROAD ACCIDENT INVOLVEMENT AND FREIGHT PERFORMANCE: GAUTENG PROVINCE OF SOUTH AFRICA

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ABSTRACT

Transportation focuses on the movement of products and services via several modes of transportation inclusive of road transportation, marine and air from the point of origin to the point of consumption. Most goods in South Africa are transported by road freight. Hence, the road freight transport industry is strategically essential to social and economic development and ensures freight mobility across jurisdictions. The main objective of this study was to investigate the relationship between driver fatigue and road accident involvement on road freight industry performance in Gauteng Province, South Africa. A quantitative approach was employed where a survey questionnaire was used to collect data from 272 road freight transportation drivers, and fleet, and operations managers. The study used a non-probability convenience sampling technique to select participants. Data was analysed with the aid of software packages, SMART-partial least squares (SMART-PLS 3.0). The results of the research study exhibit significant relationships between the study variables, namely, driver fatigue, road accident involvement and road freight transportation industry performance. Furthermore, the study determined that tracking, measuring and controlling driver road accident involvement within road freight transportation will improve road freight industry performance by eliminating the inefficiency caused by delays and financial losses due to driver road accident involvement.

Keywords: driver fatigue; road accident; road freight transport performance

INTRODUCTION

The logistics industry is a key contributor to global economic growth for empowering human and goods movement (Karia 2020). According to Dang, Shi and Li (2019), logistics operations include freight transport, supply chain management, e-commerce, inventory, delivery, handling and reverse logistics. Likewise, Brzeziński and Cyplik (2020) state that distribution logistics encompasses the total of actions taken to achieve effective product movement from

the end of the production line to the consumer. Based on a study by Papadis and Tsatsaronis (2020), the transportation sector is split into road, rail transport, as well as maritime traffic and aviation. Makhetha (2021) highlights that the trucking industry is the backbone of the logistics sector; it is also a crucial component of trade and a vital contributor to the economic growth of many countries, including South Africa. Likewise, the South African Freight and Logistics Market size is estimated at $13.79 billion in 2024 and is expected to reach $19.9 billion by 2030 (Mordor Intelligence 2024). Correspondingly, Havenga, De Bod and Simpson (2016) confirm that South Africa has an unduly high freight transport demand due to industrial development located far away from ports. Hence, the transport and storage industry plays a significant role in a nation's economy. It is estimated that 72 percent of the total freight task is done via road freight transportation and is expected to almost double in the next 20 years (Statistics South Africa 2019). This study explored road freight transportation, which is defined by previous authors as commodity value chains that can then be considered to contain, but are unlimited to, the processes that enable the transportation of various commodities between the source and destination within the country or internationally via road (Van Niekerk 2023). Similarly, de Coning, Hoffman and Mouton (2023) state that in the South African landlocked economic hub, 79% of goods are transported using road infrastructure. Furthermore, road transportation will remain a vital part of the substantial majority of all supply chains for the anticipated future due to the flexibility, speed, cost, low capital investment in infrastructure and equipment, and ease of use of road transport compared to other modes of transportation (du Plessis, Van Eeden, Goedhals-Gerber & Else 2023). However, road accident involvement within the transportation and storage industry is increasing in South Africa, particularly in Gauteng and Kwazulu-Natal Provinces, with the highest percentage of 21 and 20 percent respectively (World Health Organisation 2019). Fatigue is identified as a contributing factor in a considerable proportion of road transport accidents (Watling, Armstrong, Obst & Smith 2014). Therefore, it became vital to investigate the impact of driver fatigue and road accident involvement on road freight performance.

LITERATURE REVIEW

This section reviews literature on the research variables and also the theory used in the study.

The Theory of Planned Behaviour

The theory of Planned Behaviour (TPB) was identified as the most suitable theory for the current study. According to Yadav and Pathak (2017), the theory of planned behaviour was proposed by Icek Ajzen in 1985. People's behaviour, normative and control beliefs, attitudes towards the behaviour, subjective norms, and perceptions of behavioural control follow automatically and consistently from their beliefs (Verma & Chandra 2023). Galvão, Marques

and Marques (2018) declare that TPB evolved out of the theory of reasoned action (TRA) and is mainly used to explain the individual behavioural decision-making process. TPB has been used in several studies on predicting behaviour and introduces behavioural intentions as a primary determiner of behaviour (Jalilian, Joulaei, Mirzaei-Alavijeh, Samannezhad, Berimvandi, Karami Matin & Mahboubi 2016). Additionally, previous studies state that TPB has been used to successfully plan and evaluate numerous interventions for many different behaviours (Hackman & Knowlden 2014).

A study by Chan, Chong and Ng (2020) also agrees that TPB is derived from TRA and is being used widely to examine the influence of personal determinants. According to Hackfort, Schinke and Strauss (2019), TPB is a TRA supporting the objective interpretation of test outcomes. Based on a view by Tran and Von Korflesch (2016), the theory of planned behaviour (TPB) is founded on the premise that any behaviour requires a certain amount of planning. TPB also explains comportment by assessing individual behaviour (attitudes), subjective norms and the perception of how easy it is for individuals to adopt that behaviour (Valencia-Arias & Restrepo 2020). Likewise, Jiang, Zhang, Wang, Zhang and He (2018) postulate that attitudes, subjective norms and perceived behavioural control r influence intentions and behaviour. Hence, David and Rundle-Thiele (2018) signal that TPB suggests that an individual's intention to perform a specific behaviour is the central cause of that behaviour being performed in practice. Verma and Chandra (2018) maintain that people arrive at their behaviour, and their perceptions of behavioural control follow automatically and consistently from their beliefs.

Likewise, Hatefnia, Alizadeh and Ghorbani (2019) state that the TPB consists of four constructs: attitudes, subjective norms, perceived behavioural control and behavioural intention. Furthermore, TPB is a widely used theory in examining the factors influencing drivers' decisions to drive while fatigued, as driver attitudes towards fatigued driving have proved to be a significant factor (Watling 2014). Similarly, Wedagama and Wishart (2018) recommend that further behavioural studies are necessary to analyse the determinants of road incidents involving commercial drivers in the logistics industry. Therefore, this study attempted to use the TPB to examine how behaviour affects drivers' decisions to drive while fatigued, causing road accidents.

Driver Fatigue

Driver fatigue is described as undesirable changes in driving performance that could be linked to continued activity and as the state of reduced driving alertness that impairs performance (Di Stasi, Renner, Catena, Cañas, Velichkovsky & Pannasch 2011; Jamroz & Smolarek 2013). Equally, Ren, Pritchard, van Vreden, Newnam, Iles and Xia (2023) postulate that fatigue is a serious safety hazard resulting in traffic crashes in the road transportation industry. Likewise,

Phatrabuddha, Yingratanasuk, Rotwannasin, Jaidee and Krajaiklang (2018) claim that fatigue is the inability to function at the desired level due to incomplete recovery from the demands of prior work and other waking activities. The literature suggests that drivers who are more stressed due to driving longer hours, driving long journeys for several days and experiencing fatigue from driving are more likely to be involved in road traffic accidents (Ebiai & Mgbeanuli 2023). Therefore, insufficient recovery from previous work is also identified as a trigger of driver fatigue, and reviews of time-on-task studies conclude that monotony associated with driving long distances may promote the onset of sleepiness (Phillips 2015). According to Mahajan, Velaga, Kumar, and Choudhary (2019), the drivers who work long hours with insufficient sleep may become sleepy or fatigued while driving. In addition, Sando, Mtoi and Moses (2010) assert that, besides the mentioned general factors, prolonged driving periods can increase driver fatigue, especially when drivers do not take enough breaks. Thus, Caldwell, Caldwell, Thompson and Lieberman (2019) reveal that fatigue is a state of feeling very tired, weary, or sleepy resulting from insufficient sleep, or prolonged mental or physical work. Consequently, Dotse, Nicolson and Rowe's (2019) study addressed commercial driving in developing countries and indicated that working while exhausted is linked to violations, leading to crashes. Based on the opinion of Jacob, Chukwudi, Ebiringa Thaddeus and Agwu (2020), heavy vehicle drivers are also prone to driver fatigue, especially if it involves long working hours and long-distance trips with limited recovery time.

Previous studies indicate that driver fatigue is one of the most important contributors to road accident involvement (Jagannath & Balasubramanian 2014). For this, a study by Alavi, Mohammadi, Soori and Ghanizadeh (2017) confirms that fatigue is one of the main factors that cause traffic violations and road accident involvement. Hence, Zhang and Hua (2015) emphasise that driver fatigue has been identified as a contributing factor to accidents, injuries and death in a wide range of settings, with the implication that tired people are less likely to produce safe performance and actions. Furthermore, Du, Bigelow, Wells, Davies, Hall and Johnson (2018) indicate that falling asleep and driving while fatigued are the main contributing factors for fatal heavy motor vehicle collisions. A study by Liu, Shen, and Ma (2017) reported that the Department of Transportation has also pointed out that 20 to 40 percent of commercial vehicle accidents are due to fatigue driving. Similarly, Al-Mekhlafi, Isha and Naji (2020) suggest that fatigue can impact an individual's capacity for responses to stimuli and to understand impulses, and it can take longer to react after they are identified, and fatigue also affects problem-solving. According to Hiralall and Taylor (2018), eThekwini Municipality faces unsafe roads due to unroadworthy heavy vehicles, fatigued drivers, reckless driving, speeding, and a disregard for road rules. For this, Xiong, Gao, Yang, Yu and Huang (2016) depict that driver fatigue frequently occurs and is believed to be responsible for 20 to 30% of road-related

accidents. Furthermore, Amoadu, Ansah and Sarf (2023) agree that fatigued driving because of irregular driving hours is an important risk factor for road traffic accident involvement and fatalities. Hence, this study suggests that driver fatigue stimulates road accident involvement.

Road Accident Involvement

According to Nordengen, De Saxe, Berman, Steenkamp and Deiss (2018), in 2018, most goods, approximately 85% of freight in South Africa were transported by road. This means that South Africa's economy is highly transport-intensive, and excessive dependence on road freight transport exacerbates this situation (Havenga, Simpson, De Bod & Viljoen 2014). Moreover, the World Health Organisation (2019) reports that road accident involvement within the transportation and storage industry is increasing in some of South African provinces such as KZN and Gauteng. Heavy goods vehicles are over-involved in severe road accidents because their high mass leads to severe consequences for other road users involved in the accidents. Thus, Vahedi, Shariat, Tabibi, and Mehdizadeh (2018) indicated a positive correlation between drivers with high driving mileage, ordinary violations, aggressive violations, and accident involvement.

Additionally, drivers' long hours of service play a critical role in driver fatigue, which is consequently linked to road accident involvement (Hanowski, 2013). Correspondingly, Zhang and Hua (2015) state that fatigue has been proven to be a main cause of road accidents in different settings, including transport operations such as road, aviation, rail and maritime, as well as other occupational settings such as hospitals, emergency operations and law enforcement, particularly when irregular hours of work are involved. Equally, Li, Yamamoto and Zhang (2018) declare that long hours of service lead to negligent driving on the road. In many countries, including South Africa, road accidents are a challenge facing many companies, including logistics businesses. Likewise, Watling, Armstrong, Obst and Smith (2014) declare fatigue as a contributing factor in a considerable proportion of road transport accidents. For this, Steyn Monismith, Nokes, Harvey, Holland, and Burmas (2012) posit that logistics companies face challenges related to compensation, damages, and a lack of client trust due to road accident involvement.

Besides, the direct outcomes of heavy haulage vehicles driver road accidents, such as injuries and fatalities, accidents can also result in disrupted operations, reputation damage, driver absence due to injuries, increased vehicle maintenance and insurance costs, late customer deliveries, and overhead costs for incident investigation and follow-ups (de Vries, de Koster, Rijsdijk & Roy 2017). Road freight transportation companies face challenges related to compensation, damages and a lack of client trust due to road accident involvement. Thus, Davidović, Pešić, Antić and Božović (2023) affirm that work-related road traffic accidents are

the leading causes of occupational death. Even Rashmi and Marisamynathan (2023) indicate that freight-involved truck accidents significantly impact logistics costs, causing damage.

Freight Transportation Industry Performance

Logistics performance is described as the degree of efficiency, effectiveness and variations linked with the fulfilment of logistics activities (Luu 2019). Aharonovitz, Vidal Vieira and Suyama (2018) indicate that logistics performance indicators and criteria include costs, time and reliability. According to Patrman, Splichalova, Rehak, and Onderkova (2019), the performance of inland transport can be monitored and evaluated in two basic areas. The first is the performance of the transport means, assessed for both passenger and freight transport. Thus, Cheng, Liu and Tulliani (2015) recommend that a formal assessment of accident-risk perception and driving behaviour be included in both off and on-road assessments to predict at-risk drivers and driving performance. Likewise, Berhanu, Alemayehu and Schröder (2023) accentuate the significance of transport managers in understanding road conditions and the distribution of road accidents, allowing them to develop and implement preventive measures to avoid future road accidents and enhance transportation sector performance. According to Zhang and Wang (2019), drivers' logistics performance means that drivers are capable of delivering goods and services in the quantities and at the precise times required by customers. Furthermore, freight transportation resilience is defined as the ability of an enterprise to move goods in a timely and efficient manner (Ta, Goodchild & Pitera 2009).

Additionally, the impact of road freight transportation performance has received interest in recent studies. Villarreal, Garza-Reyes and Kumar (2016:3) argue that freight transportation by road has become an essential element of international trade and supply chain performance, and it is for this reason that it has become crucial for road freight transportation to address inefficiencies within road transportation. Al-Mekhlafi, Isha, Al-Tahitah, Kineber, Al-Dhawi and Ajmal (2023) affirm that analysing driver performance helps identify and address issues, leading to overall industry improvements. Yuan (2019) refers to transportation as a crucial activity in logistics, and it is the core link of logistics. For this reason, it is very important to accelerate the development of transportation speed and efficiency in road transportation organisations. Hence, this study proposesd that commercial truck driver road accident involvement has an impact on the freight road transportation industry's performance.

CONCEPTUAL MODEL

This study adopted the conceptual framework model presented in Figure 1, which conceptualises the relationship between driver fatigue, road accident involvement, and road freight transportation performance. Driver fatigue and road accidents are the predictor variables, and road freight transportation performance is the outcome variable.

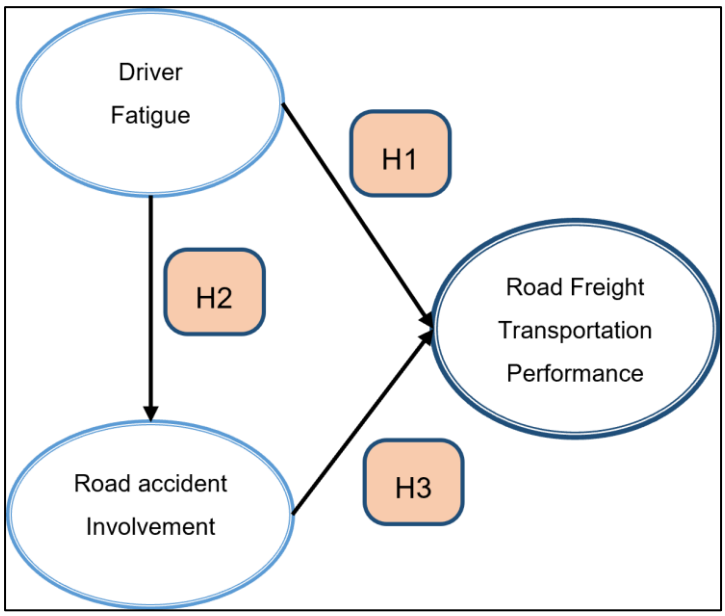
Hypotheses

H1: There is a negative relationship between driver fatigue and road freight transportation performance.

H2: There is a positive relationship between driver fatigue and road accident involvement.

H3: There is a negative relationship between road accident involvement and road freight transportation performance.

FIGURE 1: CONCEPTUAL MODEL



METHODOLOGY

It has been suggested in research that all scientific research must be conducted using some relevant methodology (Creswell 2014). A methodology provides a piece of research with its philosophy, the values and assumptions that drive the rationale for the investigation, as well as the standards that will be utilised for the interpretation of information and the drawing of conclusions (Neuman 2010). This section covered subjects such as the research design, sampling design, procedures for data gathering, analysis and ethical issues. This study deployed a non-probability convenience sampling method, selecting participants based on their availability and willingness to participate.

Research approach

The research approach focuses on the method used to conduct the study. Research suggests three types of research methods: quantitative, qualitative, and mixed methods. The method to be used is a matter that should be carefully considered by every researcher (Oflazoglu 2017). Kanazawa (2017) refers to quantitative research as an approach for the analysis of the relationship between variables. Based on the definition by Muijs (2010), the quantitative

research method is the process of collecting numerical data, analysed using a mathematically based method. Sibinga (2018) emphasises that quantitative research is often driven by sound design and statistics, as such, the quantitative approach to data collection was followed in this, whereby a survey questionnaire was used to gather the required data. Based on a view by McNabb (2004), it has been estimated that questionnaires are used in 85% or more of all quantitative projects. Furthermore, Rasinger (2013) declares that, from a broader perspective, the quantitative research method is based on the already known theory, developing a hypothesis to prove or disprove in the course of the investigation. On the other hand, Burke and Christensen (2012) show that qualitative researchers' approach focuses on exploration, description, and sometimes the generation of theories using qualitative data. A quantitative research method was deployed for this study.

Data Collection Method

Data were collected through a survey using a self-administered questionnaire. Surveys are renowned for reducing response bias, as well as the ability of the respondents to interact with the researcher (Creswell 2014). Self-administered questionnaires are characterised by several benefits, including respondents being able to answer the questionnaires at their convenience, and the low cost-per-completion makes it an economical method for surveying large samples (Bryman & Bell 2007). This study survey was structured using measurement items from previous studies, driver fatigue with measurement items adapted from Smith (2016). Likewise, road accident involvement was measured using items adapted from Smith (2016). Lastly, road freight transportation performance was measured using items adapted from Luu (2019). The adapted questions were adjusted accordingly to fit the current context of this study, using feedback collected from a pilot study. The questions were closed-ended (structured) for simplicity of answering.

Ethical Considerations

Ethical consideration in research is the practice of addressing the ethical aspect of the research involving participation (DeRenzo, Singer & Moss 2020). The researcher fulfilled the requirement for precise, truthful, realistic, and impartial data for the ethical values of this study. Hence, when conducting research or an amendment on a study that involves human participation, the researcher must have the research reviewed and approved by an appropriate research ethics committee (REC) (Peate & Dryden, 2021). This study complied with specific standards of ethical research before, during and after data collection. Before data collection, each respondent was informed about the purpose and legitimacy of the study, including the institution of affiliation. Participation in the study was voluntary. During the fieldwork process, the researcher treated all respondents equally and with respect, while attempting not to be

biased or influence the respondents' opinions in any way. This was done to uphold the research principle of good faith. Furthermore, the identity of each respondent was protected during and after the fieldwork process. In particular, the respondents were not forced to disclose their names, whereas the research findings were only used for research purposes and were reported on an aggregate basis. Additionally, the main researcher obtained ethical clearance from the Vaal University of Technology (VUT) ethical clearance committee.

Sample Explanation

A total of 300 questionnaires were distributed to the targeted respondents in the road freight transportation company within Gauteng Province, South Africa. Out of these, 272 questionnaires were useful, 16 were incorrectly completed, and 12 were not returned. Therefore, the incorrectly completed and incomplete questionnaires were considered invalid and excluded from the final data analysis. The analysis and interpretation of data were done on 272 questionnaires. For the reliability of the survey, a response rate of 91% was obtained using Cronbach's alpha. The value was well above the response rate of 70% indicated by Full, Malhotra, Crist, Moran and Kerr (2019).

TABLE 1:DESCRIPTIVE STATISTICS

Variable and Category		**Frequency (n)**	**%**
(A1) Gender	Male	249	91.5
	Female	23	8.5
	Total	**N= 272**	**100**
(A2) Age	Under 30 years	56	20.6
	31- 39 years	57	21.0
	40-49 years	72	26.5
	50-59 years	74	27.2
	60- and above	13	4.8
	Total	**272**	**100.0**
(A3) Highest qualification	Matric and below	90	33.1
	Post-matric certificate	53	19.5
	Diploma	30	11.0
	Degree	6	2.2
	Postgraduate	4	1.5
	Professional	89	32.7

	Total	**272**	**100.0**

Descriptive results show that more males took part in the study, as shown in Table 1. They constituted 91.5 percent of the total respondents. Females only constituted 8.5% of the total respondents. In terms of age distribution, the majority of respondents (27%) were between 50 and 59 years old. This group was followed by respondents aged 40 to 49 years, who comprised 21% of the total sample. Furthermore, with respect to professional qualifications, 32% of the participants held higher-level credentials, reflecting a substantial proportion of respondents.

Measuring Scale Internal Consistency (Reliability Test)

For the current study, reliability was tested through Average Variance Extracted (AVE), Cronbach's alpha (Cronbach's α) and Composite Reliability (CR). Table 2 below displays the results of the reliability descriptive statistics, Composite Reliability, Average Value Extracted, Cronbach's test and factor loadings.

TABLE 2: ACCURACY ANALYSIS STATISTICS (SCALE ACCURACY)

Research construct	**Indicators**	**Descriptive statistics**		**Reliability statistics**			**Validity statistics**		
		Mean (x̄)	**SD**	**Alpha (α)**	***Rho***	**CR**	**AVE**	**Factor loading**	**Item-total correlation**
Driver Fatigue (DRF)	DRF1	4.11	0.816	0.931	0.944	0.948	0.785	0.915	0.848
	DRF2	4.16	0.909					0.912	0.875
	DRF3	4.26	0.810					0.802	0.799
	DRF4	4.23	0.706					0.948	0.801
	DRF5	4.20	0.837					0.846	0.777
Road Accidents Involvement (RAI)	RAI1	3.55	1.076	0.901	0.914	0.927	0.717	0.825	0.717
	RAI2	3.17	1.432					0.840	0.768
	RAI3	4.00	0.705					0.841	0.788
	RAI4	4.06	0.677					0.910	0.790
	RAI5	4.10	0.850					0.807	0.724
Road Freight Transportation Performance (RFP)	RFP1	4.33	0.808	0.931	0.946	0.947	0.781	0.888	0.703
	RFP2	4.17	0.911					0.885	0.700
	RFP3	4.35	0.805					0.868	0.755
	RFP4	4.00	0.800					0.887	0.700
	RFP5	4.29	0.803					0.891	0.848

Table 2 indicates Cronbach's Alpha coefficients, elaborating that all measured constructs demonstrate acceptable reliability and are suitable for inclusion in the study.

TABLE 3: HYPOTHESES TESTING

Proposed path relationship	Hypothesis	Path Coefficient	P-Value	T-Value	Outcome
Driver Fatigue (DRF)- Road Freight Transportation Performance (RFP)	H1 (-)	-0.148	0.000	3.987	Supported
Driver Fatigue (DRF)- Road Accidents Involvement (RAI)	H2 (+)	0.570	0.000	3.427	Supported
Road Accidents Involvement (RAI)- Road Freight Transportation Performance (RFP)	H3 (-)	-0.270	0.000	4.200	Supported

Table 3 above presents all three hypothesised relationships, including the path coefficient, p-value, and t-values for the current study. The t-statistic value designates whether the relationship is either accepted and/or supported or not. T-values should be greater than 2, and all are greater than 2, showing all relationships are supported. Furthermore, as depicted in the above table, the researcher presents that the coefficients of all three hypotheses are at the level of $p< 0.01$. The significance levels of $p<0.05$ and $p<0.01$ are indicators of either positive, strong and significant relationships between the research constructs (Mosala & Chinomona 2020). Based on that, all three hypotheses proposed in this study were supported and accepted. However, hypothesis number two depicts a positive relationship, whereas the first and third hypotheses show negative results.

Casual modelling

Casual modelling, also known as causal modelling, is an extensively used multivariate statistical technique that allows researchers to reason and assess the arrangement of contributing relations between variables in the study (Barbeau, Boileau, Sarr & Smith 2019). Based on the definition by Ruiz, Nuñez, Brand-Ortiz, Velasco, and Cruz-Gonzalez (2023), these methodologies enable scholars to present the partial least squares causal modelling method and the proposed structural model. Likewise, Al-Mekhlafi et al. (2023) define path analysis as another powerful method for simultaneously analysing several complicated research relationships. Furthermore, Cadden, Weerawardena, Cao, Duan and McIvor (2023) used and implemented the casual modelling method in the Smart PLS 3.0 software to test their hypotheses empirically; therefore, this methodology is the same one applied to the current study.

DISCUSSION OF THE RESULTS

The purpose of this study was to explore the relationship between driver fatigue, road accident involvement, and how these factors affect the performance of the road freight transportation industry. The first hypothesis (H1) posits a negative relationship between driver fatigue (DRF) and road freight transportation performance (RFP). The results of this study support this hypothesis. As shown in Table 3, driver fatigue had a negative influence on transportation performance (r = -0.148), and this result was statistically significant (t = 3.987). This means that higher levels of fatigue among drivers are likely to reduce the overall performance of the freight transport industry. This finding is consistent with the study by Davidović, Pešić, Lipovac and Antić (2020), which noted that driver fatigue is becoming an increasingly serious issue in modern transport, drawing attention from logistics companies that are trying to protect their operational and economic stability.

The second hypothesis (H2) proposed that there is a positive relationship between driver fatigue and road accident involvement. The findings, as presented in Table 3, confirmed this hypothesis. The results showed a strong positive correlation (r=0.570) between driver fatigue and accident involvement, and this relationship was statistically significant (t = 3.427). This suggests that as fatigue increases, the risk of being involved in a road accident also increases. This result supports previous studies by Naude and Chitakunye (2014), as well as Amoadu, Ansah, and Sarfo (2023), which found that fatigue contributes to unsafe driving behaviour and increases the chances of road crashes, injuries, and fatalities.

The third hypothesis (H3) proposed that road accident involvement negatively impacts the performance of the road freight transportation industry. According to Table 3, a negative relationship exists between accident involvement and transportation performance (r = -0.270), which is also statistically significant (p = 0.000, t = 4.200). This shows that increased accident involvement is linked to lower performance levels within the industry. These results align with the findings of Luke and Heyns (2014), who highlighted that risky driver behaviour not only increases the risk of accidents but also leads to higher vehicle operating costs and damages a company's reputation. Similarly, Zhang et al. (2023) noted that driving fatigue is a serious threat to transport safety, often resulting in significant losses and damage. Al-Mekhlafi et al. (2023) also pointed out that accidents can cause various problems for companies, including injuries, damage to property, production delays, fines, and harm to the company’s image.

From these findings, it can be concluded that both driver fatigue and accident involvement play a major role in shaping the performance of the road freight transportation industry. This highlights the need for strategies aimed at reducing driver fatigue and minimising accidents in order to improve industry performance and maintain sustainability.

STUDY LIMITATIONS AND FUTURE RESEARCH

Several shortcomings were observed during this research. Firstly, the research was limited to one company within the road freight transportation sector, with different sites in and around the Gauteng Province, South Africa. Other road freight transportation companies and provinces within the country did not form part of the study. Likewise, this study inherently limits the representativeness of the sample. Additionally, the study participants worked different shifts, and for this reason, the questionnaires were distributed and collected at a later stage. This means that the participants completed the questionnaires at their own pace and time, and the main researcher could not monitor how they completed the questionnaires.

CONCLUSIONS AND IMPLICATIONS

The study has both theoretical and operational implications. Theoretically, this study makes a noteworthy progression regarding the knowledge that will assist in creating a better understanding of road freight drivers' accident involvement and its complexity within the road freight transportation industry in the South African context. As road freight transportation companies strive to be competitive and remain relevant, this knowledge and information become vital to all road freight transportation stakeholders within South Africa. Furthermore, this study adds to driver fatigue, driver road accident involvement and road freight transportation industry performance literature by methodically examining the relationship between the above-mentioned variables. Additionally, the study is a vital addition to the existing literature on this phenomenon. Further research within the road freight transportation space should be conducted to identify internal controls and performance measurements that can be used to measure the impact of road freight accident involvement on the performance of the road freight industry. Hence, the road freight stakeholders need to work together to reduce driver road accident involvement and improve the industry's performance.

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SUPPLY CHAIN MANAGEMENT IN THE SOUTH AFRICAN POLICE SERVICE: PRACTICES, CHALLENGES, AND STRATEGIES FOR ENHANCED PUBLIC SECTOR PROCUREMENT

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ABSTRACT

This study examines the implementation of supply chain management (SCM) in the South African Police Service (SAPS) and highlights both the benefits and current challenges. SCM plays an important role in the timely procurement of essential items such as uniforms, vehicles and technical equipment within the SAPS. Although there are formal procurement practices that comply with national regulations, the implementation process is hampered by bureaucratic delays, poor coordination and misinterpretation of policies. A qualitative research approach was used, involving semi-structured interviews with ten SAPS employees directly involved in SCM activities. Thematic analysis of the data revealed that inconsistent understanding of policy and communication breakdowns are common barriers to effective SCM. However, the findings also show that SCM, when implemented well, contributes significantly to operational readiness, cost reduction and improved inventory control. Recommendations for strategic actions, including cross-departmental collaboration, continuous training of SCM staff and the introduction of appropriate SCM technologies.

Keywords: supply chain management; South Africa Police Service (SAPS); public sector; implementation challenges; procurement; inventory optimization

INTRODUCTION AND BACKGROUND

Supply Chain Management (SCM) is central to improving service delivery in the South African public sector as it ensures the timely and cost-effective procurement of essential goods and services, including operational equipment, uniforms and vehicles. The legal basis for public procurement, specifically the Public Finance Management Act (PFMA) of 1999, empowers accounting officers in government departments to implement coordinated SCM systems that are in line with overall service delivery objectives (Kshetri, 2018). SCM encompasses the entire lifecycle of goods and services, from demand planning, to procurement, logistics and disposal of assets, and plays a key role in optimizing public resources and achieving

development goals (Benton Jr, 2020; Nunes, Causer, & Ciolkosz, 2020). In the context of the South African Police Service (SAPS), efficient SCM is critical to operational readiness and ensuring public safety.

Despite a solid legal framework such as the Municipal Finance Management Act (MFMA), the Public Finance Management Act (PFMA) and the Preferential Procurement Act, there are still problems with implementation. These measures are intended to promote transparency, fairness and cost efficiency while empowering previously disadvantaged groups (Fourie & Poggenpoel, 2017; Wieland, 2021). Implementation is often hindered by inefficiencies such as bureaucratic delays, misinterpretation of procurement regulations and limited capacity of SCM professionals (Ageron, Bentahar, & Gunasekaran, 2020). Such issues contribute to procurement delays, inflated costs and a decline in public trust, especially in the face of increasing media attention and pressure to improve accountability (Bressanelli, Perona, & Saccani, 2019; *Business Day Report*, 2018; Hamisi, 2021). Despite efforts such as SCM training workshops and revised procurement guidelines, operational deficiencies remain widespread (Hugos, 2018) . The root cause of these problems often lies in a lack of understanding of SCM principles and its strategic role in service delivery and socio-economic development (Hugos, 2018). Institutional silos and gaps in policy practice further exacerbate inefficiencies and undermine ethical procurement practices (Blaser Mapitsa & Landau, 2019).

Given these persistent challenges, there is an urgent need to examine the internal and external factors that hinder the implementation of SCM in SAPS. Internal factors include fragmented departmental communication, inconsistent interpretation of procurement policies, and the insufficient skills and training of SCM personnel. External factors include changing regulatory requirements, political interference, unreliable suppliers and financial limitations. Such an investigation is necessary to propose contextualized strategies that will improve policy application, foster interdepartmental collaboration and ultimately improve SAPS. The main objective of this study is to critically examine the implementation of supply chain management in the South African Police Service (SAP), with a focus on identifying current practices, assessing the associated challenges and benefits and proposing strategies to improve operational efficiency. The sub-objectives of this study are as follows:

- To identify and describe the supply chain management (SCM) practises currently used in the South African Police Service (SAPS).
- To investigate the challenges that hinder the effective and efficient implementation of SCM within the SAPS.
- To evaluate the benefits that effective and efficient SCM brings to organisational operations within the SAPS.

- To propose strategies and programmes that can be used by SAPS to address SCM-related challenges and improve operational efficiency.

LITERATURE REVIEW

Conceptualization of supply chain management

Supply chain management (SCM) has evolved from its early industrial roots to become a key strategic function in both the private and public sectors. Although the terminology was not formally introduced until the 1980s and the term was coined by Keith Oliver in 1982 (Geissdoerfer, M., de Carvalho, & Evans, 2018), the principles of SCM have long been embedded in manufacturing and logistics. Early SCM thinking focused heavily on cost reduction, operational restructuring and lessons learned from Japanese management practices (Lam, 2018). SCM gained prominence in academic and professional discourse in the 1990s, especially after the publication of Robert B. Handfield's influential work in 1999, in which SCM is conceptualized as a systems approach that integrates the functions of procurement, warehousing and distribution (Mhelembe & Mafini, 2019). Over time, the scope of SCM has expanded to include global sourcing and the integration of internet-based technologies to improve coordination and responsiveness (Todo, Matous, & Inoue, 2016).

Scholars such as Ceasar, (2017) and Hamisi, (2021) emphasize the need for efficient coordination between supply chain actors, including suppliers, third-party providers and customers, to ensure timely, cost-effective and ethical delivery of goods and services. In the public sector, SCM is not only an operational but also a strategic tool to improve transparency, accountability and service delivery. This is particularly true for institutions such as the South African Police Service (SAPS), where inefficiencies in SCM have a direct impact on public safety and trust. Although there are numerous definitions, most conceptual frameworks still come from private sector models. Their application in the public sector, which must balance cost efficiency, ethical requirements and equitable service delivery, is still little researched and often poorly implemented.

Supply chain management practices

SCM practices refer to the specific operational activities that institutions undertake to ensure the efficient procurement, storage and transportation of goods. These include supplier partnerships, outsourcing, information sharing, shortening cycle times and customer relationship management (Bressanelli *et al*., 2019; Hugos, 2018). For SAPS, these practices impact not only operational efficiency, but also the ability to respond to crime and emergencies. Blanchard, (2021) identifies supply chain integration, geographic proximity and customer service management as critical to responsive SCM. Van Weele, (2018) adds that cross-functional collaboration and reducing the supplier base are important prerequisites for

lean operations. Effective SCM practices must therefore consider institutional goals, stakeholder needs and regulatory compliance. In general, the supply chain discourse is more concerned with the management of these practices in the context of procurement, warehousing and distribution (Waters, 2019). Much of the literature on SCM practices lacks empirical validation in the public sector. While strategic supplier partnerships are well established in the private sector, public sector organizations such as SAPS face unique constraints such as political interference, inflexible budgets, and regulatory compliance that make simple implementation ineffective

The legal framework for supply chain management

Public procurement in South Africa is governed by several legal frameworks, such as Section 217 of the Constitution, which prescribes fairness, equity, transparency, competitiveness and cost-effectiveness (Bastas & Liyanage, 2018): The Public Finance Management Act, Act No. (1 of 1999)(PFMA): which regulates procurement for national and provincial authorities (Van Weele, 2018): The Municipal Finance Management Act (MFMA), which regulates procurement at the municipal level and promotes accountability and asset management: The Preferential Procurement Policy Framework Act (PPPFA), which ensures that previously disadvantaged groups benefit from procurement activities (Van Weele, 2018).

Challenges in the implementation of SCM in the public sector

Supply chain management in the public sector, particularly SAPS, is complicated by environmental, technological, institutional and political challenges. Global market shifts, changing crime patterns and the unpredictability of suppliers complicate planning and resource allocation (Kshetri, 2018; Waters, 2019). An uncertain environment also poses a challenge for forecasting and decision-making. Technological barriers include inadequate integration systems, cyber threats and limited digital infrastructure (Blanchard, 2021). Centralization of procurement functions, political interference and inconsistent policy enforcement further limit the efficiency of SCM (Koberg & Longoni, 2019; Sanders, 2020).

Advantages of effective and efficient SCM in public institutions

When implemented effectively, SCM reduces operating costs, improves service reliability and increases public confidence. SCM enables real-time tracking, lean inventory management and better response times, which is particularly important for institutions such as SAPS (Fourie & Poggenpoel, 2017; Mojaki & Chukwuere, 2021). (Benton Jr, 2020) highlights how SCM improves transparency and accountability and reduces the scope for fraud and inefficiency. (Wieland, 2021) notes that reliable SCM ensures continuity of public services and improves institutional resilience.

Theoretical framework: The stakeholder theory

Originally developed by Freeman in the 1980s, stakeholder theory has evolved into a comprehensive theoretical framework that integrates philosophy, ethics, political theory, economics, law and management disciplines (Freeman, Phillips, & Sisodia, 2020). At its core, the theory redefines the purpose of an organization as one that serves not only shareholders, but a diverse network of stakeholders, including suppliers, employees, logistics providers, business partners, and the broader community (Schaltegger, Hörisch, & Freeman, 2019). In doing so, stakeholder theory provides a useful lens for understanding the interdependencies that underlie supply chain relationships. According to (Schaltegger *et al*., 2019), stakeholder theory emphasizes value creation, long-term performance and a fair balance of interests between all stakeholders. (Barney & Harrison 2020) further argue that organizations exist to generate wealth for their stakeholders, sometimes regardless of traditional ethical or managerial boundaries. As a result, stakeholder theory appears to place less importance on the procedural and operational intricacies of supply chain management.

However, supply chain actors are regularly confronted with decisions that have far-reaching consequences for their relationships with stakeholders. Ethical missteps such as unfair labor practices, corruption or the exploitation of suppliers can jeopardize stakeholder trust and call into question the legitimacy of the company(Freeman *et al*., 2020). Freeman *et al*., 2020) emphasize that the decisions made within SCM have a direct impact on the company's relationship networks and sustainability. Therefore, SCM practices that disregard ethical standards or stakeholder welfare contradict the basic principles of stakeholder theory. To maintain the integrity of both SCM and stakeholder engagement, companies must remove barriers that hinder ethical SCM practices. This enables value maximization while maintaining stakeholder trust, long-term reputation and operational efficiency of the company.

RESEARCH METHODOLOGY

This study uses a qualitative research design underpinned by an interpretivist paradigm to explore the current state of supply chain management (SCM) implementation and associated challenges within the South African Police Service (SAPS). This approach is appropriate as it provides an in-depth understanding of complex organizational practices through the lived experiences and perspectives of those directly involved in SCM.

Given the inductive nature of the study, semi-structured interviews were chosen as the primary method of data collection. This strategy allows for the exploration of nuanced findings while maintaining a consistent research approach for all participants. The target population consisted of SCM personnel in SAPS management, totaling 30 individuals. A non-random sample was used to select 10 participants based on their direct involvement in procurement,

logistics and supply chain oversight. Each participant worked for Gauteng Province's SAPS offices, guaranteeing contextual coherence in regional operations and challenges. According to Creswell, (2014), a sample size of 10 to 15 participants is usually sufficient to achieve data saturation in qualitative research. The selected participants represent different functional areas within the SCM departments of SAPS, which increases the richness of the data.

The data was collected through face-to-face interviews, which allowed the researcher to observe non-verbal cues such as body language and facial expressions, which are crucial for interpreting meaning beyond the spoken words. With prior informed consent, all interviews were digitally recorded to ensure the accuracy of the data. The recordings were stored securely and transcribed verbatim for analysis. Ethical considerations were strictly observed. Ethical approval was obtained from the relevant regulatory authority. Participants were informed about the purpose of the study, their right to withdraw at any time, and the assurance of confidentiality and anonymity. Pseudonyms were used in the reporting of results to protect the identity of participants.

Data Analysis

The analysis was guided by the research objectives, particularly those related to understanding the challenges, practices and benefits of supply chain management (SCM) in the South African Police Services (SAPS). The researchers first familiarized themselves thoroughly with the interview transcripts to gain a comprehensive understanding of the participants' responses. This involved reading the data several times to identify recurring ideas, phrases and expressions relevant to the implementation of SCM. Coding was done inductively so that dominant and latent themes emerged organically from the participants' narratives. These themes were then categorized into subthemes corresponding to the focus areas: current SCM practices, implementation challenges, organizational benefits, and suggested strategies to improve SCM efficiency. The themes identified were reviewed and refined to ensure coherence with the objectives of the study and the broader context of SCM in the public sector. Given the operational similarities between government departments, the findings are considered transferable and provide valuable insights applicable to SCM systems outside the SAPS.

DISCUSSION, INTERPRETATION AND ANALYSIS OF THE FINDINGS

Ten people participated in this study, six women and four men of different ages and with professional experience in supply chain management (SCM) in the South African Police Service (SAPS). The sample size complies with Creswell, (2014) guidelines for data saturation in qualitative studies (10-15 participants) and ensures the collection of comprehensive, representative results. Thematic analysis revealed key themes that aligned with the research

objectives and captured implementation challenges, supply chain management practices, operational benefits and strategic responses.

Identify and description of supply chain management practices

- *Objective One: To ascertain the supply chain management practices conducted in SAPS.* The results show that supply chain management in the South African Police Service (SAPS) involves three key practices, namely procurement practices, inventory management and compliance with rules and regulations, as shown in Table 1.

Procurement practices

Participants emphasized the procurement of goods and services such as uniforms, weapons, vehicles, office supplies and technical equipment. Procurement practices followed standardised procedures governed by frameworks such as the PFMA, and internal circulars. Participants 1 and 3 shared that SAPS uses a structured procurement process, with Participant 1 noting *"the importance of "evaluating potential suppliers*," while Participant 3 mentioned the use of a "*competitive tender process*." Similarly, Participants 7 and 10 emphasized compliance and quality, stating that SAPS considers "*delivery times, quality standards and ensures transparency, fairness and compliance in procurement*". Overall, these views echo (Hamisi, 2021) Hamisi's assertion that procurement is central to ethical and efficient law enforcement resourcing.

Inventory Management

Participants discussed the importance of keeping accurate records of stocks. Participant 2 highlighted the need to "*maintain records of all stock items*," while Participant 5 noted that *"replenishment orders are placed when minimum stock levels are reached*." Participants 8 and 9 added that "*SAPS uses methods like ABC analysis and regularly evaluates supplier performance and stock to avoid waste*"*.* These responses support the view of (Bressanelli *et al*., (2019) that robust inventory management contributes to operational readiness, cost reduction and effective asset utilization.

Compliance and Regulations

Participants reported strict compliance with procurement regulations including PFMA and PPPFA mandates. Participant 4 noted the importance of following "*rules and procedures for public procurement*," while Participant 5 stressed *"ethical conduct and good governance*." Participants 7 and 8 highlighted "*compliances with B-BBEE requirements and regular audits to ensure transparency and accountability"*. These insights support Blanchard's (2021) view that a strong legal framework underpins effective public sector supply chain management. These practices not only ensure legal accountability but also maintain public trust, reflecting

Blanchard (2021) emphasis on the legal framework as one of the pillars of SCM in the public sector.

Challenges that Hinder SCM Implementation

- *Objective Two: To ascertain the challenges that hinders SCM implementation in the South African police services.* Three main obstacles have emerged: Police misinterpretations, bureaucratic red tape and poor communication.

Misinterpretation of policies and misunderstandings on policy application

The participants pointed out that unclear or inconsistently interpreted regulations disrupt procurement practice, delay procedures and create legal risks. Participant 1 noted that "*differing interpretations lead to inconsistent practices*", while Participant 3 warned of "*potential legal and financial risks*." Participants 6 and 7 highlighted that "*such confusion causes delays and poor decision-making*". These issues are in line with Van Weele (2018) who emphasizes that education and clarity are crucial for effective policy application.

Red tape and bureaucratic obstacles

Participants described cumbersome approval procedures and excessive documentation as an obstacle to operational flexibility. Participant 2 emphasised that; *"Excessive red tape can result in a slow and cumbersome procurement process. This may affect the operational readiness of SAPS by delaying the procurement of critical equipment, supplies and resources".* Participant 3 also stated that; *"Government regulations, such as those related to procurement, budgeting and accounting, can be complex and subject to change. Understanding and complying with these regulations can be time-consuming and challenging".* Participant 5 also argued as follows; *"Bureaucratic hurdles often involve multiple levels of approval and authorization for procurement decisions. This can extend procurement times and create bottlenecks. Extensive documentation requirements, reporting, and compliance checks can consume significant time and resources. This can distract employees from core supply chain activities".* Participant 8 also pointed out that; *"Bureaucratic procedures may limit flexibility in reallocating budgets or reallocating resources to meet urgent needs. This can hinder agility in responding to dynamic enforcement requirements. Bureaucratic red tape can slow down collaboration with suppliers. This may impact relationships with suppliers and the ability to negotiate effective terms and prices".* Bureaucracy undermines supplier engagement and responsiveness. Hamisi, (2021) points to these barriers in public sector SCM and calls for policy reform and digitalization to increase efficiency.

Poor communication and coordination within SAPS

Communication breakdowns between the procurement and operations departments were cited as the cause of resource misallocation, inventory delays and strained supplier

relationships. Participant 3 commented as follows; *"The insufficient communication between the procurement department and other units may result in resources being procured that are not in line with the operational needs of SAPS. This can lead to wasted resources and inefficiency".* Participant 5 also argued as follows; *"Poor communication and coordination can lead to supply chain delays. This can include delivery delays, poor inventory management, and insufficient response to emerging demand".* Participant 9 also stated that; *"The inaccurate or delayed communication can lead to inventory management issues. Overstocking, understocking, or a lack of visibility into inventory levels can disrupt operations and increase costs".* Participant 10 also noted; *"The ineffective communication with suppliers can damage relationships and negatively impact negotiations and contract management. This may result in less-than-ideal terms and conditions".* Kshetri, (2018) emphasises the role of internal communication in responsive and collaborative SCM.

Benefits of an Effective and Efficient SCM to Organisational Operations

- *Objective Three: To explore the benefits of an effective and efficient SCM to organisational operations in SAPS. The results point to three main benefits: cost reduction, enhanced visibility and data-driven decision-making.*

Cost Reduction

The participants emphasized that SCM enables cost savings through optimized procurement. Participant 2 stated; *"Effective SCM helps SAPS optimize its procurement processes, ensuring that goods and services are procured at the best possible price. This reduces the overall cost of acquiring resources, from office supplies to specialized equipment".* Participant 5 argued as follows; *"Efficient SCM practices help SAPS maintain optimal inventory levels and prevent overstocking and understocking. This reduces carrying costs and minimizes the costs associated with holding excess inventory".* Participant 7 further highlighted that; *"With effective SCM, SAPS can negotiate more favourable terms and conditions with suppliers. This can include discounts, longer payment terms or reduced shipping costs, ultimately reducing purchasing expenses".* Participant 8 also highlighted that; *"An efficient SCM system can reduce procurement lead times, thereby reducing costs. It helps SAPS respond more quickly to changing needs, reducing the potential for urgent and expensive purchases".* Waters, (2019) reiterates that this efficiency is critical to managing public finances.

Enhanced Visibility

Participants appreciated the value of real-time monitoring, demand forecasting and performance tracking throughout the SCM process. Participant 2 also confirmed that; *"An effective SCM system provides real-time visibility across the entire supply chain. SAPS can track the movement of resources from procurement to delivery, ensuring they get where they need to be, when they are needed. This real-time monitoring helps prevent delays and*

bottlenecks". Participant 4 further pointed out that; *"The enhanced visibility enables SAPS to better understand demand patterns and predict future demand. This enables organizations to proactively allocate resources and reduce the risk of shortages or excess inventory".* Participant 6 also argued that; *"SAPS can maintain optimal stock levels and prevent stock-outs by having a clear view of current inventory. This avoids disruptions to operations and ensures law enforcement officers have the equipment and supplies they need".* Participant 8 further emphasized that; *"SCM systems provide tools for performance monitoring and reporting. SAPS can assess the performance of suppliers, logistics partners and internal processes to enable continuous improvement and optimization".* These enable proactive planning and minimize the disruption of resources. Koberg & Longoni, (2019) support this, by emphasizing visibility as a strategic factor in public SCM.

Data-Driven Decision-Making

Participants pointed out the importance of analytics in procurement decisions, inventory optimization and forecasting. Participant 3 argued as follows; *"Data-driven SCM enables SAPS to make procurement decisions based on concrete data and historical performance indicators. This will lead to more strategic sourcing, better supplier selection and cost optimization".* Participant 5 highlighted that; *"By analysing data on usage, lead times and demand patterns, SAPS can optimize inventory levels, ensuring critical resources are available when needed without excess inventory".* Participant 7 also stated that; *"Data analytics in SCM enables SAPS to monitor and evaluate the performance of suppliers, logistics partners and internal processes. Performance indicators help identify areas for improvement and make informed decisions".* Participant 8 further noted that; *"Historical data and predictive analytics enable SAPS to accurately predict future demand. This reduces the risk of shortages and excess inventory, resulting in cost savings".* Sanders, (2020) affirms that data-driven insights increase operational efficiency and resilience.

Mitigating SCM Challenges and Improve Efficiency

- *Objective Four: To suggest the strategies and programmes that can be utilised by SAPS to mitigate SCM challenges and improve efficiency.* Three important strategic measures were proposed: technology implementation, enhanced collaboration and inventory optimization.

SCM Technology Implementation

Participants emphasized the introduction of customized SCM software, automation tools and real-time tracking systems. Participant 4 emphasized that; *"The organisation must select SCM software that fits the specific needs of law enforcement and public safety organizations and ensure that it supports procurement, inventory management, and demand forecasting. They*

must implement software that provides real-time visibility across the entire supply chain, allowing SAPS to track resources from procurement to delivery". Participant 6 also stated that; *"SAPS organizations must implement inventory management systems to optimize inventory levels, ensure availability of critical resources, and reduce holding costs. The system must be used to predict future demand and prevent stockouts and overstocking".* Participant 8 also pointed out; *"SAPS must automate procurement processes to streamline procurement, approvals and order processing. In this regard, they must implement a workflow management system to track the progress of procurement requests and identify bottlenecks".* These strategies are in line with Wieland, (2021)call for a digital transformation to modernize public procurement.

Collaboration and Communication

Participants recommended the formation of cross-functional SCM teams, the creation of communication protocols and the development of SCM guidelines. Participant 1 commented as follows; *"SAPS must create cross-functional SCM teams composed of representatives from different departments, including procurement, logistics, finance, and operations. These teams can work together to coordinate processes, set common goals, and collaborate on SCM challenges".* Participant 2 pointed out; *"SAPS must establish clear communication protocols to request, approve and execute purchase orders and other SCM processes. This will ensure clear lines of communication with designated points of contact for each department".*

Participant 9 confirmed that *"SCM procedures, communication protocols, and collaboration guidelines need to be documented in a manual or online resource. This will ensure that all personnel have access to these documents for reference".* Mojaki & Chukwuere, (2021) affirm that collaborative processes improve agility and operational cohesion.

Inventory Optimization

Participants suggested vendor managed inventory. Participant 3 further stated that; *"SAPS must work with suppliers to implement a Vendor Managed Inventory (VMI) program. This will enable suppliers to manage and replenish inventories according to agreed levels, thereby easing the burden on SAPS".* Participant 5 also highlighted that; *"Organizations must use data analytics to continuously monitor and analyze inventory performance. Systems must be in place to identify areas for improvement, trends, and anomalies that may impact inventory optimization".* Participant 9 also noted that; *"SAPS must leverage data-driven demand forecasting models to accurately predict future demand. The organisation must analyze historical usage, trends and other relevant data to ensure inventory levels are consistent with actual demand".* Barney J.B & Harrison J.S, (2020) state that inventory optimization is crucial for balancing stakeholder needs with cost efficiency.

RECOMMENDATIONS

The South African Police Service (SAPS) should improve supply chain management by increasing employee understanding of procurement policies, using integrated SCM technologies and promoting cross departmental collaboration. Inventory management should be optimized through data driven forecasting and monitoring tools, while decision making processes should be supported by analytics. Finally, regular performance evaluation through KPIs and audits is essential to ensure continuous improvement and accountability

CONCLUSION

This study examined the challenges and benefits of implementing supply chain management in the South African Police Service (SAPS), focusing on procurement, inventory management and compliance. Although progress has been made, issues such as misinterpretation of policies, bureaucracy and poor communication continue to limit effectiveness. Nevertheless, effective SCM was found to offer significant benefits such as cost savings, operational readiness and data-driven decision making. Based on the study's finding, SAPS should invest in SCM-specific technologies that facilitate data analytics and real- time tracking, create cross-functional teams to enhance teamwork, and put vendor-managed inventory systems in place to maximise stock levels. The study also stresses the need for more precise policy interpretation and ongoing training for SCM staff to minimise procedural delays and legal ambiguities. To address these challenges, the study recommends strategies such as digital transformation, training and performance monitoring. These strategies can improve SCM performance, enhance service delivery and increase public confidence in SAPS.

TABLE 6: THEMATIC MAP

Main themes	Sub-themes
Challenges that hinder SCM implementation	• Misinterpretation of policies • Red tape and bureaucratic obstacles • Poor communication and coordination with SAPS
Current SCM practices	• Procurement practices • Inventory management • Compliance and regulations
Organisational benefits of SCM	• Cost reduction • Enhanced visibility • Data-driven decision-making
Mitigating SCM challenges	• SCM technology implementation • Collaboration and communication • Inventory optimization

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THE INFLUENCE OF SUPPLY CHAIN TECHNOLOGY ON INFORMATION SHARING AND SUPPLY CHAIN PERFORMANCE OF THE VAAL TRIANGLE RETAIL INDUSTRY IN SOUTH AFRICA

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ABSTRACT

In today's fierce business environment, optimising supply chain performance has become important as effective supply chains form the heart of today's economy. The retail sector contributes to the South African economy and plays a significant role in economic growth. Therefore, a thorough understanding of the role of supply chain performance and its requirements is becoming a fundamental principle. Lack of supply chain management (SCM) strategies, such as leveraging technology and information sharing, has been identified as one of the outstanding challenges contributing to the failure of many small retail businesses in South Africa, particularly in the Vaal Triangle region. The primary aim of this study was to explore the influence of information technology and information sharing on the performance of small retail businesses in the Vaal Triangle region. The study followed a quantitative method. Questionnaires were distributed to purposively sampled 173 managers, owners and supply SCM professionals drawn from the selected retail businesses in the Vaal Triangle region of South Africa. The collected data were analysed using the Statistical Package for the Social Sciences (SPSS version 27.0) and SMART partial least squares. Hypotheses were tested using structural equation modelling (SEM). The results reveal that the Internet of Things, Blockchain Technology (BT), and digital supply chain are twin supply chain technologies that have influenced information sharing positively and significantly. Furthermore, information sharing significantly mediated the relationships between supply chain technologies and supply chain performance. The study suggests that adopting supply chain technologies and information sharing practices is vital in influencing supply chain performance in small retail businesses. This study contributes to SCM and digital transformation literature as it is one of the few studies exploring supply chain technology, information sharing, and performance in the context of the South African retail businesses.

Keywords: supply chain technology; internet of things; blockchain technology; information sharing; supply chain performance

INTRODUCTION

The retail industry in South Africa is highly competitive, and companies continually seek ways to improve their supply chain (SC) efficiency and responsiveness to changing market demands (Msimangira *et al*., 2020). The Vaal Triangle region, comprising Vanderbijlpark, Vereeniging, and Sasolburg, is a significant economic hub in the Gauteng province, with a growing retail sector (Stats SA, 2020). Supply chain technology (SCT) has emerged as a critical factor in enhancing supply chain performance (SCP), enabling retailers to respond quickly to changing customer needs and preferences (Hugos, 2018). Effective information sharing is crucial to supply chain management (SCM), facilitating collaboration and coordination among SC partners (Mathu, 2019). Furthermore, the retail industry in the Vaal Triangle is experiencing significant transformation due to the integration of advanced SCTs. These technologies, including the Internet of Things (IoT), Radio Frequency Identification (RFID), and cloud-based platforms, are reshaping how retailers manage inventory, logistics, and customer interactions (Moleme, Omoruyi & Quayson, 2024). Adopting such technologies is not merely a trend but a strategic imperative, as retailers strive to enhance operational efficiency, responsiveness, and competitiveness in a challenging economic landscape (Hove-Sibanda, Motshidisi & Igwe, 2021).

In South Africa, the retail sector contributes nearly 13% to the nation's GDP and employs more than 15% of the workforce (Statistics SA 2024). Within this context, the Vaal Triangle is an important economic hub, with major retailers like Pick n Pay, Shoprite, Macro, SPAR, President Hyper and Woolworths operating extensive regional networks. Implementing SCTs in this area is pivotal, as it directly influences inventory accuracy, order fulfilment speed, and overall customer satisfaction.

Despite the potential benefits of SCT, many retailers in the Vaal Triangle region still face challenges related to information sharing and SCP. Limited visibility and transparency across the SC can lead to inventory stockouts, overstocking, and delayed deliveries, eventually affecting customer satisfaction and loyalty (Beuting, 2022). Furthermore, the lack of standardised information sharing protocols and inadequate technology adoption can hinder collaboration and coordination among SC partners, exacerbating SC inefficiencies (Valashiya & Luke, 2023).

Moreover, despite the promising potential of SCT to enhance operational performance, there is a notable gap in empirical research examining its impact on information sharing and SCP within the Vaal Triangle's retail industry. Existing studies have highlighted the positive effects of information-sharing on SC resilience and performance in broader South African contexts

(Neboh & Mbhele, 2021). However, specific insights into how these technologies influence information flow and performance metrics in the Vaal Triangle remain underexplored.

Moreover, encounters such as inconsistent infrastructure, limited technological adoption among small and medium-sized enterprises (SMEs), and socio-economic factors unique to the region may affect the successful integration of these technologies. Understanding these dynamics is crucial for developing strategies that leverage technology to improve SC efficiency and competitiveness in the Vaal Triangle's retail sector. This research aims to fill these gaps by investigating the influence of SCTs on information sharing and SCP among retailers in the Vaal Triangle. Doing so seeks to provide valuable insights that can inform policy, guide managerial decisions, and contribute to the broader discourse on SC innovation in emerging economies.

RESEARCH OBJECTIVES

The primary objective of this study was to investigate the relationship between SCTs, information sharing, and SCP in the Vaal Triangle retail industry in South Africa.

Secondary objectives

1) To establish the effect of SCTs on information sharing
2) To find out the influence of information sharing on performance in the retail business of the Vaal Triangle in South Africa.
3) To determine the mediating impact of information sharing on the relationship between SCTs and SCP.

LITERATURE REVIEW

Supply chain technology

Supply chain technology (SCT) has revolutionised how businesses operate, enabling them to streamline processes, reduce costs, and improve customer satisfaction (Kabra, Ramesh, Jain & Akhtar, 2023). With the advent of Industry 4.0, SCs are becoming increasingly digital, interconnected, and intelligent (Naghshineh, 2024). SC visibility is critical for effective SCM (Kabra *et al*., 2023). Recent studies have emphasised the importance of real-time tracking and monitoring of goods, services, and information flows (Wang *et al*., 2025). Blockchain Technology (BT) has emerged as a promising solution for enhancing SC transparency and security (Kumar *et al*., 2023). For instance, blockchain-based systems can enable secure and decentralised data storage, sharing, and verification, reducing the risk of counterfeiting and improving stakeholder trust. Artificial intelligence (AI) and machine learning (ML) are transforming SCM by aiding predictive analytics, demand forecasting, and decision-making (Büyüközkan & Göçer, 2022). AI-powered processes can analyse enormous amounts of data to identify trends, patterns, and variances, improving SC resilience and adaptability. For

example, ML algorithms can predict demand fluctuations, enabling companies to adjust production and inventory levels accordingly (Tavana *et al*., 2022). The Internet of Things (IoT) has enabled the development of smart SCs, where physical objects, such as sensors, Radio Frequency Identification (RFID) tags, and Global Positioning System (GPS) trackers, can communicate with each other and with enterprise systems (Atzori *et al*., 2022). IoT-based systems can monitor inventory levels, track shipments, and environmental conditions, improving SC visibility and control (Tavana *et al*., 2022).

Sustainability has become an imperative alarm in supply chain management, with firms seeking to reduce their environmental footprint and improve social responsibility (Jiang, Jia, Chen, & Xing, 2024). SCT can play a vital role in promoting sustainability by enabling organisations to track and monitor their environmental impact, identify areas for improvement, and develop more sustainable practices (Liu *et al*., 2023). Therefore, SCT has the potential to transform the way retail businesses operate, empowering them to improve efficiency, reduce costs, and promote sustainability. Recent studies have highlighted the importance of emerging technologies, such as blockchain, AI, ML, and IoT, in SCM (Kabra *et al*., 2023; Naghshineh, 2024; Wang *et al*., 2025). As SCs evolve, companies must invest in digital transformation and adopt innovative technologies to remain competitive.

Information sharing

In SCM, information sharing involves exchanging data, knowledge, and insights among all partners, including suppliers, manufacturers, distributors, and customers (Chen *et al*., 2023). This concerted process aims to enhance coordination, efficiency, and overall performance by providing access to real-time information and fostering better decision-making (Baah *et al*., 2022). Previous studies on supply chain information sharing (SCIS) reveal its significant impact on SCP, encompassing operational efficiency, flexibility, adaptability, and overall organisational success (Baah *et al*., 2022; Chen *et al*., 2023; Purwanto *et al*., 2024). Research across various industries and regions consistently underscores the value of IS, albeit with nuances influenced by contextual factors such as industry type, technological infrastructure, and environmental dynamics (Belhadi *et al*., 2024; Li *et al*., 2025). A study by Li *et al*. (2025) highlighted that information sharing enhances SC visibility, positively affecting collaboration, agility, and overall performance. In a nutshell, empirical evidence consistently supports the notion that information sharing is a critical enabler of SCP. However, its effectiveness depends on factors like trust, technological infrastructure, and environmental conditions. Organisations aiming to leverage information sharing for enhanced SCP should consider these factors to maximise the benefits.

Supply chain performance

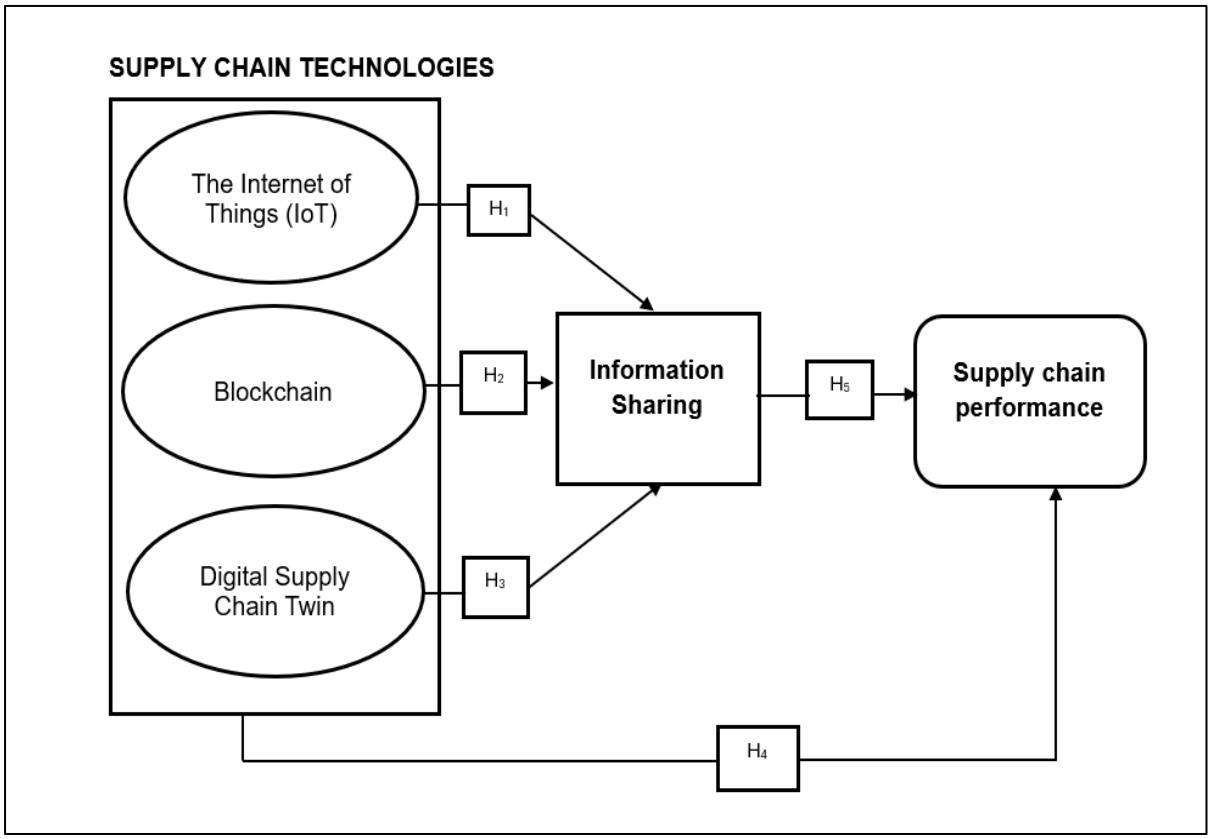
Supply chain performance (SCP) is a critical determinant of organisational competitiveness and resilience (Ngxesha *et al*., 2024). As global markets become increasingly interconnected and dynamic, understanding the multifaceted drivers of SCP has garnered significant scholarly attention (Zaid, Farooqi & Azmi, 2025). SCP refers to how effectively an organisation's SC delivers products and services, encompassing all stages from raw materials to the end customer (Xiao & Zhang, 2024). It measures the efficiency and effectiveness of the process in transforming resources into goods and ensuring customer satisfaction (Abhulimen, 2024). Key aspects include on-time delivery, stock availability, order accuracy, and production lead time (AL-Shboul, 2024). The advent of Industry 4.0 technologies such as Artificial Intelligence (AI), Big Data Analytics (BDA), Internet of Things (IoT), and Cyber-Physical Systems (CPS) has significantly impacted SCP (Xiao & Zhang, 2024). These technologies have been shown to enhance real-time decision-making, predictive analytics, and SC visibility, thereby improving overall SCP (AL-Shboul, 2024).

Furthermore, integrating Blockchain and Digital Twin technologies has been explored to optimise data management, storage, and sharing in SCM (Xiao & Zhang, 2024). This combination addresses security and efficiency issues inherent in traditional systems, advancing SCs into the industry 4.0 paradigm (Zaid *et al*., 2025). Moreover, adopting SCT practices has been found to enhance SCP (Xiao & Zhang, 2024). A study by Mehmood *et al*. (2025) indicated that strategic information sharing and SC competence, facilitated by e-collaboration, significantly influence SCP. Therefore, the literature underlines the complex nature of SCP, involving SCT and information sharing.

CONCEPTUAL MODEL AND HYPOTHESES

Figure 1 demonstrates the research model that directs this study. The research model postulates that employing SC technologies in the Vaal Triangle retail business of South Africa positively influences information sharing, which, in turn, significantly influences the SC performance.

FIGURE 1: RESEARCH MODEL ON SUPPLY CHAIN TECHNOLOGIES, INFORMATION SHARING AND PERFORMANCE OF THE VAAL TRIANGLE RETAIL BUSINESS OF SOUTH AFRICA



Source: Authors' compilation.

Supply chain technology and information sharing

Supply chain technologies, such as blockchain, Internet of Things (IoT), and artificial intelligence (AI), have revolutionised information sharing in SC (Lee & Shin, 2025). According to a study by Wang *et al*. (2025), BT enhances transparency and trust among SC partners, facilitating real-time information sharing and reducing the risk of data breaches. Moreover, Lee and Shin (2025) found that IoT-enabled SCs improve information sharing by providing real-time visibility into inventory levels, shipment tracking, and product condition monitoring. This enables SC partners to make informed decisions and respond swiftly to SC disruptions. AI-powered predictive analytics also transforms information sharing in SCs (Li *et al*., 2025). BT can improve SC transparency and trust (Wang *et al*., 2025). IoT-enabled SCs can provide real-time visibility into inventory levels and shipment tracking (Lee & Shin, 2025).

Research by Chen *et al*. (2025) demonstrated that AI-driven forecasting models can improve SC visibility by predicting demand fluctuations, inventory levels, and potential disruptions. A study by Li *et al*. (2025) highlighted the importance of data quality and standardisation in SC

information sharing. The authors proposed a framework for data governance in SC, emphasising the need for standardised data formats and protocols to facilitate seamless information sharing. The literature suggests that SCTs can improve information sharing by enhancing transparency, visibility, and predictability. However, effectively implementing these technologies requires careful consideration of data governance, standardisation, and security. Therefore, this study proposed the following hypotheses:

H_1: The Internet of Things (IoT) positively relates to information sharing in the South African retail industry.

H_2: Blockchain Technology positively influences information sharing in the South African retail industry.

H_3: Digital supply chain twin) positively affects information sharing in the South African retail industry.

Supply chain technology and supply chain performance

Technology integration in SCM has become increasingly crucial for businesses to stay competitive. SCTs, such as blockchain, artificial intelligence (AI), and the Internet of Things (IoT), have been adopted to improve SCP (Wang *et al*., 2025). This review examines the empirical evidence on the relationship between SCTs and SCP. Studies have shown that BT can significantly improve SCP by enhancing transparency, traceability, and security (Kamble *et al*., 2020; Saberi *et al*., 2019). A recent study by Wang *et al*. (2025) found that blockchain adoption improved SC resilience and reduced counterfeiting. AI has been found to strengthen SCP by predicting demand, optimising inventory, and streamlining logistics (Carbonneau *et al*., 2020; Efendigil & Önüt, 2020). A study by Li *et al*. (2025) demonstrated that AI-powered predictive analytics improved SC agility and responsiveness. IoT technologies have been shown to strengthen SCP by enabling real-time tracking, monitoring, and analytics (Atzori *et al*., 2018; Qiu *et al*., 2020). In addition, Zhang *et al*. (2025) found that IoT adoption improved SC visibility and reduced costs.

The empirical evidence suggests that SCT, including blockchain, AI, and IoT, can significantly improve SCP. These technologies can enhance transparency, predictability, and visibility, improving resilience, agility, and responsiveness. Therefore, adopting SCT is crucial for businesses to stay competitive in today's fast-paced global market. This review provides empirical evidence on the positive relationship between SCT and SC performance. However, some authors propose that more research should focus on exploring these technologies' implementation challenges and opportunities in different industries and contexts. Given the above discussions, the following hypothesis was proposed.

H_4: Supply chain technologies positively impact the supply chain performance of the South African retail industry.

Information Sharing and Supply Chain Performance

Research by Li *et al*. (2025) identifies three key dimensions of IS: information quality, information sharing intensity, and information sharing frequency. Their study reveals that these dimensions significantly impact SCP, particularly operational efficiency and responsiveness. A study by Wang *et al*. (2025) highlights the importance of real-time information sharing in SCs. Their findings indicate that real-time IS enables better collaboration, reduced lead times, and improved inventory management, ultimately enhancing SCP. Research by Chen *et al*. (2025) explores the impact of IS on SCP in the context of global supply chains. Their findings indicate that cultural differences, technological infrastructure, and regulatory environments influence the effectiveness of IS in improving SCP. Empirical studies consistently demonstrate a positive relationship between IS and SCP (Li *et al*., 2025; Wang *et al*., 2025; Zhang *et al*., 2025). However, future research should investigate the role of emerging technologies, such as blockchain and artificial intelligence, in enhancing IS and SCP. Therefore, this study proposes the following Hypothesis:

H_5: Information sharing positively influences the supply chain performance of the retail industry in South Africa.

Mediation

Information sharing is critical in SCs, facilitating collaboration, reducing uncertainties, and improving responsiveness. Studies have demonstrated that information sharing mediates the relationship between SCTs and SCP. For instance, Zhang *et al*. (2024) found that information sharing significantly mediates the impact of IoT adoption on SC agility and responsiveness. Similarly, Li *et al*. (2025) showed that information sharing enhances the effectiveness of digital twin technology in improving SCP. Several empirical studies provide evidence of the mediating role of information sharing. Furthermore, Chen *et al*. (2024) found that information sharing mediates the relationship between SCT adoption and SCP, measured in terms of efficiency, responsiveness, and flexibility. Liu *et al*. (2025) used structural equation modelling to demonstrate that information sharing significantly mediates the impact of supply chain technology on supply chain resilience. According to a study by Zhang *et al*. (2025), IS improves SCP by enhancing SC visibility, facilitating collaborative planning, and enabling rapid response to disruptions. Their research suggests that IS acts as a mediator between SC integration and SCP. Thus, the literature review provides evidence of the mediation role of information sharing in the relationship between SCTs and SC performance. However, as SC continue to evolve, understanding the critical role of information sharing will be essential for organisations seeking to leverage technology and improve performance. Therefore, the following hypothesis was formulated.

H_6: Information sharing mediates the relationship between supply chain technologies and performance.

RESEARCH METHODOLOGY

Research approach and design

A quantitative study, employing structural equation modelling (SEM), was utilised as a research method to collect and analyse data in this study. The quantitative research is preferred over other methods because it is more objective, scientific, fast, acceptable and focused (Kumar & Praveenakumar, 2025). Correlational and survey research designs were employed, and a questionnaire was used to collect data from respondents.

Research sample and sampling method

The questionnaire was distributed to respondents, comprising owners, managers and SCM practitioners from the retail industry in the Vaal Triangle region of South Africa. A final sample of n=173 was used to analyse data, based on the endorsements by Hazari (2024) that sample sizes of between 150 and 600 units are suitable for multivariate and quantitative studies. To ensure that respondents from the three areas of the Vaal Triangle (that is, Vereeniging, Sasolburg and Vanderbijlpark) were represented in the sample, a non-probability sampling method coupled with a purposive sampling technique was used in the selection of respondents. Thus, the respondents were purposely selected because they possessed characteristics and an educational background appropriate to the research objectives. The requirements or qualifications involved knowledge of SCM technology, SC information and SCM in general. Furthermore, the sampling technique ensures that the data collected is rich and vital to the study's objectives, leading to more significant and focused outcomes. It allows in-depth data collection, and researchers can dig into complex subject matter with respondents who extend specified knowledge and insights, making it possible to explore refinements and nuances that might be lost with a more generalised approach.

Measurement items

Items measuring SCT were adapted from Chen *et al*. (2024), while those for SC information sharing were adapted from Chen *et al*. (2025). The SCP scale was adapted from Chen *et al*. (2024) and Li, Liu and Zhang (2025). All measurement items were established and accepted from the previous studies, having realised Cronbach's alpha values above 0.7. Every item in the measurement scale was designed for response utilising a five-point Likert scale in which one indicates “strongly disagree” and 5 “strongly agree. Data were collected between September 2024 and March 2025. The extended period of six months was attributed to the number of questionnaires distributed.

Statistical analysis

Inferential and descriptive statistics were used to analyse data. Descriptive statistics is a collection of mathematical methods and tools applied to define, present, and summarise the essential elements of data, such as its central tendency, averages, variability, and distribution. Inferential statistics is also a tributary of mathematics that facilitates drawing conclusions about a target population in research from comparatively smaller samples (Wooditch *et al*., 2021). The SPSS and SMART partial least squares (PLS version 3.0) packages were utilised in analysing the collected data.

Ethical considerations

Respondents were notified that their participation in the study was strictly voluntary, and it was highlighted in the consent form that they could withdraw from the study at any time. Respondents remained anonymous, and their privacy was preserved by guaranteeing that their identities were not mentioned anywhere in the study. Respondents were not given any monetary incentives for participating in the study.

RESULTS

Respondents' characteristics

Table 1 shows the response rate.

TABLE 1: RESPONSE RATE

Description	Frequency
Total number of survey questionnaires distributed	250
Total amount of returned	213
Discarded questionnaires	40
Retained useful questionnaires	173
Response rate (%)	69.2%

Source: Author's compilation

Table 1 summarises that 250 survey questionnaires were distributed to the selected sample. From this sample, 213 questionnaires were returned; from these, 40 questionnaires contained errors and mistakes and were considered not usable for data analysis. The retained questionnaires were 173, translating to a 69.2% response rate. According to Hazari (2024), this response rate is applicable for data analysis in quantitative research.

Demographic Results

Table 2 presents the demographic results, which constitute the first part of the analysis of results.

TABLE 2: DESCRIPTIVE STATISTICS RESULTS

Variable and category	Frequency (N)	Percentage (%)
Gender		

Male **Female**	104 69	60.1 39.9
Total	*N* = 173	100
Race **African** **White** **Indian/Asian** **Coloured**	 94 42 23 14	 54.3 24.3 13.3 8.1
Total	*N* = 173	100
Age **18-25 years of age** **26-33 years of age** **34-41 years of age** **42-49 years of age** **50> years of age**	 9 64 80 12 8	 5.2 37.0 46.2 6.9 4.7
Total	*N*= 173	100
Highest level of education **Diploma** **Degree/Honours** **Master's and higher**	 65 88 20	 37.6 50.9 11.5
Total	*N* = 173	100
Number of years in the organisation **1 to 5 years** **6 to 10 years** **11 to 15 years** **16 years and above**	 17 86 45 25	 9.8 49.7 26.0 14.5
Total	*N*=173	100

Source: Author's compilation

The results in Table 2 show that 104 were male respondents, while 69 were female respondents. This translates to 69.1 % males and 39.9% females. Regarding the distribution of respondents by ethnicity, most were black Africans (54.3%; n=94). Regarding the age distribution, most respondents were in the age group between 34 and 41 years (n=80; 46.2%). Concerning qualifications, most of the respondents (50.9%; n=88) had degrees and honours. Lastly, most respondents have been with their organisations for 6 to 10 years (48.7%; n=86).

Measurement Scale Accuracy

The accuracy of construct items was determined by reliability and validity testing. The measurement scale outcomes are presented in Table 3.

TABLE 3: CONSTRUCTS AND MEASUREMENT ITEMS

Construct	Item code	Standardised Factor Loadings	VIF	Cronbach's alpha	CR	AVE	$\sqrt{\mathbf{AVE}}$
Internet of Things	IoT1	0,894	3.341	0.883	0.892	0.787	0.887
	IoT2	0,903					
	IoT3	0.873					
	IoT4	0,751					
	IoT5	0,772					
BT	BT1	0.778	1.754	0.792	0.804	0.717	0.847
	BT2	0.872					
	BT3	0.903					

	BT4	0.753					
	BT5	0.804					
Digital Supply Chain Twin	DSCT1	0.911	2.687	0.821	0.825	0.737	0.858
	DSCT2	0.886					
	DSCT3	0.745					
	DSCT4	0.763					
	DSCT5	0.822					
Information Sharing	IS2	0,901	3.112	0.805	0.811	0.722	0.850
	IS3	0,766					
	IS4	0,834					
	IS5	0,791					
Supply chain performance	SCP2	0,764	2.874	0.745	0,754	0.684	0.827
	SCP3	0,778					
	SCP4	0.784					

Source: Authors' Compilation**.**

Exploratory factor analysis

In SEM analysis, exploratory factor analysis (EFA) is a mathematical process applied to disclose the main configuration of a large set of variables. Howard and O'Sullivan (2024) confirm that EFA is a method within factor analysis whose main objective is to detect the fundamental associations between measured variables. Table 3 shows that after conducting EFA, some of the items that IS1, SCP1 and SCP5 were discarded as they failed to meet the least value of 0.7 as Howard and O'Sullivan (2024) suggested.

Standard method bias and Analysis of reliability and validity

Data were collected using one survey source, a questionnaire. Therefore, there is the possibility of common method bias. Concerning the results of EFA, which were obtained using SPSS version 29.0 package, the total variance of one factor unrotated matrix is smaller than 0.5 or 50%, which indicates that the common method bias had no effect on the collected data (Podsakoff *et al*., 2024). The measurement properties of the variables were determined by conducting validity and reliability testing. Firstly, convergence validity was determined by the average variance extracted (AVE) scores. All the AVE values of constructs were greater than the cut-off point (0.5) (Ledford & Lane, 2024), indicating that convergence validity was acceptable in this study. Secondly, discriminant validity was tested using the Heterotrait-monotrait ratio (HTMT) Matrix.

The correlation coefficients between each pair of constructs should be less than one (Ekinci *et al*., 2023). All the correlation coefficients in the Matrix presented in Table 4 were smaller than the one for each construct, thereby providing evidence of discriminant validity among the constructs. Cronbach's alpha scores for the variables were all above the recommended 0.70, which ensured the internal consistency and reliability of the constructs (Ledford & Lane, 2024). Reliability was also measured by the item factor loadings, which were all more than the minimum 0.6 and acceptable as Cheung *et al*. (2024) recommended. Construct reliability was

tested using the composite reliability (CR) scores. As shown in Table 3, all constructs depicted CRs more than 0.7, which indicates that construct reliability was not a problem.

Multi-collinearity

Multi-collinearity is a situation where two or more predictor variables are closely interrelated. In addition, multicollinearity occurs when there is a correlation between many predictor constructs in a multiple regression model (Kyriazos & Poga, 2023). This study used variance inflation factor (VIF) scores to confirm the absence of collinearity from the collected data. VIF is an indicator or measurement of multicollinearity in an established group of multiple regression variables (Streukens & Leroi-Werelds, 2023). The outcomes in Table 3 specify that VIF values for all constructs were less than 5, as Kyriazos and Poga (2023) recommended, illustrating the non-existence of multi-collinearity among the constructs.

TABLE 4: CORRELATION BETWEEN THEORETICAL CONSTRUCTS

	IOT	BT	DSCT	IS	SCP
IoT	1.000				
BT	0.823	1.000			
DSCT	0.764	0.345	1.000		
IS	0,150	0.676	0.841	1.000	
SCP	0,099	0.725	0.154	0,929	1.000

Source: author's compilation.

Hypothesis Testing results

The hypothesis testing results of the study are highlighted in Table 5.

TABLE 5: RESULTS OF PLS HYPOTHESES TESTING ANALYSIS

Hypothesis	Path	B-values	T-values	P values	Remark
H1	IoT -> IS	0.311	10.785	0.000	Accept
H2	BT -> IS	0.244	8.451	0.000	Accept
H3	DSCT -> IS	0.413	12.823	0.000	Accept
H4	SCT-> SCP	0.278	9.230	0.000	Accept
H5	IS-> SCP	0.567	18.987	0.000	Accept

Source: Author's compilation.

The study explored the relationship between SCT, IS, and SCP of the retail industry in the Vaal Triangle, South Africa. The results in Table 5 indicate that all the hypotheses (H1, H2, H3, H4 and H5) were accepted. The results suggest that IoT BT and DSCT have a significant positive influence on IS (β = 0.311; t = 10.8785; p = 0.000; β = 0.244; t = 8.451; p = 0.000*; β = 0.413; t = 12.832; p = 0.000)*. This suggests that adopting SCTs positively impacts the IS in the retail industry of the Vaal Triangle region in South Africa. These results concur with the

previous studies, which established a positive and significant relationship between the same constructs (Abdullah *et al*., 2023; Veile *et al*., 2024). The results may suggest that the selected South African retailers have adopted both STCs in their SCs, and respondents were aware that their companies or organisations were applying these independent variables to enhance the IS. In addition, this could be attributed to the sharing of confidential or private information and trust between retail firms and their suppliers, given the security that comes with SCTs. Information is always protected from other people who happen not to be the SC partners. This also shows that most firms recognise the importance of information sharing among themselves and their suppliers.

Another interesting result indicates that SCTs have a significant positive effect on SCP (β = 0.278; t = 9.230; p = 0.000). This result is supported by previous studies whose results show the positive influence of SCTs on SCP (Kamble *et al*., 2020; Saberi *et al*., 2019; Li *et al*, 2025; Wang *et al*., 2025). The results may imply that retail firms in the Vaal triangle are applying SCTs like ERP systems to automate tasks like order processing and inventory management, reducing errors and manual labour costs. Furthermore, the application of technology in their SC might have been facilitated because technological solutions can optimise inventory levels, minimise warehousing costs, and ensure that products are available when needed.

Information sharing significantly and positively mediated the relationship between IT and SCP (β = 0.567; t = 18.987; p = 0.000). The result concurs with the previous studies, which established that SCP is a result of IS amongst the SC partners (Chen *et al*., 2024; Li *et al*., 2025; Wang *et al*., 2025; Zhang *et al*., 2025). This result suggests that IT has appeared as the most crucial retailer's strategy that improves the SCP through IS's direct and indirect effect in the selected retail firms. In addition, this outcome implies that firms in the retailing sector aiming to strengthen their operational performance should focus more on implementing both IS and IT practices.

MEDIATION TESTING

Mediation was tested to determine the significance of changes in IS on the relationship between each SCT construct and SCP. Table 6 below highlights the results of mediation.

TABLE 6: MEDIATION RESULTS

Relationship	Mediating effect	T-value	p-value	Remark
IoT -> IS-> SCP	0,172	3.653	0.000	Positive mediation
BT -> IS-> SCP	0,189	4.847	0.000	Positive mediation
DSCT -> IS -> SCP	0,122	2.081	0.001	No mediation

Source: Authors' compilation.

Information sharing significantly and positively mediated the relationship between three SCTs (IoT, BT, DSCT) and SCP. However, all the mediating effects were weak, with the highest being observed between BT -> IS -> SCP (β = 0.189; t = 4.847; p = 0.000). This result implies that BT emerged as the most essential dimension of SCT practices that enhanced SCP through IS in the South African retail industry. Moreover, the results suggest that retail firms intending to improve their performance should focus on providing BT to their supply chain operations. In essence, the adoption of SCT by South African retailers can significantly improve their performance, creating a more efficient, cost-effective, and agile SC that is better equipped to thrive in the competitive retail environment.

CONCLUSION

This study employed structural equation modelling (SEM), utilising the SMART partial least squares (PLS) and SPSS packages, to examine the relationship between SCT practices, IS, and SCP in the retail industry of the South African Vaal Triangle region. The study confirms that implementing technology such as the IoT, BT, and DSCT positively contributes to IS in the retail sector. This current study further established that SCT completely influences SCP. Moreover, IS has a positive effect or influence on SCP. In addition, IS significantly mediated the relationship between supply chain Technologies and SCP.

THEORETICAL AND MANAGERIAL IMPLICATIONS

Here are some potential theoretical and management implications of a study on the influence of supply chain technology on information sharing and supply chain performance in the Vaal Triangle retail industry in South Africa: The study could contribute to the extension of existing theories the Technology Acceptance Model (TAM) by highlighting the role of supply chain technology in enhancing information sharing and supply chain performance. In addition, the study's outcomes could provide understandings and insights into how supply chain technology is adopted and utilised in the South African retail industry, specifically in the Vaal Triangle region, adding a contextual perspective to existing literature. Again, the study might reveal the mediating role of information sharing in the relationship between supply chain technology and supply chain performance, shedding light on the underlying mechanisms.

Retailers should invest in supply chain technology; retailers in the Vaal Triangle could benefit from investing in supply chain technology to enhance information sharing and improve supply chain performance. Moreover, the study's results might emphasise the need for strategic implementation of supply chain technology, considering the specific needs and context of the organisation. Additionally, management in the retail industry might need to invest in training and development programs to ensure that employees have the necessary skills to utilise supply chain technology effectively. Additionally, Retailers could invest in developing digital

literacy among employees to ensure effective utilisation of supply chain technology. The study could highlight the importance of collaboration and information sharing among supply chain partners to reap the benefits of supply chain technology. Lastly, retailers might need to establish effective performance monitoring systems to measure the impact of supply chain technology on supply chain performance. These implications and recommendations can be a starting point for further discussion and exploration.

RESEARCH LIMITATIONS AND FUTURE NEEDS

The depth of the study depends on its reference to the full spectrum of SC traceability practices. It was anchored on the widely recognised three SCTs, making it not an all-encompassing study. However, this present study has some limitations that can offer prospects for future studies. Firstly, the questionnaire could be improved, refined and reinforced to include many measurement items. Furthermore, the study focuses on the Vaal Triangle retail industry in South Africa, which may limit the generalisability of outcomes to other regions or industries. The study's sample size and response rate were restricted to 173 respondents, which may impact the representativeness of the findings and statistical analysis. The study also relied on self-reported data from a questionnaire survey, which can be subjective and prone to biases. Moreover, the study employed a cross-sectional design, which can only capture a snapshot of the current situation, rather than longitudinal changes. Lastly, the study focused on specific SCTs, potentially overlooking the impact of other technologies.

Future research directions may include conducting comparative studies across different regions, industries, or countries to increase generalisability and identify best practices. Again, future researchers may employ longitudinal designs to examine the evolution of SCT adoption and its impact on information sharing and SCP over time. Future studies may consider multi-perspective analysis. They may collect data from multiple stakeholders (e.g., suppliers, manufacturers, retailers) to gain a more comprehensive understanding of SC dynamics.

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THE ROLE OF INTERMODAL CONTAINER TRANSPORT IN POLAND'S MARITIME LOGISTICS

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ABSTRACT

The article analyses the importance of container and intermodal transport in global international trade using Poland as an example. The dynamic development of Polish seaports is conducive to the growth of the importance of container transport. Through a case study approach, this research analyzes data from Poland's largest Baltic Sea transshipment terminal to assess the interplay between maritime and land transport modes. The purpose of the study was to check the role of land transport in the context of the import and export of goods using container transport in Poland. The study was carried out on a case study. Data and information from the largest Polish transshipment terminal located in the Baltic Sea were used for quantitative analysis. The study showed that road transport dominates in export, while rail transport is gaining importance in import over long distances. The article emphasizes the need for investment in infrastructure, technologies, and cargo monitoring systems to increase the efficiency and flexibility of intermodal transport in response to global challenges and the growing demand for goods. These findings highlight the need for robust investments in infrastructure, advanced cargo monitoring systems, and technologies like automation and artificial intelligence to boost efficiency and adaptability.

Keywords: international trade; container transport; intermodal transport; maritime transport

INTRODUCTION

International trade through imports and exports is growing with a markedly increasing demand for goods. The main products are electronics and anything related to technological advancements in the world. This, in turn, means that shipping handles a significant portion of global (about 80%) and European foreign trade (about 70%) and one third of trade between EU member states (in value terms (UNCTAD, 2024). Globally, there are small but regular increases in trade (up 2.4% in 2023 compared to 2022) (Grzybowski, 2024). At the same time, global trade has experienced significant changes and challenges in recent years, and the COVID-19 pandemic has further exacerbated these changes. Significant disruptions in

maritime transportation have also been caused recently by political conflicts and trade wars, resulting in difficulties along the Suez and Panama Canals or increased shipping risks in the Red Sea (Miller & McVeigh, 2025; Tran *et al*., 2025). Consequently, this has significantly impeded smooth trade and lengthened the implementation of the sea transport process. These effects have been felt especially in the container transport market, which is a fundamental component of the international supply chain through the use of intermodal transport, where the container is the main cargo unit (Kumar & Anbanandam, 2023; Wang and Wang, 2022). Standardisation of the container's dimensions means that it can be transported using several modes of transport simultaneously. The most common use of this cargo unit is a combination of sea and land transport (rail and road), especially on long international routes. Therefore, the transport infrastructure plays an important role in terms of the possibility of transporting containers by combined transport (Rodrigue & Notteboom, 2020). In Poland, the intermodal transport infrastructure is not yet well developed. Still in the case of both rail and road infrastructure, numerous sections of major roads or rail routes need to be modernized or built, especially when it comes to transshipment points and transportation centers (Koźlak, 2020; Krzyżaniak, 2021). The lack or low level of integration of rail and road transport on some routes is a key problem that limits the use of intermodal transport opportunities in the country. On the other hand, the dynamic development of Polish seaports and direct connections to the world's global seaports promotes the exchange and development of the container transport market, which also involves Poland. The importance of container transport and intermodal transport in optimising foreign exchange goods makes this issue still relevant and poses many challenges, especially in less developed countries in terms of intermodal transport infrastructure, such as Poland. Therefore, the aim of the study is to see how the role of inland transport is shaping up against the import and export of goods using containerised transport in Poland.

THE ROLE OF CONTAINER TRANSPORT IN INTERMODAL TRANSPORT

A prerequisite for efficient intermodal transport is the provision of adequate infrastructure. In the main, it is the provision of an extensive network of air, sea, and river, road, and rail links. Both the density of the network and its size or location affect the execution time of the transportation and its cost. Transshipment points, in turn, should be equipped with the required equipment, i.e., cranes, forklifts, loading ramps, cranes, which allow handling cargo units such as a container. The proper functioning of an intermodal transport hub is also ensured by proper coordination and organisation of forwarding, transport, and logistics activities, where the most important aspect is free access to each of all means of transport (Popa & Goia, 2024).In the case of container transportation, the most commonly used modes of transport are sea and land. The integration of these branches of transport brings numerous benefits, where the most important are reduced transport costs, shorter lead times, reduced risk of damage to

transported goods, increased quality of transport services or the ability to carry more goods at once (Błaszczak, 2023). In addition, containerised transport provides better security for cargo against theft and weather, it is also less vulnerable to damage from transshipment, and the transported goods are secured by being sealed and secured throughout the journey (Roso *et al*., 2009).

The use of intermodal transportation in the container transportation sector plays an important role in maintaining the global supply chain and meeting the growing demand for products. Numerous external factors, such as the rise of e-Commerce, changing consumer preferences, and the need for flexibility in supply, have made container transportation a primary contributor to global trade despite the numerous crises and vagaries in the trade market (UNCTAD, 2023). Container shipping is extremely popular in international trade because it provides a fast, safe and economical way to move goods globally (Holguín-Veras & Wang, 2019). In 2021, container terminals handled 82.1 million tons of containerised cargo (5% more than a year earlier), of which by sea transport: 31.1 million (37.9%), by truck: 26.4 million (32.2%) and by rail: 24.6 million (29.9%) (GUS, 2023).

CONTAINER SHIPPING

Container sea transport is one of the most important and rapidly growing modes of transportation. The basic cargo unit is the container is a special cargo unit widely used in sea and rail transportation (Song, 2021). Their advantage is the ease of loading and unloading; this helps, for example, in multimodal transport, where there is a need to move goods between modes of transport. Container sea transport uses different containers to transport cargo, depending on a number of factors, such as cargo type, size, weight. Containers used in shipping are usually made of metal and have strict dimensions and designs, which must meet the requirements of international transport standards (Harrison & Stokes, 2013).

Seaports, equipped with container terminals or transshipment points, are an essential infrastructure in the implementation of container shipping. Seaports around the world play a key role in transportation processes, acting as points connecting different continents and enabling the movement of huge volumes of goods and people (Verhoeven, 2010). These are places of great importance for the global economy and require extraordinary infrastructure and logistics (Notteboom, 2009; Misztal, 2019). Equipped with container terminals or transshipment points, they enable the management of bulk and general cargo between sea and land transport. According to M. Stopford (2009), “ports provide the critical interface between ships and the land-based transport system, and their efficiency is a key determinant of maritime logistics performance.”

Seaports that handle container ships around the world play a key role in the global market and supply chain. They are focal points where hundreds of thousands of containers are loaded, transported, and unloaded, carrying a variety of goods to different continents. Marine container terminals are often part of larger ports and are located in or near major cities. Their location takes into account convenient access to rail and road networks. Both sea and land container terminals usually have storage areas where both loaded and empty containers can be stored. Loaded containers are stored for a short period of time, awaiting further transport, while empty containers can be stored for a longer period of time, depending on plans to reuse them (Cullinane & Wilmsmeier, 2011; Acciaro, 2013). Transshipment can take place between container ships and land vehicles, such as trains or trucks. It is also possible to transship between land vehicles, usually trains and trucks. The container management process is bidirectional (Załoga, 2013):

- From the ship to the terminal (unloading) directly onto semitrailers, railcars, or storage yard,
- From the terminal to the ship (loading), where containers are brought by road (TIR/rail) to the storage yard.

Import and export are key operations of transshipment terminals that ensure the smooth flow of containers and enable their efficient transportation in the global supply chain.

The largest seaports, which play a key role in international container trade and transportation, serving as hubs of the supply chain of immense global importance, are mainly from China (Wright, 2025). In terms of size and importance, Shanghai has held the top position as the world's largest container port since 2010. In 2014, the port handled an impressive 35.2million TEUs, making it one of the busiest ports on the globe (UNCTAD, 2023).The port plays a key role in global trade, handling container shipments to virtually all corners of the world. It has direct connections to ports in the United States, Europe, the Mediterranean, the Black Sea, Africa, Asia, and many other regions. The world's largest seaport also has a direct connection to Poland's port in Gdansk, on the Baltic Sea. Thanks to this connection, container transport from Shanghai to Gdansk can be carried out without the need for international transshipment, and the average delivery time is approximately a month (Port of Gdańsk Authority, 2022).

RESEARCH METHODOLOGY AND CHARACTERISTICS OF THE RESEARCH OBJECT

The purpose of the study was to see how the role of inland transportation is shaping up against the import and export of goods using container shipping in Poland. The study was carried out based on a case study. The quantitative analysis used data and information from Poland's

largest transshipment terminal located on the Baltic Sea. The Twenty-foot equivalent unit (TUE), a measure of volume expressed in units of twenty-foot containers, was used as the unit to measure the tons of cargo transported in the ocean freight industry. Data collected on a monthly basis included TUE information for containers defined as fully loaded and that were brought or exported to/from the terminal by truck or rail. On this basis, the three defined variables shown in Table 1 used further in the analysis. The data comes from a single terminal, so the study is limited to a case study, which may limit the generalization of the results to other ports.

TABLE 1: DESCRIPTION OF VARIABLES

Variable name	Category	Description
Type of land transport	Road transport	Containers are transported by trucks equipped with a container trailer
	Rail transport	Containers are transported by rail cars equipped with a container platform
Type of handling operation	Import	Import (import) means the delivery of containers to a transshipment terminal from various transportation sources, such as ships, trains, or tractor-trailers. Containers are unloaded from these modes of transport and transferred to the terminal for further processing or storage
	Export	Refers to the transportation of containers from a cargo terminal to various destinations, such as other ships, trains, tractor-trailers, or final storage sites. Containers are loaded onto the appropriate means of transport which then transports them to their final destination
Type of container	20’	Capacity: approx. 33 m³; 1 TUE
	30’	Capacity: approximately. 45–50 m³; 1.5 TUE
	40’	Capacity: ok. 67 m³; 2 TUE
	45’	Capacity: ok 86 m³; 2.25 TUE

The purpose is to test whether the amount of containers used at a transshipment terminal varies according to the type of transport or the type of transshipment operation. For this purpose, two null hypotheses were posed:

Null hypothesis (H01). There is no significant relationship between the number of containers filled and the type of transport.

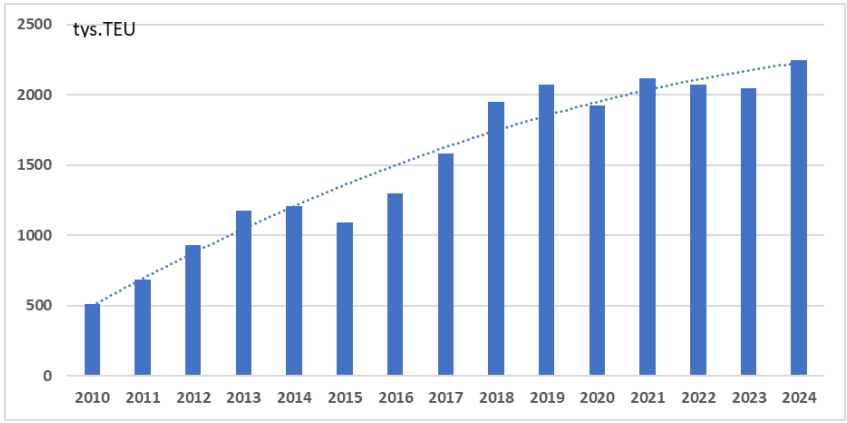
Null hypothesis (H02). There is no significant relationship between the number of filled containers and the type of transshipment operation (import or export).

To verify both hypotheses, a comparison was made between two independent groups, i.e., type of transport and type of containers (H01) and direction of container flow and type of containers (H02). In both cases, the dependent variable is quantitative and refers to the number of fully managed containers, while the grouping variable is nominally categorical. To compare averages between groups, Student's t-test was used to compare two independent groups. The PS Imago Pro software was used in the analysis.

CHARACTERISTICS OF THE SUBJECT OF THE STUDY

The transshipment terminal under study mainly handles containers transported by sea and land (rail or road transport), for both export and import. Due to its direct access to a deep-water quay, it enables it to receive the largest container ships and realise global ocean connections, such as those between Asia and Europe. The terminal covers an area of 88ha, with a storage area of 50ha (64,000 TEUs). The terminal is used for transshipment operations (transshipment from large ships to smaller ones) and import/export of containers. The annual volume averages more than >2.0 million TEUs. In 2023, the terminal handled 2 047 112 TEU (Port Gdańsk, 2025).[1] The exact figures for the transshipments performed are presented in Figures 1 and 2. Container transshipments (Fig. 1) followed an upward trend from 2010 to 2024. There was a slight slowdown in transshipments during the pandemic period, but in 2024 there was a clear increase in transshipments, with an increase of approximately 10% over the previous year at 2,249,000 TEUs.

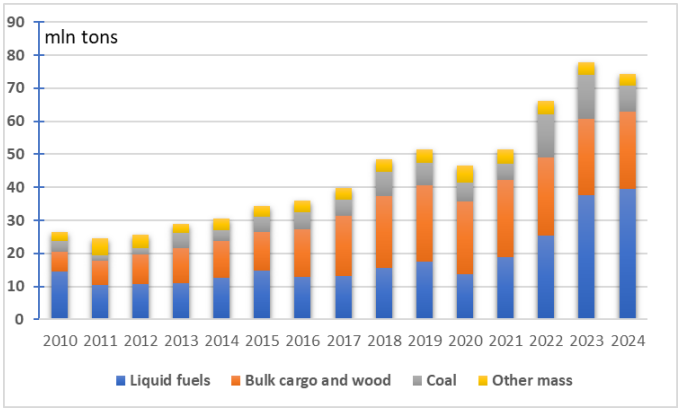
FIGURE 1: CONTAINER THROUGHPUT FROM 2010 TO 2024 [THOUSAND TEUS]



Source: Port of Gdańsk Authority (2025).

[1] Port Gdańsk, 2025, https://www.portgdansk.pl/biznes/informacje-ogolne

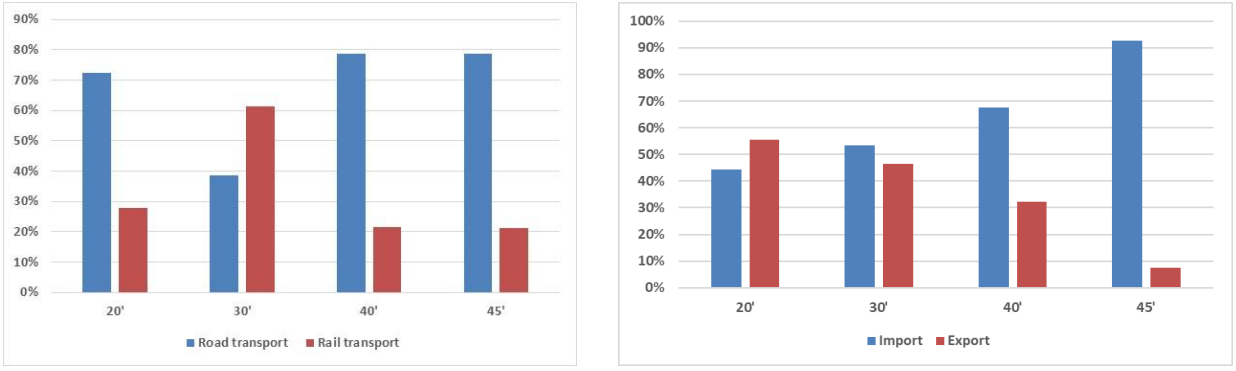
FIGURE 2: TYPES OF TRANSSHIPMENTS IN 2010-2024 [MILLION TONS]



Source: Port of Gdańsk Authority (2025).

The most common types of transshipments performed at the terminal were liquid fuels and timber and general cargo, which are 53% and 31%, respectively, in 2024. About 10% is the transportation of coal.

FIGURE 3: STRUCTURE OF TRANSSHIPMENTS BY TYPE OF LAND TRANSPORT USED AND TYPE OF TRANSSHIPMENT OPERATION



Source: Port of Gdańsk Authority (2025).

Analysing the structure of transshipments by the type of land transport used during transshipment at the studied transshipment terminal, there is a clear dominance of road transport for most containers, viz: 20', 40' i 45'. Rail transport dominates for 30' containers. On the other hand, analysing the type of transshipment operations, a significant difference can be observed between import and export operations due to the size of the container. Cargo is most often imported to the terminal with 40' and 45' containers, but less often exported with

them. In contrast, import and export operations are at similar levels for 20' and 30'. The detailed structure of the operations by mode of transport is presented in Table 2.

TABLE 2: STRUCTURE OF THE TYPE OF TRANSSHIPMENT OPERATIONS BY LAND TRANSPORT MODE (OWN RESEARCH)

Type of handling operation	Type of land transport	Container size			
		20'	30'	40'	45'
Import	Road transport	65%	61%	79%	78%
	Rail transport	35%	39%	21%	22%
Export	Road transport	73%	1%	70%	92%
	Rail transport	27%	99%	30%	8%

Most import and export operations are carried out on the road (an average of 71% and 59% of all containers handled). Rail transport is used far less often, which may be due to inadequately well-developed rail infrastructure.

SURVEY RESULTS

To verify the hypotheses, a T-test of independent samples was performed in SPSS software. The information needed to decide whether to reject the null hypotheses is placed in Tables 3 and 4, where V means that equality of variances was assumed, and NV means that equality of variances was not assumed.

TABLE 3: INDEPENDENT SAMPLE TEST FOR MODE OF TRANSPORTATION (OWN RESEARCH)

Container size		Leven test		Student's t-test for equality of means						
		F	Relevance	t	df	p	Difference in averages	Standard error of difference	95% confidence interval for difference in means	
									Lower limit	Top limit
20	V	11,36	0,002	12,31	46	<,001	1441,62	117,13	1205,83	1677,41
	NV			12,31	32,67	<,001	1441,62	117,13	1203,21	1680,03
30	V	10,22	0,003	-2,10	46	,041	-7,41	3,53	-14,52	-0,30
	NV			-2,10	40,13	,042	-7,41	3,53	-14,55	-0,27
40	V	352,82	<0,001	8,18	46	<,001	6925,50	845,95	5222,68	8628,31
	NV			8,18	26,09	<,001	6925,50	845,95	5186,91	8664,08
45	V	278,54	<0,001	3,98	46	<,001	1828,75	459,53	903,75	2753,74
	NV			3,98	27,53	<,001	1828,75	459,53	886,71	2770,78

First, it is important to know the value of Levene's test, which tests the assumption of equality of variance in the groups being compared. In the case of differences in the number of

containers handled by mode of transport, Levene's test proved statistically significant for all container sizes tested. This means that the variances of the two groups are heterogeneous, which should be written as: for 20': t(32,676) =12.307; p <0.01; for 30': t(40,139) =12.307; p <0.01; for 40': t(26,093) =-8,187; p <0.001; 45': t(27,536) =-3.980; p <0.001.

TABLE 4: TEST FOR INDEPENDENT SAMPLES FOR THE DIRECTION OF FLOWS (OWN RESEARCH)

Container size		Leven test		Student's t-test for equality of means						
		F	Relevance	t	df	p	Difference in averages	Standard error of difference	95% confidence interval for difference in means	
									Lower limit	Upper limit
20	V	53,14	<0,001	-1,02	46	0,316	-243,54	240,03	-726,68	239,61
	NV			-1,02	33,41	0,318	-243,54	240,03	-731,65	244,57
30	V	8,33	0,006	2,31	46	0,025	8,08	3,49	1,04	15,13
	NV			2,31	41,20	0,026	8,08	3,49	1,02	15,15
40	V	352,82	<0,001	4,32	46	<0,001	4831,33	1118,42	2580,06	7082,61
	NV			4,32	30,60	<0,001	4831,33	1118,42	2549,09	7113,58
45	V	278,54	<0,001	7,73	46	<0,001	2715,75	351,48	2008,24	3423,26
	NV			7,73	23,76	<0,001	2715,75	351,48	1989,93	3441,57

In the case of differences in the number of containers handled by direction of flow, Levene's test also proved statistically significant for all container sizes tested. This means that the variances of the two groups are heterogeneous. , which should be written as: for 20': t(33,408) =-1.015; p <0.001; for 30': t(41,193) =2.310; p <0.01; for 40': t(30,602) =4,320; p <0.001; 45': t(23,763) =7,726; p <0.001. Completing the calculations is the estimation of the effect size measure, i.e.: Cohen's d measure (uses the combined standard deviation) for both test cases (Table 5).

TABLE 5: EFFECT SIZES FOR COHEN'S D INDEPENDENT SAMPLES BY MODE OF TRANSPORT (OWN RESEARCH)

Container size	The value of Cohen's d statistic	
	Type of transport	Direction of flow
20’	3,55	0,29
30’	0,60	0,66
40’	2,36	1,24
45’	1,14	2,23

Analysing the results of the strength of the effect due to the mode of transportation, it is observed that the value of d for container 20' = 3.553, 40' =2.363 and 45'=1.149 means that

the effect of the difference is very large. On the contrary, for a container 30' =0.606, the difference is insignificant. On the other hand, in the case of the strength of the effect due to the direction of the flow of containers, it is observed that for container 20' =0.293 there is a small difference between the study groups, while for container 30' = 0.667 the difference effect is medium, and for 40’ = 1.224 and 45'=2.230 the difference effect is very large. This difference can be observed exactly based on the statistics for the groups (Table 6).

TABLE 6: STATISTICS FOR GROUPS BY MODE OF TRANSPORT AND DIRECTION OF CONTAINER FLOW (OWN RESEARCH)

Container size	Type of transport	Mean	Direction of flow	Mean
20’	road	2338,08	import	1495,50
	trail	896,45	export	1739,04
30’	road	12,75	import	20,50
	trail	20,16	export	12,41
40’	road	9518,75	import	8471,66
	trail	2593,25	export	3640,33
45’	road	2498,91	import	2942,41
	trail	670,16	export	226,66

The average number of TEUs of cargo carried in full containers was 2338.08 TEUs for the smallest container of road transport, which was 260% more than for rail transport. A similar situation applies to 40' and 45' containers, where road transport also dominates (267% and 272% more cargo compared to rail transport, respectively). On the other hand, in the case of the 30' container, rail transport dominates, and it is more than 66% more cargo transported. On the other hand, analysing the direction of flow, the smallest 20' container was more often fully filled during the export activity from the transshipment point (about 16% more). For the other types of containers, more cargo was brought to the point than exported (in the case of 30', 40' and 45' by 65%, 32% and more than 1000%, respectively).

DISCUSSION OF THE RESEARCH RESULTS

The results of the analysis provided important information on the variation in the structure of the land transport used to transport containers at the analysed transshipment terminal. The study showed that road transport is used more often than rail transport, especially in export operations in maritime transport. The advantage of the share of road transport over rail transport may be due to the greater flexibility of this mode of transport and its ability to directly access transshipment points, warehouses, production facilities, or distribution centres. Monios, J., and Bergqvist, R. (2016) in their study analysed the structure of intermodal transportation, with a focus on the relationship between road and rail. They point out that rail transport dominates over long distances in imports, while road transport dominates more often in exports due to its flexibility. The dominance of road transport, especially in exports, indicates the predominance of this mode of transport in short-distance relationships and in situations

requiring high operational flexibility (Notteboom & Rodrigue, 2005; Woxenius, 2007). Rail transportation, on the other hand, is showing an upward trend, especially in the context of long-distance import shipments, which may be due to environmental regulations. The direction of movement of goods affects the intensity of container use. It is observed that imports are slightly more balanced between rail and road, while exports dominate road shipments. The dominant role of road transport in exports is also shown in the report of the European Court of Auditors (2021). The different transport structures of exports and imports may also reflect asymmetry in the location of key logistics points and the strategies of logistics companies and terminal operators. These observations confirm the research of Swiderski (2018), who emphasises the influence of geographic, infrastructural, and system conditions on the choice of transport mode in intermodal transport. Differences in transport patterns in exports and imports may be due to asymmetries in the location of key logistics points and the strategies of logistics companies and terminal operators.

CONCLUSIONS

Container transport is one of the most growing modes of transport. During the COVID-19 pandemic, container transportation was one of the few industries that not only survived, but also experienced growth compared to previous years. Despite the impact of the pandemic on the global economy and the restrictions, container transport continued to show significant growth. Crisis situations have altered trade patterns and increased demand for consumer products, and with this has come increased demand for container transportation. The growth of e-Commerce and increased online ordering has resulted in an increased need to transport goods by container. Furthermore, economic growth in some regions, despite the pandemic, has contributed to increased demand for imports and exports, which in turn has translated into increased container transportation.

Technological advances that have increased the efficiency and productivity of logistics operations have also played an important role in growing container transportation. Container transport shows that the ability to respond flexibly to changing conditions and adapt to new requirements is a key factor in success in the logistics industry. This conclusion can demonstrate important actions for the future of container transportation, pointing to the need to further develop adaptability and invest in technologies that enable efficient service in dynamic and unpredictable conditions. In the event of supply chain disruptions, it is important to have effective cargo tracking and monitoring systems. Automation and artificial intelligence can help improve cargo visibility and enable rapid response to potential problems.

The results of the study provide important considerations for terminal operators, shippers, and policymakers in shaping transportation policy. The growing importance of rail transport in

imports suggests the need for further investment in rail infrastructure (e.g., intermodal terminals, sidings, IT systems for cargo flow management). On the other hand, the dominance of road transport in exports indicates the need to improve domestic distribution processes and integrate road transport management systems with port platforms. The development of transport infrastructure, including intermodal terminals, is crucial to the efficiency of intermodal transport and can influence the choice of transport mode. Limitations of the study include focusing on data from one transshipment terminal, which limits the possibility of generalizing the results to other ports in Poland.

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TRACK 10: INFORMATION AND COMMUNICATION TECHNOLOGY

DIGITAL ORIENTATION AND STRATEGY IMPLEMENTATION: THE PUBLIC SECTOR PERSPECTIVE

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ABSTRACT

Although public sector organisations invest enormous time in drafting strategic plans, there is a high failure rate with regard to strategy implementation (including digital strategies), which often leads to poor performance. While resources are disbursed to cater for strategy implementation, leadership devotes less time due to participation in political activities during working hours. The primary objective of this study was to probe the nexus between digital orientation and strategy implementation in the South African public sector. The methodological foundation of this study is grounded on the constructivist paradigm, focusing on a qualitative approach using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) technique to investigate the relationship between digital orientation and strategy implementation. The findings suggest that poor communication, training, political engagement, and laws and regulations are common barriers that frequently lead to strategy implementation failure in the public sector. This study recommends the appointment of dedicated and qualified senior managers who can successfully drive strategy implementation.

Keywords: Digital orientation; strategy implementation; public services; public sector

INTRODUCTION

The widespread use of information and communication technology (ICT) has significantly reformed the ever-growing demand for public services throughout the world (Baloyi and Beyers, 2019). While the digital orientation era is promptly reshaping the public sector areas (including education, healthcare services, agriculture, and social services) through public engagement and participation (Madaki, Ahmad and Singh, 2024), the application of digital technologies such as the Internet of Things (IoT), artificial intelligence (AI), cloud computing, blockchain, big data, and virtual platforms have transformed the business models and enhanced decision-making processes leading to streamlined internal processes and improved public services (Di Giulio and Vecchi, 2023; Edelmann and Mergel, 2022). However, effectively implementing those digital strategies has been a hurdle to realising the

organisation's predetermined objectives, particularly for emerging economies like South Africa. To this effect, though, the literature suggests a high failure rate of approximately 80-90% of strategy implementation concerning digital technologies and other strategies in the public sector, particularly in emerging economies (Nkone, Matoka and Ngirwa, 2024; Amin and Afiqah, 2024; Syed, Bandara and Eden, 2023; Baloyi and Beyers, 2020; Olivier and Schwella, 2018).

Notwithstanding the existing literature, studies that specifically focus on the implementation of the Fourth Industrial Revolution (4IR) technologies strategies in the public sector remain inadequate (Khodakivska, Prystupa, Ivanyshyna, Panura and Tuchak, 2023). Accordingly, there is a call for more research to review the persisting challenges that restrain the progress of implementing those strategies and identify opportunities leading to efficient digital strategy implementation in the public sector. Apart from several digital technology advances (e.g., AI, the IoT, big data, virtual platforms, and cloud computing), the e-government model has been regarded as an essential vehicle and enabler for digital strategy implementation by different public sector organisations (Ngome and Yeom, 2024). The model has been segregated into four approaches, namely: government-to-citizens (ICT strategies that enhance interactions with the general public), government-to-employees (intensifies relationships with the officials to modify the internal processes through technologies), government-to-business (design strategies to augment communication with businesses electronically), and government-to-government (online services aiming at improving intergovernmental relations) (Chilunjika, 2024). These e-government models are paramount to improving interactions between the government and manifold stakeholders in implementing digital strategies.

According to Amin (2023), top executives and middle management of public sector organisations are at the forefront of developing strategic plans and greatly influence the implementation of these initiatives. One can argue that the intentions to implement digital strategies in the public sector derive from not only the effective distribution of resources (e.g., financial, human, physical and technical) to embrace a change in the turbulent business environment but also top management commitment to drive the strategic intent (vision, mission and values) and ensure policy development and successful strategy implementation (Syed et al., 2023). Moreover, while executives ensure that the public sector enhances individual and organisational performances, developing and executing practical communication tools, ensuring fair and impartial reward systems (both monetary and non-monetary), and fostering collaboration with external stakeholders to accelerate the implementation of digital strategies are pivotal (Tomazevic, Murko and Aristovnik, 2024). Even though digital technologies may vary in the extent and scope of the public sector, executives'

willingness to implement digital mechanisms is of utmost importance to the realisation of the strategic objectives of the public sector.

While South Africa envisages attaining the priorities (e.g., poverty eradication and reduced inequality, *inter alia*) regarding the Sustainable Development Goals (SDGs) as set by the United Nations' (United Nations, 2024) and National Development Plan (NDP) and Vision 2030: Our future – make it work (National Planning Commission, 2012), the implementation of digital strategies in the digital domain becomes the focal point to improve public services and the well-being of citizens.

Whereas the scholarly debates on emerging digital technologies (e.g., the IoT and AI) are ample, studies focusing on the strategy implementation in the public sector and its failure rate remain scarce in the literature, specifically for emerging economies (Fachridian, Ramli and de Araujo, 2024; Amin, 2023; Syed et al., 2023) and South Africa is no exception. It is argued that although it is imperative to comprehend the critical success determinants (i.e., the drivers) to implement digital technologies in the South African public sector, it is equally significant to explore the dimensions leading to the persistent failures to circumvent the recurrence of the same blunders in the future. This can help the South African public sector improve the aspects of digital strategy implementation and bolster the achievement of the SGD targets. The following section underscores the research problem.

PROBLEM STATEMENT

From the literature, advanced economies seem to appropriate adequate funds to foster the adoption and implementation of new digital technologies while emerging economies like South Africa still struggle to allocate enough budgets for ICT programmes (Ngome and Yeom, 2024). Apart from that, the country is inundated with socio-economic disparities (e.g., inequality), digital illiteracy, digital divide, and bureaucracy (including politics), which are catastrophic and underscore the research problem revolving around the effective implementation of digital strategies within the public sector of South Africa (Chitimira and Munedzi, 2024; Shibambu, 2024).

OBJECTIVES OF THE STUDY

Derived from the research problem, the primary objective of this study is to probe the nexus between digital orientation and strategy implementation in the South African public sector.

In supporting hereof, the secondary objectives of the study are as follows:

- To identify the main drivers of strategy implementation in the public sector.
- To evaluate barriers obstructing the effective implementation of digital technologies.

LITERATURE REVIEW

Despite the proliferating research on the 4IR technologies, the linkage between the public sector's digital orientation and strategy implementation seems an under-researched topic, particularly in emerging economies (Syed et al., 2023). Therefore, this section discusses the literature on digital orientation and strategy implementation in the public sector. It starts with describing the study context.

The context of the study

South Africa became free after the collapse of the apartheid regime in 1994. After that, while the e-government was developed in 1999, recently, the National E-government Strategy and Roadmap was established and rolled out to direct digital change and ensure an all-encompassing digital society to deliver efficient and cost-effective services to the citizens (Department of Communications and Digital Technologies (DCDT), 2024b). This strategy is intended to extend broadband services to marginalised and underserved communities nationwide. To this end, however, the DCDT, in collaboration with the Department of Public Service and Administration (DPSA) and the National Treasury, are at the forefront of driving digital transformation and its implementation in South Africa. In other words, these departments make informed decisions about digital technologies and implement some of them through the agency referred to as the State Information Technology Agency (SITA). For instance, the DPSA has established the "Draft Digital Government Policy Framework", intending to lead the implementation of emerging technologies, even though the policy is yet to be authorised by the South African parliament (DPSA, 2024).

Additionally, the "*National Data and Cloud Policy Framework"* was developed to address the rising need to reform service delivery models and manage massive data through state-of-the-art technologies, such as cloud computing (DCDT, 2024a). For example, since cloud computing in the South African public sector is in its preliminary stage, the policy underscores the implication of broad training and development of people to improve data administration and strengthen the adoption of this trailblazing technology. On the other hand, the government has also publicised the "*South African National Artificial Intelligence Policy Framework*", intending to exploit the integration of AI-enabled technologies (e.g., machine learning, natural language, virtual assistants, etc.) into the processes of diverse departments while enhancing the well-being of citizens and other stakeholders in the digital landscape (DCDT, 2023). In a nutshell, the framework focuses on South Africa's commitment to AI development and implementation, although not yet approved, adhering to ethical issues (e.g., data security, privacy, accountability and transparency), whilst ensuring the formation of sound governance structures seeking to address those issues and gaining public trust.

Theoretical framework

This study adopts the technology acceptance model (TAM) initially designed by Davis, Bagozzi and Warshaw (1989a). The rationale for embracing the TAM model is that the implementation strategy of digital technologies can only materialise when individuals display a readiness to accept technologies and *vice versa*. While the TAM model has been substantial in determining the individual's behavioural intentions to accept or reject technologies in the digital arena, it has been extensively and efficiently employed in the technological environment within the public sector (Aswar, Sumardjo, Wiguna and Hariyani, 2022; Huda, 2023). The TAM model is underpinned by two significant interlaced theoretical concepts in ascertaining individuals' behaviours while ensuring digital orientation: perceived ease of use and perceived usefulness (Davis et al., 1989a). These variables are essential in measuring the ICT successes or catastrophes and detecting bottlenecks obstructing individual acceptance of technology in the public sector. Succinctly, the perceived ease of use refers to the condition under which individuals have developed trust that utilising a specific system can yield positive results while disregarding physical and cognitive effort; on the other hand, perceived usefulness refers to the position in which individuals believe that utilising a particular system will improve their job prospects (Davis, Bagozzi and Warshaw, 1989b).

Digital orientation and strategy implementation in the public sector

As a new and strategic orientation concept in the public sector milieu, digital orientation has received limited academic attention, leading to a considerable research gap (Khuntia, Ning and Stacey, 2021). While digital orientation in the private sector has been broadly studied and effectively applied in different phenomena, such as Small, Medium and Macro Enterprises (SMMEs) and large firms, emerging digital technologies (e.g., AI, cloud computing, big data, virtual platforms, 3-Dimensional printing, and the IoT) have transformed the internal operations and benefitted those firms in generating returns or profits (Kindermann, Schmidt, Fengel and Strese, 2024; Zhou, Kohtamäki, Peng and Kong, 2024). Digital orientation has been defined in the body of knowledge. For instance, according to Amoah, Jibril, Odei, Bankuoru Egala, Dziwornu and Kwarteng (2023:5), digital orientation refers to the process of "using advanced technologies like social networks, mobile apps, and digitised processes to focus more on the digital business market". Instead, Kindermann et al. (2024:3) defined digital orientation as "the strategic directions implemented by a firm to create the proper behaviours for the continuous superior performance of the business". The scholars further accentuate the four fundamental factors imperative for the organisation to assimilate into their internal business process to achieve superior performance. These include digital technology scope, digital capabilities,

digital ecosystem coordination, and digital architecture configuration (Kindermann et al., 2024).

According to Baloyi and Beyers (2020:63), strategy implementation refers to "the process of executing the plans and policies of the organisation to attain long-term objectives". Despite the growing necessity to implement strategic plans and other strategies envisioned, it is argued that strategy implementation in the public sector is a topic that has not been extensively covered in the corpus of literature (Olivier and Schwella, 2018; Amin and Afiqah, 2024). However, this is because scholars have perceived strategy implementation in the public sector as an intricate task involving organisational capacity (e.g., resource availability – finance) and managerial competencies to steer the organisational activities (Baloyi and Beyers, 2020; Nkone et al., 2024). Although strategy implementation can be complex and not regarded as a one-size-fits-all technique, linking budgets with the chosen strategy is crucial to enhance the execution efforts. For example, it is contended that considering motivation and non-discriminatory incentives can accelerate the determination of public servants, thereby realising the public sector's strategic objectives (Tomazevic et al., 2024). Yet again, organisational architecture plays a significant role in tackling strategy execution issues, and it has been perceived as a key internal strength by Tshabalala, Boikanyo and Gomwe (2024) and Baloyi and Beyers (2020).

The connection between digital orientation and strategy implementation in the public sector has been explored (Fachridian et al., 2024; Madaki et al., 2024; Di Giulio and Vecchi, 2023; Khodakivska et al., 2023; Maragno, Tangi, Gastaldi and Benedetti, 2023; Mergel, Dickinson, Stenvall and Gasco, 2023; Syed et al., 2023; Edelmann and Mergel, 2022). More notably, it is argued that public sectors in most emerging economies (including South Africa) are faced with impediments, such as digital infrastructural deficit, digital divide, limited expertise, lack of appropriate regulatory frameworks, adverse attitudes, and resistance to change that lead to ineffective implementation of ICT strategies (Madaki et al., 2024; Mahusin, Sallehudin and Satar, 2024; Amin, 2023). Importantly, literature suggests that the attainment of adopted digital strategy and the potential brought by investing in digital technologies (e.g., AI and cloud computing) cannot be fully realised if these impediments persist in emerging economies' public sector (Chilunjika, 2024; Shibambu, 2024; Syed et al., 2023).

RESEARCH DESIGN AND METHODOLOGY

The methodological grounding of this study is based on the constructivist paradigm that focuses on a qualitative method using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) technique to probe the relationship between digital orientation and strategy implementation in the South African public sector. The basis for applying this

technique in this study was to ensure a robust, appropriate, thorough, and rigorous detection and selection process of the corpus of literature (Page et al., 2021) and foster thematic interpretation of academic discourses to maintain theoretical saturation on the relationship between digital orientation and strategy implementation in the public sector. The advantages of applying a systematic literature review include the following: (1) the techniques enhance time management and costs related to the collection of data, (2) it is simpler to administer as it is generally most foreseeable and therefore bears low risk, (3) since the technique does not involve human beings or animals' participants, data is collected secondarily and there is no potential harm, and (4) it assists the researcher in diminishing issues relating to prejudices (Morgan, 2022).

In using the PRISMA technique, the primary search of the corpus of literature began with an extensive detection of the topical matter (i.e., digital orientation and strategy implementation in the public sector), while observing the primary purpose. The corpus of literature was retrieved from the Web of Science, a renowned database of academic papers. Considering that emerging digital technologies (i.e., AI, IoT, cloud computing, blockchain, big data, and virtual platforms) are unpredictable and prevalent due to ever-evolving business settings, this review article only considered the recent corpus of literature. Moreover, the corpus of literature search was constricted to key concepts such as "*digital orientation*," *"fourth industrial revolution," "4IR," "strategy implementation," "public services," "service delivery*", and *"systematic literature review"*. Although the search outcomes showed numerous papers from the Web of Science, those papers were chosen, systematically appraised and synthesised to find appropriate themes and patterns associated with the topical issues. Furthermore, grey literature (i.e., government publications) was also included. The data quality enhancement (trustworthiness) and dependability were improved by allocating two autonomous reviewers to the process of screening the literature. The EndNote Referencing Manager (Version 21.1) was employed to ensure convenience in arranging and administering the data. Most vitally, the Referencing Manager assisted the researchers in detecting and deleting identical papers.

More to this, although some papers (i.e., peer-reviewed journal articles, conference papers, academic book chapters, and government publications) were contemplated in this study, others were eliminated based on the eligibility criteria (i.e., inclusion and exclusion criteria). In other words, a clean-up process was performed by erasing duplicates, non-English, irrelevant, and non-abstract papers.

RESULTS

The comprehensive search procedure from the Web of Science engine resulted in the identification of 2,125 papers (see Figure 1). Of the 2,125 papers retrieved, the researchers observed that eligibility criteria were critical. They cleaned the gathered sources by deleting

non-abstract, non-English, matching, and unsuitable documents. This led to 35 papers (including academic and grey literature) being contemplated for the PRISMA technique, as underscored in the phases below. Notably, this study included research on digital orientation and strategy implementation, focusing on the public and private sector environments due to the paucity of academic engagements on the former. That being the case, numerous sources included were peer-reviewed journal articles. In the end, 25 peer-reviewed journal articles, two academic book chapters, three conference papers and five grey literature were eligible for inclusion in the study (Refer to Table 2). The PRISMA review process perceived the following eligibility criteria, as described in Table 1.

TABLE 1: CRITERIA OF THE SYSTEMATIC LITERATURE REVIEW

Dimension	Description
Source of information	Peer-reviewed journal articles, conference papers, academic book chapters, and government publications.
Sector	Public sector and private sector (SMMEs and firms)
Key concepts	The following key concepts were searched: “digital orientation,” “fourth industrial revolution,” “4IR,” “strategy implementation,” “public services,” “service delivery”, and “systematic literature review”.
Research approach	Both qualitative and quantitative methods were included.
Language and timeframe	English, 2018-2024.

TABLE 2: STATISTICS OF THE SOURCES INCLUDED

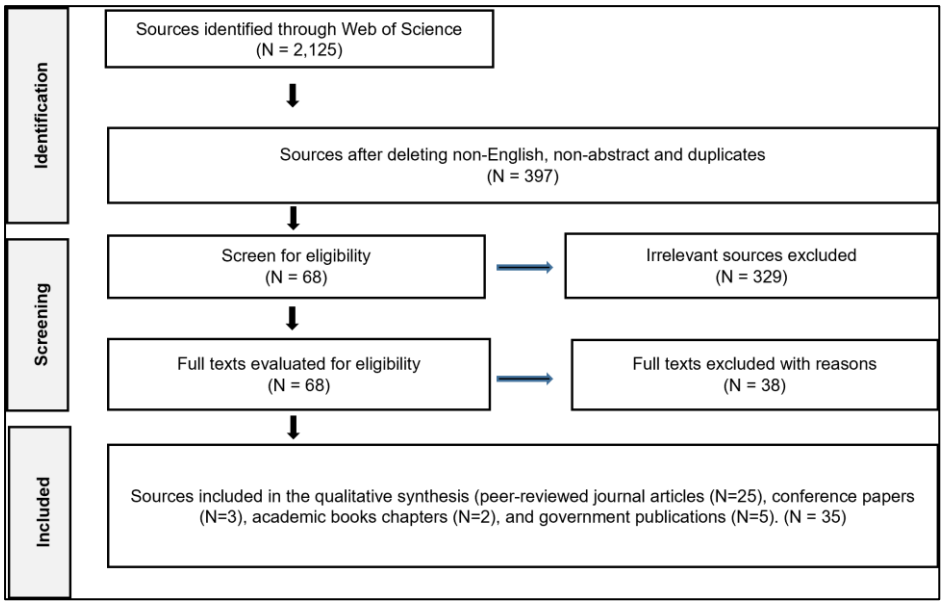
Category	Number	Percentage contribution
Peer-reviewed journal articles	25	71%
Academic book chapters	2	6%
Grey literature	5	14%
Conference papers	3	9%
Total	**35**	**100%**

While considering the eligibility criteria outlined above, the following phases were implemented in the process of identifying and selecting appropriate papers from the Web of Science search engine (also refer to Figure 1).

- **Phase 1**: Firstly, papers were sourced through the Web of Science search engine, with 2,125 results, ranging from 2018 to 2024 academic years.
- **Phase 2**: Secondly, whereas the deletion of non-English, non-abstract and identical papers was performed, 397 papers remained, leading to the removal of 1,757 sources.
- **Phase 3**: Thirdly, whilst the screening process of the papers has unfolded, 329 full-text papers were excluded based on irrelevancy, leaving 68.
- **Phase 4**: Fourthly, after that, 68 papers were crucially assessed for eligibility criteria to strengthen the study’s rigour.
- **Phase 5**: Out of 68 papers, 38 were disqualified based on the eligibility requirements of the topic.

- **Phase 6**: Thereafter, 30 papers, comprising peer-reviewed journal articles, academic book chapters and conference papers, were deemed appropriate for inclusion in the systematic literature review (grey literature was sourced directly from the department's websites, amounting to five publications).

FIGURE 1: PRISMA FLOW DIAGRAM



Adapted from Page *et al.* (2021)

DISCUSSION OF FINDINGS EMANATED FROM THE THEMES

The PRISMA technique assisted in detecting relevant themes and patterns aligned with the study's purpose. This section provides findings of the main drivers of strategy implementation and barriers obstructing the effective implementation of digital technologies in the public sector. Furthermore, the following findings were identified based on the critical evaluation and synthesis of the literature included in the study.

The main drivers of strategy implementation

The main drivers of strategy implementation, as per the findings derived from the systematic literature review, include top management dedication, organisational culture, organisational structure, reward systems, and resource allocations (Amin and Afiqah, 2024; Leonard, 2024; Tomazevic et al., 2024; Tshabalala et al., 2024; Di Giulio and Vecchi, 2023; Baloyi and Beyers, 2020). These key drivers of strategy implementation are intertwined and can negatively or positively influence each other. At the outset, these drivers are necessary for marshalling strategy implementation in the public sector.

Top management dedication

One of the enabling factors of strategy implementation in the digital era is top management's commitment to driving strategic management practices (i.e., strategic planning, implementation, and evaluation or control) in the public sector. While top management plays a vital role in supporting the implementation of digital strategies such as AI (Tomazevic et al., 2024), their sound decision-making mechanisms are indispensable and prevalent in overcoming obstacles associated with the resistance to change that may arise, thereby enhancing strategy execution efforts within the organisation (Tshabalala et al., 2024). Moreover, since top management is responsible for directing the strategic intent of the public sector organisations, they are expected to exert control, sustain flexibility and capacitate the public servants to ensure the prevalence of strategy implementation and boost public services to citizens (Baloyi and Beyers, 2020).

Organisational culture

Organisational culture involves norms, standards and values embedded in individuals that may impact (either positively or adversely) strategy implementation in the public sector (Amin and Afiqah, 2024). To this end, organisational culture can be an enabler or constraint to effective strategy implementation of digital technologies (e.g., cloud computing). Therefore, an organisational culture incompatible with the selected strategy (e.g., digital) can significantly hamper strategy implementation (Boikanyo and Gomwe, 2024). Thus, organisational culture should match a chosen strategy; in other words, a tight association should exist between the two variables. Consequently, scholarly arguments in the academic discourse in the public administration discipline confirm the linkage between organisational culture and strategy implementation in enhancing performance (Baloyi and Beyers, 2020; Amin and Afiqah, 2024; Fachridian et al., 2024). Despite that, organisational culture has a disintegrated outlook that displays the organisation. It can be a "bureaucratic, innovative and supportive culture" (Amin and Afiqah, 2024:73) towards implementing digital strategies. Having said that, most public sectors in emerging economies (including South Africa) are characterised by bureaucratic leadership that influences organisational culture and thus strategy implementation (Eresia-Eke and Soriakumar, 2021; Syed et al., 2023). The common slogan, which says "the way we do things around here", has been prevalent in management research and often interrupts the organisation's activities (including digital strategy and policy implementation) because it tends to reinforce resistance to change (Brown, 2023).

Organisational structure

As one of the vital internal capabilities of the public sector, the organisational structure has been viewed as a critical dimension influencing strategy implementation (Baloyi and Beyers, 2020) and enhancement of organisational performance (Olivier and Schwella, 2018).

Arguably, the public sector's process of linking the designated digital strategy with the organisational structure is nontrivial if the execution efforts are to be improved. Further, it is worth noting that the adoption of pervasive digital technologies (e.g., AI, the IoT, virtual platforms and cloud computing) by the public depends not only on middle managers' capabilities to drive strategy implementation but also on the availability of flexible organisational structure that accommodates those 4IR technologies (Maragno et al., 2023; Fachridian et al., 2024). That being the case, the tight relationship between organisational structure and strategy implementation can be inferred from the literature (Eresia-Eke and Soriakumar, 2021). As Senyo, Effah and Osabutey (2021) cited, the public sector may not successfully implement digital strategies if the existing organisational structures are not aligned with digital orientation activities. In other words, rather than investing much time in politics as a primary obstruction to embracing the modernised public sector, an all-encompassing structure could be valuable to improve the implementation of envisaged digital strategies.

Reward systems

Reward or incentive systems are the crucial drivers of strategy implementation in the public sector. These can include monetary and non-monetary rewards (Baloyi and Beyers, 2020). With the increasing necessity to accelerate the implementation of strategies (e.g., digital) and fast-tracking service delivery in the public sector realm, it is corroborated that one of the top management's responsibilities in ensuring the proper execution of those strategies has been allied with the introduction of rational reward systems (Amin and Afiqah, 2024). Generally speaking, the public sector's business model was instituted in the form of performance management and development systems (PMDS), aiming at motivating and compensating public servants for their outstanding performances in South Africa. Even though the model has been effectively introduced in an endeavour to fuel strategy implementation and policy execution, it lacked standardisation. It thus presented several loopholes (e.g., favouritism, discrimination and unfairness) regarding the performance review of public servants, leading to the system's withdrawal. This is consistent with the view of Syed et al. (2023), who state that rewarding individual performance is essential to uplifting public servants' morale and viewpoints towards implementing digital strategies.

Resource allocation

Resource allocation is at the core of the public sector's business (Baloyi and Beyers, 2020). Regardless of considerable improvements made pertaining to digital orientation, the public sector is overwhelmed by the limited resources related to the uptake and implementation of strategies, especially in emerging economies, including South Africa (Ngome and Yeom, 2024). In a nutshell, public sectors in emerging economies are constrained by budgetary and

funding challenges, exacerbating the realisation of 4IR initiatives and intensifying socio-economic disparities (Fachridian et al., 2024; Mahusin et al., 2024). However, political interference by top management has been a hurdle, resulting in ineffectiveness and budgetary constraints. Notwithstanding these obstacles, the process of aligning budgetary resources with predetermined objectives is substantial to attaining the public sector's strategic intent – vision, mission, values and long-term goals (Amin and Afiqah, 2024; Nkone et al., 2024). Even though governments encounter insufficient funding systems for digital projects, the ever-changing business conditions (e.g., political, economic, social, legal, ecological, and technological) coerce the public sector to adjust and adapt to those changes to survive in the digital epoch.

Barriers obstructing the effective implementation of digital technologies

The implementation of pervasive digital technologies often brings various technical glitches to public sector organisations, such as poor communication, ineffective training and capacitation of public servants, political interference, and a lack of binding laws and regulations. A scholarly debate by Eresia-Eke and Soriakumar (2021), Maragno et al. (2023), Amin and Afiqah (2024), Chilunjika (2024), and Fachridian et al. (2024) has all accentuated these glitches. Additionally, barriers to effectively implementing digital technology strategies emphasised below are derived from the themes recognised in the academic discourses.

Poor communication

According to Baloyi and Beyers (2020:66), communication "plays a significant role in disseminating information and knowledge during the strategy implementation process". Emerging communication strategies (e.g., virtual platforms – Microsoft Teams, Zoom, Skype, e-mails, video conferencing, and Google Meetings) are pivotal in augmenting the strategy implementation efforts of digital technologies in the public sector. They efficiently strengthen the interactions between governments and diverse stakeholders (including citizens and businesses). To this end, public sectors in emerging economies are inundated with ineffective communication approaches, and this adversely affects the systems, processes and procedures owing to the failure of strategy implementation of those organisations (Eresia-Eke and Soriakumar, 2021; Syed et al., 2023; Madaki et al., 2024). According to Shibambu (2024), digital tools of communication are prevalent in amplifying the execution of digital activities in the public sector while, at the same time, increasing information-sharing in a modern way with various stakeholders.

Ineffective training and development

The uptake of emerging digital technologies implies that the public sector needs to reshape its conventional practices and embrace innovative ways to reskill public servants to cope in the digital world, in so doing, ensure efficient and advanced service delivery to the public

(Edelmann and Mergel, 2022). As cited by Nkone et al. (2024), Tomazevic et al. (2024), and Madaki et al. (2024), skills acquisition through education and training, in-service training, coaching, and mentoring of public servants are very important and act as a vehicle to effective digital strategy and policy implementation in the public sector. However, the training and development of public servants must be customised to meet the organisation's specific needs (digital aspects) to thrive in the digital-driven economy. Additionally, regardless of the limited funding opportunities experienced by emerging economies like South Africa and other African countries, the public sector should strive to provide rigorous training linked to digital technologies to enhance internal operations (including digital strategy implementation) and individual performance (Shibambu, 2024).

Political interference

Even though the top management significantly influences organisational activities and strategic management practices, the public sector is besieged by political interferences, particularly hindering strategy and policy implementation. Accordingly, while resources are disbursed to cater for strategy implementation, leadership devotes less time due to participation and engagement in political activities during office hours, which negatively affects service delivery to the citizens (Eresia-Eke and Soriakumar, 2021). This is supported by Baloyi and Beyers (2020), who argued that political interference had been a debacle that derailed strategy implementation mechanisms, reducing public servants' morale and, thus, the public sector's performance. Moreover, Senyo et al. (2021) opine that recurrent political intervention often downplays the execution of digital strategies, obscuring the significance of emerging digital technologies in the public sector's decision-making procedures and the recognition of streamlined and seamless processes.

Lack of binding laws and regulations

Previous research had limited attention, emphasising external business conditions, such as governmental laws and regulations relating to strategy implementation in the public sector (Amin and Afiqah, 2024). Despite this, Eresia-Eke and Soriakumar (2021) discovered in their study of in-depth semi-structured interviews that while the external business conditions, such as political and governmental laws and regulations, were identified as an obstacle to effective strategy implementation in the emerging economies' public sector, the hierarchical structure (top-down) has been a leading contributor, particularly when the new administration is introduced after the government elections. From this perspective, digital strategies adopted by the public sector are poorly affected by the non-specific laws and regulations that prevent the fruitful implementation of digital strategy. On the other hand, Tomazevic et al. (2024) argue that although public sector organisations are progressively adopting 4IR technologies (e.g., AI), the smooth functioning of those requires the development of comprehensive laws and

regulations guiding the implementation of strategies. Those laws and regulations should be binding and compulsory when executing digital strategies.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

This study applied the technological acceptance model (TAM) by Davis et al. (1989a) to examine the nexus between digital orientation and strategy implementation in the South African public sector. From this perspective, the findings of this study derived from using the PRISMA technique reveal the barriers impeding the successful implementation of digital technologies in the public sector, such as poor communication, ineffective training and development, political interference, and a lack of binding laws and regulations guiding strategy implementation. These barriers provide insight that is an eye-opener to the public sector. In other words, they are significant in helping emerging economies like the South African public sector to remedy the *status quo* of the high rate of strategy implementation failures of digital strategies. Moreover, the main drivers to strategy implementation (e.g., top management commitment, organisational structure, organisational culture, reward systems, and resource allocation) were also critically probed. They are imperative in guiding the public sector while implementing pervasive digital strategies in the ever-evolving digital realm. Against this background, policymakers, practitioners, strategists, and decision-makers in the public sector, similar to the context of South Africa (i.e., emerging economy), can consider the findings of this study helpful and as a blueprint for successful strategy implementation of digital initiatives.

It is suggested that the appointment of committed and qualified senior managers (top management) in the South African public sector, who stay clear of political engagements during working time, be contemplated to eliminate the existing failure rate concerning strategy implementation, which is imperative for improving service delivery and the public's well-being. Furthermore, ample funding for South Africa's strategic and digital initiatives (through collaterals, international collaborations, and donors) can heighten strategy implementation determination and, as such, boost public servants' morale because the reward systems may also likely be enhanced. With this proposal, the South African public sector should reconsider its budget allocation process and earmark adequate funds tailored to improve digital programmes to ensure survival in the technology-driven economy. Broadly, the continuous training and development of public servants on digital matters can help close the strategy implementation gap currently faced by the South African public sector, as public servants will be aware of what is anticipated from them. Lastly, up-to-date communication strategies and approaches assimilating virtual platforms (e.g., Microsoft Teams, Zoom, e-mails, and Google Meetings) should be in place to facilitate and accelerate the implementation of the public sector's digital strategies.

CONCLUSION

The study sought to probe the relationship between digital orientation and strategy implementation in the South African public sector. As strategy implementation plays an imperative part in enhancing organisational performance and public services, it is contended that the South African public sector's capability to steer the execution processes can lead to the attainment of the vision, mission, values, and long-term objectives. One of the specific objectives of this study was to identify the major drivers of strategy implementation, such as top management commitment, organisational culture, organisational structure, reward systems, and resource allocation. These drivers are inevitable if the South African public sector takes into cognisance the prosperity in the digital age and enhances the innovation of public administration. Additionally, apart from the study's identification and discussion of the drivers accentuated above that are important to provide direction, the barriers to strategy implementation were also explored from the literature, which include poor communication, ineffective training and development, political interference, and the lack of binding laws and regulations. Considering the rising failure rates of strategy implementation in the public sector (Syed et al., 2023), including South Africa, exploring these barriers is essential. The public sector can learn from the results of this study while reforming its internal processes and systems to accommodate the repercussions of digital orientation. Lastly, possibilities for future research, which may be deemed necessary, are to focus critically on each of the drivers and barriers of strategy implementation within the context of the South African Public sector.

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TRACK 11: HUMAN RESOURCE MANAGEMENT

BEYOND THE BOOKS: EXPLORING THE WELL-BEING SUPPORT NEEDS OF MBA STUDENTS

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ABSTRACT

Well-being among postgraduate students is now being considered crucial to academic success and personal development. Yet, they report high levels of stress, anxiety, and loneliness, which impact their general study experience. This qualitative study explores the well-being needs of MBA students, and what they require in terms of support to excel academically and in life. Data were collected through 14 semi-structured interviews with MBA students and analysed using thematic analysis. The main themes identified were Current Well-Being, Support, Demands, and Resources. The research indicates that such issues discussed under institutional support could bring a big change in the academic life of MBA students. Recommendations include collaboration with student counselling services for custom-made offerings, mentorship programmes and enhanced peer support. These findings add to the emerging body of literature on student well-being in higher education and provide pragmatic recommendations to enhance MBA students' well-being.

Keywords: Adult learners; MBA students; postgraduate students; well-being needs

INTRODUCTION

In general, higher education (HE) students suffer significantly from dealing with well-being due to the demands of studying (Barrable, Papadatou-Pastou, and Tzotzoli, 2018). Alarmingly, Barrable et al. (2018) highlight that several studies have shown increasing levels of depression as well as anxiety encountered by HE students, which habitually go unfounded or undetected. A study by Healthy Minds Networks and the American College Health Association found that the mental health challenges of students increased from 17%-31%. Additionally, the study's findings suggest that 76% of the students surveyed in the United States of America, Spain, United Kingdom, France, and Nordic countries alluded that well-being maintenance is a real struggle. The growing prevalence of well-being challenges makes it clear that student well-being is a complex and global challenge that cannot be ignored.

Academics report high-stress levels, anxiety, and burnout (Zhang, Peng, and Chen, 2024), while students in universities are more susceptible to encountering mental health challenges

(Zhang et al., 2024). Moreover, Rautela, Sharma, and Panackal (2024) posit that well-being and mental health research within the literature related to management education conducted to date is presently still fragmented, although emerging. Morris (2021) postulates that issues related to psychological well-being have become more prevalent among university students in recent years, particularly among postgraduate students. MBA students work long hours, have family or personal commitments, and experience academic pressures and work-life balance challenges (Balroo and Al-Duwaile, 2018; Deng, Cherian, Khan, Kumari, Sial, Comite, Gavurova, and Popp, 2022).

PROBLEM INVESTIGATED

The problem is that well-being programmes or support services available do not consider the needs of working adults in postgraduate programmes like the MBA cohort. This can negatively impact postgraduate student retention, well-being and even graduation rates that reflect negatively on faculty and institutional strategic plans, goals and objectives.

Given the unique pressures experienced by working postgraduate students, particularly MBA students, conventional well-being services continually fail short of meeting their demands. Traditional services are developed for full-time students, not professionals with work, family, and studies to balance (Brown, Ross, Sangraula, Laing and Kohrt, 2023). Baruch and Leeming (2001) highlighted the unique needs of MBA students who possess high performance and leadership expectations that have been found to increase anxiety and reduce help-seeking behaviour. Current well-being programs tend to overlook the intricacies of working postgraduate students' lives. Financial support, peer support, and access to counselling services are critical in alleviating stress. Understanding how students perceive and utilise these support systems is vital for developing effective interventions (Yuhuan, Pengyue, Dong, Qichao, Dong, Anqi, Hongbo, and Zhixin, 2022). As a result, the voices and experiences of students can inform the development of strategies that not only mitigate stress but also cultivate a thriving, supportive environment conducive to both academic success and personal growth (Wilks & Spivey, 2010).

RESEARCH QUESTIONS

RQ1: How do students currently experience the MBA programme at the Business School?

RQ2: What support do MBA students currently have that supports their well-being?

RQ3: What are the MBA students' well-being needs beyond the existing services at the university?

LITERATURE REVIEW

Well-being is often used interchangeably with other terms such as 'happiness', 'flourishing', 'enjoying a good life' and 'life satisfaction', all of which have very different interpretations and underlying meanings (McCallum and Price 2016). Well-being is a broad construct that concerns how and why our lives have meaning and is an integral component of mental health (WHO, 2014). The general definition of well-being as a unidimensional construct is total personal welfare and enjoyment. According to Jarden and Roache (2023), well-being is defined and understood as how people function and assess their life from three aspects, namely a social, personal and holistic view.

Well-being models

Social Exchange Theory

According to Blau (1964), the impact of work relationships on well-being can be described in terms of and understanding the social exchange theory. Blau (1964) states that long-term relationships that are equally beneficial and reciprocal progressively enhance both parties' contributions to the level of a reasonable balance related to each party’s contribution and the value thereof. These interactions are dependent on mutually rewarding activities, and over time, such an exchange of rewards is perceived to create equally beneficial relationships. Furthermore, the social exchange theory proposes that when employees feel their organisations are considerate of their overall well-being, they respond with extra-role behaviours (Cropanzano and Greenberg, 1997).

Subjective Well-being (SWB)

Lepper (1996) states that the SWB defines the level of people's satisfaction, positivity, and happiness related to their life experiences. Scientifically, the term subjective well-being means happiness, which is a primary value in individuals' lives, and their reflections related to their life (Das, Jones-Harrel, Fan, Ramaswami, Orlove and Botchwey 2020). For many years, well-being theories have been developed, encapsulating the concept of well-being from both objective and subjective perspectives. From an objective viewpoint, research in this field has been focusing on objective well-being such as revenue, life-expectancy and knowledge coupled with subjective events, namely life experiences and perceptions by people (Das et al. 2020). In contrast, the SWBs' hedonic viewpoint concentrates on subjective thinking and feelings and might reflect the researcher's value base and not the participants' subjective judgment (Nave, Sherman and Funder, 2008).

PERMA Theory

The focus of the PERMA theory of well-being is helping people to thrive, and it promotes building skills that allow one to flourish (Kern, Waters, Adler and White, 2015). The PERMA theory of well-being states that well-being consists of five elements:

- ***Positive emotion***: Positive emotions increase our hedonic happiness, which triggers cognitive processes, mental changes, and facial expressions (Kovich, 2020).
- ***Engagement***: Kern et al. (2015) describe engagement as a pledge to an activity or a task. Moreover, the benefits of student-faculty engagement are positively correlated with engagement and increase well-being and career engagement (Kovich, 2020).
- ***Relationships***: Support is critical to our survival and emotional well-being. Brooks and Allen (2016) found that relationships with others granted support and enhanced academic persistence.
- ***Meaning***: Serving or working in a capacity that contributes to something larger than ourselves gives us a sense of purpose and meaning.
- ***Achievement***: We enjoy pursuing accomplishments for the sake of doing so. Each of these contributes in varying degrees to a person's ability to flourish. In academia, Slanger, Berg, Fisk and Hanson (2015) alluded that notable types of accomplishments are grade point average (GPA), graduation and retention.

Job demands-resources (JD-R) model

A rapidly growing body of research focusing on the combination of job resources and job demands and analysing its influence on work-related well-being is building theoretically and empirically on the Job Demands-Resources model (Bakker and Demerouti, 2007). The first main assumption of the JD-R model is that in any job, two kinds of characteristics can be distinguished that are related to burnout and work engagement: ***job demands*** and ***job resources***.

According to Bakker and Demerouti (2007) and Brauchi, Schaufeli, Jenny, Füllemann and Bauer (2013), job demands refer to physical, psychological, social, or organisational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain psychological costs.

According to Demerouti Bakker, Nachreiner and Schaufeli (2001), job resources assist employees in meeting workplace demands and goals, whereas job demands themselves require energy to handle. According to the JD-R model, job demands negatively impact workers' health and are largely linked to burnout. On the other hand, job resources are primarily associated with employee engagement and trigger a motivational process (Demerouti et al., 2001).

Student well-being in higher education Institutions

A person's capacity to think, express emotions, work, and enjoy life all depends on their well-being (Chaudhry, Tandon, Shinde and Bhattacharya, 2024). Well-being has a direct impact on students' capacity to learn and engage fully in degree programmes and may influence their career and other possibilities following graduation (Chaudhry et al., 2024). HEIs are being urged to create initiatives to cater to different students as the country's demographics continue to shift to boost graduation rates and student achievement.

RESEARCH METHODOLOGY

This study employed a qualitative research design using an Interpretivist Phenomenological Analysis (IPA) to establish a rich understanding of MBA students' well-being experiences. Purposeful, non-probability sampling was used to identify MBA students. A sample of 25 actively enrolled first-year and final-year MBA students was selected from a population of 131 registered MBA students. The inclusion criteria were males and females between the ages 25-65 years and must have been in their second semester of the MBA and beyond. Exclusion criteria were MBA students who had just started with the programme (in July 2024) and were older than 65, etc. The primary reason for excluding adults above the age of 65 years was mainly the retirement age linked the employment and the aim to focus on younger working-age adults. Semi-structured interviews were conducted via Microsoft Teams. The data was collected till data saturation was reached by the 14th interview. Data were examined through reflexive thematic analysis, supported by NVivo 14 software, to establish patterns and themes from the interview data. The researcher followed the six steps of thematic analysis advocated by Braun and Clarke (2022). The research followed ethical standards, with approval from the appropriate ethics committee. The trustworthiness of the data was enhanced by ensuring the findings to reflect the participants' experiences through member checking (credibility), reducing researcher bias through peer briefing and advice from the co-author (confirmability). The data were documented in detail and so that the research could be repeated (dependability). Through detailed description of the research setting, transferability was ensured (Lincoln and Guba, 1985).

RESULTS/FINDINGS

The data collected was analysed through coding and thematic analysis in NVivo 14, to detect the patterns, themes and core findings. By so doing, the MBA student's perspective and lived experiences related to well-being are presented.

Table 1 provides a summary of the participants of the study.

TABLE 1: DEMOGRAPHIC PROFILE OF PARTICIPANTS

Participant ID	*Gender*	*Age*	*Employment Level*	*Years of Experience in employment or business*
1	Male	25-34	Executive/Top Management	11-15 years
2	Male	45-54	Manager/Supervisor - Junior Management	16-20 years
3	Female	35-44	Manager/Supervisor - Junior Management	21 years and above
4	Male	45-54	Senior Management/Middle Management	21 years and above
5	Female	25-34	Senior Management/Middle Management	11-15 years
6	Female	35-44	Senior Management/Middle Management	11-15 years
7	Female	35-44	Owner/Director in my business	11-15 years
8	Female	35-44	Manager/Supervisor - Junior Management	11-15 years
9	Female	45-54	Executive/Top Management	16-20 years
10	Female	25-34	Senior Management/Middle Management	6-10 years
11	Male	35-44	Senior Management/Middle Management	11-15 years
12	Male	45-54	Senior Management/Middle Management	21 years and above
13	Female	35-44	Senior Management/Middle Management	16-20 years
14	Female	35-44	Manager/Supervisor - Junior Management	11-15 years

From the table, it is evident that most of the participants were females. Furthermore, the years of experience of MBA students indicate that most have above 11 years of work experience at various managerial levels in the respective organisations. A few of the participants are self-employed as directors and shareholders in their businesses. In the next section, the data collected is presented.

Table 2 showcases the themes based on the analysis of the interview data, together with the research question that the theme addresses.

TABLE 2: A SUMMARY OF THEMES AND SUBTHEMES

Research questions	THEMES	SUBTHEMES
RQ1: How do students currently experience the	**Current well-being**	Stress experienced Coping mechanisms

MBA programme at the Business School?		
RQ1: How do students currently experience the MBA programme at the Business School?	**Demands**	**Academic demands** ➢ Workload and rigour ➢ Research and Supervision **Job demands** Job demands and workload **Other demands** ➢ Time management ➢ Work-Life Balance
RQ2: What support do MBA students currently have that support their well-being?	**Support**	➢ MBA peers ➢ Administrative support ➢ Institutional support ➢ Social relationships ➢ Family
RQ3: What are the MBA students' well-being needs beyond the existing services at the university?	**Needs**	➢ Well-being Services ➢ Mentorship ➢ Responsiveness

Theme 1: Current well-being

Subtheme 1: Stress experienced

Students elucidated and highlighted that they experienced stress and anxiety within the MBA programme, and its demands were high, which made them grapple with the academic pressure and balancing studies, family and work simultaneously.

Participant 2: *I think I can say I've encountered program stress rather than job stress*

Participant 13: *The anxiety is a massive, massive thing that a student is faced with and need to make peace with and accept*.

Participant 7: *For me, I think well-being is actually central to, you know, the entire journey as an MBA student because you have so many things to juggle between school, work, your job and family as well.*

Studies from various countries have indicated that the well-being and mental health of students appear to be under pressure (Douwes Metselaar, Pijnenborg and Boonstra, 2023). Stress is a pervasive element in the life of an MBA student, often stemming from academic expectations, time management challenges, and balancing personal commitments. Studies highlight that the level of stress experienced can significantly vary based on individual coping mechanisms and available support systems (Elias, Ping, and Abdullah, 2011). Pandya et al. (2012) in their research stated that the high prevalence of depression, anxiety and stress symptoms among MBA students is alarming.

Subtheme 2: Coping mechanisms

Students reported various strategies to cope with the MBA programme, ranging from social support to decreasing their workload of the MBA by registering for less modules to medication.

Participant 8: *And then the other coping mechanism, I think the other one is I try to fit in my social life when it gets too much, then I know I need to see a friend you know.*

Participant 2: *Where I felt like it's getting too much and I can't cope with everything, and I had to cut some of the modules, not complete some for that semester, and then I thought I'll do them later on. Be realistic about your personal life, your work environment and your coping mechanism for MBA.*

Participant 13: *The fact that a person actually has to go on to prescribed medication just to be able to get through the day,*

Ding, Fu, Liu, Hwang, Hong and Wang (2021) distinguish between two coping strategies, namely adaptive and maladaptive strategies. Adaptive strategies are positive ways to aid in managing stress and to enhance holistic well-being, i.e., adequate sleep, constant exercise and joyful activities. In contrast, maladaptive strategies refer to temporary, ineffective and destructive strategies such as refusal, avoidance and unhealthy habits like substance abuse. Maladaptive coping strategies are ineffective responses to stress that can exacerbate problems or create new issues. These methods may provide temporary relief but often lead to negative long-term consequences. Coping styles forecast psychological distress, poor correction, and coping to result in dissatisfactory academic performance among students (Cherkil, Gardens and Soman, 2013).

Theme 2: Demands

The demands identified by the students were categorised into three types of demands, namely academic, job, and other demands.

Subtheme 1: Academic demands

Under academic demands, participants report a high workload, pressure created by the research project, as well as the academic demands they experienced.

Under **high workload**, participants elaborated on the high workload and how it affected them.

Participant 4: *I think having to have a goal specifically with regard to studies, I knew that I wanted an MBA. I had heard how hectic it is, but I was not, personally, I did not personally knew how hectic it can be until I've been there.*

Participant 13: *that they be honest with you about the ups and their downs, and you know it's two years go for us quickly, but it's two years off, quite intense work and sacrifice.*

Participant 2: *Therefore, on my side, even though its demanding, one cannot run away from the fact that it is a quite a demanding degree or course, where there's lots of reading, lots of research, writing and submissions, which indeed can put pressure on an individual.*

The phenomenon of rigorous curricula remains common in all MBA programs, given that the curriculum covers areas such as finance, marketing, data analytics, and strategic management, among many other aspects (Bedewy & Gabriel, 2015).

Under **research project** participants reported the additional pressure that the research project is putting on them in addition to the high workload.

Participant 1: *And there was that curveball that came in from the research module.*

Participant 5: *So, balancing that research, along with everything else has been, I think, something that in this year, I've kind of had to grapple with a lot.*

Mullins (2018) stipulates that over the past four decades, there have been a reasonable number of studies on the challenges associated with research, as well as suggestions on how to encourage students to become more engaged and less anxious while undertaking their research projects. The high expectations placed on MBA students are only a reflection of the high standards that have come to be expected from this program, thus adequately preparing its graduates for the trials and tribulations of the business world. High expectations can be a two-edged sword: on the one hand, it may serve as motivation, while on the other hand, it may also present challenges (Navarro, 2008).

Subtheme 2: Job demands

Under job demands, participants reported the additional demands from their jobs in addition to the pressure of the MBA programme.

Participant 12: *Job-related stress is once again, it's in our industry, its fast-moving industry is really, it's a really, really fast industry. It's the stress there is, it comes as a standard almost.*

Participant 14: *So yeah, stress-related work is work-related stress is quite, is quite real, and it exists. And yeah, and then it does lead to burnout, unfortunately.*

The Job Demand-Resource (JDR) model is widely recognised in occupational health psychology and helps analyse how various job demands and resources influence employee well-being. When applied to MBA students, this model can provide valuable insights into their unique experiences, challenges, and overall well-being (Bakker, Demerouti, and Sanz Vergel, 2014).

Subtheme 3: Other demands

Time management and work-life balance have been identified as other demands.

Under **time management,** participants elaborated on the difficulty of managing time with the competing demands on their time.

Participant 8: *Yes, it challenges you, but is not extremely difficult, but it does require a lot of time dedicated to it, so you need to work hard. The workload is a lot, so you need to work hard. You need to, you know, make time for it.*

Participant 13: *Sure, the greatest demand, time, time, that I must say time is the biggest amount that I've got, which is just not there. You can do as much time management as you want. It's difficult, and it's not the MBA program that is intense on your time.*

The need for time management skills among students pursuing an MBA at UFS is emphasised by the intensive nature of their programmes, wherein they must attend to many responsibilities.

Under **work-life balance**, participants continue to discuss the difficulty in achieving work-life balance with the competing demands on their time.

Participant 12: *And yeah, I think overall it's just a good balance, life work balance where you are feeling in control and that you are, that you can focus. I do try to maintain a work-life balance, although it is really, really tough.*

Participant 2: *The reality of the situation on my side is that one of the three must suffer one way or the other. You can have it all balanced, 100% yes, one tries, but I find that I sacrifice a lot on my personal to feed more on studies and work, so I don’t have much of time for my personal things, friends, family and other activities that I used to do. I think its part and parcel of the sacrifice of managing the program and time. So out of these three, you tend, I tend to find that personal life is one way neglected or suffers or is sacrificed?*

According to Gragnano, Simbula and Miglioretti (2020), in the context of MBA students' studies, equilibrium refers to the harmony that the students endeavour to attain among a variety of conflicting demands, academic obligations, personal life, and career goals.

Theme 3: Support

Participants reported their MBA group, the support staff at the Business School, institutional support and social support as sources of support.

Participant 7: With my MBA group, I feel like because while I'm connecting with the group… we are building a bond except for obviously, maybe certain members.

Participant 12: I think once again the biggest source of supports through the MBA is my group because those are the people that understand what you're going through. They're going through the same thing. So, your biggest source of support really is your MBA team and also the connections that you've made with other members.

Participant 1: First one would be family; second one would be the community within the MBA programme.

Participant 14: OK. It was my coordinator. I built a very, very good relationship with her. I think. She was a great source of support. The best, the best if I if I could, if I could give a medal, I would literally give it to her. She stepped in in spaces where she didn't need to step in, you know, and guided me.

Participant 3: And then, also like setting try and get a support group, maybe that you can attend. I know the UFS has got lots of these wellness support groups, so maybe try to attend one or a few of those so that you can get some help.

Participant 8: Then in my personal life, the only thing is I would say I don't think it's a challenge, but I think because I'm a social butterfly a little bit. And so, the cutting or the minimal social life that I experienced in the past two years. For me, that was the biggest challenge in my personal life, yeah, that's what I would say.

Emotional support involves providing empathy, care, love, and trust. It helps individuals cope with stress, anxiety, or difficult situations (Cohen and Wills, 1985). When students feel connected to their peers and the wider academic environment, they are more likely to seek out help or use whatever resources are available to them in doing well academically when their general welfare is at stake.

Administrative staff play a crucial role in the student experience as they are the first point of contact for students and are essential in facilitating various services, from academic advising to mental health support (Guchait, Cho, and Meurs, 2015).

Strong social relationships among students contribute to a sense of belonging and emotional well-being. Numerous studies indicate that people with spouses, friends, and family members who provide psychological, and material resources are better in health than those with fewer supportive social connections and this kind of support is related to overall well-being because it provides a positive effect (Cohen and Wills, 1985).

Theme 4: Needs

Well-being services, mentorship and improved responsiveness had been identified by participants as their needs to support their well-being.

Subtheme 1: Well-being services

Participants highlighted that the needs of MBA students are different in terms of the support needed and that a bigger emphasis should be placed on well-being in the programme.

Participant 13: *My idea around that is they focus on that type of student. An MBA student is much different from your usual pre- and postgrad student, we are of a totally different cut. And we've got basic demands, you know, emotionally and psychologically, it's technically the same, but from there it totally differs from us. So that's why I say something specific for the MBA students would go a long way.*

Participant 7: *So, I think if they had to make it more of a personal program, like for mental Wellness, emotional stability, if they had to make it more of an internal email in the Business School. I would, I think that would help a lot of people, especially if you're going through a period of maybe depression or you're not well.*

Each student has his or her challenges and ways of coping. Similarly, academic well-being will involve factors that act in concert in the process of ensuring academic excellence. These include academic achievements, academic stress, and academic satisfaction (Shek & Chai, 2020).

Subtheme 2: Mentorship

Mentorship was identified by participants to support them.

Participant 11: *… the big enhancement would be mentorship, that's not just there for an academic small portion of dissertation but have a mentor to walk with you and through this whole process, by keeping you accountable for certain things and checking in on you, you know, on a regular basis.*

Participant 14: *That was also one thing that helped me a lot, and in some instances, people offered to mentor me, right.*

Haider and Dasti (2022) later found that mentoring coupled with work-life balance and self-efficiency justified 38% of the variance in mental well-being in doctoral learners in HEIs.

Subtheme 3: Improved responsiveness

Participants requested better responsiveness from MBA staff and a need for a better understanding of their challenges.

Participant 10: *I've realized I don't know for other students that engagement between the students and also the Business School, it's not so easy to get hold of them via phone calls.*

Participant 1: *My ability to relate to those personnel or that group and share my experience with them is one aspect, right.*

Student engagement is an important component of their success in higher education (Kahu & Nelson, 2018) and acts as a mirror of their educational experiences.

PRACTICAL IMPLICATIONS/RECOMMENDATIONS

The recommendations are for multilevel support structures, such as enhanced well-being services, mentorship initiatives, orientation, and peer support, which overall are imperative to the holistic growth of MBA students.

Expand the services related to well-being by Student Counselling

While student counselling does provide well-being services to students, the participants felt that it does not address their unique needs. Collaboration between student counselling and the Business School may address students' academic and personal needs. Greater awareness should also be created amongst MBA students of the institutional services available to them.

Develop a mentoring programme

A mentoring programme promotes a sense of belonging, especially among students who may be isolated or overwhelmed. Mentors can provide academic support, emotional support, and social support, serving as an informal but powerful support system which complements professional services. This builds resilience and improves students' ability to cope with challenges. Students expressed a requirement for direction, particularly at transition points (e.g. first year, specialisation change). A mentorship scheme meets this with regular, situational direction from peers or alumni who are well aware of the student experience.

Orientation programme for MBA

The recommended orientation program will equip students with the necessary tools and prepare them for the challenges of the MBA program, including peer and family support.

Including spouses and families in the orientation process can eliminate unnecessary stress factors, resulting in increased participation and academic achievement. Support networks, coping strategies, and study support can be introduced via orientations in the early stages, so they help students acquire coping skills well before stress accumulates. Findings indicated the students' need for more defined expectations and preparation prior to study onset. A formal orientation addresses this requirement promptly through establishing academic and social expectations by initiating channels of support.

Peer support amongst students

Peer support also further emphasises the need for communication and empathy, creating a sense of community among students. Organised peer support is beneficial, promoting empathy, shared understanding, and emotional support. Peer groups are capable of providing instant, informal help when needed. This creates a culture of mutual support and lightens the load for formal systems. Informal opportunities to socialise and get to know each other better could also be created as a way to enhance the peer support.

CONCLUSION

The results of the study indicate that, aligned with the literature in the field, the MBA students have a range of demands with a perceived lack of resources to address the demands that lead to challenges with well-being. This supports the JD-R theory in the context of studies. Various support mechanisms have been identified. The focus on human support in the findings supports the social exchange theory in playing an important role as a source of support in the various roles in the life of the MBA students. Institutional support in the form of programmes and the support of administrative staff should not be underestimated.

Three limitations were identified. Firstly, subjectivity was part of the process, as the researcher is also an MBA student. The researcher mitigates this through peer briefing and advice from the co-author. Secondly, the findings in this study are based on a specific sample. The study may not be fully applicable to other universities, as limited participation may necessitate that underrepresented groups are less willing to participate in this research project. Thirdly, there is always a time restriction in collecting data or in interviewing the participants, which is also another form of limitation. The researcher continued with interviews till data saturation was reached.

The high demands and unique student population require rethinking traditional support mechanisms. Altogether, the findings clearly postulate that the value of MBA students' well-being needs must be considered for programme enhancement, potentially leading to a competitive advantage for the Business School.

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EFFECT OF TALENT RETENTION ON ORGANISATIONAL PERFORMANCE

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ABSTRACT

A major issue in the competitive and fast changing environment of today is organisational performance; public universities are under more and more competition for talent. This makes talent management essential to guarantee personnel are developed and their requirements satisfied, so promoting better performance. Reduced government financing affects infrastructure, training, wage payments, compliance with agreements, and public universities are struggling financially. This study evaluated Maasai Mara University's performance in relation to talent management. Comprising 608 staff members, the study was conducted at Maasai Mara University in Narok County and had a sample size computed using the Taro Yamane formula. Structured closed-ended questionnaires were used to gather data, then subjected to descriptive statistics, Pearson correlation, and multiple linear regression analysis. The study revealed a noteworthy positive correlation between talent retention and organisational success (r = 0.484, p-value = 0.000), so stressing the need of good talent management policies to improve public university performance in Kenya.

Keywords: talent retention; employee retention; organizational performance; human resource management; workforce stability

BACKGROUND TO THE RESEARCH STUDY

Organizational performance is a multidimensional construct that refers to the extent to which an organization achieves its goals and objectives. It can be measured using various indicators, such as financial performance, customer satisfaction, employee engagement, operational efficiency, innovation, and social responsibility (Cheng *et al*., 2021). Organizational performance involves various factors such as financial performance, productivity, employee satisfaction, customer satisfaction, and overall effectiveness in achieving the organization's mission and vision (Singh & Sharma, 2022). According Huang and Kung (2021), the use of technology such as artificial intelligence (AI) and big data nalytics positively impacts organizational performance in the manufacturing industry globally. Further, Singh *et al*. (2021)

found that Corporate Social Responsibility (CSR) initiatives positively impact organizational performance.

Organizational performance is a critical issue, particularly in the context of economic and social development in the African region. According to a recent study by Awuah and Amponsah-Tawiah (2021), there are significant challenges facing organizations in Africa, such as inadequate infrastructure, political instability, and weak regulatory frameworks. Therefore, organizations must focus on improving their performance to enhance their competitiveness and contribute to the overall economic growth of the region. One way to improve organizational performance in Africa is through the adoption of digital technologies. According to a recent report by the African Development Bank (2021), digitalization can transform the African business landscape by enhancing productivity, reducing costs, and increasing innovation. However, the report also highlights the need for adequate infrastructure, skills, and regulations to ensure successful digital transformation.

According to a study by Kariuki and colleagues (2021), there is a significant relationship between strategic planning, organizational culture, and performance in Kenyan organizations. Therefore, organizations should focus on developing a strong strategic planning process and fostering a positive organizational culture to improve their performance. Wafula and colleagues (2021) in their study on HRM practices such as training and development, performance management, and employee involvement significantly influence organizational performance in Kenyan firms. Therefore, organizations should invest in effective HRM practices to improve their performance and competitiveness. Collings and Mellahi (2019) stated that talent management is the systematic attraction, identification, development, engagement, retention and deployment of individuals who are considered particularly valuable to an organization because of their potential to make a significant contribution to the achievement of the organization's strategic objectives.

Talent management has gained increasing attention from scholars and practitioners over the past two decades, driven by the recognition of the importance of human capital to organizational success in the knowledge economy (Marler & Fisher, 2019). Tarique, Briscoe and Schuler (2021) suggest that a comprehensive and integrated theoretical framework that includes individual, organizational, and contextual factors and accounts for dynamic processes is required to advance the understanding of talent management. According to Singh and Kumar (2020) Talent management practices, such as performance management, career development, and succession planning, have a positive impact on employee retention. They also identified several factors that can influence the effectiveness of talent management practices, including organizational culture, leadership support, and employee engagement.

Maasai Mara University profile

Maasai Mara University (MMaraU) is a Chattered public institution located in Narok County. It has about 608 employees drawn from the teaching and administrative divisions. Just like the other public Universities in Kenya, MMaraU is currently facing increased competition from other Universities, both public and private having been operating in the same industry. The University is, therefore, putting emphasis on organizational performance, with talent management playing a critical role in this respect. MMaraU vision is to be a world class university committed to academic excellence for development. Its mission is to provide quality education through innovative teaching, research and consultancy services for development and their niche area is environmental resource management and conservation. The University is keen on the following core values excellence, teamwork, professionalism, equity and Social Justice, creativity and innovativeness, transparency and accountability (Maasai Mara University, 2023).

RESEARCH PROBLEM STATEMENT

Organisations want constant performance, and talent retention is absolutely essential to reaching this. Due to things like competitive labour markets and financial restrictions that affect their general performance, public universities including Maasai Mara University have great difficulties keeping qualified workers. Although talent retention is important, little is known about how retention policies particularly influence organisational results. While some studies reveal a good correlation between talent retention and performance (Bock & Kim, 2018; Armstrong & Taylor, 2018), others report limited impact, implying the involvement of other factors (Hussain & Ahmed, 2020; Asif *et al*., 2019). Struggling with limited government support, Maasai Mara University is seeing significant staff turnover, worker discontent, and strained relations that compromise its ability to function.

Although studies on talent retention have been done in other sectors, like banking and manufacturing (Oyugi & Were, 2021; Kiarie & Muathe, 2021), not much is known about how it will affect performance in Kenyan public universities. This study intends to close this gap by analysing how talent retention influences Maasai Mara University's performance, thereby providing knowledge on successful retention policies for public universities confronted with financial and competitive constraints.

GENERAL OBJECTIVE

The general objective of the study was to examine the effect of talent retention on performance of Maasai Mara University.

Significance of the Research Study

This section presents the significance of the research study to various stakeholders;

Management of Maasai Mara University

The managers of MMaraU would gain invaluable information capable of providing guidance in making necessary changes in their various departments to enable them compete effectively in the increasingly competitive industry. Specifically, the study would draw important lessons for success and best practices for the talent management at the University.

Future Researchers and Academicians

The study's significance lies in its potential to contribute to the existing body of knowledge on talent management and organizational performance, inform best practices in the field, and provide practical insights for organizations to improve their talent management strategies and ultimately, their organizational performance. Future researchers and academicians who would like to pursue the subject further would benefit as well since the study will provide literature on talent management in an organization and how it is linked to organizational performance.

Other Public Universities

The study would not only benefit Maasai Mara University but also other public universities in Kenya and African developing countries which operate in similar economic, social and economic environments similar to Kenya on the best talent management strategies that would improve organizational performance.

Scope of the Research Study

The study aimed to determining the effect of talent management on performance of MMaraU. Specifically, the study explores how the institution attract, acquire, develop and retain their talented employees to enhance their overall performance. The target population consisted of 608 members of staff drawn from both teaching and non-teaching staff. The study's geographical scope was limited to Maasai Mara University, a public University located in Narok County, Kenya. The study assessed the current state of talent management practices and their impact on organizational performance focusing on the recent developments in talent management practices to provide relevant and up-to-date findings.

THEORETICAL FRAMEWORK

Equity Theory of Motivation

Equity theory of motivation, proposed by Adams (1965), suggests that employees strive for fairness and balance in their work relationships and that perceived inequity in inputs and outcomes can result in demotivation and reduced job satisfaction. This theory has been

extensively applied in the field of talent management, as organizations seek to attract, retain and develop high-performing employees. In the context of talent management, equity theory suggests that employees compare their inputs in terms of effort, skills, experience and outcomes such as compensation, recognition, opportunities to those of others within the organization and other organization similar to theirs. When employees perceive that their inputs and outcomes are equitable compared to those of others, they are likely to be motivated and committed to their work. However, if they perceive that they are under-rewarded relative to their contributions, or that others are receiving more favourable treatment, they may become disengaged and seek alternative employment opportunities.

Recent research has further explored the role of equity theory in talent management and its impact on organizational performance. For example, a study by Roussel and colleagues (2020) found that perceived fairness of pay and promotions positively predicted employee retention and job satisfaction, which in turn contributed to improved organizational performance. Similarly, a study by Jiang and colleagues (2021) demonstrated that employees' perceptions of procedural justice, or the fairness of decision-making processes, positively affected their job engagement and innovative behaviour. Generally, the equity theory of motivation offers valuable insights for talent management practitioners and organizational leaders seeking to foster a positive work environment and enhance employee performance. In the context of this study, the theory was relevant since an organization can achieve employee commitment and productivity by ensuring that employees perceive fairness and equity in their work relationships

Talent Retention and Organizational Performance

According to Jiang, Lepak, Hu, and Baer (2021), talent retention involves a range of strategies and practices, including employee development, compensation and benefits, work-life balance, and career growth opportunities, that aim to create a supportive and engaging work environment that encourages employees to stay with the organization. Talent retention is a significant aspect of organizational success, as it ensures that high-performing employees remain with the organization and continue to contribute to its success. According to Lyria, Namusonge and Karanja (2018) in their study on the effect of talent retention on organizational performance of firms listed in the Nairobi Securities Exchange aimed to examine the effect of talent retention on organizational performance of firms listed in the Nairobi Securities Exchange. The study adopted a descriptive and correlation survey research design, and data was collected through questionnaires from 162 respondents in the firms listed in the NSE. The data was analyzed using both descriptive and inferential statistics, including Pearson's correlation coefficient and regression analysis. The study found a positive and significant

relationship between talent retention and organizational performance indicating that firms that were able to retain their talented employees had higher levels of organizational performance.

Chemutai (2022) conducted research on talent retention strategies on academic performance of lecturers at Rongo University, Kenya aimed to investigate the influence of talent retention strategies on the academic performance of lecturers at Rongo University in Kenya. The study focused on remuneration system, job promotion interval and work environment as the sub variables for the study. The study adopted a descriptive survey research design, and data was collected through semi-structured questionnaires from 71 lecturers at Rongo University. The data was analyzed using both descriptive and inferential statistics, including regression analysis. The study established that talent retention strategies have a positive and significant effect on academic performance of lecturers at Rongo University. The study provided valuable insights into the relationship between talent retention and academic performance in the context of Rongo University in Kenya.

Igbinoba *et al*. (2022) investigated the relationship between employees' retention strategies and organizational performance in Nigeria. The study used a structured self-administered questionnaire on a five-point Likert rating scale which was administered to 180 respondents, of whom 158 were retrieved and evaluated as the primary data collection strategy. The exact association between staff retention strategy and performance was investigated using a two-tailed Chi-square (x2) analytical approach with error=0.05 per cent. Using Cramer's V analytical method, one also found the degree of correlation between the dependent and independent variables in this work. The results show that organisational performance and staff retention policies are absolutely entwined. The results led one to suggest that companies use performance-based employee retention plans. Generally, there was a positive link between talent retention strategies and organizational performance. However, the findings could not be generalized across industries since the studies were done in different industries, different countries using different variables and therefore what was applicable in one industry could not be applicable to another industry. The current study sought to find out the effect of talent retention on performance of Maasai Mara University.

Organizational Performance

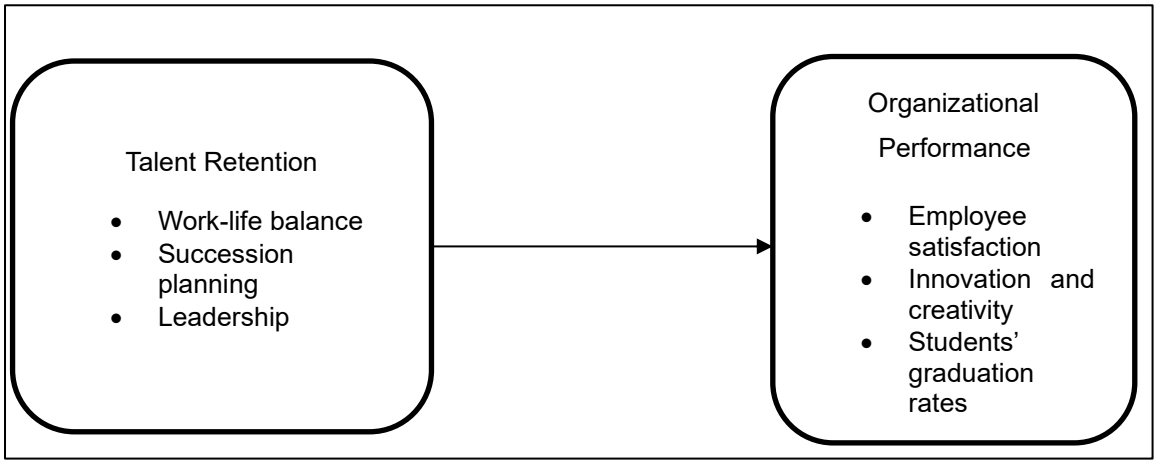
A major component of corporate success, organisational performance has attracted a lot of study lately. The capacity of an entity to successfully and economically reach its aims and objectives defines its organisational performance. Organisational performance can be influenced by a broad spectrum of elements including leadership, organisational culture, human resource management, creativity, and technology. Nigeria, utilising both primary and secondary data as well as especially a questionnaire as instrument for main Studies on talent

management in public sector companies of data collecting showed that the results clearly show how much talent management influences employee productivity and organisational effectiveness. Wurim (2012) also investigated the measures of successes recorded when proactive talent management practices were applied on the employees of Cargill, an international provider of Food and Agricultural services based in Chicago, USA, it was discovered that talent management single handily contributed to more than seventy percent increase in employee productivity. The study also revealed a sudden rise in the quantity and quality of output, timeliness of output, presence at work and cooperativeness (Brunbach, 1988).

On one hand, coherent talent management processes were found to have a strong correlation with employee job, knowledge, quality and quantity of output, initiative, leadership ability, supervision, dependability, cooperation, judgement, flexibility and health. In essence, the study found that intentional efforts to enhance talent management practices including recruitment, selection, placement, training and development, compensation, performance evaluation, turnover management, employer-labor relationship; health, safety and welfare; succession planning and promotion bring about particular improvements in employee productivity and organisation performance. Aswathappa (2005). More especially, the research on how talent management affects organisational effectiveness on Central Bank of Nigeria, Kaduna. From the managerial ladder, fifty respondents were chosen at random. Data gathered using a well-organised questionnaire was examined. The study revealed that organisational effectiveness on the Central Bank of Nigeria, Kaduna, is much influenced by talent management (Otoide 2014).

CONCEPTUAL FRAMEWORK

FIGURE 1: CONCEPTUAL FRAMEWORK



A basic engine of organisational performance is talent retention. Key performance indicators including employee satisfaction, innovation and creativity, and even student graduation rates in educational institutions are much improved by strategies including encouraging work-life balance, applying succession planning, and so supporting effective leadership.

Work-life Balance and Organisational Effectiveness

Work-life balance is an employees' capacity to properly manage their personal life as well as their work obligations. Organisations that give work-life balance a priority help to lower employee stress and avoid burnout, hence improving job satisfaction. Contented workers are more likely to be involved in their work, which eventually raises their output and helps to improve general organisational performance. Maintaining a good work-life balance also guarantees that workers are more psychologically and emotionally free, so improving their capacity for creative thinking and contribution of fresh ideas. Ensuring that staff members of educational institutions have a reasonable work-life balance would help to improve mentoring and teaching quality since employees are less prone to suffer from stress or tiredness, so directly influencing student happiness and raising graduation rates.

Organisations Performance and Succession Planning

Identification and preparation of future leaders inside the company is the basis of succession planning, therefore guaranteeing stability and continuity. A well-organised succession plan not only guarantees that competent people are ready to occupy important positions but also helps to keep gifted workers driven by the possibility for professional development. This strategy offers professional development chances and well defined career tracks, so raising employee happiness. Furthermore, succession planning promotes a culture of learning and development that helps staff members to be innovative and provide original ideas. Within the framework of colleges, succession planning guarantees the continuity of leadership and teaching standards, therefore improving the whole academic environment and student performance. Confidence among teachers and staff in the long-term stability of the university fosters a favourable environment that supports student success, so perhaps increasing graduation rates.

Organisational performance and leadership

Driving organisational success calls both effective leadership and Leaders establish clear standards, set the tone for the culture of a company, and design an atmosphere whereby staff members feel appreciated and driven. Employee happiness is strongly related to strong leadership; when employees trust their leaders and feel supported, they are more likely to remain dedicated to the company and operate at their best. Leaders who support transparent communication, different points of view, and risk-taking also help to foster innovation. Higher

degrees of creativity follow from this transparency since staff members are free to express their thoughts and try out fresh approaches. Strong leadership is essential in educational institutions to shape academic policies, supply required tools, and create an atmosphere that fosters student success. Good university leadership can directly affect academic results and student involvement, therefore impacting graduation rates.

To raise organisational performance, then, work-life balance, succession planning, and leadership development among other talent retention techniques are vital. These approaches improve employee satisfaction, encourage creativity, and in the case of colleges may help to influence student graduating rates. Organisations foster excellent performance by making sure staff members are supported, driven, and have chances for development. In educational environments, the advantages of these retention techniques reach to the students since a steady and involved workforce improves the quality of instruction and academic performance. Talent retention is ultimately about creating a vibrant, efficient company that serves its workforce as well as its larger community, not only about keeping staff members.

MATERIALS AND METHODS

Research Design

A research design has been defined by Kothari (2004) as a framework guiding a study with the aim of providing for the collection of relevant data with minimal expenditure. The study used descriptive design defined by Easerby-Smith *et al*. (2008) aimed at the determination of relationships between variables. This research design was appropriate since it enabled the researcher to establish the status of the population by assessing their attitudes and opinions with respect to the variables which were under investigation.

Population of the study

According to Polit and Beck (2021), population refers to the entire group of individuals or objects that meet specific criteria, and from which a sample is drawn for data collection and analysis. The employees of MMaraU were the target population of this study. The population of the study was 608 teaching and non-teaching permanent employees as shown in Table 1.

TABLE 1: TARGET POPULATION

Population Category	**Total number of employees**
Teaching Employees	175
Non-teaching	433
Total	**608**

Source: Human Resource Records (2023).

Sample and Sampling Techniques

This section presents sampling frame, sampling technique and sample size determination of the research study.

Sampling Frame

A sampling frame is a list or description of the population from which a sample is drawn. It serves as a practical tool to identify and locate individuals or objects in the population to be included in a study (Sekaran & Bougie, 2022). The researcher obtained a list of all current teaching and non-teaching members of staff including their names and respective departments from the university's human resources department. Once the list was established the researcher randomly selected a subset of individuals from each category to be included in the study.

Sampling Techniques

Sampling techniques refer to the methods used to select a subset of individuals or items from a larger population for research purposes (Sekaran & Bougie, 2022). There are various sampling techniques available, and the choice of technique depends on the research question, the population under study, and the resources available. The researcher used stratified random sampling technique where the employee category was a stratum. After stratification, simple random sampling technique was used to pick the sample size. The aim was to ensure that the sample is representative of the population of employees at the university.

Sample Size Determination

According to Kim and Kim (2021), sample size refers to the number of participants or units of analysis included in a study, and it is a critical factor that affects the power and generalizability of statistical analyses. The current study used the Taro Yamane (1967) formular to calculate the sample as described below.

$$n = \frac{N}{1 + N(e)^2}$$ Where n= Desired sample size

N= Population of the study (which is 608)

e= Precision of sampling error (0.1)

Therefore, the sample size (n) will be $= \frac{608}{1 + 608(0.1)^2}$

= 86 respondents.

Table 2 shows the population category, total number of teaching and non-teaching employees and their respective sample size and percentages.

TABLE 2: SAMPLE SIZE

Population Category	Total number of employees	Sample size	Percentage (%)
Teaching Employees	175	25	29
Non-teaching Employees	433	61	71
Total	**608**	**86**	**100**

Source: Author (2023)

Data Collection

This section presents data collection instruments and data collection procedure of the research study.

Instrumentation

Instrumentation refers to the tools and techniques used to measure or manipulate variables in a study. This can include surveys, questionnaires, interviews, observation protocols, physiological measures, and other methods of data collection or manipulation. In research, an instrument refers to the tools or techniques used to collect data, such as questionnaires, surveys, interviews, and physiological measures (Weller & Vickers, 2021). The use of appropriate instruments is essential in research, as it can affect the validity and reliability of the data collected.

Primary data was collected using a structured closed ended questionnaire with a 5-point Likert scales. According to Mohd Salleh *et al*. (2021) a structured questionnaire is an effective tool for collecting data and that it allows easy analysis of quantitative data. The questionnaire was structured into three components: section A gathered data on the demographics of the respondent; B collected data on talent retention and C collected data on organizational performance. The researcher chose to use structured questionnaires since they are relatively cheaper and they avoid embarrassment on the part of the respondents as it allows them to consider responses independently. Questionnaires also allow confidentiality and anonymity of the respondents.

Data Collection Procedure

The researcher obtained an introduction letter from the College of Human Resource Management (CHRM), National Commission for Science, Technology and Innovations (NACOSTI) and an authorization letter from Maasai Mara University following which the researcher distributed the research questionnaires randomly to both teaching and non-teaching staff of the University and request them to fill the questionnaire. At an agreed time

between the researcher and the respondents, the researcher collected the questionnaires from the respective respondents.

Validity and Reliability

This section present validity and reliability tests of the research study.

Validity

According to McLeod (2018), validity in research refers to the extent to which a study measures what it is intended to measure and whether the results are accurate and reliable. Validity is a critical component of research, as it ensures that the findings can be generalized to other populations and settings, and that the measurement tools accurately measure the underlying concepts. There are several types of validity in research, including internal validity, external validity, construct validity, face validity, and content validity. Internal validity refers to the extent to which a study controls for extraneous variables and can establish a cause-and effect relationship between the independent and dependent variables. Factors such as sampling bias, history, maturation, and testing effects can threaten the internal validity of a study. The researcher dealt with such threats to internal validity by using the appropriate research designs and also ensuring that the study had sufficient statistical power. The researcher further addressed potential confounding variables through statistical analysis and use of stratification techniques.

Reliability Test

Reliability refers to the consistency of results across repeated measurements or experiments. The researcher tested reliability through a pilot study where the research questionnaires were administered to teaching and non-teaching staff of Bomet University College. The researcher tested reliability of the questionnaire by computing the alpha coefficient of the questions using Cronbach's alpha coefficient whereby 0.7 and above level of coefficient was accepted.

Data Analysis and Presentation

The study used both descriptive and inferential analysis to analyze both qualitative and quantitative data. According to Tabachnick and Fidell (2019) descriptive analysis involves the exploration and summary of data, typically through quantitative or qualitative methods. In quantitative research, descriptive analysis typically involves the calculation of summary statistics, such as measures of central tendency such as mean, median, mode and measures of variability such as range, variance, and standard deviation. In qualitative research, descriptive analysis involves the identification and categorization of patterns and themes within the data. This could be done through techniques such as content analysis or coding,

where data was organized into meaningful categories or themes that reflected the underlying concepts or ideas being studied.

In descriptive analysis, the researcher used tables that enhanced clear and concise presentation of research findings while in inferential analysis; correlation and regression analysis was used to test the relationship of variables. Correlation analysis was used to determine the degree/ strength and direction of the linear relationship between the variables. A correlation coefficient of -1 indicates a perfect negative relationship, a coefficient of +1 indicates a perfect positive relationship, and a coefficient of zero indicates no relationship. Regression analysis on the other hand, is a statistical technique that estimates the relationship between a dependent variable and one or more independent variables. Regression analysis was used to predict the value of the dependent variable based on the values of one or more independent variables. Regression analysis was calculated to determine regression coefficients, which provided the degree and direction of the relationship between the independent and dependent variables. The purpose of regression analysis was to predict the value of the dependent variable based on the values of the independent variables.

In equation 1 the researcher applied multiple regression model to establish the relationship between the dependent variable and the independent variables.

$Ys = \beta 0 + \beta 1x1 + e$…….. 1

Where;

Ys =Organizational Performance

β0 = constant (coefficient of intercept)

X1 = Talent Retention

β1 = regression coefficient of four variables.

e = Error term

Ethical Consideration in the Research Study

Ethical considerations are set of principles that guide the research designs and practices. The researcher adhered to certain code of conduct when collecting data from people. In respect to this study, the researcher considered protecting the rights of the respondents, enhanced research validity and maintained academic integrity. The researcher achieved this by allowing respondents to participate freely in the research study without being compelled, ensuring confidentiality of the respondents, maintaining anonymity of respondents and avoiding conflict of interest.

DATA FINDINGS AND DISCUSSIONS

Response Rate

The researcher sent 86 questionnaires to the respondents overall; 69 of them were returned and applied for the analysis. Table 3 summarizes this information

TABLE 3: QUESTIONNAIRE RETURN RATE

Category of Respondents	Questionnaires Issued	Questionnaires Returned	Percentage Returned
Teaching	25	24	96
Non-teaching	61	45	73.77
Total	86	69	80.23

Source (Field Data, 2023)

From Table 3 it is evident that out of 86 questionnaires 69 questionnaires were returned. This results in an 80.23 response rate deemed adequate. For a descriptive study, Marton (2016) says a response rate higher than 70 is sufficient.

Pilot Test Results

The section covers reliability and validity test results.

Reliability Test

Reliability refers to the consistency of results across repeated measurements or experiments. The researcher tested reliability through a pilot study where thirty (30) research questionnaires were administered to teaching and non-teaching staff of Bomet University College. The researcher tested reliability of the questionnaire by computing the alpha coefficient of the questions using Cronbach's alpha coefficient whereby 0.7 and above level of coefficient was accepted. Table 4 summarizes the results for reliability analysis.

TABLE 4: RELIABILITY COEFFICIENT INDEX

Items	Cronbach's Alpha	No. of Items
All items on the questionnaire	.957	12
Talent Retention	.897	6
Organization Performance	.809	6

Source (Field Data, 2023)

Given the Cronbach's alpha reliability value for every scale, which above 0.7, the questionnaire was deemed reliable.

Validity Test

The validity of the study instrument was tested using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy; the findings from every objective were determined to be above 0.4 and consequently trustworthy. The Table 5 displays this.

TABLE 5: VALIDITY OF THE INSTRUMENT

Items/scale	Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)	Sig.
Talent Retention	.864	.000
Organization Performance	.759	.000

Source (Field Data, 2023)

Table 4.3's findings led one to conclude that the instrument was legitimate since every KMO score above 0.4.

Demographic Information

The composition of the respondents in terms of length of service is captured in Table 6.

TABLE 6: LENGTH OF SERVICE

		Frequency	Percent
Valid	1 – 2 years	2	2.9
	3 – 4 years	4	5.8
	5 – 6 years	5	7.2
	Over 6 years	58	84.1
	Total	69	100.0

Source (Field Data, 2023)

The highest percentage of respondents had over 6 years of experience working with Maasai Mara University at 58(84.1%), followed by respondents with between 5 – 6 years of experience at 5(7.2%), followed by respondents with 3 – 4 years of experience at 4(5.8%). Finally respondents with between 1 – 2 years of work experience at 2(2.9%).

Effect of Talent Retention on Performance of Maasai Mara University

The aim of the study was to ascertain how performance of Maasai Mara University changed with regard to talent retention. The respondents were given a 1 to 5 rating for the following remarks regarding talent retention: Strongly agree; agree; not sure; disagree; not sure; strongly disagree. Table 7 lists the descriptive statistical results.

TABLE 7: DESCRIPTIVE STATISTICS ON TALENT RETENTION

Statement	SA (%)	A (%)	NS (%)	D (%)	SD (%)	Total (%)
Your institution has policies in place to prevent burnout and promote mental health and wellbeing in the workplace.	20(29)	21(30)	12(17)	15(22)	1(1)	69(100)
Your organization has a culture that values work-life balance, and employees feel comfortable discussing their needs with their managers and colleagues.	8(12)	31(45)	10(14)	13(19)	7(10)	69(100)
Your organization has a formal succession planning process that provides clear career path and growth.	11(16)	21(30)	13(19)	13(19)	11(16)	69(100)
The University's succession plan has created a sense of job security and stability among employees.	15(22)	21(30)	16(23)	13(19)	4(6)	69(100)

The University's leadership is more responsive to employee needs and concerns.	29(42)	15(22)	7(10)	9(13)	9(13)	69(100)
The University's leadership provides a clear sense of direction and vision for employees.	8(12)	32(46)	11(16)	10(14)	8(12)	69(100)

Key: SA= Strongly Agree; A=Agree; NS=Not Sure; D= Disagree and SD= Strongly Disagree

The results in Table 7 show that the highest percentage 21(30) of respondents agreed that the institution has policies in place to prevent burnout and promote mental health and wellbeing in the workplace. On whether the organization has a culture that values work-life balance and employees feel comfortable discussing their needs with their managers and colleagues, majority of the respondents 31(45) agreed to the statement. This indicates that there was a general perception that organization has a culture that values work-life balance, and employees feel comfortable discussing their needs with their managers and colleagues. This led to a more motivated workforce that contributed to improved organizational performance. The study also established that the highest percentage 21(30) of the respondents agreed that the organization has a formal succession planning process that provides clear career path and growth. On whether the university's succession plan has created a sense of job security and stability among employees, majority of the respondents 21(30) agreed to the statement. This indicates that there was a general perception that the university's succession plan has created a sense of job security and stability among employees. Job security enhances employee's morale who are motivated to work and hence improved organizational performance.

The study further sought to establish whether university's leadership is more responsive to employee needs and concerns. It was revealed that majority 29(42) of the respondents strongly agreed to the statement. On whether the university's leadership provides a clear sense of direction and vision for employees. Majority of the respondents 32(46) agreed to the statement. This indicates that there was a general perception that the university's leadership provides a clear sense of direction and vision for employees. well visioned employees are always motivated to achieve organizational goals and objectives and hence improved organizational performance. This was in line with Lyria, Namusonge and Karanja (2018) who

established a positive and significant relationship between talent retention and organizational performance indicating that firms that were able to retain their talented employees had higher levels of organizational performance. The data was subjected to further analysis using Pearson's Correlation to establish whether there was a linear relationship between talent development and performance of Maasai Mara University. The results are presented in Table 8.

TABLE 8: PEARSON'S CORRELATION ANALYSIS BETWEEN TALENT RETENTION AND ORGANIZATIONAL PERFORMANCE

		Organizational Performance
Talent Retention	Pearson Correlation	.484**
	Sig. (2-tailed)	.000
	N	69

Source (Field Data, 2023)

Talent retention and performance of Maasai Mara University exhibit a positive and statistically significant link (r= 0.484, p = 0.000) according to Table 8. Enhanced organizational effectiveness thus depends on the retention of talent. This was in line with Chemutai (2022), who found that academic performance of Rongo University instructors benefited and significantly improved by means of talent retention policies.

Organizational Performance

The objective of the study was to determine how the four factors covered relate to performance of Maasai Mara University. The findings are summarized in Table 8.

TABLE 8: DESCRIPTIVE STATISTICS ON ORGANIZATIONAL PERFORMANCE

Statement	**SA (%)**	**A (%)**	**NS (%)**	**D (%)**	**SD (%)**	**Total (%)**
Employees in your organization feel satisfied with their job.	16(23)	25(36)	11(16)	8(12)	9(13)	69(100)
Employees feel proud to be associated with the University.	19(28)	23(33)	15(22)	11(14)	4(3)	69(100)

Your organization has a culture that fosters creativity and innovation.	7(10)	32(46)	15(22)	11(16)	4(6)	69(100)
Your organization invests in research and development activities to support innovation.	17(25)	26(38)	14(20)	9(13)	3(4)	69(100)
The University has a strong commitment to student retention and graduation.	18(26)	28(41)	16(23)	6(9)	1(1)	69(100)
The academic programs offered by the University are relevant and aligned with industry demands hence reducing student's transfers and dropout.	18(26)	20(29)	20(29)	4(6)	7(10)	69(100)

Key: SA= Strongly Agree; A=Agree; NS=Not Sure; D= Disagree and SD= Strongly Disagree

The results in Table 8 show that the highest percentage 25(36) of respondents agreed that employees in the organization feel satisfied with their job. On whether the employees feel proud to be associated with the university, majority of the respondents 23(33) agreed to the statement. This indicates that there was a general perception that employees feel proud to be associated with the University. The study also established that the highest percentage 32(46) of the respondents agreed that the organization has a culture that fosters creativity and innovation. On whether the organization invests in research and development activities to support innovation, majority of the respondents 26(38) agreed to the statement. This indicates that there was a general perception that organization invests in research and development activities to support innovation and hence improved organizational performance. The study further sought to establish whether the university has a strong commitment to student retention and graduation. It was revealed that majority 28(41) of the respondents agreed to the statement. On whether the academic programs offered by the university are relevant and aligned with industry demands hence reducing student's transfers and dropout. Majority of the respondents 20(29) agreed to the statement. This indicates that there was a general perception that the academic programs offered by the university are relevant and aligned with industry demands hence reducing student's transfers and dropout.

Inferential Analysis

This section presents models and tests to draw and measure conclusions and inferences.

TABLE 9: MULTIPLE LINEAR REGRESSION MODEL SUMMARY

R	R^2	Std. Error of the Estimate
.904	.816	.22438

Source (Field Data, 2023)

From Table 9 it is noted that the goodness of fit for the regression between all the independent variables (talent attraction, talent acquisition, talent development and talent retention) and performance of Maasai Mara University was satisfactory. An R^2 of 0.816 indicates that 81.6% of the performance of Maasai Mara University is explained by the four independent variables combined.

TABLE 10: ANOVA FOR THE OVERALL MODEL

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.059	4	5.765	114.505	.000[b]
	Residual	5.186	64	.050		
	Total	28.245	68			

Source (Author, 2023)

The results in Table 10 show that the general model was significant i.e., the independent variables jointly were good explanatory variables for performance of Maasai Mara University (F=114.506, P value = 0.000).

TABLE 11: MODEL SUMMARY AND PARAMETER ESTIMATES

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.733	.195		3.749	.000
	Talent Retention	.244	.067	.297	3.659	.000

Source (Field Data, 2023)

From Table 11 the model regression equation 1 was developed.

$Y = 0.733 + 0.244X_1$.....1

Clearly from the first regression equation, assuming talent retention is maintained constant, the Maasai Mara University organisational performance will be 0.733 units. With a coefficient of 0.244 (p-value = 0.000), the first regression equation also shows that performance and retention of talent at Maasai Mara University show a positive significant link. A unit increase in talent retention would result in a 0.244 enhancement in organizational performance. The results confirmed what Njenga and Ngugi (2018) discovered that organizational performance and talent management strategies had a favourable correlation.

THE FINDINGS

The study's objective was to determine the effect of talent retention on organizational performance at Maasai Mara University. The respondents were asked to express their degree of acceptance or rejection to various statements made regarding talent retention. Majority of respondents agreed that the university has well defined talent retention mechanisms. This indicates that there was a general perception that the university's leadership provides a clear sense of direction and vision for employees. Well visioned employees are always motivated to achieve organizational goals and objectives and hence improved organizational performance. It was also note that the organization has a culture that values work-life balance, and employees feel comfortable discussing their needs with their managers and colleagues. This led to a more motivated workforce that contributed to improved organizational performance.

CONCLUSION

The purpose of the study was to explore the impact that Maasai Mara University's ability to retain talented employees had on the institution's overall performance. An additional conclusion that emerged from the study was that the retention of talent has an effect on the performance of organizations. It is important for educational institutions that want to improve their performance to implement effective talent retention methods.

RECOMMENDATIONS OF THE RESEARCH STUDY

Universities that seek to enhance their performance should consider talent retention because this is important in ensuring that quality services are delivered. The study further recommends that talent development and talent retention are adopted by universities if they are to achieve high organizational performance.

Implications for Practice

The results of this study directly help practitioners to shape efficient human resource management plans. The knowledge acquired from the study can be used by companies to apply retention policies aiming at raising employee happiness and lowering turnover, hence improving organisational performance.
The formulation of strategic HR policies emphasising on promoting work-life balance, providing chances for career advancement, and guaranteeing leadership development has one important consequence for practice. These elements are well-known as essential for keeping outstanding staff members. Investing in work-life balance helps companies lower employee burnout and stress by which means job satisfaction and output increase. Programs for leadership development and succession planning are also absolutely essential for equipping staff members for future leadership positions, therefore guaranteeing continuity and stability in the company

Moreover, the study implies that keeping staff members is about establishing an environment where they feel included and encouraged as much as about providing financial incentives. Regular feedback, recognition programs, and a culture of lifelong learning help one to reach this. These methods increase staff involvement, which immediately helps to raise general organisational performance and production

Implications for Research

The study presents researchers with several chances to investigate the relationship between organisational effectiveness and talent retention. It offers a means to spot gaps in the body of current research, especially in relation to various sectors and organisational environments. Although talent retention has been extensively investigated, the relationship with performance could differ depending on the industry—education, healthcare, technology, or another. By investigating these sector-specific dynamics, researchers could better grasp how retention policies affect organisational performance in many environments .Furthermore, the results can inspire research into mediators or novel factors influencing the link between retention-performance. For instance, elements such work environment, organisational culture, or the function of technology could affect how talent retention results in better organisational performance. Comparative studies could also be beneficial, especially looking at how talent retention policies in one area or culture might vary from another, as comparing African firms with Western businesses. Furthermore investigated in the research are longitudinal studies to look at how talent retention affects organisational performance over time. These research could assist ascertain whether retention policies produce long-term, steady increases in

employee happiness and innovation or whether they cause transient performance spikes that fade

Implications for Theory

Important consequences for theoretical growth in the domains of organisational behaviour, performance management, and human resource management follow from the study as well. It can help to improve or enlarge current beliefs on staff retention and how it affects organisational effectiveness.

One main theoretical consequence is the possibility to create more complete retention models. Although current models mostly concentrate on the fundamental financial incentives or turnover causes, this study could assist create theories that combine non-financial retention tactics like career development possibilities, work-life balance, and leadership development. These characteristics are becoming more and more important in keeping top personnel and could strengthen retention theories by including these more general components.

Furthermore, the research might assist to close the discrepancy between theories of organisational performance and HRM practices. The study can help to provide a more complex knowledge of the link between HRM and organisational success by proving how particular HRM practices like succession planning or leadership development impact performance outcomes including innovation, employee engagement, and productivity

Ultimately, by investigating how intrinsic elements like personal development chances and leadership assist retention, the study could extend motivation theories—especially Herzberg's Two- Factor Theory or Maslow's Hierarchy of Needs. This can help one to better appreciate how motivation affects long-term employee performance and involvement.

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EMPLOYEE ENGAGEMENT AT THE DEPARTMENT OF SOCIAL DEVELOPMENT HEAD OFFICE IN LESOTHO

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ABSTRACT

The purpose of this study was to gain an understanding of the factors that influence employee engagement at the Department of Social Development head office in Lesotho. The study explored the existing literature and analysed factors that are barriers and enablers to employee engagement. Civil service organisations focus on achieving results and often undermine factors that influence employee engagement. A qualitative approach was used in this study. The targeted population of the Department of Social Development head office was 178 employees of which 20 employees were selected as the sample. The findings indicated that poor strategic plan development and an autocratic style of leadership were barriers to employee engagement. This study will contribute towards enabling public services organisations to introspect and enable factors that influence engagement, include employee engagement as part of the strategic agenda, and develop strategies that will improve engagement levels and contribute positively towards achieving organisational goals.

Keywords: employee engagement; civil services; strategic plan; leadership style

INTRODUCTION

Factors influencing employee engagement at the Department of Social Development head office are critical components that require attention from the leadership of the government of the kingdom of Lesotho. It can be reasoned that organisations need employees to be fully committed and emotionally involved in achieving organisational goals and objectives in the current dynamic economic environment. According to Gallup (2023), the global engagement level is low and 19% of the global workforce is entirely disengaged. This indicates that many organisations worldwide struggle to achieve high engagement levels from their workforce. According to Public Service Reforms Team (2022), the quality of service delivery in public services remains low due to failed attempts to implement a customer care culture among public service employees and establish the means to meet public preferences.

Arimbra (2018) explains that to achieve business success, organisations need to manage their level of engagement. Masese and Muindi (2018) defines employee engagement as an

individual's involvement and enthusiasm for their work. It is therefore important for the Department of Social Development to engage its employees to enable the achievement of goals and objectives. Hodges (2018) suggests that disengagement refers to the disassociation of someone from their work. This creates emotional detachment, which ultimately removes the employee's sense of identity within the job and organisation as a whole. Disengagement could also potentially create many problems for the organisation.

Jayarathna and Shermila (2019) suggest that engaged employees are more productive, less likely to be absent in the workplace, and willing to work harder for the organisation's benefit. The focus of this study was therefore analysing factors that influence employee engagement in the Department of Social Development Head Office is very important.

RESEARCH PROBLEM

There are numerous signs of disengagement by many of the Department of Social Development Head Office employees in Lesotho. The signs include that employees do not make any follow-up efforts on their past meetings unless they have to react to an event resulting from that meeting, they feel a high level of distrust toward the senior management team, employees think they are only present in the organisation because of the high unemployment conditions in Lesotho and there are uncoordinated decisions among the leadership of these organisations. Failure to address the factors that lead to disengagement might cause poor service delivery, loss of money through high-risk cash movement operations, dysfunctional technological systems, wasteful operational costs, and lack of accountability. Consequently, this may create a negative public reputation for the Department of Social Development and the Government of the Kingdom of Lesotho as a whole.

RESEARCH OBJECTIVES

Primary Research Objective

The primary research objective of this study is to analyse factors influencing employee engagement at the Department of Social Development Head Office in Lesotho.

The critical research questions that the study attempted to answer were the following:

Research question 1: What are the barriers to employee engagement at the head office of Lesotho's Department of Social Development?

Research question 2: What are the enablers of employee engagement at the Department of Social Development Head Office in Lesotho?

LITERATURE REVIEW

Introduction

It is reasonable to think and suggest that for any organisation to perform well, it directly or indirectly depends on its employees. Their personal feelings and behaviour about working for the organisation will ultimately impact the performance of the whole. Organisations must have engaged employees to improve performance and enable them to thrive in new and challenging environments. In addition, the behaviour and personal feelings of employees towards the organisation will determine the level of success it will attain during its existence. Organisations need their employees to adapt to changes as the world goes through paradigm shifts in the global economy (Bridger, 2022).

Definition of employee engagement

Work engagement is a positive, affective motivational state of fulfilment that is characterised by vigour, dedication and absorption (Bakker *et al*., 2008). MacLeod (2021) also describes employee engagement as an approach in the workplace that creates the right conditions for staff members of the organisation to give their best while performing their duties. It enables employee commitment to the organisation's strategic values and goals. Employee engagement is an approach that motivates employees to contribute to the organisation's success. Khan and Iqbal (2018) further describe employee engagement as physically, cognitively, and emotionally harnessing organisational staff members to their jobs during performance.

Over the years employee engagement has become an important factor both in the theory and practice (Sun and Bunchapattanasakda, 2019). Improving employee engagement is important for the organization and individuals alike. For modern organizations to survive the continuously changing environment it does not only need healthy employees but also engaged employees (Schaufeli and Salanova, 2010). However, there has not been a single unifying definition for employee engagement. Based on the definitions above, key elements identified in the literature regarding employee engagement will be used and considered as the definition of employee engagement in this research study. These include connection with organisational strategic goals, their team members, emotional commitment, physical and cognitive application during work performance and in the work environment.

Factors influencing employee engagement

Among many factors influencing organisations such as business growth, development, and profits; employee engagement has become one of the critical factors warranting discussion when generating different organisational strategies (Kundar & Pakkeerappa, 2022). It is pivotal

in enhancing the overall productivity levels and organisational performance. Many factors influence employee engagement and must be considered carefully to achieve the desired organisational results.

A considerable amount of research supports the significance of employee engagement and its influence on organisational performance (Krishnaveni & Monica, 2018). Organisations that facilitate intensive employee engagement strategies will eventually reap returns on their teams and the organisation as a whole. The following factors are some of the barriers of employee engagement.

Barriers to employee engagement

Extreme autocratic style of leadership

Based on a study by Chukwusa (2018), organisational leaders should refrain from using an extreme autocratic leadership style. This style prevents the use of creativity in problem-solving situations. Autocratic leadership makes choices based on personal ideas and rarely accepts advice, thus affecting employee engagement within the organisation. Furthermore, autocratic leaders generally rely on threatening and punishing employees as their source of influence. They do not trust their employees or allow staff members to give their input in decision-making processes. Middle managers play a huge role in aligning teams toward the organisation's goals. Their inspiration and transparency in communicating the objectives of the organisations are critical in solving employee engagement problems (Blink, 2023).

Poor development of organisational strategic plan

Bakker and Albrecht (2018) explain that organisations should understand that employees experience fluctuating levels of employee engagement during their job performance. Organisations must investigate the general levels of employee engagement within the organisation and develop human-resource strategies that can positively influence the level of engagement. Employee engagement is critical in supporting leadership efforts and developing a supportive culture. Organisations should communicate strategies to implementing members and clarify objectives to create agile environment (Zayed and Farghly, 2023). Some of the organisational strategic factors that are barriers to engagement discussed in the literature include employee misalignment to corporate values and lack of employee engagement strategy.

Employee misalignment with corporate values is one of the barriers to employee engagement that should be addressed in the organisational strategic plan. According to Shadle (2019), the organisational mission and values have become the first critical element that influences the corporate behaviour and decision-making processes for many employees. It is also important to realise that an employee's alignment with these organisational values could become a

massive barrier to engagement if they feel organisational values do not represent part of their personal identity. Kang *et al*. (2023) suggest that the level of organisational commitment to its core values influence the level of employee engagement. In addition, organisational lack of employee engagement strategy creates another barrier to employee engagement.

A lack of employee engagement strategies has a negative influence towards engagement levels of employees. Organisational failure to develop an employee engagement strategy creates difficulties in removing barriers, thus discouraging employees from engaging in the organisation (Service Brand Global, 2021). On the contrary, the following leadership factors enhances the level of employee engagement within the organisation.

Enablers of employee engagement

Engaging Leaders

Leadership is one of the main factors influencing employee engagement. Employee engagement happens naturally when leaders inspire and acknowledge that employees play an essential role in the organisation's success (Mughal, 2020). Macleod and Clarke 2009 (cited in Bridger, 2022) suggest that visible empowering leadership that provides a powerful strategic narrative of where the organisation is going and where it comes from has the potential to create engagement among its employees. Employees' perceptions about their work and commitment to the goals of the organisations can potentially be improved if they understand where they come from and where they are heading. Engaging leaders and managers improve motivation for action in those who follow them (Shahid, 2019). The level of engagement within the organisation improves when leaders collaborate with their employees, work beside them, and provide physical and psychological support for them to succeed.

According to Pappas (2023), it is not only the responsibility of top management to drive engagement within the organisation. Managers must create time for their teams and frequently engage with them to create positive work experiences and enhance engagement. Kent (2019) argues that organisational leadership integrity is the foundation of engagement, and it develops trust among the organisation's employees. On the other hand, a lack of integrity creates distrust among the employees, which may lead to disengagement. In addition to the contrast, authentic leadership style also increases the level of engagement within the organisation.

Authentic Leadership Style

Authentic leadership style influences moral components such as honesty, fairness, and respect, which are critical in effective leadership. (Obuba, 2023). Leadership self-awareness is one of the important characteristics of authentic leadership style. Leaders who understand their own behavioural weaknesses and strengths will likely understand their influence on the

lives of those they lead (Walumbwa, et. al, 2008). Another indicator of authentic leadership style is leadership relational transparency. In this case, an accessible, honest, and open leader can improve the performance of employees (Obuba, 2023). Authentic leadership components are interconnected, and when a leader has all of them, this will ultimately lead to an inclusive environment and increased employee engagement.

Authentic leadership can also be evidenced through a leadership-balanced processing of events. When leaders weigh the different facts and consider multiple perspectives, they are likely to make better decisions for the organisation. This leadership style has been linked to increased employee engagement (Obuba, 2023). Crawford, Dawkins, Martin and Lewis (2019) argue that leaders can improve engagement by guiding their internal moral standards to regulate their behaviour while considering the common good of others and promoting employee welfare. Leaders who are inspirational, transparent, and continuously invest in their employees are likely to increase employee engagement within the organisation due to a high level of trust fostered within the employees (Bersin, 2015)

Conclusion

This section explored factors influencing employee engagement, including both barriers and enablers of engagement within the organisation. It is evident from the literature that a variety of factors influence employee engagement, and organisations must not employ only a single approach to improve employee engagement.

The section that follows will discuss the research methodology used in the study.

RESEARCH METHODOLOGY

This section explains the relevant research techniques used to conduct this study, more specifically, the methodology used to clarify the factors influencing employee engagement at the Department of Social Development Head Office in Lesotho. Bouchrika (2025) describes research methodology as a systematic approach to solving a research problem using various data-gathering techniques, providing interpretation, and creating conclusions about the data. This study used the qualitative research design, more specifically, an explorative and descriptive design was used in this study. This study aimed to obtain an in-depth understanding of the literature on employee engagement and investigate factors influencing employee engagement at the department in question, making it a more descriptive study. Descriptive research is simply an approach that describes the topic of interest. Descriptive studies assist the researcher in gaining an understanding of the characteristics of a group in a particular situation, while thinking systematically about the different areas, and offering ideas for further research (Bougie & Sekaran, 2021).

Sampling Design

A non-probability sampling design was used to select a sample. Purposive sampling is used to select a sample based on the characteristics of the study's purpose (Andrade, 2021). It involves the selection of a sample of specific interest within the population. For this study, 20 participants were selected as the sample from 178 employees of the Department of Social Development Head Office in Lesotho. This comprised six directors and 14 middle managers and senior staff members.

Recruitment Strategy

The researcher was granted permission to conduct a study at the Department of Social Development Head Office in Lesotho and was given full access to acquire contact information and request all other information, including organisational minutes, presentations, and reports required during the study. The permission also included the use of the organisational name in the study. Fleming and Zegwaard (2018) state that any existing relationship between the researcher and participants that might create a conflict of interest must be addressed. It must be reported so that participants can be given guidance around the situation. This enables transparency and reliability of the data collected to third parties. The researcher ensured that the study did not include vulnerable participants. Vulnerability is defined as capability of being harmed or injured physically, psychologically and emotionally in some way (Levine *et al*., 2004). The inclusion and exclusion criteria of the research participants was based on the following recruitment criteria:

Criteria 1: Directors, middle managers, and senior officers based at the Department of Social Development Head Office in Lesotho

Criteria 2: Employed for more than two years by the Department of Social Development

Criteria 3: Did not report directly to the researcher

Data Collection Method

For this study, data was collected from 13 interviews to gain a detailed understanding of the research questions. Data saturation was reached, and no further data was collected. Semi-structured interviews were used to collect data, and these interviews rely on asking predetermined questions within a thematic structure (George, 2023). The one-on-one interviews were conducted at the Department of Social Development's Head Office's boardroom over a three-week period. The 14 interview questions were neutral and gave participants an opportunity to indicate their views, which were either positive or negative; however, the majority of the answers were negative.

Data Analysis

The researcher conducted and recorded 13 interviews and summarised the findings from the interviews in Microsoft Word documents. This included identifying topics to summaries, providing examples of what participants said and specifying timecodes as a reference to indicate where data appeared during the interview. It was also critical for the researcher to repeatedly listen to the recordings, read and reread the summaries in order to validate the data that is being analysed. In this study, data collected in the interviews were analysed using a thematic analysis approach to produce relationships, patterns, and themes. Through thematic analysis, qualitative data can be examined to select common themes, topics, patterns, and ideas of meaning that repeatedly come from an interview (Caulfield, 2019).

FINDINGS

From thematic analysis, it was clear that barriers to employee engagement were at the core of the views of the participants. Enablers of employee engagement was not discussed by the employees**.**

TABLE 1: CODES, THEMES AND THEIR DESCRIPTIONS

Codes and frequency	Themes	Description of themes
(1) No clear strategic direction (4) **(2) Expired strategic plan (3)** **(3) Overlapping roles (5)** **(4) Lack of engagement strategy within the organisation (10)**	Poor development of organisational strategic plan.	This theme explains the influence of poor organisational strategic development as well as lack of engagement strategy within the organisation.
(1) Leaders are not engaging key staff members in key decision-making processes. (5) **(2) Commanding leaders (5)** **(3) No open discussions on work-related issues between junior employees and leaders (4)**	Extreme autocratic style of leadership	The theme highlights the impact of the preferred style of leadership on engagement within the organisation.

Poor development of organisational strategic plan

The theme highlights the impact of the poor development of organisational strategic plan as well as lack of strategy on engagement within the organisation. The participants were asked the following questions:

C1: How does the organisational strategy affect engagement within the organisation?

Most participants explained that there were a lot of overlapping roles within the department and there was no valid organisational strategic plan. Employees knew it as a senior management team document which was never communicated to the junior staff members of the organisation. The literature supports the views that appropriate communication of the strategic plan to all relevant members of the organisation plays a critical role in aligning employees to the vision, mission and strategic values of the organisation. This influences corporate behaviour and the decision-making process of employees (Shadle, 2019). This theme was generated from the following codes. No clear strategic direction

Most participants shared the sentiments that there was no clear strategic direction of the organisation's future. The literature states that the organisation's vision, mission and objectives are critical factors that influence the decision-making process and behaviour of employees and therefore bears an impact on the engagement of employees (Shadle, 2019). Here are what the participants articulated regarding the strategic direction of the organisation:

RP-3 "I think people talk about the strategic plan a lot of times but with no impact; it is prepared and shelved. It is only created to establish positions within the department and does not impact on the direction of the organisation."

RP-2 "Strategy is important towards aligning everybody to the mission and objectives of the organisation, and through understanding their roles; but from our organisation, people are just pushed to work and there is no time for measuring progress towards achieving goals and objectives of the organisation."

Expired strategic plan

The majority of the participants explained that the organisation strategy has expired, and the organisation was still in the process of developing the new organisational strategic plan. However, it is vital for the organisation to develop strategies that positively influence the level of employee engagement within the organisation. The literature supports the view that employee engagement levels fluctuate in the performance of their job and the organisation needs to have appropriate strategies to influence the level of engagement (Bakker & Albrecht, 2018). Below are the views of the participants regarding the expired organisational strategic plan:

RP-6 "Merging the ministries has affected the strategic direction of the organisation. There is also variety of overlapping and conflicting objectives of the various sections within the department due to lack of valid strategic plan. There is no employee engagement strategy."

RP-11 "Organisational strategy is outdated; the Ministry is working towards developing the new one. There were some departments from the expired strategy that were not well structured."

Overlapping roles

Many participants mentioned that they were experiencing a significant number of overlapping roles and objectives within the department due to the expansion of the Ministry. In this case, the department needs to redesign and realign some of the objectives of the different departments to remove conflicting objectives. The overlap contributes to disengagement within the organisation. Literature indicates that job characteristics that inspire an employee to fully understand their roles are also responsible for positively influencing employee engagement within the organisation (Adiarani, 2019). Below are the responses from some of the participants:

RP-6 "Merging different departments has affected oneness within the organisation. The direction has changed in order to accommodate different departments. There are conflicting roles between the different departments of Social Development.

RP-3 "There are no clear roles between the top management of the organisation. Leaders dismantle the Ministry instead of building it and it disengages people.

RP-12 "Reconfiguration of Ministries has created chaos within the department. The department has to change the vision, mission and objectives of the organisation.

Lack of engagement strategy

Most of the participants indicated that they were not aware of any engagement strategy within the organisation. Service Brand Global (2021) supports the view from the literature that it is considerably difficult for organisations to overcome any barriers to engagement when there is no engagement strategy within the department. Responses include, but were not limited to:

RP-3 "There is no engagement strategy here; even the initiatives are not that impactful."

RP-2 "The strategy is not updated and is expired; there is no engagement strategy."

Extreme autocratic style of leadership

This theme explains the impact of the preferred style of leadership on employee engagement within the organisation. The participants were asked the following question to find out about the impact of the leadership on engagement:

How does the style of leadership impact engagement within the organisation?

Most of the participants shared sentiments that their leadership teams negatively influenced their engagement levels within the organisation. Many employees were not involved in

decision-making processes that affected their work environments. Instead, they were mostly engaged when the outcomes of the leadership decisions were negative. Participants further stated that leadership approaches were based on commands and were forcing decisions on the junior officers without giving them enough opportunities to discuss work-related issues with their managers. Department leaders avoided having open discussions on work-related matters with the junior staff members and some employees felt the leadership discouraged engagement within the organisation. The literature indicates that engaging leaders enhance employee motivation to implement decisions from their managers. The level of engagement improves within the organisation when leaders collaborate with their employees and providing both physical and psychological support that encourages them to succeed (Shahid, 2019). This theme was developed from the codes that follow.

Leaders are not engaging key staff members in key decision-making processes

Majority of participants mentioned that the leadership of the organisation did not include them in decision-making processes that required their contribution to be successfully implemented. Literature states that leaders who engage their employees improve motivation. The level of engagement improves when there is collaboration between leaders and their employees within the organisation (Shahid, 2019). Some of the responses of participants follow:

RP-9 "Leaders engage their junior staff members when they realise that they have imposed the wrong decisions they made without their contributions."

RP-3 "Leaders of the organisation depend more on technical staff members to implement their work, but they do not accord them enough opportunities to show case their talent. The leadership is not making it easy to make collaborative decisions with the technical staff members of the organisation."

Commanding Leaders

Most participants expressed that they had experienced commanding leaders during their job performances. However, literature supports the view that leaders should refrain from commanding and using extreme autocratic leadership since it undermines creativity in problem-solving conditions. Autocratic leaders rely on threatening and punishing their employees, while doubting their employees and excluding them in decision-making processes (Chukwusa, 2018). These are the responses of participants regarding commanding experiences from their leaders:

RP-5 "People are forced to work through commands without proper guidance to succeed in implementing the decisions. People are just thrown to work without being supported enough

to do their work. Leaders make their own decisions without engaging staff members. They also don't require assistance from others."

RP-6 "People are forced to work by commands and not even by guidelines with no opportunity to have a discussion with their manager."

No open discussions on work-related issues between junior employees and leaders

Most of the participants mentioned that their leaders did not create an open environment to discuss work-related issues with their junior employees. The literature supports the opinion that managers play a significant role in communicating objectives of the organisation to the operational staff members. In addition, managers improve employee engagement levels within the organisation. Their transparency and inspiration when communicating objectives play a critical role in influencing engagement within the organisation (Obuba, 2023). These are the responses of participants regarding the experiences on their work environments:

RP-6 "They do not create an open environment where everyone discusses issues related to work challenges and contribute to decision-making processes of the organisation.

RP-13 "Senior officers are not making it easy for their juniors to discuss issues with them, they always remind them of their tittle and that makes them inferior when initiating discussion with them in their line of work."

PRACTICAL MANAGEMENT IMPLICATIONS AND RECOMMENDATIONS

- The organisational strategic plan informs stakeholders in various strategic areas about the key positions and responsibilities required to achieve organisational goals and objectives. Because of the significant influence of the organisational strategic plan on engagement, the department needs to engage a team of experts to assist in developing a guide on the proper implementation of the strategic plan.
- It also critical to develop an organisational engagement strategy. The engagement strategy must form part of the agenda that is aligned with the organisation's strategic vision, mission and objectives.
- The senior management team needs to be encouraged to participate in leadership development programmes to enhance their personal, team and organisational leadership skills as part of career development plans.
- The senior management team needs to be educated on how their preferred leadership philosophies influence employee engagement and the performance of the organisation.

- Emotional intelligence training should be attended by all executives and senior employees to improve communication with employees, engagement of employees and valuing employees.

CONCLUSION

The researcher analysed factors influencing employee engagement at the Department of Social Development Head Office in Lesotho. The findings from the interviews indicate that main factors influencing employee engagement within the department are extreme autocratic style of leadership and poor strategic plan development. Leadership plays a critical role in influencing engagement within the organisation. Leadership influences the direction of the organisation. It is vital for the organisation to recruit skilled and experienced leaders with the capacity to develop and implement the right strategies to positively influence the direction of the organisation. Leadership is responsible for setting the right policies, creating supportive work-life environment and inspiring the employees to achieve organisational goals and objectives. The current leadership at the department needs to make improvements in skills that enhance engagement, communication strategies and emotional intelligence. These skills will aid better engagement within the organisation. The Department of Social Development is one of the critical departments with equally significant influence in the total government expenditure. Its beneficiaries are the vulnerable community in the Kingdom of Lesotho; its performance is critical whether it is the implementation of the high-risk operations, or the reputation of the government of the Kingdom of Lesotho. In order to enhance performance, the organisation must include engagement strategies in key decision positions within the organisation

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EMPLOYEE THEFT IN SOUTH AFRICAN RETAIL: A MULTI-DISCIPLINARY INVESTIGATION OF MANAGEMENT PRACTICES AND EMPLOYEE MORALE AS PREVENTIVE MECHANISMS

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ABSTRACT

Employee theft represents a significant problem for South African retail businesses, undermining stability, trust and sustainability. This study explores how management practices and employee morale can impact employee theft, viewed through Rational Choice Theory, Social Learning Theory and Routine Activity Theory. Employing a qualitative approach, the research conducted interviews with retail managers from diverse stores in South Africa. Analysed through deductive thematic analysis, the findings reveal that certain management practices significantly boost morale and reduce theft likelihood. Conversely, low morale, driven by key factors, correlates with increased theft as employees rationalise misconduct due to financial pressure or perceived retaliation. These findings illuminate how effective management practices and fair compensation foster organisational commitment and guardianship behaviours, reducing theft opportunities. In contrast, economic struggles and negative workplace cultures exacerbate deviant behaviour. The study concludes by offering strategies, including fair wage structures, ethical training programmes and security measures to enhance productivity and integrity.

Keywords: employee theft; retail management; employee morale; workplace ethics; organisational commitment

INTRODUCTION

Employee theft is one of the most pervasive, most damaging and most common crimes affecting retail businesses globally. Although statistics about retail shrinkage in general and employee theft in South Africa are scarce and outdated (De Villiers, Van der Colff, Stiehler-Mulder and Mafuratidze, 2023), it is estimated that retailers in South Africa lose an estimated R23 billion annually due to crime and other forms of shrinkage (Scheepers, 2023). This is further exacerbated by employee theft, a growing epidemic that requires management efforts to combat (Quirion, 2023). Statistics South Africa (STATSSA) (2024) reports that as of 2022, the total income for the retail trade industry in 2022 was R1.164 billion. The same report

indicates that the total number of persons employed in the retail trade industry as of June 2022 was 858,610. Since employee theft impacts organisational finances, erodes workplace trust, damages workplace culture and undermines long-term sustainability, understanding and addressing its root causes is crucial for maintaining productivity, retention and overall organisational performance. Financial ramifications of employee theft extend beyond direct losses to include several additional costs (Cant & Nell, 2012).

Understanding employee morale provides a critical context for addressing theft issues. High morale correlates with several factors, which collectively contribute to organisational success (Zareena and Krithika, 2019). Research shows visible connections between high employee morale and overall well-being (Lalzuiliana and Kumari, 2024), and there are several ways to combat employee theft without dampening employee morale. This qualitative study explores the relationship between management practices, employee morale and employee theft in South African retail businesses. Using multi-theoretical lenses, it combines Rational Choice Theory (RCT), Social Learning Theory (SLT) and Routine Activity Theory (RAT) to examine the role of management practices and employee morale in combating employee theft. The findings provide practical recommendations for retailers to improve workplace culture while reducing inventory losses. This study adds to the growing research on workplace deviance by focusing on the unique challenges faced in the South African retail sector.

AREAS OF INVESTIGATION

- To identify the management practices that positively influence employee morale in retail settings.
- To investigate the relationship between employee morale and the propensity for employee theft in retail environments.
- To identify the factors contributing to low employee morale in retail settings.

LITERATURE REVIEW

Although not always applicable to the South African context, the literature exploring employee morale and employee theft is vast. Studying these sources aided the researchers to understand what the global trend is and how it might influence the South African retail business. This review also explores the available literature on RAT, RCT and SLT.

Employee morale

Employee morale refers to the psychological state of employees, encompassing their outlook, contentment, poise and resolution towards their work and the organisation (Kumar and Velmurugan, 2020). High employee morale is associated with increased work commitment, better job satisfaction and a positive work environment, all contributing to the success of an

organisation (Zareena and Krithika, 2019). It correlates positively with increased productivity and performance and is a foundational element in enhancing organisational structure, producing a workforce characterised by motivation and focus, ultimately accelerating the achievement of organisational objectives (Kapur, 2023).

The relationship between high employee morale and productivity extends beyond basic productivity improvements, as evidence suggests that institutions cultivating high employee morale demonstrate notable advances in innovation capabilities and staff retention outcomes (Gomathy, 2022). The mechanisms underlying these improvements appear multifaceted, with research by Lalzuiliana and Kumari (2024) establishing clear connections between elevated morale and measurable enhancements in job satisfaction and employee well-being. Their work reveals that employees who perceive genuine support and valuation from management tend to exhibit a positive attitude toward their specific roles and the broader institutional context.

Employee morale in the retail context

Although several studies have investigated employee morale in the context of retail (Ghosh, Mazumder and Chakrabarti, 2023; Kearney, Coughlan and Kennedy, 2023; Machová, Zsigmond, Zsigmondová and Šeben, 2022), from a multidisciplinary perspective, little is known about the role of employee morale from an emerging retail market perspective, such as South Africa. For example, although Sumathi, Khanum and Supriya (2020) analysed policies and practices framed by organised retail organisations to satisfy their employees and the level of employee satisfaction regarding those policies and practices, their study does not link these management practices to employee theft. Another study by Ghosh *et al*. (2023) sought to demonstrate a novel approach to discovering the strategic shift of apparel retail store managers to boost positivity from the employees' subjective perspective in the post-pandemic era. Their study revealed that only an ingenious leadership style could induce positivity among the current employees in apparel retail stores. This study synthesises management practices that South African retailers can use to improve employee morale, which, in turn, leads to combating employee theft.

Employee theft

Employee theft refers to employees' unauthorised taking of company resources, manifesting in various forms, such as wage and time theft. It is a critical determinant of productivity, retention and overall organisational performance (Altman, 2010; Ramesh Kumar and Tharik, 2014). Retailers and local governments lose revenue, and inevitably, consumers pay higher prices (Korgaonkar *et al*., 2021). Cant and Nell (2012) argue that employee theft results in a loss of profit and additional costs such as legal expenses, loss of productivity, expensive

security measures, product replacements, increased insurance, loss of trained staff and the expense of retraining new staff in the case of conviction of dishonest employees (Bailey, 2006). In retail, the most profound forms involve the theft of cash and merchandise (Bailey, 2006). Retailers continue to struggle with this issue and employ numerous policies to mitigate or minimise its occurrence (Korgaonkar, *et al*., 2021).

Drivers of employee theft

A study by Goh and Kong (2018) established that employee theft is primarily motivated by social groups, with the grey area of defiant behaviour and what constitutes theft being the main difficulties. Their findings are consistent with Li and Lin (2023), who found that upward social comparison increases time theft among dispatched employees, with emotional exhaustion partially mediating this relationship and relational energy and psychological availability playing negative roles. Another study by Mukhalipi (2021) found that generational type and lifestyle influence employee theft at Kopala Mine, Zambia, with 56.8% of Millennials and 40.5% of Generation Xers engaging in theft due to a need for extra money to meet social needs. In the public sector setting, Kim (2024) states that poor-performing public corporations are likely to have employees who misuse operating, benefit and project expenses for personal financial gain, compared to high-performing organisations. A study by Setiawan (2024) also found that the dominant types of asset misappropriation fraud are theft of inventory, cash and skimming, with cash larceny being the dominant fraud in banks, government sectors and retail industries.

De Villiers *et al*. (2023) found that in the South African retail context, low salaries, broader economic and social factors, peer pressure or influence from work colleagues, limited growth opportunities, the role of management and broader organisational factors were identified as potential drivers and motivations of employee theft. Their findings also concur with those of Kibet, Nyachoti and Okeche (2020), who established that poor organisational values and cultural practices, weak monitoring systems and negative personal attributes contribute to employee theft in supermarkets in Kenya. A Nigerian study by Ikurayeke and John (2019) also identified inadequate reward systems as significantly influencing workplace theft in the retail industry. This evidence from African retail contexts underscores the complex interplay between organisational deficiencies, economic pressures and interpersonal dynamics that create environments conducive to employee theft. The evidence further suggests that effective prevention strategies must simultaneously address structural and human factors.

Role of management practices in preventing employee theft

Employee theft in retail poses a significant operational challenge, requiring both cultural and procedural interventions. Kennedy (2016) advocates involving employees in prevention

initiatives, positioning them as handlers, guardians, and managers of theft opportunities, a view supported by Potdar, Garry, Guthrie and Gnoth (2019), who found that interactional justice enhances commitment and guardianship behaviours. Potdar, Garry, McNeill, Gnoth, Pandey, Mansi and Guthrie (2020) further link corporate social responsibility perceptions to organisational attachment and shoplifting prevention, while Davis and Harris (2020) highlight monitoring systems, identity verification, separation of duties, and open communication in small retail contexts.

Complementing these cultural measures, surveillance and monitoring technologies deter theft and aid investigations (Alstete, 2006), while audit programmes and robust internal controls, supported by appropriate accounting software and standardised practices, reduce opportunities for theft (Smith, Smith & Baker, 2011). Clear, communicated ethical policies, signed by employees, reinforce organisational expectations and consequences for violations. These combined approaches not only address theft proactively but also foster a culture of accountability and transparency. Active management involvement in these systems ensures consistent oversight and swift response to irregularities. Over time, this integrated strategy strengthens trust, improves operational integrity, and reduces the financial and reputational risks associated with employee theft.

Training initiatives and organisational culture are central to effective theft prevention. Employee education programmes that explain theft's impact on performance and job security, and train staff to identify suspicious activity, act as strong deterrents. Lv, Xiao, Zhou, Men, Li and Chen (2024) emphasise that ethical leadership enhances moral awareness, reducing unethical conduct such as time theft. These cultural strategies align with Bonnet's (2008) routine activity perspective, which sees theft as shaped by opportunity structures and surveillance rather than purely deviant behaviour. Together, they demonstrate that successful prevention must address both systemic vulnerabilities and human factors.

THEORETICAL FRAMEWORK

Using Rational Choice Theory (RCT), Routine Activity Theory (RAT), and Social Learning Theory (SLT), this study examines how management practices and employee morale influence theft in retail settings. Drawing from multiple perspectives offers a holistic understanding of factors shaping deviant workplace behaviour.

RCT posits that individuals weigh potential costs and benefits before acting (Becker, 1981; Coleman, 1990). In criminology, theft occurs when perceived rewards outweigh risks (Kibet *et al*., 2020). In retail, weak oversight, poor surveillance, and low ethical standards create opportunities for theft (Jacobs & Charbonneau, 2019). However, RCT has been criticised for overlooking social and structural drivers such as workplace dissatisfaction and economic

inequality (Weber, 1978; Durkheim, 1982; Elster, 1982). This study extends RCT by considering employee morale: poor management, inconsistent policies, or excessive monitoring can lower morale and encourage theft rationalisation, while supportive leadership and fair wages reduce incentives.

RAT, introduced by Cohen and Felson (1979), shifts focus to environmental conditions, asserting that crime arises when a motivated offender, a suitable target, and a lack of capable guardianship converge (Schreck, 2017; Mohammed, Nooraini & Hussain, 2018). In retail, minimal security controls and weak oversight heighten theft risks (Pratt, Holtfreter & Reisig, 2010; Setterlund *et al*., 2007), with spatio-temporal and organisational factors influencing opportunities (Ireland, 2020; Ahmad & Thurasamy, 2022).

SLT (Bandura, 1977) explains behaviour through observation, imitation, and reinforcement (Thompson, 2008; Grusec, 2020). Moral disengagement allows individuals to justify theft (Harris & He, 2019), particularly in cultures that tolerate deviance or unethical management (Potdar *et al*., 2020). Peer influence can normalise misconduct (Goh & Kong, 2018), while ethical leadership reinforces positive norms (Lorinkova & Perry, 2019). Together, these frameworks show that theft prevention requires integrated strategies addressing rational decision-making, environmental opportunities, and social learning dynamics.

METHODOLOGY

Research approach

This study adopted a qualitative research approach to explore the relationship between management practices, employee morale and employee theft in retail settings for an in-depth understanding of employee perceptions and workplace experiences (Taylor *et al*., 2015). Given the complex nature of employee theft, a deductive thematic analysis was employed, drawing from the literature and theoretical framework to guide data interpretation. The study was informed by RCT, RAT and SLT, ensuring a structured analysis aligned with existing theoretical perspectives. This study also examines how employee morale influences moral disengagement and theft rationalisation through Social Learning Theory, while exploring leadership's impact on ethical decision-making in retail environments.

Instrumentation

The study utilised semi-structured interviews as the primary data collection instrument. The interview guide was developed based on insights from existing literature on employee morale, workplace ethics and employee theft (Kumar and Velmurugan, 2020; Harris and He, 2019). Open-ended questions were designed to elicit responses about management practices, employee morale and perceptions of theft, ensuring alignment with the areas of investigation

and to encourage participants to share their experiences while allowing for thematic exploration.

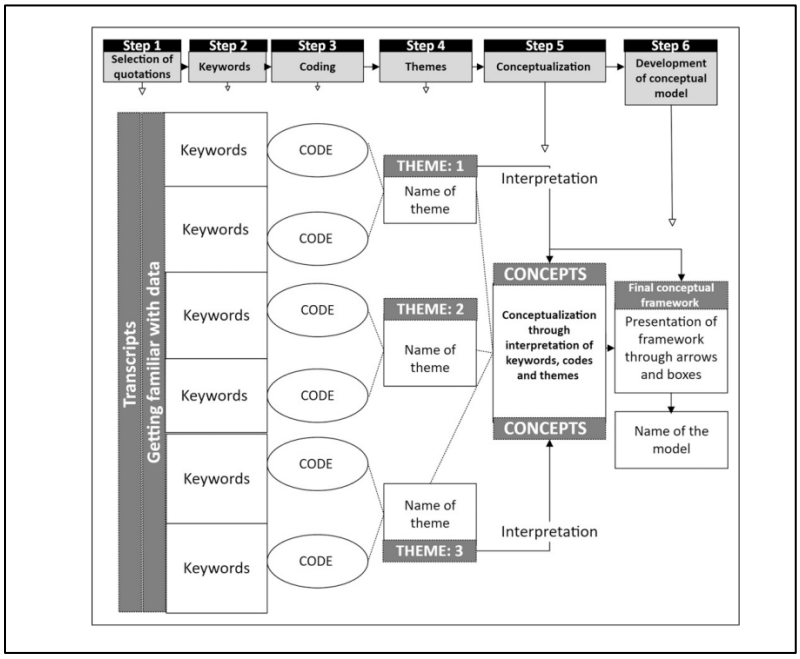
Data collection procedure

The study sampled retail experts across various store types, including supermarkets, clothing stores and electronics retailers. Participants were selected using purposive sampling to ensure a diverse representation of retail employees with direct experience in management practices and workplace morale. The research involved semi-structured interviews with 16 managers (including top, middle and store managers) to capture first-hand perspectives on employee theft, workplace policies and ethical behaviour. Interviews were conducted face-to-face and via virtual platforms, depending on participant availability. Each interview lasted approximately 30 to 45 minutes, with responses recorded and transcribed for analysis.

Data analysis

This study employed deductive thematic analysis (figure 1) following Fereday and Muir-Cochrane (2006) and Boyatzis (1998) to examine the relationship between management practices, employee morale and employee theft in South African retail settings. Deductive thematic analysis involves theory-driven coding, using existing frameworks to guide the analysis (Naeem, Ozuem, Howell and Ranfagni, 2023), It follows a systematic process and is transparent about the steps taken, which enhances the credibility and replicability of the research findings.

FIGURE 1: DEDUCTIVE THEMATIC ANALYSIS STEPS



Source: Adapted from Naeem *et al*. (2023)

Data from the interviews were analysed using a coding manual aligned with RCT, RAT and SLT as the guiding theoretical frameworks. An example of this process and how the analysis moved from being guided by theories to the development of themes is illustrated in Table 1 below:

TABLE 1: Example of Thematic Analysis from Interview Transcript

Guiding Theory	Keywords (from transcript)	Code	Theme	Concept
Rational Choice Theory (RCT)	"If you feel motivated, then you won't steal or do anything bad at the shop because you feel at home at the shop." (P1)	Employee motivation through recognition	Economic frustration reduction via morale improvement	When employees feel valued and rewarded, the perceived benefits of honest work outweigh theft incentives
Routine Activity Theory (RAT)	"If you treat them bad, they will steal... but if he speaks to them, and warns them very nicely... then you come back when you are fine." (P3)	Supportive and respectful communication	Reducing theft opportunities through positive management	Positive interactions and guidance reduce situational triggers for theft
Social Learning Theory (SLT)	"We shouldn't hate each other, we don't give each other attitude." (P7)	Teamwork and collaboration	Ethical workplace culture	A collaborative and respectful environment models pro-social behaviour, discouraging theft

Source: Authors' own

Themes were identified through intercoder reliability checks, summarisation and application of the code template. As shown in the example in Table 1, using a deductive thematic analysis, the investigation applied Rational Choice Theory, Routine Activity Theory, and Social Learning Theory as guiding lenses to interpret the qualitative data. The process began with predefined theoretical constructs such as economic incentives, opportunity structures, and social influences to examine participant quotes for alignment. For example, under Rational Choice Theory, employee recognition was linked to a reduced propensity for theft by shifting perceived rewards toward honest work. Routine Activity Theory posits that supportive managerial communication serves as a situational deterrent, reducing triggers for deviance. Social Learning Theory explained how teamwork fosters pro-social norms that counteract theft.

Ethics

This study received ethical approval from the University of Reading Research Ethics Committee, with participants fully informed about the study's purpose, rights, and

confidentiality through a Participant Information Sheet. Informed consent was obtained via signed forms, and participation remained voluntary with the right to withdraw at any time. Data were securely stored to ensure anonymity, and audio recordings supported accurate transcription and thematic analysis, with anonymised quotations used for illustration.

FINDINGS AND DISCUSSION

This section presents the study findings and the resultant themes from the analysis, organised according to the study's areas of investigation.

Management practices that positively influence employee morale in retail settings

This area of investigation identified several management practices that, according to our findings, positively influence employee morale in retail settings. The first management practice was employee recognition and appreciation. Managers who regularly acknowledge and appreciate their employees' hard work can significantly boost morale. Simple gestures such as verbal recognition or small rewards can make employees feel valued and motivated, as was indicated by participants 1 and 2 below.

"If you feel motivated, then you won't steal or do anything bad at the shop because you feel at home at the shop." (P1)

"When my manager comes to the store, then we will have a floor walk... if I put them according to the layout... then he is happy." (P2)

Another positive management practice was i**nclusive communication**. Involving employees in decision-making processes and keeping them informed about business matters fosters a sense of belonging. Regular meetings where employees can share their ideas and feedback contribute to a positive work environment.

"If the manager is telling the employee that you know what, it depends on you, for us to have the budget and all those things, I think that's it." (P7)

"They must feel like they are involved in this business, that when they come to work, they must know that this is not for the manager, it's also for me." (P8)

Supportive leadership where managers treat their staff respectfully and maintain open lines of communication also create a more positive workplace culture. Employees are less likely to engage in negative behaviours when they feel supported and valued by their leaders.

"If you treat them bad, they will steal... but if he speaks to them, and warns them very nicely... then you come back when you are fine." (P3)

"If the manager listens, and the staff can talk to him... that is a very positive thing." (P5)

The presence of c**areer development opportunities was identified as the fourth positive management practice**. Providing clear career advancement and professional development pathways can enhance employee commitment. When employees see potential for growth within the organisation, they are more likely to invest in their roles.

"If you promote a person, he is going to train well in a store; he is gonna do something that is good in a store." (P11)

"I think even that one of the managers must talk to their customers, and managers must talk to the employees, encourage them to grow up." (P12)

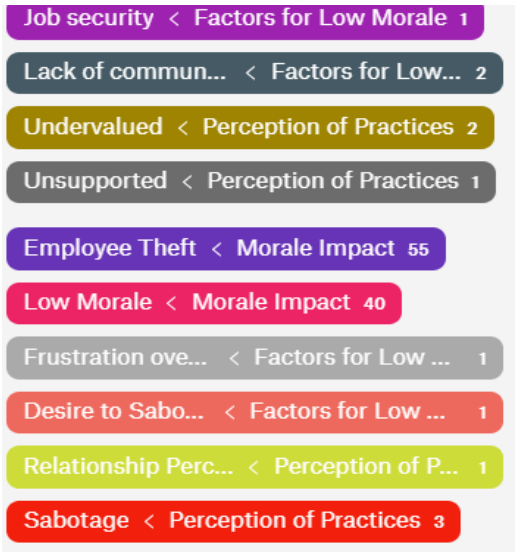
The final positive management practice was teamwork and collaboration. Encouraging a team-oriented environment where employees work together and support one another can enhance morale. A sense of camaraderie among staff can increase job satisfaction.

"If you make that the employees be one team, as a manager, make them make sure that they are one team. I think it can reduce." (P19)

"We shouldn't hate each other, we don't give each other attitude." (P7)

Findings revealed that poor management practices and low morale increase theft propensity, while ethical leadership and positive workplace environments mitigate such risks. The analysis highlights how opportunity structures, social influences and economic pressures shape employee behaviour, reinforcing the theoretical underpinnings of RCT, RAT and SLT in explaining employee theft.

FIGURE 2: EXAMPLES OF CODES EXTRACTED FROM ATLAS.TI



Source: Extracted from ATLAS.ti

Employee recognition and supportive leadership enhance morale, reducing theft by increasing employee commitment (Ghosh *et al*., 2023). Our findings align with SLT, which suggests that positive reinforcement from leadership fosters ethical behaviour (Bandura, 1977). It also suggests that inclusive communication and career advancement promote workplace attachment, reinforcing RAT by creating a capable guardianship structure that discourages theft (Cohen and Felson, 1979).

How employee morale impacts the likelihood of employee theft in retail settings

Our findings demonstrate that low employee morale significantly impacts the likelihood of employee theft in retail settings. Factors contributing to low morale, such as inadequate wages and lack of recognition, can create an environment where employees justify stealing to cope with dissatisfaction or financial struggles. Conversely, the study establishes that employees are more likely to feel committed to their workplace and its success when employee morale is high. Consequently, positive management practices, such as recognition and opportunities for advancement, can enhance morale and reduce the likelihood of theft.

First, the way employees are treated by management plays a crucial role in their morale. Employees who feel disrespected or undervalued are more likely to engage in theft as a form of retaliation or sabotage.

"*if the manager treats the staff better... then employee theft can then maybe go down*" *(P7).*

Next, low salaries and financial pressure contribute to a decision to steal as employees feel that their salaries are insufficient to meet their basic needs, which can lead to desperation. Thus, failure to value employees through adequate compensation has a bearing on their morale, which affects their morale.

"the money that they are getting is too little to support them/the family" (P1).

"the salaries are just too low... they need to feed their children" (P5)

"some employees are just doing it because they don't get paid more" (P11),

In addition, a lack of proactive talent development and meaningful employee recognition show that employees who lack commitment to their organisation, often due to stagnant career progression or feeling undervalued, are more likely to steal.

"if let's say I've been working for about 10 years, and I've not been growing... then I'll come with that thing, ah let me steal because I don't think they notice me" (P4)

Our findings also signify a correlation between failure to create a conducive working environment and theft. The workplace environment and peer dynamics influence employee

behaviour. Employees may feel pressured by colleagues to engage in theft, especially if they perceive that others are doing so without consequences.

"you can go to work while you don't know how to steal but when you arrive at work you get a colleague that is a professional with stealing" (P13).

From the analysis, it is clear that employee morale is a critical factor in the likelihood of theft in retail settings. Low wages, poor management practices and a lack of commitment can increase theft as employees seek to address their financial pressures or retaliate against perceived injustices. Low morale, driven by poor wages and lack of recognition, increases theft rationalisation. This supports RCT, which argues that employees weigh costs and benefits before committing theft (Kibet *et al.*, 2020). The role of financial pressure in theft aligns with De Villiers *et al*. (2023), who identified economic struggles as a primary motivator. Conversely, improving employee morale through better treatment, fair compensation and fostering a supportive work environment can significantly reduce the incidence of theft. Work environments that foster fair treatment and inclusion reduce theft propensity, supporting SLT, which suggests that employees learn workplace norms through observation and reinforcement (Goh and Kong, 2018).

Factors contributing to low employee morale in retail settings

One of the most significant factors contributing to low employee morale is inadequate compensation. Many employees feel their salaries do not reflect their hard work, leading to dissatisfaction and frustration.

"The salary that we get is very small" (P2)

"the money that they are getting is too little to support them/the family" (P5).

Also, many employees express frustration over stagnant career progression. Employees feeling stuck in their positions without growth opportunities can lead to feelings of hopelessness and resentment, which highlights how a lack of advancement can contribute to negative behaviours.

"…if let's say I've been working for about 10 years, and I've not been growing... then I'll come with that thing, ah let me steal because I don't think they notice me" (P11).

Employees may also experience pressure from peers or family or other social influences, which can impact their morale and decision-making.

"Some of them steal because they feel pressured by their family or friends" (P8).

This social pressure can lead to feelings of inadequacy and the desire to conform to group behaviours, even if they are negative.

Another factor might be that retail employees often face long hours and demanding schedules, leading to burnout and low morale. The inability to balance work and personal life can create additional stress and dissatisfaction among employees.

"Some of them steal because they feel pressured by their family or friends" (P 17).

"You don't even have time to spend with the family" (P12).

Inadequate salaries lower job satisfaction, consistent with Kapur (2023), who found a direct link between morale and performance outcomes. These abovementioned factors increase theft justification, reinforcing SLT's view that employees adapt behaviours based on group dynamics (Potdar *et al.*, 2020). Weak monitoring systems enable misconduct, aligning with RAT, posing that the absence of capable guardianship increases theft risks (Cohen and Felson, 1979).

These theoretical connections validate the study's findings, reinforcing the relationship between morale, management practices, and employee theft in retail settings.

ACADEMIC AND MANAGERIAL RECOMMENDATIONS

By creating a comprehensive analytical lens for understanding employee theft in retail environments, this unique interdisciplinary approach advances theoretical understanding by examining how economic decision-making, observational learning, and environmental opportunity structures collectively influence workplace deviance. In addition, the research fills a significant gap in the literature by investigating employee theft in the South African retail context. This contribution is particularly valuable given emerging retail markets' unique socioeconomic challenges and workplace dynamics. Also of academic importance is that the study establishes employee morale as a critical mediating factor between management practices and theft behaviour, extending previous theoretical frameworks that focused primarily on opportunity structures or rational calculation. This advances the understanding of the psychological mechanisms that link workplace conditions to deviant behaviour.

In terms of managerial importance, it is widely known that in South Africa's retail sector, employee theft is a growing concern driven by economic pressures, job dissatisfaction and weak ethical enforcement. To mitigate this, retailers must implement practical, industry-relevant strategies. First, Fair and transparent management of wages, promotions, and policies can reduce resentment that leads to theft. While workplace surveillance is crucial, excessive monitoring breeds distrust and balancing smart security measures with proactive leadership fosters compliance. In addition, A strong ethical culture, led by visible ethical leadership, can deter dishonesty. Encouraging whistleblowing and providing continuous ethical training ensures that employees internalise company values. Employee recognition

and career development improve morale, reducing the likelihood of deviance. Given South Africa's economic challenges, fair wages and financial support initiatives (e.g. salary advances and financial literacy training.

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ENHANCING MUNICIPAL WORKFORCE EXCELLENCE THROUGH A COMPETENCY-BASED MANAGEMENT APPROACH IN MPUMALANGA PROVINCE

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ABSTRACT

Municipal Workforce Excellence has been a topic of discussion since South Africa's democratic breakthrough in 1994. Municipal political leaders now face significant challenges due to the complex, multi-layered nature of municipal management and the involvement of various stakeholders. In Mpumalanga province, the challenge is some municipalities' inadequate human resource capabilities. The objective of this article was to explore how competency-based management can enhance municipal workforce excellence. Utilising a qualitative case study approach, ten participants with expertise in municipal leadership were purposefully sampled and interviewed using semi-structured interviews. The analysis was thematic. The findings showed the importance of merit-based hiring and promotion and the need for a transparent selection process, fair operational evaluations, and precise identification of professional development needs. The study recommends strengthening leadership roles to enhance effectiveness and adopting transparent human resources procedures, prioritising merit and competence in filling municipal positions.

Keywords: leadership; political leadership; competency-based management; competency; workforce excellence

INTRODUCTION

Competency-based management in Human Resources Management (HRM) emphasises aligning individual skills and behaviours necessary for success in a role with the organisational goals. Competencies are traits of individuals that enhance job performance (Roy & Ray, 2025). Hence, attaining workforce excellence requires efficiency in corporate human resource management. Every municipality should have efficient recruitment, appointment, promotion and retention practices to attract competent, experienced, and qualified workers for specific roles. Effective political leadership is responsible for promoting municipal workforce

excellence by identifying Human Resource (HR) needs in their municipalities. This enables the recruitment process to retain information about suitable applicants for current and anticipated municipal vacant positions (Masuku & Jili, 2019). To accomplish municipal strategic goals, suitable recruitment and appointment practices can guarantee that the municipality attracts suitable people with the necessary talent, expertise, and abilities (Eva, 2018). Municipal staff are responsible for service delivery, and their contributions directly influence the quality of those services. As a result, municipalities ought to ensure that personnel recruitment and appointments are free of political meddling (Masiya et al., 2021). This study explored how competency-based management can enhance municipal workforce excellence. The following sections of the article present the background, literature review, methodology, findings, discussion, and conclusion.

BACKGROUND

Many businesses face disruption due to environmental complexities from the Fourth Industrial Revolution (4IR). Leadership is needed to develop more agile organisational systems. To achieve this, foundational competencies must evolve to meet new stakeholder demands. Political changes in South Africa after 1994 have unsurprisingly reignited the discussion about the connection between political officeholders and public personnel (Meyer & Xin, 2018). The task of the governing party as part of the transformation agenda was to restructure the public sector so that the ruling party's programs could be implemented into government or policy (Mhlanga et al., 2019). Due to turbulence in the political environment, coalition governance has taken over, further complicating municipal performance. Msipa (2016, p.62) states that coalitions foster "multipartyism," which requires sacrifices to relinquish party ideologies to meet coalition demands. This comes with challenges, like parties fearing losing identity and power to make decisions (Hanabe & Malinzi, 2019). The dysfunction of coalition systems affects how municipalities identify, recruit, and retain employees, ultimately affecting workforce excellence.

The decline of ethical standards and practices in municipal employee recruitment and selection has hindered the ongoing efforts to build an ethical, professional, and competent local government (Munzhedzi, 2021). Ethical violations in human resource management have undermined the credibility and performance of the municipalities in Mpumalanga province. A municipality's success or failure depends on its political leadership, effective financial management, and the quality of its employees (Ndebele & Lavhelani, 2017). While effective financial management is essential, municipalities may struggle without skilled personnel. Consequently, prioritising proper recruitment and appointment is crucial for the successful and efficient operation of all municipal responsibilities (Reddy, 2018). Advocating for workforce

excellence should not only involve corporate services or human resources; it must be a core responsibility and goal of a municipality's political leadership.

Several factors often hinder competency-based management processes in local government. These include inadequate recruitment practices, political influence in employee appointments and terminations, difficulty in attracting and retaining qualified personnel, a high number of vacant positions, and the absence of effective performance management systems, among other issues. Omisore et al. (2014) state that some local governments engage in recruiting and appointment practices influenced by nepotism and political preference. Luballo and Simo (2017) state that staffing decisions influenced by corruption, favouritism, and prejudice lead to the selection of unqualified individuals who lack the necessary expertise, skills, and capacity to add value to the municipality. Tella and Ibinaiye (2019) concur that employees' skills and expertise impact individual performance and influence overall success, effectiveness, and efficiency of service delivery within municipalities. Consequently, the negative aspects of recruitment, appointments, and retention practices lead to employee dissatisfaction, resulting in higher staff turnover in municipalities and adversely affecting municipal workforce excellence.

OBSTACLES TO ACHIEVING MUNICIPAL WORKFORCE EXCELLENCE

Obstacles to municipal workforce excellence include the effects of politics on corporate human resource management, politically motivated appointments, and poor skills development practices, which are discussed below.

The Effects of Politics on Corporate Human Resource Management

Anwar and Abdullah (2021) pointed out that the impact of politics on a municipality's administrative operations delays the provision of services within the local government domain. Ndevu and Muller (2017) further indicated that political leaders' meddling in local government's management and administrative functions leads to politicisation in that sector. Investigations into nepotism in hiring employees without the necessary training and experience are constantly being conducted in several municipalities in South Africa (Mawela et al., 2017). Further, these investigations aim to understand why local authorities violate supply chain management guidelines by using preferential treatment in awarding municipal contracts (Mawela et al., 2017).

Politically Motivated Appointments

According to Madumo and Koma (2019), in the Policy Bureau Model, elected officials are required to oversee the public sector. There is no difference between administration and politics in this situation. Additionally, the model suggests that public employees should be

appointed and rewarded only for their slavish loyalty to the governing party rather than based on talent. Masiya et al. (2021) further indicate that the ruling parties must ensure that individuals who share their commitment to the party's reform goal hold high positions in each of the three branches of government. Education and training should foster patriotism and qualities such as commitment, dedication, discipline, and perseverance. Similarly, political and ideological training for cadres should equip them to demonstrate political leadership and be recognised as implementers within their departments (Thebe, 2017). Furthermore, insufficiently qualified councillors have resulted in a deficiency of supervision by local councils, negatively impacting service provision (Madumo & Koma, 2019).

Poor Practice of Skills Development by Municipalities

Thebe (2017) indicates that many municipalities usually underutilise skill development. Skills audits and needs assessments are frequently conducted ineffectively, and when skills audits are performed, skill development interventions are often not implemented (Bless, 2023). Munzhedzi (2021) further indicates that formal and informal skills development methods are rarely used, and there is a general lack of opportunity for employees to exercise new abilities following skills development initiatives. In general, it was discovered that the Integrated Development Plan (IDP) approach did not flow towards the Workplace Skills Plan (WSP), with a significant lack of cohesive and agreed-upon methods for skills development practices across several municipalities (Phadi et al., 2018).

RESEARCH OBJECTIVE AND RESEARCH QUESTIONS

As a result, the main objective of this article was:

To explore how competency-based management can enhance municipal workforce excellence.

The three research questions that guided the study were:

- How can competency-based management processes enhance municipal workforce excellence?
- What is the effect of municipal politics on corporate Human Resources Management?
- How can political leadership and corporate HRM support municipal workforce excellence?

LITERATURE REVIEW

Recruitment and Appointment Processes in Local Government

Wood et al. (2022) stated that local government's effective Human Resources Management (HRM) depends on the variables inside a specific municipal administrative environment. Partisanship in South African municipalities negatively impacts HRM contexts, leading to

nepotism and party-based deployments (Reddy, 2018). Further, human resources management procedures in municipalities are frequently criticised as illegitimate and unproductive (Riccucci et al., 2019).

Shava and Chamisa (2018) added that cadre deployment refers to appointing personnel associated with a specific political party in government departments or municipalities, regardless of credentials or expertise. Riccucci et al. (2019), reflecting on cadre deployment, lament that it lacks merit and fosters loyalty, with both being viewed as incompatible with providing effective government services. Similarly, Reddy (2018) agrees and argues that deploying inept personnel in South African municipalities according to partisanship does not bode well for municipalities in providing services with effectiveness and efficiency.

Municipal recruiting and appointments play a vital role in shaping local governance services, but the involvement of politicians in hiring and selecting employees is significantly prominent (Usman et al., 2020). Santos et al. (2020) point out that organisational deficiencies and strengths can be linked to recruitment and appointment processes. Municipal performance will suffer if recruitment and appointment norms are flouted due to pressure from politicians. Cooper (2021) indicates that organisational development and growth depend on the competence of recruiting and appointment processes. Employee performance indicates how well municipal employees perform duties and how effective it is. As a result, it is critical to execute a recruitment process free of political pressure (Santos et al., 2020).

Human Resources Management and Workforce Planning in Local Government

Contemporary African governments promote partisan interests by recognising the importance of political parties and, in some cases, liberation movements in governing (Wood et al., 2022). Reddy (2018) states that politicisation can involve controlling the administration's operation through nepotistic recruiting networks in which close relatives and allies are provided jobs in exchange for their patronage. Such recruiting processes are not based on merit but are influenced by people with political connections (Shai, 2019). Shai (2019) emphasises that municipal services should be provided equally and not solely to individuals with a party interest and that the administrative aspect of local government must remain free from partisan influence.

Jashari and Kutllovci (2020) state that the initial phase of Human Resource Management (HRM) is recruitment and selection, while the final phase involves employee performance reviews to assess the process's successes and areas needing improvement. The performance of individuals is crucial for the effective delivery of organisational services. The goal is to recruit and deploy the best individuals to suit the needs of the workplace to improve and sustain service quality (Ashraf & Niazi, 2018). Recruitment and appointments are also critical to a

municipality's successful operation, efficacy, and performance (Kanagavalli et al., 2019). As a result, recruitment and selection must be carried out transparently, effectively, and independently.

Santos et al. (2020) state that poor HR planning causes problems with recruitment and selection practices. HR planning generally translates the company strategy into HRM policies and procedures. When a municipality lacks sufficient employment analysis data and critical information and uses improper selection procedures, the recruiting and selection process may fail. Reedy (2018) indicated that HR practitioners must grasp the components required for recruitment and selection that do not infringe on the rights of prospective applicants. It is critical to pick or recruit people based on their expertise, qualifications, applicable abilities, and degree of confidence (Shai, 2019). Municipalities should be attentive and follow established protocols when choosing candidates to prevent unfair hiring practices and the irresponsible employment of incompetent individuals (Otoo et al., 2018).

Guelke (2017) states that competent recruiting and selection methods influence municipal performance. Cooper (2021) agree that recruiting and appointing are linked with achieving municipal objectives. Masuku and Jili (2019) note that municipalities which are less selective and hire lower-skilled individuals are more likely to experience significantly adverse effects on service delivery due to their personnel choices. According to Rahmany (2018), having the proper HRM framework of recruiting and selection techniques is critical to guarantee that a business's employees are skilled, inspired, adequately educated, and passionate. Thus, municipalities will likely perform better if they employ fair and systematic recruitment and selection methods to choose qualified individuals based on their relevant skills and expertise (Eva, 2018). By adopting a competency-based system, municipalities will establish non-discriminatory, fair recruiting and selection methods (Pahos & Galanaki, 2019).

Shai (2019) suggests that equitable recruitment and selection methods would create more opportunities for suitable appointments and enhance municipal performance. Due to political control, compromised, and manipulated recruiting practices, newly recruited personnel may lack independence in performing their duties (Eva, 2018). Employees perform effectively when best suited for the job and were selected using appropriate recruitment criteria, enhancing municipal efficiency (Anyango et al., 2018). However, municipal effectiveness can be compromised when personnel are chosen using manipulation, political influence, or unethical behaviour (Masuku & Jili, 2019). If a municipality has the proper people who are talented, qualified, and knowledgeable, it could enhance its ability to provide services (Cooper, 2021). This can lead to lower staff turnover, more significant achievements, fewer dissatisfied clients, mutually beneficial employer-employee relationships, and enhanced employee commitment (Kafui, 2017).

Competency-based Management

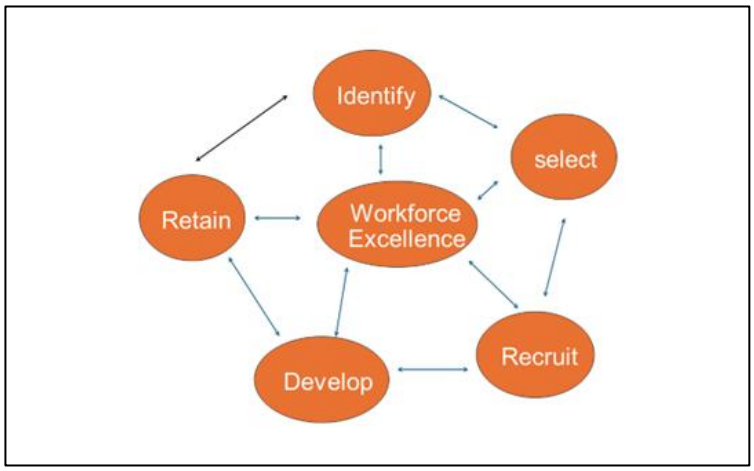
Competency-based management in HRM involves applying specific competencies to effectively and efficiently manage human resources (Tripathi & Agrawal, 2014). Gunawan et al. (2019) state that competency-based human resource management employs a competency approach as the foundation for HR practices of recruitment and selection, training and development, and appraisal and remuneration. Furthermore, competency-based management also plays a crucial role in appraisal and remuneration systems, where employees are assessed and rewarded according to their demonstrated competencies and contributions to the organisation. This comprehensive framework fosters a performance-driven culture supporting individual growth and organisational success. Gunawan et al. (2019) elaborate that competency-based human resource management relies on a competency framework as the guiding principle for various human resource practices. Competencies are characteristics of an individual that contribute to effective job performance (Boyatzis, 2008; Roy & Ray, 2025; Tripathi & Agrawal, 2014). According to Ratnawat (2018), competency includes the fundamental traits of individuals, such as their knowledge, skills, attitudes, and behaviours, shaped by their beliefs and values, which lead to enhanced job performance. Northouse (2021) clustered competencies required to be effective on the job as problem-solving, social judgment and cognitive skills. A competency model is a descriptive tool that outlines the knowledge, skills, abilities, and behaviours necessary for effective organisational performance (Ratnawat, 2018; Roy & Ray, 2025).

Workforce Excellence

HRM has transformed from a lower-level, administrative role to a core business function and strategic partner (Ulrich & Dulebohn, 2015). HRM is a strategic business component that must understand the organisation's mission and vision and the human resources needed to achieve them. Managing, maintaining, and retaining competent and professional employees are among the important missions of human resource management (Amany & Sharify, 2025). Workforce excellence is attained when all elements of human resource management, including identification, selection, recruitment, retention, and development, are aligned and translate into organisational efficiency and effectiveness. Amany and Sharify (2025) emphasised that human resource management primarily focuses on identifying, selecting, employing, training, and developing human resources to achieve organisational goals. The strategic and tactical focus of human resource management in municipalities is essential for recruiting and retaining competent individuals who can tackle service delivery (Dikotla, 2019). It is a concern when important posts go unfilled, as the workforce excellence loop becomes

discontinuous. Figure 1 below shows the sync required in HRM to achieve workforce excellence.

FIGURE 1: ACHIEVING WORKFORCE EXCELLENCE IN MUNICIPALITIES



Source: Authors' own

The harmonisation shown in the figure should lead to organisational HRM effectiveness. It is presented as a cycle, emphasising that it should be an ongoing and continuous effort for improvement, rather than a one-time event aimed at achieving a specific goal. This approach fosters an environment where regular evaluation and enhancement are integral to operations, ensuring sustained growth and development. Municipal accountability shortcomings can partly be attributed to unfilled vacancies and high staff turnover in key positions (Bless, 2023). Hence, municipalities require workforce analytics as a continuous process.

METHOD

The study was qualitative and used a case study research strategy. Case study research is a widely used strategy in the social and life sciences because it effectively examines complex phenomena (Hancock et al., 2021). According to Noble and Heale (2019), case studies are particularly suitable for addressing 'how' and 'why' questions. A case study involves a thorough investigation focusing on an individual, a group of people, or an organisation, aiming to transfer the insights to other contexts by exploring various components (Hancock et al., 2021). This approach is characterised by its systematic and rigorous nature, as researchers delve into a wealth of information regarding the multiple facets of the chosen case. The sample had 10 participants who were purposively sampled from identified municipalities in Mpumalanga province. The criteria for inclusion encompassed councillors, senior and middle management, technical specialists, field workers, and other operational staff who were actively engaged in local municipalities within the participating district and had held these positions for a minimum of two years.

Data was collected through semi-structured interviews conducted in English, averaging 45 minutes each. Some of the questions included in the interview guide were:

- What critical competencies do municipalities need to function effectively?
- What challenges do municipalities face in attracting and retaining qualified individuals?
- What responsibilities do municipal political leaders have that affect corporate municipal HRM?
- How can political leadership and HRM work together to achieve workforce excellence?
- How can political leadership and HRM effectively manage power dynamics?

Ethical protocols in research that involve humans were satisfied, and the municipalities and the sampled participants granted consent. The research focused on a small sample to gain more detail in the productive interactions that increased the richness of data (Saunders et al., 2019). Purposeful sampling enabled identifying information-rich individuals with the knowledge and experiences required to answer the research questions effectively (Cooksey & McDonald, 2019).

The data was analysed manually using Creswell and Creswell's (2018) five steps to thematic analysis. The analytical process began after the interview transcripts had been diligently reviewed and organised. The 1st step involved organising and getting the data ready for analysis. The 2nd step consisted of reading or assessing every aspect of the data. The 3rd step involved starting data coding, where the researchers used colour coding to highlight the patterns and themes (Kara & Toendepi, 2023). The 4th step consisted of ascribing phrases describing the data and combining similar ones to create themes. The 5th step represented the data description and themes (Creswell & Creswell, 2018). In qualitative research, it is critical to ensure the study's credibility by ensuring trustworthiness, reliability, transferability, dependability, confirmability, and authenticity (Kyngäs et al., 2020; Newhart & Patten, 2023). The researchers established credibility through detailed descriptions of the research process, ensuring transparency and transferability (Connelly, 2016). One prominent theme that emerged was using a competency-based approach in human resource management, which this article focused on.

FINDINGS

Five themes emerged in the study, including one focused on a competency-based approach, which is the basis of this article. The effectiveness of a competency-based approach as a framework for enhancing capacity in South African local government is complicated by several challenges. One major issue is the inadequate human resources capabilities, which are crucial for implementing the local government strategy. Due to these capacity challenges, municipalities struggle to attract and hire qualified staff.

> *"Sometimes we do not have the right skills at the right place or position. Then, we compromise some requirements, expertise, and competencies, resulting in the municipality failing".* A1

> *"Departments are performing, but there are challenges where they need assistance…which includes the upskilling of our employees, whereby those who need to be sent for training are sent."* C2

> *"Most of the time, certain individuals are recruited within a municipality to occupy certain positions, but that particular individual does not possess the necessary or required qualifications."* D3

To enhance the competence of municipal management and personnel, it is essential to focus on organised and approved municipal management and technical training. This initiative should also include effective recruitment policies and processes to attract external talent when the municipality lacks the necessary capacity. The turnover rate of employees in local government is high, and various factors contribute to workforce turnover in each municipality, which affects the HRM capacity.

> *"The recruitment of external stakeholders or external employees to be part of the municipality also plays a critical or significant role when it comes to the performance of a municipality", D3.*

> *"Because there are no proper skills from the human resource sector for guidance in terms of performance monitoring." D1*

The Municipal Systems Act outlines the basic competencies required for municipal appointees in finance, planning, strategy, management, and governance. Municipalities need professionals who effectively manage them as businesses, ensuring proper performance evaluation and accountability. It is important to note that other municipalities have successfully achieved this.

> *"We are fortunate to have a man knowledgeable on the MFMA and PFMA who works well with the Council and councillors."* C2

> *"The improvement is also on the basis that all your sections' 56 managers have been adequately appointed, and the positions have been filled."* D1

Municipalities have a primary responsibility to manage their budgets and finances effectively. However, smaller municipalities have lost essential specialised skills, such as qualified and experienced accountants and auditors, to larger municipalities and the business community. Municipalities must ensure they possess adequate financial expertise in key areas. Participants discussed the issue in the following manner:

> *"If I am now busy with the annual financial statement, I need to understand the technicalities around preparing it and its reporting."* A1

> *"I will say good communication skills. I would rate it as a technical skill because if you communicate within this municipality, you will work well when dealing with projects."* E1

> *"Other competencies that will follow are finance for non-financial managers; the leadership also needs those competencies to understand the public projects."* C1

Greater emphasis should be placed on developing human capital, focusing on opportunities for personal growth, advancement, and achievement in alignment with municipal objectives. In other municipalities, staff members have obtained qualifications from higher education

institutions to enhance their skills, and they should be encouraged to continue improving and upskilling themselves.

> *"I always tell people that if you do not study, if you do not engage with people, if you keep doing the same thing for the past ten years, you are unlikely to grow*", A1.
>
> *"I am doing my advanced diploma in business management, and next year, I want to do the honours in public administration."* E1

Municipalities are struggling to recruit experts like chartered accountants and practising engineers, which has affected their strategic capabilities. These professionals' salaries are often higher than the rates established for public service, making it challenging to attract and retain them in local government. COGTA and the National Treasury should deal with this, including the number of senior officials who do not fulfil the minimal competency criteria (MCR). This data shows that achieving workforce excellence in municipalities in Mpumalanga province remains problematic due to several factors, which include inadequate skills, non-competitive remuneration and a politicised environment.

DISCUSSION

The article's objective was to explore how competency-based management can enhance municipal workforce excellence. The primary finding was that merit-based hiring, promotions, a transparent selection process, fair operational evaluations, and accurate identification of professional development needs are crucial. The data showed that achieving workforce excellence in municipalities in Mpumalanga province remains problematic due to several factors, which include inadequate skills, non-competitive remuneration and a politicised environment. According to Wood et al. (2022), effective HRM in local government is based on the characteristics within a specific municipal administrative framework. As a result, municipal partisanship in South Africa has the potential to negatively affect HRM contexts, resulting in the development of practices such as nepotism and party-based employment (Reddy, 2018).

Municipal workforce excellence can be achieved when the right individuals are placed in the appropriate roles through competency-based management. Gunawan et al. (2019) state that competency-based human resource management uses a competency approach as the basis for HR practices, which include recruitment and selection, training and development, and appraisal and remuneration. Workforce excellence is attained when all elements of human resource management are aligned and translate into organisational efficiency and effectiveness. Planning human resources typically translates an organisation's strategy into specific HRM guidelines and processes. Santos et al. (2020) state that inadequate planning for human resources leads to problems with recruitment and appointment standards and procedures. The participants noted that many municipalities in Mpumalanga province lack the right skills in appropriate positions. Cooper (2021) adds that recruitment and appointment

strongly correlate with achieving municipal goals. The findings showed that some municipal departments are functioning well but need support in areas like staff training and upskilling. Political leadership should exert less influence over municipal administrative functions. Transparent HRM processes must prioritise appropriate competencies and merit to enhance workforce excellence within municipalities. Therefore, the study recommends enhancing leadership roles to improve effectiveness and adopting transparent human resources procedures, prioritising merit and competence in filling municipal positions. Specific recommendations are as follows.

RECOMMENDATIONS

The following are the recommendations thereon:

- Municipalities in the districts under study must implement workforce analytics as an ongoing process.
- These Municipalities must adopt transparent human resources management procedures, prioritising merit and competence in filling municipal positions.
- Municipalities should ensure that employee competency is prioritised during staff recruitment.
- A re-audit of all personnel qualifications is needed to understand the bigger picture
- Enhance performance management to prioritise employee development by providing training resources and consistently reaffirming performance objectives.

CONCLUSION

This study offered insights into how municipalities in Mpumalanga province must achieve workforce excellence by recruiting and appointing qualified personnel to satisfy their residents' demands and accomplish their strategic objectives. Competency-based recruitment and appointment at the local government level should serve as the foundation for evaluating human resources priorities. Competency-based human resource management is a practical employee management approach that looks at recruitment, selection, training and development, performance evaluation, compensation, workforce and succession planning, and career guidance. This method offers distinct advantages by clarifying roles and responsibilities, outlining expected outcomes, and identifying the attributes needed to perform specific jobs effectively. Competency-based management significantly enhances individuals' and organisations' effectiveness when integrated into HR processes, resulting in workforce excellence.

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EXPERIMENTING WITH BEHAVIOURAL ECONOMICS, FINANCIAL LITERACY, PERSONAL FINANCIAL EFFICACY AND RETIREMENT DECISIONS AMONG EMPLOYEES IN A SOUTH AFRICAN ENGINEERING ORGANISATION

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ABSTRACT

This study investigates the effects of a Behavioural Economic Intervention and Financial Literacy Training on Personal Financial Efficacy and their influence on intentional pension contribution decisions among employees of a South African engineering organisation. A pre-test-post-test randomised experimental design was used, with participants (N = 37) divided into two experimental conditions, Behavioural Economic Intervention (n = 12) and Financial Literacy Training (n = 12), and a Control Condition (CC, n = 13). The study found no significant effects of either intervention on intentional retirement savings decisions, due to active decision-making requirements and design constraints. Results showed no significant differences in Personal Financial Efficacy between intervention groups and the control group in between-group comparisons. However, within-group analyses revealed that Behavioural Economic Intervention participants experienced a significant increase in Personal Financial Efficacy over time, underscoring the importance of Behavioural Economics and Financial Efficacy in improving retirement planning behaviours and financial management practices.

Keywords: behavioural economics; financial literacy training; personal financial efficacy; retirement adequacy; retirement planning

INTRODUCTION

In *Events that Changed the World*, Castleden (2011) listed the introduction of old age pensions in 1891, as the elderly previously relied on children's support or died in poverty. Life expectancy has increased to 73.3 years in 2024 – an increase of 27.8 years since 1891 – and is projected to reach 77.4 years by 2054 (United Nations Department of Economic and Social Affairs, 2024; Office for National Statistics, 2015). OECD (2024) projects long-term care spending will double by 2050, highlighting the need for better retirement planning (RP) and savings to ensure retirement adequacy.

Retirement adequacy is described by Butler and Van Zyl (2012) as the wealth or accumulated assets required at retirement to sufficiently meet retirement needs. The Department of Social Development (2021) reported that South African (SA) companies and trade unions have established retirement savings and insurance arrangements in the absence of statutory pension funds. Their research indicates workers fall short by about 60% in replacing career earnings due to early withdrawals from life crises and unemployment. Workers' retirement incomes are also low due to high fees of certain retirement products, imprudent investments, poor governance, and limited financial literacy (FL). Subsequently, SA introduced the Two-Pot Retirement System, which came into effect on 1 September 2024, despite private sector opposition who argued that early pension fund member withdrawals will have lasting consequences on individuals' retirement adequacy (Dhlembeu, Kekana and Mvita, 2022). The SA Revenue Service (SARS) reported R4 billion withdrawn a mere ten days after the two-pot implementation, and after the *first month*, the total gross lump sum paid out was R21.4 billion (Madubela, 2024).

In addition, members often lack a clear understanding of fund communication, impacting their RP and leading to poor financial decisions and insufficient savings, as found by Grobbelaar and Alsemgeest (2024). Their study focused on SA higher education employees, where retirement funds shifted from defined benefit to defined contribution plans over the past four decades. This transition in the private sector places RP responsibility on employees, who must contribute regularly to their accounts. They highlight that retirement accounts are invested in diversified portfolios, with benefits depending on contributions, investment performance, and fees, thus placing the risk of insufficient savings on employees and underscoring the importance of FL. Although financial education contributes to increased financial knowledge, they have limited effectiveness in changing actual financial behaviours (Fernandes, Lynch and Netemeyer, 2014; Kaiser and Menkhoff, 2020). FL programmes are widely popular. However, Lusardi and Mitchell's (2014) literature review argued that most evaluations of these provide limited insights. Analysts frequently neglect the strict protocols of randomised controlled trials (RCTs), which are essential for making valid comparisons between participants in a 'treatment' group exposed to a FL programme and those in a 'control' group who are not (Lusardi, Michaud, and Mitchell, 2020).

Researchers in SA have examined the connection between FL and RP among the general population (Antoni, Saayman, and Vosloo, 2020; Dhlembeu et al., 2022; Gutura and Chisasa, 2024). However, none have exclusively investigated this relationship within an organisational context through experimental methods. Clark (2023) reviewed a series of studies conducted over the past two decades in the United States (US) and found few examining how effective employer-provided programmes are at improving FL and influencing worker retirement and saving decisions.

Employer-provided financial education programmes can enhance workers' FL significantly and influence their saving and retirement decisions, but evaluating their effectiveness is challenging due to the need for management cooperation, access to records, and employee surveys (Clark, 2023).

Only one SA study employed a psychometrically sound employee survey linking a positive relationship between Personal Financial Efficacy (PFE) and financial well-being (Botha, Fouché and de Beer, 2024). The current study also measured PFE using the Personal Financial Fitness Index (PFFI) from Afriforte (2016: 1), defined as 'the confidence individuals have in their financial management capability and capacity to achieve financial goals.' Lapp (2010) indicated that financial self-efficacy bridges the gap between knowledge and effective action, predicting reductions in finance-related stress through a one-year longitudinal study.

In behavioural economics (BE) and financial psychology, the interplay between economic and psychological factors in consumers' long-term financial planning, including retirement, remains largely unexamined (Park and Martin, 2022), and some now advocate for the inclusion of psychological variables to elucidate consumers' RP behaviours better (Farrar, Moizer, Lean and Hyde, 2019). BE is a field that has emerged to address the shortcomings of classical economic theories in explaining real-world financial decision-making (Zaleskiewicz and Traczyk, 2020).

The present study aimed to compare the effectiveness of a BE intervention (BEI) with traditional financial literacy training (FLT) by examining their impact on employees' retirement contribution decisions and measuring the effect of both conditions on PFE. It accounts for the complex factors influencing financial decisions, considering Thaler and Benartzi's (2004) Save More Tomorrow™ (SMarT) programme, which significantly increased employee participation and annual savings rates from 3.5% to 13.6% over 40 months by encouraging pre-commitment to saving future salary increases.

LITERATURE REVIEW

Behavioural economics, personal financial efficacy and intentional decisions

Hobfoll, Halbesleben, Neveu and Westman (2018) indicated that the Conservation of Resources (COR) theory, rooted in evolutionary psychology, suggests that individuals *perceive losses more acutely* than gains. *Prospect theory* demonstrated that preferences often contradict utility theory axioms and provided experimental evidence on risk-taking (Barberis, 2013). *Loss aversion*, the tendency to be more affected by losses than gains (Benartzi and Thaler, 1995), is central to Kahneman and Tversky's (1979) theory of decision-making under uncertainty and risk (Barberis, 2013).

Hobfoll et al. (2018) asserted that an intense focus on loss can lead to stress, which depletes resources and creates a cycle of resource loss that intensifies over time. Stress may impact tendencies to procrastinate, and the latter, according to Benartzi and Thaler (2007), follows since individuals may erroneously think that what is decided on later will not be as salient as decisions made in the present which, in turn, leads to a significant inclination towards inactivity, a phenomenon Samuelson and Zeckhauser (1988) refer to as *status quo bias*. Even when individuals overcome this inertia, COR theory suggests they may still be prone to making irrational decisions driven by the

desperation associated with prior losses (Hobfoll et al., 2018). Status quo bias impedes active retirement saving, resulting in a negative feedback loop of increased stress and resource losses, worsened by potentially irrational retirement decisions. These may lead to belated, and then lamented, high-risk investments made in desperation, as shown by COR theory.

We do not regularly make retirement-saving decisions and thus have very few opportunities to learn from experience (Lusardi and Mitchell, 2014). Consequently, this results in further downward spirals of lost potential compounded interest, which could have been avoided with earlier, safer investment or retirement-saving decisions.

These cognitive biases (of which we are usually unaware) often hinder rational decision-making. However, we can understand actual decision-making better by integrating psychology and economics as posited by BE (Ariely, 2009). In the current study, the BEI involved making participants aware (the researchers defined BE and explained the relevant *principles* and *biases*) to understand human behaviour and actual decision-making better, thereby increasing their PFE when considering an intentional decision to voluntarily contribute more pension contributions. Creating awareness amongst participants was done since the interpretation and explication of behaviour play an essential role in behavioural decision-making processes (Fishman and Husman, 2017).

In addition, BEI participants were made aware of principles like status quo bias, default effects (e.g., automatic enrolment, Thaler and Benartzi, 2004), nudges (any significant factor influencing behaviour, Thaler and Sunstein, 2009), framing effects (presenting information in more emotionally appealing ways), and cognitive limitations (information overload and choice). Koch, Nafziger and Nielsen (2015) pointed out that these concepts are important drivers of economic outcomes and hold great promise for education and practice when designing educational interventions.

Previous studies have shown that individuals with higher financial self-efficacy tend to engage in more positive financial practices, such as investing and saving for retirement (Dare et al., 2023; Farrell, Fry and Risse, 2016; Forbes and Kara, 2010). Leaver (2016) considered BE in an educational context, suggesting that investment decisions should account for the expected return relative to the expected risk over time, which requires evaluating one's ability to achieve an optimal return on the investment, with greater self-efficacy (SE) leading to a higher investment of resources and better RP.

RP involves investment retirement preparation according to one's current financial status and future lifestyle goals (Nga and Yeoh, 2018). Goals are fundamental to the human motivational system, and while economists have largely overlooked their role, psychologists have extensively studied their impact on task performance (Koch and Nafziger, 2011). Individuals lack self-control, favouring current consumption because our brains are wired to prioritising the present, making it difficult to take actions that benefit future well-being (Howard and Yazdipour, 2014). Koch and Nafziger (2011)

refer to so-called *sophisticated individuals* as those who anticipate their self-control problems, and they demonstrated how goals help individuals exert control over future actions.

External locus of control refers to the extent to which individuals attribute actions to external causes. In contrast, internal locus of control (ILOC) denotes the belief that the occurrence of an event is contingent upon an individual's inherent traits or behaviours (Rotter, 1966). SE is associated with ILOC since individuals with more ILOC will have higher SE than those with higher external locus (Phillips and Gully, 1997). Those with ILOC are therefore more motivated to plan, exercise, and take responsibility for their actions (Furnham and Cheng, 2017) and, similarly, participants in a BEI who are versed in said sophistication may increase their PFE and subsequently their intentional decision to plan for retirement saving contributions.

FL did not influence the RP behaviour of individuals in a New Zealand study (Crossan, Feslier and Hurnard, 2011), which aligns with a SA study that found no significant correlation between financial knowledge and RP (Antoni et al., 2020). Accordingly, within this context, FLT is hypothesised to be less effective in an intentional decision to plan for retirement saving contributions than the BEI because FL alone does not guarantee rational decision-making due to persistent behavioural biases as indicated.

In developing the SMarT programme, Thaler and Benartzi (2004) proposed that people are reluctant to save immediately but are more willing to commit to future savings due to loss aversion and a phenomenon akin to the endowment effect (Kahneman, Knetsch and Thaler, 1990). This effect leads people to value their possessions more than items they don't own, causing higher selling prices compared to buying prices. Similarly, participants in the BEI are hypothesised to be more likely to commit to a future intentional decision to increase retirement saving contributions and to value their current intention to do so more effectively than participants only receiving FLT or a control condition (CC).

HYPOTHESES:

Hypothesis 1: A BEI will increase the PFE of an experimental group compared to the PFE of a CC.

Hypothesis 2a: A BEI will be more effective in increasing the PFE of an experimental group compared to the PFE of an experimental group receiving FLT.

Financial literacy training, personal financial efficacy and intentional decisions

FL is described by Lusardi and Mitchell (2014) as the ability to make informed financial decisions based on knowledge related to financial planning, savings, and RP, which also serves as an operational definition for the current study. Lusardi and Mitchelli (2007) present international evidence linking FL to retirement saving ability in their review, while subsequent studies by Lusardi and Mitchell (2011) and Van Rooij, Lusardi and Alessie (2012) confirm that FL is a significant predictor of RP in the US and the Netherlands, respectively. Research conducted by Clark and

Mitchell (2024) on US data drawn from a set of pension distribution questions revealed that comprehension of pension features is strongly influenced by an individual's FL, income, and educational background. The study demonstrated that people with enhanced financial knowledge and higher levels of education are more capable of identifying their pension plan category, underscoring the importance of FL in guiding well-informed choices regarding RP.

In SA, a representative sample of 2,972 respondents, Dhlembeu et al. (2022) reported that FL influences retirement significantly. In another SA study, Kirsten (2018) found that a tailor-made financial management training course improved the development of short-term financial management skills and financial self-efficacy of small business owners. A study focused on informal sector workers found that financial knowledge is linked to retirement preparation (Gutura and Chisasa, 2024). EARN, a US non-profit micro savings provider, conducted a seven-year survey of over 500 low-income workers and found that participants who enhanced their financial knowledge also improved their financial self-efficacy, resulting in fewer financial issues (Lapp, 2010).

HYPOTHESES (continued):

Hypothesis 2b: A BEI will be more effective in enhancing the PFE of the participants *within the group*, from the levels it was before *to* after, as compared to the within the group levels of PFE of FLT participants.

Hypothesis 3: A BEI will increase an intentional decision to plan for retirement saving contributions, compared to an intentional decision to plan for retirement saving contributions of a CC.

Hypothesis 4: A BEI will be more effective in an intentional decision to plan for retirement saving contributions, compared to an intentional decision to plan for retirement saving contributions of an experimental group receiving FLT.

Hypothesis 5: FLT will increase the PFE of an experimental group compared to the PFE of a CC.

Hypothesis 6: FLT will increase an intentional decision to plan for retirement saving contributions, compared to an intentional decision to plan for retirement saving contributions of a CC.

RESEARCH METHODOLOGY

Research Approach

For the current study, the effectiveness of a BEI was compared with FLT measuring the effect on PFE as well as on an intention to increase retirement contributions option offered to employees in the organisation by way of an experimental design. A pre-test-post-test randomised, experimental design was followed, whereby PFE was measured before the two experimental conditions (BEI and FLT) and a control condition (CC). Next, an identical measurement (PFE and record of intention to increase their retirement saving contributions) was administered.

Research participants

Participants were assigned randomly to one of three conditions: BEI, FLT, and CC by using assigned numbers and a *random mobile application*. See the demographic breakdown in Table 1.

TABLE 1: PARTICIPANT DEMOGRAPHICS BY GROUP

Variable	BEI (*n* = 12)	CC (*n* = 13)	FLT (*n* = 12)	*N*
Female	6 (50%)	8 (61.5%)	5 (41.7%)	19
Male	6 (50%)	5 (38.5%)	7 (58.3%)	18
Black African	5 (41.7%)	4 (30.8%)	2 (16.7%)	11
Coloured	1 (8.3%)	2 (15.4%)	2 (16.7%)	5
Indian	1 (8.3%)	2 (15.4%)	2 (16.7%)	5
White	5 (41.7%)	5 (38.5%)	6 (50%)	16

Reference: *n* = sub-group totals; *N* = overall sample totals.

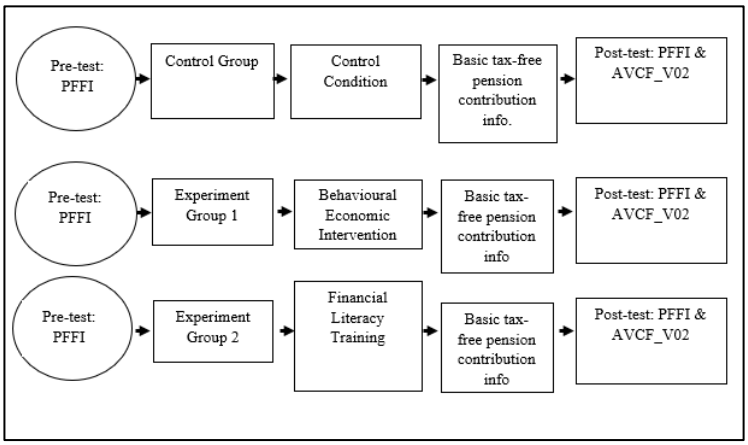
Measuring instruments

PFE was measured using the 36-item Personal Financial Fitness Index (PFFI), proven to be psychometrically sound (Botha et al., 2024; Afriforte, 2016). Additional pension fund contributions were assessed with the Additional Voluntary Contribution Form (AVCF_V02) – see Annexure 1

Research procedure

Two experimental groups were randomly assigned to two conditions: one exposed to a BEI and another to FL. The CC was included to control for contextual and temporary influences. All three groups received basic financial information on the benefits of pension fund contributions (such as tax benefits, in a company-wide email regarding Additional Voluntary Contribution for Retirement funds) to supplement retirement by the organisation, as indicated with options on the AVCF_V02. The experimental design is depicted in Figure 1.

FIGURE 1: EXPERIMENTAL DESIGN



Reference: PFFI, Personal Financial Fitness Index; AVCF_V02, Additional Voluntary Contribution Form.

The TED talk presented by Benartzi (2011) elucidating the SMarT programme was shown to the BEI group. Thereafter, the researchers defined BE and explained the relevant principles and biases in a video to the BEI group. The FLT group received FL facilitated by the employee well-being provider and presented via Microsoft Teams. Topics included in the programme covered: Planning and Maintaining a Budget, Debt Management and Tips on Escaping a Debt Spiral, Financial Needs Analysis & Financial Planning, as well as Preparing for Retirement, amongst others. The additional hypotheses tested the impact of the experimental conditions with the CC, comparing them with the three company-offered options for additional pension fund contributions as indicated in the AVCF_V02.

Statistical analysis

For the descriptive statistics, the jamovi software package (The jamovi project, 2021) and Julius AI for inferential analyses with python script (Caesar Labs, 2024), were used. Descriptive statistics, including means and standard deviations for continuous variables, were calculated to summarise the data distribution. The Welch t-test (Welch, 1947) was employed using Julius' platform to compare the means between groups in the intervention study. The Welch t-test is particularly suitable for comparing groups with continuous outcomes when the assumption of equal variances is violated, as it adjusts the degrees of freedom to account for heterogeneity of variances between groups (Delacre, Lakens and Leys, 2017). This makes it a robust choice for this study, in which variance inequality was likely. For nominal data, specifically the options participants chose to act on, the chi-square test of independence (McHugh, 2013) was utilised to determine whether significant differences existed between groups. This test assesses whether observed frequencies differ from expected frequencies, indicating potential associations between categorical variables. A p-value smaller than 0.05 was considered statistically significant. Added to this, p-values smaller than 0.10 were interpreted as marginally significant, suggesting a potential trend that may warrant further investigation.

RESULTS

Comparison of mean values between and within groups

Welch's t-tests were conducted to compare the mean values of PFE between the three groups (BEI, FLT and CC). The results are summarised in Table 2.

TABLE 2: WELCH'S T-TEST RESULTS FOR MEAN COMPARISONS OF PFE GROUPS

Grouping	Variable	Comparison	t-value	p-value	Significant ($p < .05$)
Between	PFE	BEI vs CC	0.373	0.713	No
		BEI vs FLT	-0.901	0.378	No
		FLT vs CC	1.430	0.167	No
Within	PFE	BEI	8.5714	0.0138	Yes
		CC	6.1750	0.1865	No
		FLT	5.6190	0.2295	No

When comparing the mean values of PFE between groups, the comparisons revealed no statistically significant differences. The BEI versus CC comparison resulted in a t-value of 0.373 with a p-value

of 0.713, indicating no significant difference in PFE between these groups – not supporting H1. The BEI versus FLT comparison had a t-value of -0.901 (p = 0.378), which does not support H2a. The FLT versus CC comparison showed a t-value of 1.430 (p = 0.167), also not indicative of a significant difference in PFE and not supporting H5. Although this result did not reach statistical significance at the conventional cut-off of 0.05, it approached closer to the marginal $p < 0.10$ level than BEI, suggesting a trend toward improved PFE in the FLT group relative to the control group. This trend is in line with Lapp's (2010) findings in the US that financial self-efficacy increased as financial knowledge grew, as well as Kirsten's (2018) SA findings that tailor-made financial management training improved financial self-efficacy of small business owners.

However, based on the current t-test analyses, the data indicate that the interventions did not produce significant changes in PFE measures when compared between groups, and therefore, neither H1, H2a, nor H5 was supported. PFE is associated with SE as a personal resource (Botha et al., 2024), where the latter found a positive relationship between PFE and financial well-being in their structural equation model (SEM) investigation. The lack of measurable improvements in participants' PFE in the current study aligns with Fleming's (2024) large-scale research, which found that similar interventions did not enhance subjective well-being across various individual-level mental well-being interventions.

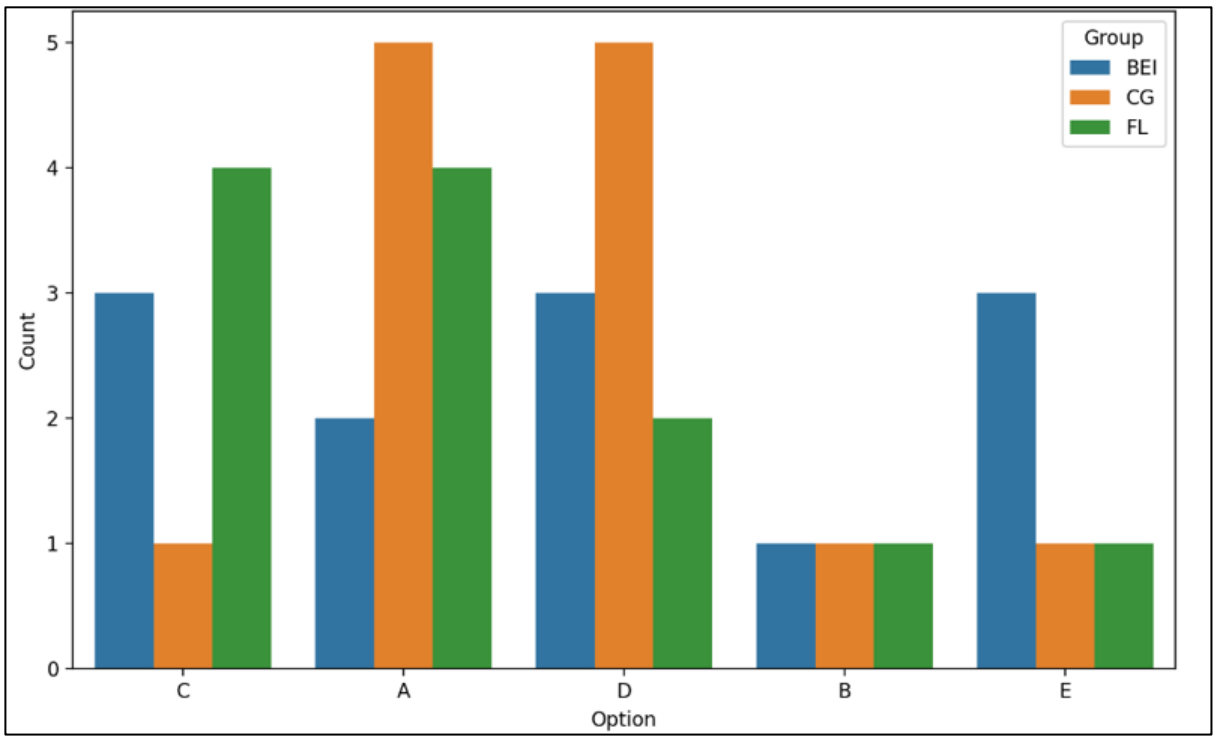
Chi-square tests were conducted to evaluate the changes within each group for the BEI, CC, and FLT from pre-test to post-test for PFE. In terms of PFE, a significant change over time was observed only in the BEI group ($\chi^2 = 8.5714$, $p = 0.0138$). This result implies that the BEI may have influenced participants' confidence in managing their finances positively – supporting H2b. In contrast, no significant changes were detected within the CC ($\chi^2 = 6.1750$, $p = 0.1865$) or the FLT ($\chi^2 = 5.6190$, $p = 0.2295$), indicating that PFE remained relatively stable among participants in the FLT. These within-group analyses reveal that while all groups experienced minor changes in PFE over time, only the BEI group showed a significant improvement in PFE, enhancing the confidence participants had 'in their financial management capability and capacity to achieve financial goals' (Afriforte, 2016: 1) – thereby proving H2b.

Participants' increase in PFE from before exposure to the BEI could be accounted for by making them aware of cognitive biases and BE principles. The BEI offered an opportunity to increase their anticipation of self-control problems and may have had an impact on a more 'sophisticated' (Koch and Nafziger, 2011), self-awareness. Moreover, by simplifying investment decisions as explained with the SMarT programme, BEI participants' PFE could have increased participants' PFE within groups by offering a clear, 'set and forget' solution that aligns with natural tendencies towards cognitive biases (Townsend, 2018).

Option by group selection

Figure 2 presents the options selected by participants from each of the groups.

FIGURE 2: DISTRIBUTION OF OPTIONS ACROSS GROUPS



Reference: A = own amount indication of contribution, B = amount equal to next annual increase, C = half of next annual increase, D = no contribution, E = already contributing; Blue = Behaviour Economic Intervention, Orange = Control Condition; Green = Financial Literacy Training.

A chi-square test was conducted to determine whether significant differences occurred in the distribution of options across the three groups: BEI, CC, and FLT. The test yielded a chi-square statistic of 5.93 with eight degrees of freedom and a p-value of 0.6551. Since the p-value is greater than the standard significance threshold of 0.05, we conclude that the differences observed between the groups are not statistically significant. Although visual differences are noticeable in the distribution of options among the groups (as seen in Figure 2), these differences are likely due to random chance. The lack of statistical significance implies that we do not have sufficient evidence to assert that the choice of option is influenced by group membership. Despite adhering to the 'gold standard' RCT protocol, enabling comparison between a randomly selected CC and 'treatment' groups (FLT and BEI), where FLT received a well-defined FL program (Lusardi et al., 2020) and BEI was applied, the results still did not support H3, H4, or H6. Furthermore, none of the control variables, including age, gender, or ethnicity, were found to have a statistically significant relationship with the options, as their respective p-values also exceeded the 0.05 significance level.

Key insights from the lack of effectiveness of both the FLT and BEI impact on an intentional decision to increase pension contributions may be precisely because an *intentional decision* was *still* required when having to complete and choose an option on the AVCF_V02. The form *nevertheless* had to be thought through and a true default effect (i.e. automatic enrolment, refer Thaler and Benartzi, 2004) was *not* introduced. A decision of voluntary contribution *intentions* (not to be actioned by Payroll

Department) was required due to ethical considerations relating to the nature of the experimental design with participants. Even though it was stated that only the intention to contribute would be provided to the Human Resources department for follow-up, participants might have been hesitant to allow the follow-up, since they could have reasoned that they could do so on their own and when they were ready. Due to participants being made aware of the importance of saving for retirement, it can paradoxically lead to procrastination, as people tend to defer significant decisions that require time and effort (Wang, Eberhardt and Bromuri, 2024).

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

This study offers important insights for management seeking to solve the problem of retirement adequacy in an ever-changing landscape of complexity and uncertainty whilst attempting to enhance employees' future financial well-being. Rather than relying solely on traditional FL training, organisations could implement BEIs, which address cognitive biases like loss aversion and status quo bias. BEIs were found to be more effective in improving employees' PFE, a critical factor in fostering positive financial behaviours. Management might also consider simplifying retirement saving decisions through measures such as automatic enrolment, which could counter decision-making inertia and promote higher long-term savings. Although ethical constraints limited the use of true default options in this study, future initiatives should explore ethically sound ways to incorporate them. Policymakers could adapt, innovate and think strategically by supporting BEI-based models (automatic enrolment, contribution increases and structured savings programmes), which may lead to broader improvements in financial stability compared to traditional FL programs. Furthermore, financial well-being initiatives should integrate PFE-building strategies such as goal-setting, self-regulation, and decision simplification to make RP more accessible. Finally, as the study focused on a single SA engineering company and relied on self-reported measures, future research should involve diverse industries, objective behavioural data, and larger, longitudinal samples to strengthen understanding of financial intervention effectiveness.

CONCLUSIONS

The current study did not find significant differences between the BEI, FLT, and CC groups in PFE measures based on between-group comparisons. The lack of significant differences between the intervention groups and the CC suggests that the interventions might not have had a strong impact within the timeframe of the study. However, *within-group* analyses indicated a *significant positive change over time in PFE for the BEI* during the study period. A BEI's potential to improve PFE, is salient since PFE is key to translating knowledge into effective action (Lapp, 2010), and engaging in positive financial practices, such as investing and saving for retirement, unlocking new possible opportunities in ensuring retirement adequacy and sustainable futures.

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ANNEXURE 1: ADDITIONAL VOLUNTARY CONTRIBUTION FORM (AVCF_V02)

The decision made based on the next page with options will NOT be sent to the organisation to effect any changes to your voluntary contribution towards retirement funding. Below is an indication of your ***intention*** based on your experience of the training and or intervention you took part in.

Please also note that if you indicate any intention to voluntarily contribute to the organisation's pension fund, your intention will be provided to the Human Resources (HR) department. This would enable HR to contact you to inform, support and clarify about Voluntary Contributions towards retirement. Your permission will only then be requested to allow the researcher to record contributions across a period for longitudinal data for future research.

A	**Additional Voluntary Contribution towards retirement funding: OPTION A**
Please indicate the amount of the additional voluntary contribution that you would like to contribute towards your retirement and the date the first deduction must be made:	
Additional Voluntary Contribution per month	**First month of deduction** (month and year)
R	
B	**Additional Voluntary Contribution towards retirement funding: OPTION B**
Please indicate if you opt to have the amount equal to your next annual increase contributed to your voluntary contribution fund the first month of annual increase:	
Additional Voluntary Contribution per month	**First month of deduction** (month and year)
R Amount **equal** to company % increase (salary amount remains the same).	January 2024
Please tick if you opt as per above:	
C	**Additional Voluntary Contribution towards retirement funding: OPTION C**
Please indicate if you opt to have **half** of your next annual increase contributed to your voluntary contribution fund the first month of annual increase:	
Additional Voluntary Contribution per month	**First month of deduction** (month and year)
R Amount equal to **half** of the company % increase.	January 2024
Please tick if you opt as per above:	
D	**Additional Voluntary Contribution towards retirement funding: OPTION D**
Please indicate if you do not want to contribute any additional voluntary amount towards your retirement:	
Additional Voluntary Contribution per month	**First month of deduction** (month and year)
R NONE	NA
Please tick if you opt as per above:	
E	**Additional Voluntary Contribution towards retirement funding: OPTION E**
I already contribute the maximum **tax-free portion of my contribution capped at 27.5% of my remuneration or a maximum of** R350,000.00 per tax year.	
Please tick if you opt as per above:	

ANNEXURE 2: LIST OF ACRONYMS

AVCF_V02	Additional Voluntary Contribution Form
BE	Behavioural Economics
BEI	Behavioural Economics Intervention
CC	Control Condition
COR	Conservation of Resources
FI	Financial Interference
FL	Financial Literacy
FLT	Financial Literacy Training
ILOC	Internal Locus Of Control
PFE	Personal Financial Efficacy
PFFI	Personal Financial Fitness Index
RCT	Randomised Controlled Trial
SA	South Africa
SARS	South African Revenue Service
SE	Self-efficacy
SEM	Structural Equation Modelling
SMarT	Save More Tomorrow™ programme
US	United States

HARNESSING GEN Z PARADOXES FOR SUSTAINABLE CHANGE IN CLINICAL RESEARCH ORGANISATIONS

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ABSTRACT

This qualitative study explores Gen Z's attitudes towards organisational change in Clinical Research Organisations (CRO), seeking to understand the misalignment between multi-generational workforces in adopting to change. Using semi-structured interviews with 14 Gen Z employees and 3 middle managers analysed through the ADKAR framework, the research reveals Gen Z's paradoxical nature during change process. Findings indicate that despite their technological proficiency, Gen Z employees seek structured support, prefer multi-channel communication, visual learning, and value understanding the rationale behind changes. A notable misalignment between Gen Z's desired support level and managerial perceptions highlights a gap in current strategies. Recommendations include implementing tailored communication strategies, developing visual learning approaches, recalibrating managerial expectations, and establishing systematic feedback mechanisms. This research contributes to change management theory by refining understanding of generational differences in change reception and implementation within knowledge-intensive industries.

Keywords: Generation Z; change management; clinical research organisation; communication

INTRODUCTION

Generational differences, shaped by societal, technological, and cultural factors, significantly impact workplace dynamics. In today's fast-paced business environment, understanding these differences is crucial for organisational success. This paper explores Gen Z's attitudes towards change and their preferred communication styles, providing insights into effectively managing this emerging workforce. It also provides a view of the complexities of multi-generational change management, exploring the opportunities presented by Gen Z's unique characteristics, and propose sustainable strategies for harnessing their potential.

Clinical Research Organisations (CROs) represent a particularly relevant context for examining multi-generational change management due to their knowledge-intensive nature and rapidly evolving operational environment. CROs are pivotal in driving innovation in drug development, offering comprehensive services across all phases (Mirowski & Van Horn, 2005; Schaefer, 2022). The industry's dynamic nature necessitates constant adaptation, which can cause stress for employees

if change management is ineffective (Henderson, 2008). This need for effective change management is particularly relevant in the context of organisational change within CROs. Sharma et al. (2022) emphasize that successful change management in knowledge-intensive organisations like CROs must consider the diverse workforce's unique needs, particularly in multi-generational teams.

The South Africa Project Planning and Support team at the chosen CRO faces a generational divide in change management. Older generations struggle with traditional challenges (Emmerson, 2022), while the growing Gen Z workforce, known for digital nativity and adaptability (Nair & Sadasivan, 2019), remains underutilized. This misalignment risks employee disengagement, decreased retention, and missed innovation opportunities. Gen Z's job-switching tendency (Schroth, 2019) and technological agility (Sakdiyakorn et al., 2021) further emphasize the need for adapted strategies.

The Project Planning Support team, primarily staffed by Gen Z employees, has shown a mixed response to these changes. Newer employees, mostly Gen Z, have been more receptive and have acted as change agents, assisting older colleagues in adapting to new systems.

This observation suggests the potential benefit of exploring Gen Z's attitudes towards change management strategies. This research contributes to the literature by addressing the gap in understanding how Gen Z's unique characteristics manifest in their approach to organisational change, particularly within the context of CROs. By examining both Gen Z employees' and their managers' perspectives, this study provides insights into the misalignments that may hinder effective change implementation and offers evidence-based recommendations for leveraging Gen Z's strengths in change processes.

PRIMARY OBJECTIVE

To explore the role of change management on Gen Z at a Clinical Research Organisation.

SECONDARY OBJECTIVE

- To investigate the management of change in organisations.
- To explore the attitudes of Gen Z related to change management in a Clinical Research Organisation.
- To assess the change management strategies that are best suited for Gen Z in a Clinical Research Organisation.

LITERATURE REVIEW

The emergence of Gen Z in the workforce has brought about significant changes in workplace dynamics and expectations. Understanding the unique characteristics and values of this generation is crucial for organisations aiming to attract, retain, and effectively manage this new cohort of employees. Gen Z, born between 1997 and 2012, brings unique traits to the workforce that can act as both enablers and potential barriers in the context of organisational change:

Enablers of Change:

1) Technological Adaptability:

- Digital Nativity: Gen Z's exceptional technological proficiency (Bieleń & Kubiczek, 2020) enables them to quickly adapt to new digital tools and systems.
- Multitasking and Problem-Solving: Their ability to excel in these areas (Bieleń & Kubiczek, 2020) can facilitate smoother transitions during technological changes.

2) Flexibility and Innovation:
   - Autonomy and Flexibility: Their strong need for independence and adaptable work environments (Bascha, 2011) aligns well with dynamic organisational structures.
   - Collaboration: Gen Z thrives in inclusive, problem-solving-oriented environments (Laudert, 2018), which can foster innovation during change processes.
3) Values-Driven Approach:
   - Authenticity and Transparency: Gen Z prioritizes authenticity (Rajendra & Bharat, 2018), which can support open communication during change initiatives.
   - Sustainability and Diversity Focus: Their emphasis on these values (Hysa, 2016) can drive positive organisational changes aligned with contemporary societal expectations.
   - Recognition and Feedback: demonstrate a strong desire for feedback and training but with distinct preferences that reflect their upbringing in a digital, fast-paced world (Deloitte, 2018).

Potential Barriers to Change:

1) Retention Challenges:
   - Career Mobility: Gen Z's propensity to change companies based on value alignment (Paszkiewicz, 2017; Bieleń & Kubiczek, 2020) may lead to higher turnover during organisational changes. Gen Z's tendency to switch jobs when unsatisfied (Schroth, 2019) could affect organisation's ability to attract and retain new talent
2) Communication Preferences:
   - Digital Communication: While adept at technology, their preference for digital communication (Hayes, 2013) might create challenges in traditional face-to-face change management processes.
3) Expectation Management:
   - High Expectations: Gen Z's desire for rapid career advancement and meaningful work (Rajendra & Bharat, 2018) may lead to frustration if change processes are slow or their roles feel insignificant.

By understanding these enablers and potential barriers, organisations can develop more effective strategies for managing change in a multi-generational workforce. To effectively integrate Gen Z, organisations must adapt their structures, communication styles, and work practices. This includes creating flexible arrangements, fostering transparent communication, providing meaningful

contribution opportunities, and aligning with Gen Z's values. Such adaptations are crucial for attracting, retaining, and leveraging the innovative potential of this generation in the evolving business landscape.

Gen Z is projected to comprise 27% of the OECD workforce by 2025 (OECD, 2023). They prioritize flexible work, work-life balance, and continuous learning (Mahmood et al., 2022). The COVID-19 pandemic has further shaped their expectations around remote work and job security (Rudolph & Zacher, 2023). As Gen Z's influence grows, understanding their characteristics becomes crucial for effective workforce management (Rai et al., 2022). Gen Z's preferences are driving the redefinition of entry-level roles, increased use of advanced technologies, and non-conventional work approaches (Chillakuri & Mahanandia, 2018). Organisations must invest in skill development programs, accommodate flexible work arrangements, and create inclusive workplaces (Mahmood et al., 2022; Lazányi & Bilan, 2023; Sakdiyakorn et al., 2021). While challenging, Gen Z's non-conventional approach can drive positive change and innovation (Rai et al., 2022).

Successfully integrating Gen Z requires understanding their unique characteristics and adapting workplace environments. Organisations that effectively leverage Gen Z's strengths will be better positioned for long-term success in the evolving global marketplace (Zita et al., 2023).

Change Management

According to Ryerson University (2011), change management is a structured approach to transitioning individuals, teams, and organisations from a current state to a desired future state to fulfil or implement a vision and strategy. It is an organisational process aimed at empowering employees to accept and embrace changes in their current environment (Laig & Abocejo, 2021). There are several change management theories that have emerged over the years, and the evolution of change management theories speaks to the fact that change management is ever evolving.

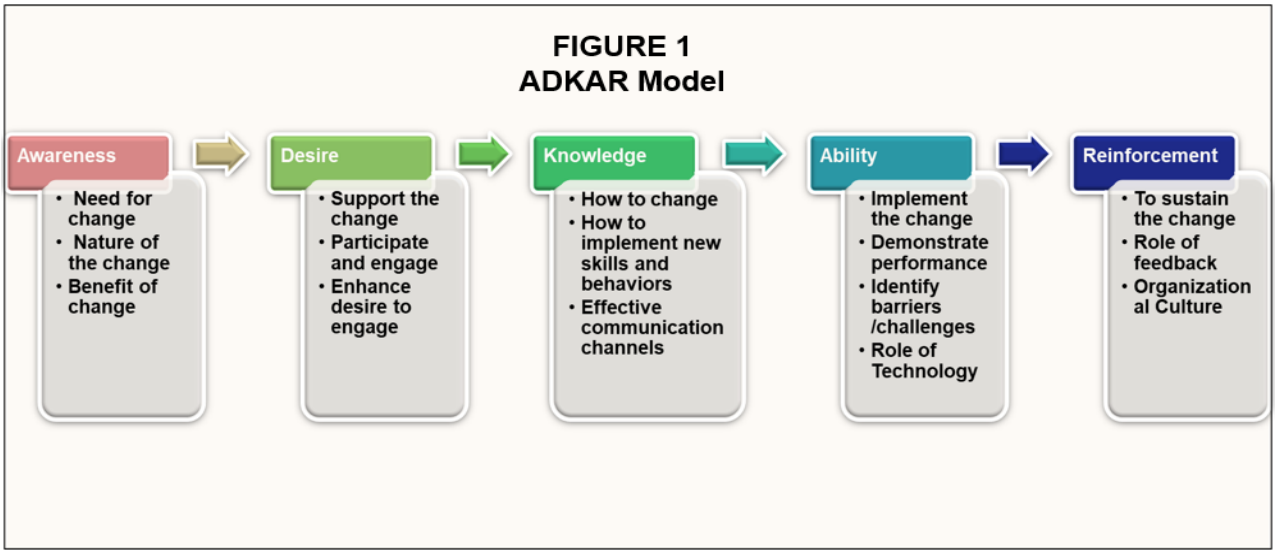
ADKAR Change Model

The ADKAR change model was used as a framework for this research. It was introduced by Hiatt (2006), is a valuable framework for assessing individuals' reactions and readiness for change in organisations. It emphasises that successful organisational change depends on individuals' ability to navigate the transition process (Angtyan, 2019). The model consists of five key elements: Awareness, Desire, Knowledge, Ability, and Reinforcement.

Hiatt and Creasey (2012) present ADKAR as a framework centered on the individual experience of change, highlighting the importance of understanding employees' psychological and emotional states during the change process. The model's strengths include its individual-centric approach, practical applicability, flexibility, and diagnostic capability (Boca, 2013; Kiani & Shah, 2014). However, it also has limitations, such as potential oversimplification, assumption of linear

progression, and limited consideration of external factors (Todnem By, 2005; Pollack & Pollack, 2015; Cummings & Worley, 2014).

FIGURE 1
ADKAR Model



Source: Hiatt (2006)

The ADKAR model in Figure 1 provides more insight into the five building blocks of the ADKAR model and what they entail. These aspects are further discussed below, providing a clear understanding of what each component entails and what literature infers from it.

The ADKAR model's focus on individual change aligns well with contemporary change management theories that emphasise the importance of individual-level factors in driving organisational change (Todnem By, 2005; Armenakis and Harris, 2009). Its structure allows for better alignment with qualitative data collected from individuals experiencing change, making it suitable for this study's intention to frame the data collected in the research (Boca, 2013).

By adopting this theoretical framework, the research aims to provide a nuanced understanding of how Gen Z employees perceive and respond to change within organisations. This approach may offer new insights into the unique characteristics of Gen Z in the context of organisational change and contribute to the broader discourse on generational differences in the workplace and their implications for change management strategies.

Clinical Research Industry and Change

The clinical research industry is characterised by constant change, with the COVID-19 pandemic accelerating transformations in trial design and management (Newton, 2023). As Gen Z enters the workforce, projected to reach 27% by 2025 (PwC, n.d.), understanding their workplace behaviours becomes crucial. However, robust research on Gen Z in the workplace remains scarce (Urick et al., 2017; Robertson, 2023). Change management in this industry faces high failure rates, prompting ongoing research (Errida & Lotfi, 2021). The impact of generational factors on change acceptance is debated, with some suggesting context-dependent differences (Ludviga & Sennikova, 2016) and

others challenging the notion of generational catering altogether (Deal et al., 2010). As the industry evolves, effective change management strategies must consider the complex interplay of generational, contextual, and individual factors to ensure organisational success and employee satisfaction in this dynamic environment.

Gen Z in the Workplace: Communication Preferences and Characteristics

Gen Z's entry into the workplace brings unique communication preferences that organisations must understand to effectively integrate and manage this cohort. Francis and Hoefel (2018) characterize Gen Z as hypercognitive, able to process information from multiple sources simultaneously, with 98% having used technology in their formal education (Dell Technologies, 2018). They value individual expression, dialogue as a problem-solving tool, and truth-seeking. In the workplace, Gen Z prefers direct, personal communication with managers (Khaund, 2024) and, surprisingly, favours face-to-face interactions despite their digital nativity (Smith & Johnson, 2022). Their short attention span of 8-12 seconds (Wilson & Brown, 2021) necessitates concise, bite-sized messaging. Gen Z also shows a strong affinity for visual and interactive content (Seemiller & Grace, 2019). Managerially, this translates to a need for short, daily check-ins and a multi-channel communication approach (Khaund, 2024). To effectively engage Gen Z, organisations should prioritize transparency, visual communication, concise messaging, and regular personal interactions, adapting their strategies to attract, retain, and maximize the potential of this emerging workforce.

Gen Z and Change

Gen Z's approach to change is fundamentally shaped by their digital nativity, resulting in distinct characteristics and preferences:

- Visual Learning: Gen Z shows a strong inclination towards visual learning methods, suggesting a unique approach to adapting to change initiatives (Lewis & Rohloff, 2021).
- Digital Comfort: Their ability to effortlessly multitask across multiple digital platforms indicates an inherent adaptability to dynamic environments (Lewis & Rohloff, 2021).
- Key Traits: Preference for instant gratification, faster work pace, and desire for authenticity significantly influence their approach to work and change (Nair & Sadasivan, 2019).
- Change Propellers: Gen Z is characterized as not just open to change, but as active drivers of organisational transformations (Urgal et al., 2023).
- Engagement Strategy: Employers should develop challenging projects focusing on soft skill development to effectively engage and retain Gen Z employees (Kelly et al., 2016).

These characteristics suggest that traditional change management approaches may need significant adaptation to resonate with Gen Z. Organisations could benefit from leveraging Gen Z's digital fluency, visual learning preference, and openness to change in designing more dynamic, visually oriented, and technologically integrated change management strategies. This approach could not

only help Gen Z adapt to organisational changes but also drive innovation and transformation within their workplaces.

While existing literature provides insights into Gen Z's general characteristics and work preferences, there is a gap in understanding how these traits manifest in their approach to organisational change, particularly within the context of CROs. This gap in understanding necessitates an in-depth exploration of Gen Z's lived experiences of change within CROs, as well as the perspectives of those managing this generation through change processes. The chosen research methodology approach aligns well with this research gap, as it allows for a look into the lived experiences of Gen Z employees and their managers.

RESEARCH METHODOLOGY

This study adopts a post-positivist approach, acknowledging that while objective reality exists, our understanding is imperfect and influenced by social, cultural and historical contexts (Creswell & Creswell, 2018). A qualitative methodology is employed to explore Gen Z's propensity for change in Clinical Research Organisations (CROs), using a phenomenological design to uncover the essence of lived experiences (Van Manen, 2016).

Sampling and Participants

Non-probability, purposive sampling was used to select participants who could provide relevant information about the topic under study (Patton, 2025). Two groups were included:

1. **Gen Z Employees**: 14 Project Specialists in the Project Planning and Support department who have experienced organisational change within the past three years. These participants were born between 1997 and 2012, with ages ranging from 24 to 27 years and employment tenure of 1.5 to 3 years.
2. **Middle Managers**: 3 line managers who had implemented change initiatives within the same timeframe. These participants had direct supervisory responsibility for Gen Z employees.

This sample size aligns with recommendations for qualitative research saturation (Saunders & Lewis, 2012; Hennink & Kaiser, 2022), while allowing for potential non-participation.

The recruitment process for Gen Z employees, included an HR-mediated email invitation sent to all eligible Project Specialists, with an embedded voting button to express interest. This method ensured confidentiality and minimized potential bias. Line managers were approached through a team meeting, followed by an email with a similar voting mechanism.

Inclusion criteria ensure participants were from the appropriate generational cohort, had relevant experience, and could articulate their experiences in English. Semi-structured, personal interviews were conducted via an online platform, lasting approximately one hour each. This approach allowed for consistency across interviews while providing flexibility to explore emerging themes (Galletta, 2013). An interview guide with open-ended questions was developed based on the ADKAR

framework and literature on generational characteristics. All interviews were recorded and transcribed.

Data Analysis

Thematic analysis was employed, following the seven phases, Braun and Clarke's (2006) six-phase approach:

1. Familiarization: Multiple readings of transcripts and review of recordings to ensure thorough understanding of the data.
2. Initial Coding: Systematic coding of relevant features across the entire dataset, with equal attention to recurring patterns.
3. Theme Generation: Collation of codes into potential themes and gathering of relevant data.
4. Reviewing Themes: Verification of themes against coded extracts and the entire dataset, with development of thematic maps to visualize relationships.
5. Defining Themes: Refinement and naming of themes with clear definitions and analysis.
6. Reporting: Selection of compelling extract examples and final analysis relating back to research questions and literature.

The ADKAR model provided the organizing framework for the analysis, allowing for systematic examination of Gen Z's change experiences across each component of the change process. This approach facilitated identification of both convergent and divergent perspectives between Gen Z employees and their managers.

Ethical clearance was obtained from the institution (UFS-HSD2024/0535) and permission from the organisation. Informed consent was obtained from all participants, with clear communication about voluntary participation, confidentiality measures, and the right to withdraw.

To enhance trustworthiness, several strategies were implemented:

- Credibility: Member checking of transcripts and preliminary findings
- Transferability: Thick description of context and participant characteristics
- Dependability: Detailed documentation of the research process
- Confirmability: Reflexive journaling and acknowledgment of researcher positionality

The researcher demonstrated continuous self-awareness of their dual role as both manager and investigator, implementing strategies such as using an independent interviewer to mitigate potential power imbalances and biases (Smith, 2010; Johnson et al., 2015).

RESULTS AND ANALYSIS

The Gen Z participants were aged between the ages of 24 and 27. Most of the participants were aged between 25 and 26 years of age. The sample included Gen Z participants who were employed by the organisation for a period of 1.5 to 3 years. Most of the participants were just about two years

and more within the organisation as they are entering the workforce and therefore do not have a long tenure.

The ADKAR model (Hiatt,2006) provided a framework to systematically organise and analyse the data, This comprehensive approach allowed for a nuanced understanding of Gen Z employees' experiences with change in CROs, As noted by Boca et al. (2013), ADKAR's focus on individual change processes makes it particularly suitable for analyzing personal narratives and experiences, potentially revealing insights that might remain obscured when using alternative change models. Table 1 presents a summary of the identified themes and sub-themes organized according to the ADKAR model framework.

TABLE 1: SUMMARY OF IDENTIFIED THEMES AND SUB-THEMES THROUGH THE ADKAR FRAMEWORK

ADKAR MODEL	THEME	SUB-THEME
Awareness	Communication Preference	Clear communication Multiple channels of communication
Desire	Integration of change	Openness and Understanding of Change Triggers to resistance to Change
Knowledge	Support and Guidance during Change	Customised Change Initiatives
Ability	Preference for multifaceted learning approaches	
Readiness	Feedback and Recognition	

Note. Themes were derived from thematic analysis of interview data with 14 Gen Z participants and 3 line managers using Braun and Clarke's (2006) six-phase approach.

Communication Preference

The following themes were observed in the data collected and are to be discussed under the "Awareness" element of the ADKAR Change Model.

Gen Z employees emphasize the need for clear, timely, and transparent communication about changes. They appreciate the use of multiple communication channels but can sometimes feel overwhelmed by the volume of changes being communicated. The following sub-themes provide context for their emergence: Clear Communication and Multiple Communication Channels. Gen Z participants value pre-emptive communication of change and clear goals explaining why the change is happening and how it benefits employees.

"I think pre-emptive communication of change would go a long way in helping the organisation receive change a little bit better and then also the communication of clear goals as to why change is happening and how it would benefit each and every employee." – Gen Z Participant 013

This preference aligns with Khaund's (2024) observation that Gen Z employees tend to prefer direct, personal communication, especially with their managers.

Gen Z participants appreciate the organisation's use of various channels to communicate changes, which increases awareness and readiness for change.

"I think that the communication of the change is quite good. I think using all the channels of communication is more effective and having it also like locally stored." – Gen Z Participant 001

This preference for multiple communication channels reflects Gen Z's comfort with technology and digital platforms, as noted by Dell Technologies (2018). An analysis of this element reveals several themes pertaining to Gen Z employees' motivations, potential resistance, and enthusiasm towards organisational change.

In contrast, line managers emphasized quick, concise communication, potentially underestimating Gen Z's desire for contextual depth.

"They also have an inclination towards quicker way of doing things..." – LM participant 002

The findings contradict some popular narratives about Gen Z's supposed preference for abbreviated communication. While they appreciate efficiency, the data suggests they value depth and context equally challenging the stereotype of Gen Z as having limited attention spans. This complexity suggests that organisations must avoid overgeneralizing generational preferences in their communication strategies.

Integration of Change

An analysis of this "Desire" element reveals several themes pertaining to Gen Z employees' motivations, potential resistance, and enthusiasm towards organisational change. Gen Z employees view themselves as more adaptable to technological changes compared to older generations, a perception mirrored by line managers. Gen Z participants express a general openness to change, seeing it as a growth opportunity. They are motivated by the prospect of more efficient work processes.

"...getting the growth personally as well, because remember you're comfortable but now when you're changing, you grow as a person as well." – Gen Z Participant 010.

Despite their adaptability, Gen Z can experience change fatigue, especially in a rapidly evolving work environment. They emphasize the importance of understanding the reason for change.

"If we are just being instructed to change this and change that without knowing why, then it can be but challenging." – Gen Z Participant 005

The findings challenge the simplistic view of Gen Z as universally "change-ready." While they demonstrate adaptability, particularly with technological changes, their acceptance is conditional rather than automatic (Rajendra & Bharat, 2018).

Support and Guidance During Change

In the context of Gen Z employees, this phase encompasses an examination of the training programmes provided, the nature of information dissemination they experienced, and the effectiveness of these methods in enhancing their comprehension of new processes and systems integral to the change. The analysis of this component explores some key themes under the “knowledge” element.

Gen Z employees expressed a strong preference for comprehensive training resources and structured guidance, while managers, though acknowledging some need for "handholding," appeared to underestimate the depth of support desired. *"I think the biggest factor that would contribute to the success of change initiatives would be successful training and having a good understanding of what we're going to be rolling out." – Gen Z Participant 011*

"They also require some handholding during times of change." – LM participant 002

This preference for multiple learning platforms aligns with Schroth's (2019) observation that Gen Z values diversity and flexibility in the workplace. Organisations may need to tailor their change initiatives and related training to Gen Z's preferences. Line managers recognize that Gen Z employees may need more guidance during times of change. Organisations may need to balance efficient change implementation with sufficient knowledge transfer, particularly in knowledge-intensive industries like CROs.

“You can’t leave them to their own thing and say I’ll come back to you in. This is then you have to maintain communication.” – LM participant 002

Preference for Multifaceted Learning Approaches

In the context of Gen Z employees, the “Ability” element provides insights into how they are implementing changes and any challenges they encounter during this process.

Gen Z employees generally expressed high confidence in their ability to adapt to change, while managers observed that this confidence sometimes exceeded their actual depth of understanding.

"I really think that they believe that they are very adaptable to change. [...] Gen Z are definitely more confident." – LM participant 003

"They look at it thing high level they rush to find out. How do I get it done right and then they think that qualifies as an in depth and understanding of a certain competency or skill" – LM participant 002

These finding challenges both the narrative of Gen Z as naturally adaptable and the potential management bias toward equating experience with competence (Schroth, 2019). The reality appears more nuanced: Gen Z demonstrates strong adaptability in task execution but may sometimes lack the contextual understanding that comes with experience

Gen Z participants illustrate a preference for visual, hands-on learning and practical application of new information.

"It really helps me because I'm a visual learner" – Gen Z Participant 003"

This aligns with Seemiller and Grace's (2017) finding that Gen Z demonstrates a strong inclination towards visual learning methods.

Feedback and Recognition

The "Reinforcement" element examines the factors contributing to sustained change, the feedback mechanisms utilised by the organisation, and the long-term adoption of new practices by both employees and the organisation. The analysis of this component reveals that both Gen Z employees and line managers acknowledged the high value Gen Z places on frequent feedback and recognition.

"I would say it's very important to receive feedback because without feedback you do not know umm in which direction or in which path which part you are taking in terms of, is what, is your approach working" – Gen Z Participant 007

*They want recognition and feedback. Definitely much more than people that's been with the company for all that has that" – LM participant 003*This aligns with Deloitte's (2018) observation that Gen Z has a stronger desire for frequent feedback and validation in the workplace compared to previous generations.

The core findings about Gen Z's communication preferences, desire for purpose-driven change, and need for feedback likely transcend the CRO context. These characteristics align with broader generational research and would likely apply across various professional settings, particularly in knowledge-intensive industries

CONCLUSION AND RECOMMENDATIONS

This research into Gen Z's attitudes towards change and communication preferences in Clinical Research Organisations (CROs) nuanced insights that challenge conventional change management approaches. The findings indicate that organizations need to reconsider their strategies for leading multigenerational teams in rapidly evolving industries such as clinical research.

The findings reveal a notable contradiction: despite Gen Z technological proficiency and digital nativity, Gen Z's show a preference to structured support during organisational changes. They value multi-channel communication that integrates both the digital and traditional formats, seeking not just information, but understanding. Their need to understand the rationale behind organisational changes and preference for visual, hands-on learning approaches in professional context indicates a generation that prioritizes both adaptions, but to comprehension when implementing change.

There is a misalignment between Gen Z's desired level of support during change and their managers' perceptions – representing a support gap that needs to be addressed to facilitate effective change

implementation even though Gen Z's are adaptable, they demonstrate a susceptibility to change fatigue. An important consideration for change management strategy development.

Recommendation

Communication Strategies

1. Implement multi-channel communication approaches that integrate both digital and traditional formats to convey change-related information.
2. Develop comprehensive communication plans that explicitly address the rationale and anticipated benefits of changes, satisfying Gen Z's need for contextual understanding.
3. Establish regular communication cadences that provide consistent updates throughout the change process rather than concentrated only at initiation and conclusion phases.
4. Create accessible repositories of change-related information that employees can reference independently as needed.

Learning and Development Approaches

1. Design training programs that incorporate visual and interactive elements to accommodate Gen Z's learning preferences.
2. Implement phased learning approaches that allow for gradual skill development and application during change processes.
3. Develop collaborative learning opportunities that leverage peer support and subject matter expertise.
4. Create standardized but customizable learning paths that provide structure while allowing for personalization.

Managerial Practices

1. Recalibrate managerial expectations regarding Gen Z's support requirements during change initiatives, acknowledging their need for structured guidance despite technological proficiency.
2. Implement regular assessment of change fatigue indicators to prevent diminished engagement and performance.
3. Establish systematic feedback mechanisms that provide frequent, specific input throughout change processes rather than only at predetermined milestones.
4. Develop cross-generational collaboration opportunities that leverage diverse perspectives during change implementation.

Organisational Systems

1. Align performance evaluation metrics with change implementation objectives to reinforce desired behaviours.
2. Integrate change management competencies into leadership development programs to enhance organisational change capacity.

3. Establish knowledge management systems that capture and disseminate lessons learned from change initiatives.
4. Develop organisational structures that balance standardization with flexibility to accommodate generational preferences.

LIMITATIONS

This research has several limitations that warrant consideration when interpreting the findings:

- The investigation was confined to a single Clinical Research Organisation (CRO), potentially limiting the generalisability of findings to other organisational contexts.
- The research design captured perceptions at a single point in time, rather than longitudinal data on changing attitudes.
- Focus on Gen Z employees represent a demographic constraint that may inadequately address intergenerational workplace dynamics or
- The methodological approach did not account for how cultural and background differences may influence perceptions of change
- While these limitations do not diminish the value of the findings, they highlight opportunities for future research to explore change management across different organisational contexts, demographic groups, and time periods.

In conclusion, effectively engaging Gen Z in change initiatives requires organisations to balance leveraging their technological adaptability while providing the structured support they require. By implementing evidence-based strategies across communication, learning, managerial practices, and organisational systems, organisations can effectively integrate Gen Z employees into change processes. This integration is particularly crucial in rapidly evolving sectors such as clinical research, where organisational adaptability significantly influences competitive advantage and operational effectiveness.

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JOB DEMANDS AND BURNOUT AMONG CALL CENTRE EMPLOYEES IN WINDHOEK; THE MODERATING ROLE OF JOB SATISFACTION

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ABSTRACT

This study investigated the relationships between job demands, job satisfaction, and burnout among call centre agents. Call centre agent as a career choice demands a lot of emotional energy as the nature of their work is difficult and necessitates quick response to keep customers satisfied which subsequently makes it necessary for their respective organisations to assist them in their line of work through various interventions coping strategies that will mitigate turnover intentions.

A convenience and later purposive sampling method was used to recruit 150 participants from multiple organisations employing call centre agents in Windhoek, Namibia. The Job Satisfaction survey, the Job Demand - Resource Questionnaire and the Maslach Burnout Inventory Human Services Survey were adapted to measure the major variables in the study. Correlational analysis revealed a significant association between job demands and burnout ($r=0.968$; $p=0.004$), no significant relationship between job demands and job satisfaction ($r=0.388$; $p=0.081$) and no significant relationship between job satisfaction and burnout ($r=0.747$; $p=-0.030$). Job satisfaction as a moderator had no effect on job demands and burnout ($F = 0.253$; $df = 2$; $P = <-0.015$), according to R (0.067), the prediction of Job Satisfaction is about 1% which is almost non-existence as a moderator to the two variables.

These study outcomes highlight the need for organisations to strengthen job resources, enabling employees to manage burnout effectively and fostering greater job satisfaction. To mitigate turnover intentions stemming from emotional exhaustion, the study recommends implementing individual coping strategies and improving workplace conditions. Findings from the study informed that organisations should prioritise autonomy by allowing employees flexibility in scheduling, involving them in decisions about work design, monitoring practices, and performance targets. The study recommends that supervisors and team leaders must empower agents to participate in shaping their work environment, thereby reducing negative outcomes and enhancing overall well-being.

Keywords: job demands; burnout; job satisfaction; call centre employees; Windhoek

INTRODUCTION

Within Namibia's industrial psychology landscape, there remains a scarcity of literature examining the interplay between job satisfaction, job demands, and burnout, particularly within the call centre sector. Existing studies predominantly reference broader developing-world contexts, leaving a critical gap for both scholars and policymakers in understanding how to cultivate supportive work environments tailored to Namibia's unique challenges. This gap is significant given the pivotal role call centre employees play in customer retention and acquisition through direct consumer interaction (Fernando *et al*., 2020). Consequently, investigating employee well-being is imperative, as their roles frequently involve managing dissatisfied clients in high-pressure settings.

Call centre environments impose rigorous demands, including strict adherence to protocols, computer-mediated tasks (e.g., phone-based customer service), and emotional labour, all of which jeopardise employee well-being (Consiglio *et al*., 2013). Empirical evidence confirms that elevated job demands correlate strongly with burnout (Li *et al*., 2013; Baker *et al*., 2014), while job satisfaction serves as a mediator, indirectly influencing customer satisfaction (Eneizan *et al*., 2021). As frontline service providers, agents are central to customer communication strategies and service delivery (Bakker *et al*., 2003; Simons and Buitendach, 2013), yet their roles entail persistent emotional strain, time constraints, and productivity targets (Rod & Ashill, 2013; Chicu *et al*., 2019). Prolonged exposure to such stressors often culminates in burnout, manifesting as emotional exhaustion, depersonalization, and reduced efficacy (Lewig and Dollard, 2003; Pattnaik and Panda, 2020). This detachment undermines client engagement, a core requirement of their roles (Kim and Leach, 2021).

LITERATURE REVIEW AND PROBLEM INVESTIGATED

Conceptualising Job demands and Burnout

Tomczak and Kulikowski (2024) define job demand as physical, social or organisational elements that need maintained physical and mental power and thus are connected with physiological and psychological costs. Additionally, job demands refer to the workload that employees encounter and are mostly connected with time pressure, role uncertainty and role conflict (Bunjak *et al*., 2023).

Burnout is widely conceptualised as a multidimensional syndrome. Jagodics and Szabó (2023) define it as a condition marked by emotional exhaustion, depersonalisation, and diminished personal accomplishment. Adamopoulos and Syrou (2022) emphasise burnout as a maladaptive response to a mismatch between personal resources and job demands,

exacerbated by factors like excessive workloads, insufficient social support, role ambiguity, and chronic stress.

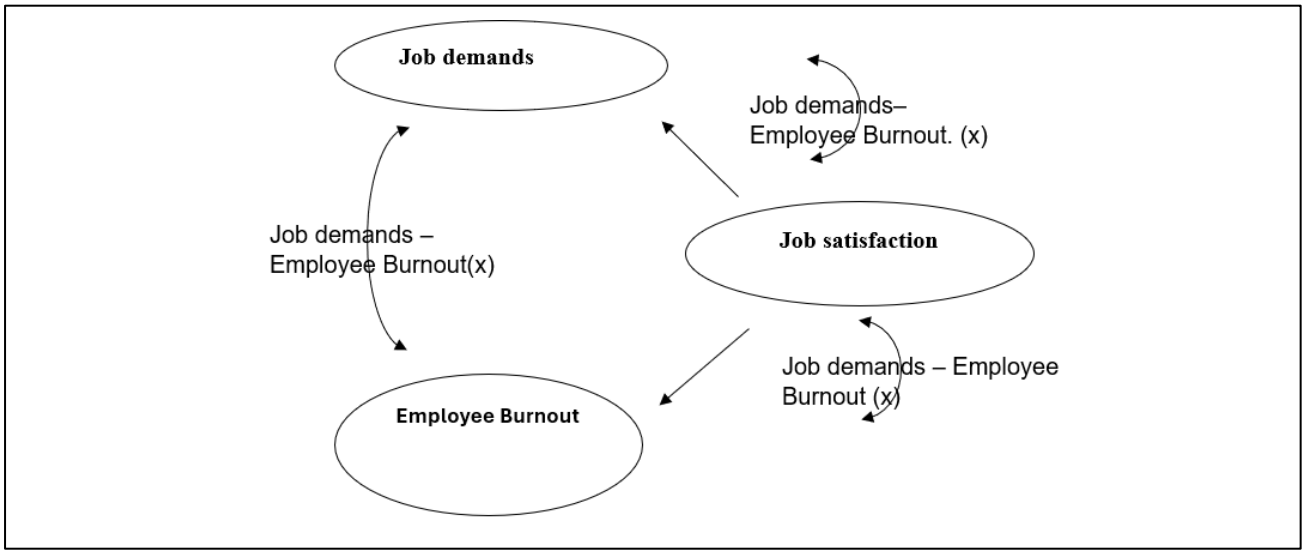
Psychological and Organisational Impacts

Burnout's effects extend across individual and organisational domains. At the individual level, it triggers physical and emotional strain, insomnia, alienation, and eroded self-esteem (Quesada-Puga *et al*., 2024). Organisationally, burnout undermines job satisfaction, productivity, and commitment, while elevating absenteeism, presenteeism, and turnover rates (Danaci and Koç, 2020). Prolonged burnout also fosters cynicism, disillusionment, and skepticism toward institutional values, further destabilizing workplace dynamics (Patel and Bartholomew, 2021).

These findings underscore burnout's dual harm: it diminishes employee well-being while eroding organisational performance. Addressing this requires systemic interventions to realign job demands with employee resources, mitigate stressors, and foster supportive work environments. Current literature predominantly examines call centre employees in South Africa (Simons and Buitendach, 2013) and Europe (Bakker *et al*., 2003). However, findings from these regions cannot be generalised to assess job satisfaction, responses to job demands, or burnout among Namibian call centre workers due to contextual differences in organizational, cultural, and socio-economic dynamics. Namibia's unique operational frameworks and workplace conditions necessitate localised investigations, as cross-national variations in labour practices, resource availability, and employee support systems significantly influence occupational well-being outcomes.

By adopting a quantitative paradigm, this study seeks to identify actionable insights for organisations in developing nations, including Namibia, to mitigate burnout and enhance job satisfaction. Prior research underscores the value of improving job autonomy, refining performance monitoring systems, and diversifying tasks (Zito *et al*., 2018; Chicu *et al*., 2019). By contextualising these factors within Namibia's call centre industry, the findings aim to inform policies that foster resilient work environments such as granting employees flexibility in scheduling, involving them in decision-making processes, and redefining performance metrics to reduce turnover intentions and promote sustainable well-being.

FIGURE 1: CONCEPTUAL MODEL OF THE STUDY



When employees are exposed to high job demands they may become chronically exhausted and distance themselves psychologically from work, meaning they start to experience burnout. Job demands are known to be stressful because they impact on personal growth, goal attainment and destruct optimal functioning; when employees experience these health - threatening demands for a period of time, workers undergo negative emotions, which cause burnout and eventually lead employees to withdraw from work or limit their work speed (Baker *et al*., 2014). Regarding the moderating effect of job satisfaction on job demands and employee burnout, Burnout is one of the most crucial symbols that show whether workers are satisfied with their job or not (Lu and Gursoy, 2016) while job demands have physiological and attitudinal effects and it also increases turnover intentions among the employees which leads workers to experience job dissatisfaction. When employees experience dissatisfaction, they tend to withdraw their psychological attachment to other co-workers and customers, due to job demand workers cannot perform other extra activities, thus it further increases job dissatisfaction (Reilly *et al*., 2014).

HYPOTHESES

The following hypotheses were explored in the study;

Job satisfaction and burnout

H_1 posits a statistically significant relationship between job demands and burnout.

Job demands and job satisfaction

H_2: There is a statistically significant relationship that exists between job demands and job satisfaction.

Job Satisfaction and Burnout

H_3: There is a statistically significant relationship between job satisfaction and burnout.

Job satisfaction has moderating effect on the relationship between job demands and burnout

H_4: Job satisfaction has a moderating effect on the relationship between job demands and burnout.

Theoretical framework of the study

Theoretical framework: Herzberg's two-factor theory Herzberg

The Herzberg's two-factor theory was the theoretical grounding for this study. The Herzberg's two-factor theory which includes the motivation and hygiene factors which consequently influence job satisfaction (Werner, 2016). The theory claims that motivation factors such as recognition and achievement increase job satisfaction while their lack of appearance leads to no job satisfaction, which is not related to job dissatisfaction. On the other hand, the absence of hygiene factors such as the work setting and pay brings about job dissatisfaction, which is not related to job satisfaction (Malik & Naeem, 2013). The theory suggest that managers get rid of issues in the work surroundings that lead to job dissatisfaction such as poor supervision and point out the factors linked to work itself such as promotional opportunities (Werner, 2016). The theory is relevant to study because it points out the aspects that can increase job satisfaction and decrease job demands as well as burnout.

RESEARCH METHODOLOGY

To explore the sought relationships, a quantitative research approach was adopted. The population were call centre agents from selected organisations. Using the ROSOFT method the target population was 250 call centre agents, with margin of error of 5%, confidence interval of 95% the targeted sample was 152 participants, eventually 150 questionnaires were deemed usable for the analysis.

Data was collected using a structured questionnaire (Job satisfaction was measured through the Job Satisfaction Survey (JSS) (Spector, 1985), the job demands variable was measured through the Job Content Questionnaire (JCQ) (Karasek, 1985), while the Maslach Burnout Inventory Human Services Survey (MBI-HSS) (Maslach and Jackson, 1996) was used to measure burnout in the human service sector). Convenience sampling technique was used to reach out to call-centre employees, this sampling method proved useful as call centre agents are not always available at the same time. Acceptable Cronbach alphas were reported for the research instruments adopted; Job Satisfaction 0.943; Job demands 0.934; burnout is 0.833

all which are high reliability scores. The research instrument was distributed to the participants and were completed at the convenience of the participants.

Data analysis was done in form of descriptive statistics and inferential statistics. Regression analysis was also used to explain the relationship between variables and Pearson Correlation Coefficient to detail the relationship between job satisfaction, job demands and burnout.

RESULTS/FINDINGS

A total of 250 questionnaires were distributed using convenience sampling to organisations employing more than at least more than 5 people in their call centre. However, 150 usable research instruments were returned. The sample consisted of n=150 of call centre employees. The demographic details are seen in table 1.

TABLE 1: DEMOGRAPHIC CHARACTERISTICS

Description	Item	Frequency
Sex	Male	32
	Female	118
Age	<25	39
	26-30	54
	31-35	33
	36-40	11
	41+	13
Highest qualification	Certificate	30
	Diploma	22
	Bachelors	27
	Masters	67
	PhD	4
Tenure	<5	87
	5-10	40
	11-15	13
	16-20	7
	21+	3
Marital status	Single	116
	Married	31
	Divorced	2
	Widowed	1

TABLE 2: PEARSON CORRELATION ANALYSIS

Variable/s	burnout	Job demands	Job satisfaction
burnout	1		
Job demands	r = 0.968	1	
	p = .004*		
Job satisfaction	r = 0. 747	r = 0.081	1
	p = -.030	p = .081	

* Correlation is remarkable when the significant level is 0.01(Two-tailed test).

The results in Table 2 show that job demands is significantly positively correlated to burnout (r=0.968; p=0.004). This means that if job demands increases or decreases then burnout will have the same effect. We therefore reject the null hypothesis in favour of the alternative hypothesis and conclude that there is a positive significant relationship between job demands and burnout among selected call centre employees. The results also shows that there is no significant relationship between job demands and job satisfaction (r=0.388; p=0.081). The increase or decrease of one variable is not affected by the other variable. We then fail to reject the null hypothesis and conclude that there is no significant relationship between job demands and job satisfaction among selected call centre employees. The results in shows that there is a negative relationship between job satisfaction and burnout (r=0.747; p=-0.030). This means that if there is an increase in job satisfaction then there will be a decrease in burnout. We then fail to reject the null hypothesis and conclude that there is no significant relationship between job satisfaction and burnout among selected call centre employees.

Regression Model for Job Satisfaction as a moderating effect on the relationship between Job Demands and Burnout

TABLE 3: JOB SATISFACTION HAS MODERATING EFFECT ON THE RELATIONSHIP BETWEEN JOB DEMANDS AND BURNOUT

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.067[a]	.005	-.013	15.94472	.005	.253	2	111	.777	1.429
a. Predictors: (Constant), Zscore(meanjs_jd), jobsatisafaction										
b. Dependent Variable: burnout										

A linear regression analysis was used on the moderating effect of job satisfaction on the relationship between job demands and burnout. The linear regression model yielded a significant level of F statistics (F =0.253; df1 = 2; P = -0.015). According to the R Square (R= 0.005), the prediction of job satisfaction as a moderating effect is almost non-existent. Therefore, job satisfaction cannot be considered a moderating effect on the relationship between job demands and burnout.

DISCUSSION

Job Demands and Burnout

The findings suggested that job demands eventually lead to burnout, which then leads to depression. The findings corroborate those of Fadare *et al*. (2022) who found the influence of job demands on burnout among pharmacists. Other studies (Bakker and De Vries, 2021) examined this association from the other perspective and found that people with higher levels of burnout expected higher levels of job demands as a consequence of unfavourable subjective perceptions or because of changes in the workplace environment. Similar findings indicate that burnout can occur within a year as a result of high job demands and low job resources (Tomczak and Kulikowski, 2024).

The findings are consistent with those of Patel and Bartholomew (2021) who conducted research on burnout among therapy providers. The findings show that high workloads, which result in increased job expectations, are linked to burnout and job dissatisfaction in those who provide therapy services. The survey also discovered that management issues and a lack of organisational support were regarded as the top causes of burnout among workers (Muller, 2014). This is because when people work under pressure, their workloads or job expectations grow. High job demands do exist, but if there aren't enough resources available to deal with them, burnout may result, which might lead to physical and mental illness (Jagodics and Szabó, 2023).

Job Demands and Job Satisfaction

The results also shows that there is no significant relationship between job demands and job satisfaction. These findings are in accordance with Wang *et al*. (2020) findings that there was no linear connection between the demands of the job and job satisfaction. This can be accounted for by the fact that changes in one variable do not coincide with changes in the other. There are inconsistencies with Selye's (1976) theory that a certain degree of demand is good for employee happiness and well-being. In his study, Skaalvik (2023) found that job control is a reliable predictor of work satisfaction. Even while there was no indication of control having a moderating influence on the connection between demands and satisfaction, their investigation also discovered an interaction between hours worked and control. A study on " Relationships between job satisfaction and job demand, job control, social support, and depression in Iranian nurses" conducted by Abadi *et al*. (2021) confirms that there is a negative correlation between job demands and job satisfaction. The study's findings point to a relationship between a decline in job control and an increase in job demands and a decline in job satisfaction. Job satisfaction suffers because of the heavy workload and lack of workplace control. These results of the study are contradicted by Gerich and Weber (2020) who in their

study discovered that job demands have a less negative effect on job satisfaction for the identified workers.

Job Satisfaction and Burnout

The findings are consistent with earlier research (Duraku *et al*., 2025) showing that burnout has a detrimental impact on work satisfaction, whereby an increase in one measure would lead to a drop in the other. Burnout and work satisfaction have a negative association, according to another studies (Adamopoulos and Syrou, 2022). The consequences to people, such as low satisfaction, and to organisations, such as greater turnover intentions and absenteeism, make it an essential problem for managers (Kara, 2020). The findings also suggest an inverse link between job satisfaction and turnover, which is the higher the level of job satisfaction the lower the level of burnout as advised by Danaci and Koç (2020) who contribute that burnout has a detrimental effect on work satisfaction.

Practical managerial implications and recommendations

Organisations are always looking for novel methods to improve employee work satisfaction. High job satisfaction workers are more likely to overcome obstacles and successfully adapt to their workplace. Additionally, the labour of these individuals often enhances their quality of life and employment. Their efforts are thus focused on the organisation's success (Zeytinoglu *et al*., 2012).

According to research by Begley and Czajka (1993), job satisfaction is linked to better job performance, decreased absenteeism, turnover, and burnout rates. To keep this up, it's crucial to make sure that workers are happy by giving them feedback, which fosters a trustworthy workplace and boosts employee motivation (Mulder, 2013). This approach may be used by managers to lessen negative workplace conditions that can inhibit staff members from completing and delivering high-quality work.

An individual's response to workplace events is explained by their level of job satisfaction. This is crucial, especially for service-oriented businesses that depend on workers being satisfied since it affects both how well employees serve clients and how likely they are to do so in the future. Farooqui and Nagendra (2014) propose that several variables, such as the organisation's policies and supervision, which are in support of fostering work happiness, should be motivated in order to sustain job satisfaction in this situation. This also demonstrates what individuals expect from their jobs and what they really get.

CONCLUSIONS

According to the study, burnout among the chosen call centre personnel was statistically significantly correlated with job demands. The job tasks of call centre agents demand a lot of

emotional energy is call centres, with the nature of their work difficult and necessitating quick responses to keep customers satisfied. Following on this, the researchers encourage policymakers to consider the necessity of retaining professional autonomy in their day-to-day activities. The development of training programmes for contact centre agents is necessary to assist them improve their ability to control their emotions, which will help them deal with difficult customers. High levels of autonomy should be provided; supervisors and team leaders should let contact centre workers choose their own working hours and include them in choices about the design of their jobs, performance monitoring, and goals.

There was no statistically significant correlation between job demands and job satisfaction. Consequently, burnout and job satisfaction did not significantly correlate. The connection between job demands and burnout among a sample of contact centre employees was not moderated by job satisfaction, this was found to be consistent with the findings of Awwad *et al*. (2022). One possible explanation is that the direct relationship between job demands (i.e., job stress and WFC) and job satisfaction is contingent upon the indirect effect of job burnout and job demands (Awwad *et al*., 2022). This limitation to support our hypothesis regarding the direct effect of job demands (i.e., job stress and WFC) on job satisfaction is the basis to call for future research to use a long attitudinal research design to capture the nature of the relationship between job demands, burnout and job satisfaction. Moreover, this study uses a narrow set of job demands as compared to previous studies using the JD-R model (e.g., Bakker & Demerouti, 2007). Future research should aim to incorporate other job-related characteristics such as workload or to integrate job resource characteristics such as employee autonomy, job responsibility, and job variety (Kloutsiniotis and Mihail, 2020) as an independent variable in measuring the entire cycle of the JD-R model as conceptualised by Demerouti *et al*. (2001). The researchers urge more studies to solidify the findings in the context of Namibia even if other factors did not produce any conclusive relationships.

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STRATEGIC HUMAN RESOURCE MANAGEMENT IN A PUBLIC SECTOR REGULATORY BODY: A QUALITATIVE PERSPECTIVE

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ABSTRACT

Strategic Human Resource Management (HRM) plays a critical role in supporting the performance, compliance, and adaptability of public sector regulatory bodies. In highly regulated environments, HRM is expected to go beyond administrative functions by contributing to workforce alignment, employee engagement, and organisational effectiveness. This paper investigates how HRM practices are implemented and experienced within a South African public regulatory entity. This qualitative study employed semi-structured interviews with 35 employees, and data were analysed using thematic analysis facilitated by ATLAS.ti version 24. The findings highlight practices such as talent management, employee wellness, policy communication, and strategic workforce planning as central to HRM's impact. The study concludes with practical recommendations for strengthening HRM's strategic role in the public sector, particularly in contexts where regulatory compliance, accountability, and workforce capacity are central to institutional performance.

Keywords: strategic human resource management; public sector; employee engagement; regulatory compliance

INTRODUCTION

In public sector institutions, particularly those operating within compliance-driven and regulatory environments, HRM is increasingly viewed as a strategic function with the capacity to influence organisational performance and policy implementation (van der Walt and Mahembe, 2021; Gildenhuys and Fourie, 2022). The effectiveness of such institutions depends not only on governance frameworks but also on the capability, alignment, and engagement of the workforce, which are core responsibilities within the scope of HRM (Ngwenya and Moyo, 2023).

Public regulatory entities in South Africa operate in challenging environments characterised by legal obligations, political scrutiny, and heightened expectations for service delivery

(Ramphal and Nel, 2022). HRM's evolving role is further intensified by national policy imperatives such as the National Development Plan (2030), which highlights the importance of capable and committed public servants as drivers of state effectiveness (National Planning Commission, 2012). Moreover, the Fourth Industrial Revolution and digital transformation have introduced new demands for HRM to enable workforce adaptability and continuous development (Naidoo and Van Rensburg, 2021; Nkomo, 2022). As such, HRM is not only tasked with recruitment and compliance but also with facilitating employee engagement, promoting ethical conduct, and managing transitions during organisational change (Mokoena and Govender, 2024).

Existing literature has largely focused on policy implementation or leadership in the public sector, with limited emphasis on how HRM supports organisational coherence and effectiveness through integrated practices (Maphumulo and Mafini, 2023).

This paper presents a qualitative study that examines the strategic role of HRM within a South African public regulatory organisation. By analysing the experiences of employees across operational and support functions, the study provides insight into how HRM practices contribute to institutional alignment, employee satisfaction, and service efficiency. In doing so, the paper seeks to bridge the gap between policy expectations and lived organisational realities, while offering recommendations for strengthening HRM's role in governance-oriented entities.

RESEARCH OBJECTIVES

The primary objective of this study is to explore how HRM practices contribute to organisational effectiveness within a South African public sector regulatory institution, as experienced and perceived by employees across various functions and levels.

To achieve this, the study is guided by the following specific objectives:

- To examine the strategic role of HRM in supporting organisational goals within a compliance-driven public sector environment.
- To explore employee experiences of HRM practices, including recruitment, training, wellness, communication, and policy enforcement, and how these influence institutional performance and engagement.
- To assess the extent to which HRM practices align with governance, ethical, and regulatory requirements, and how they contribute to institutional stability and risk mitigation.
- To identify gaps between formal HRM policy and implementation, particularly from the perspectives of employees responsible for or impacted by these practices.

Collectively, these objectives aim to deepen understanding of how HRM functions in practice within a regulated public sector environment, offering insight into both the strategic value and implementation challenges of HRM. By centring employee perspectives, the study not only addresses a significant gap in the literature but also provides a foundation for refining HRM practices to better support institutional goals, regulatory compliance, and employee engagement. These objectives guide the methodological approach and thematic exploration that follow in the subsequent sections.

LITERATURE REVIEW

HRM has increasingly assumed a strategic role in public sector institutions, especially those operating within regulatory or compliance-intensive environments. The shift from an administrative support function to a strategic partner in organisational performance has been widely recognised (Mabunda and Bussin, 2021; Tjale and Mofokeng, 2023). In such contexts, HRM is expected to contribute meaningfully to institutional planning, workforce alignment, and the successful execution of public mandates (Ramphal and Nel, 2022).

Scholars have highlighted HRM's critical contribution to enhancing organisational agility and resilience in response to ongoing challenges, including policy changes, digital transformation, and fiscal constraints (Gildenhuys and Fourie, 2022; Naidoo and Van Rensburg, 2021). Strategic HRM enables this by embedding practices such as talent acquisition, learning and development, employee wellness, and engagement into institutional processes (Maphumulo and Mafini, 2023).

While conceptual and policy discussions acknowledge this strategic positioning, there remains a notable gap in empirical literature, particularly qualitative studies, capturing the experiences and perceptions of employees in regulatory entities (Ngwenya and Moyo, 2023).

Theoretical Foundation

This study is grounded in the Resource-Based View (RBV), which suggests that human capital is a strategic resource that drives institutional effectiveness and adaptability. By applying the RBV to HRM practices in a regulatory body, the study conceptualises employees not merely as operational inputs but as strategic assets that are based on compliance, resilience, and performance (Yousaf and Sanders, 2021; De Moura *et al*., 2021). This study follows the Resource-Based View (RBV), which indicates that strategic resources, especially human capital, are central to achieving institutional performance and adaptability (Barney, 1991; de Moura *et al*., 2021). In public regulatory environments, where compliance and stakeholder accountability are paramount, the strategic role of HRM becomes increasingly vital. The RBV enables a conceptual understanding of how strategic HRM initiatives, such as leadership

development, employee wellness, and workforce alignment, contribute to sustained organisational effectiveness (Yousaf and Sanders, 2021).

Strategic HRM in the Public Sector

HRM in the public sector has experienced a significant conceptual and functional transformation, evolving from a largely transactional and administrative role into one that is strategic and integrative (Mabunda and Bussin, 2021. HRM now encompasses long-term workforce planning, talent development, and strategic alignment with institutional goals (Ulrich, Younger and Brockbank, 2021). The strategic shift in HRM is particularly crucial in regulatory and public service environments where organisational effectiveness is measured not only by internal efficiency but also by the ability to deliver mandated services under conditions of fiscal constraint, political oversight, and policy complexity (Gildenhuys and Fourie, 2022).

Frameworks that support strategic HRM in the public sector often highlight functions such as leadership development, performance management, and succession planning as core to institutional success (Ulrich *et al*., 2021; Armstrong and Taylor, 2023). Workforce planning is particularly relevant in regulatory contexts where skilled professionals are required to interpret and enforce complex legislation. Performance alignment linking individual outputs to strategic priorities is also essential in ensuring accountability and service delivery (Mabunda and Bussin, 2021). HRM has been successfully positioned as a strategic partner, and public institutions report improved employee morale, stronger leadership pipelines, and more adaptive responses to environmental shifts (Ulrich *et al*., 2021; Ramphal and Nel, 2022).

HRM'S ROLE IN ENABLING ORGANISATIONAL EFFECTIVENESS

Effective HRM practices such as training, recruitment, wellness initiatives, and internal communication are instrumental in aligning employee performance with institutional goals, thereby facilitating improved service delivery and operational efficiency.

Training and Development

Continuous professional development is essential for maintaining a competent public workforce. Training programmes that focus on skill enhancement and capacity building contribute to employee proficiency and adaptability, which are critical for responding to the dynamic needs of public service (Tjale and Mofokeng, 2023). Moreover, targeted training initiatives have been linked to increased job satisfaction and retention rates among public sector employees (Maphumulo and Mafini, 2023).

Recruitment and Selection

Strategic recruitment processes ensure that public institutions attract individuals whose competencies align with organisational objectives. Implementing merit-based selection criteria and transparent hiring practices not only enhances the quality of human capital but also reinforces public trust in governmental operations (Naidoo and Van Rensburg, 2021).

Employee Wellness Programs

Employee wellness initiatives, including mental health support, flexible work arrangements, and health promotion activities, have been shown to reduce absenteeism and improve overall productivity. In the public sector, where resources are often constrained, investing in employee well-being is a cost-effective strategy to enhance performance and reduce turnover (Tjale and Mofokeng, 2023).

Internal Communication

Internal communication mechanisms are vital for ensuring that employees are informed, engaged, and aligned with the institution's mission and values. Transparent communication fosters a culture of trust and accountability, which is essential for effective governance and public service delivery (Maphumulo and Mafini, 2023).

Collectively, these HRM practices contribute to a resilient and responsive public sector. This alignment between HRM and organisational objectives is crucial for achieving sustainable public value and fostering citizen trust in governmental operations (Naidoo and Van Rensburg, 2021).

Employee Wellness Programmes (EAP) have evolved from peripheral initiatives to core components of strategic HRM, particularly within high-pressure public institutions. This is supported by Nujjoo *et al*. (2023), who argue that employee wellbeing is not only an ethical imperative but also a measurable contributor to strategic objectives, especially in resource-constrained public settings.

HRM and Compliance in Regulatory Environments

In public regulatory environments, compliance with labour legislation, ethical standards, and governance frameworks is non-negotiable. Within such contexts, HRM serves not only as a mechanism for workforce administration but as a critical enabler of legal and ethical compliance (Nkomo, 2022). This includes ensuring adherence to national laws such as the Labour Relations Act, the Employment Equity Act, and public service regulations. As Ramphal and Nel (2022) assert, HRM departments must lead internal compliance initiatives, from employee induction to performance management, to mitigate organisational risk and maintain legal conformity.

When HR processes are fragmented or poorly aligned with statutory requirements, the risk of audit findings, labour disputes, and reputational damage increases significantly (Nkomo, 2022). Conversely, proactive HRM systems that ensure policy awareness and training reduce the incidence of non-compliance and enhance organisational stability.

In regulatory institutions, where the burden of oversight is particularly high, HRM must be integrative and responsive. This includes collaborating with legal, finance, and operations units to ensure that workforce practices support the broader governance mandate. As Ramphal and Nel (2022) note, risk-aware HRM strengthens institutional resilience by ensuring that both personnel actions and structural arrangements comply with applicable laws and ethical norms.

Gaps in Empirical Research on Employee Perceptions of HRM in Public Bodies

Despite the growing recognition of HRM as a strategic function in the public sector, scholarly research in this domain remains largely skewed towards policy analysis, quantitative performance metrics, and top-down evaluations. Much of the existing literature focuses on frameworks, compliance checklists, and statistical correlations, often overlooking the lived experiences and perceptions of employees within public institutions, particularly in regulatory contexts (Ngwenya and Moyo, 2023). Such discrepancies are difficult to identify through purely quantitative instruments, highlighting the value of qualitative approaches that centre employee voice and institutional culture (Mokoena and Govender, 2024).

Qualitative research in public HRM remains relatively underdeveloped, especially within South African regulatory bodies where the complexities of transformation, compliance, and service delivery intersect. Studies that do exist tend to generalise findings across public departments, without acknowledging the unique structural and operational demands of regulatory entities (Ngwenya and Moyo, 2023). Studies can uncover informal practices, internal contradictions, or cultural dynamics that formal evaluations may fail to capture.

This study seeks to respond to this gap by providing an in-depth qualitative analysis of HRM practices in a public sector regulatory organisation.

SUMMARY AND INTERPRETATION OF KEY LITERATURE THEMES

The table below summarises the key themes identified in the literature review, highlighting the evolving role and strategic significance of HRM in the public sector.

TABLE 1: SUMMARY OF KEY THEMES FROM THE LITERATURE REVIEW

Theme	Key Insights	Supporting Sources
Strategic HRM in the Public Sector	HRM has transitioned from administrative to strategic, emphasis on alignment with institutional goals and performance management.	Mabunda and Bussin (2021); Gildenhuys and Fourie (2022); Ulrich *et al*. (2021)
HRM's Role in Organisational Effectiveness	Training, recruitment, wellness, and communication enhance engagement, morale, and institutional adaptability.	Tjale and Mofokeng (2023); Maphumulo and Mafini (2023); Naidoo and Van Rensburg (2021)
HRM and Compliance in Regulatory Environments	HRM ensures alignment with labour laws, ethical standards, and audit requirements to mitigate operational risk.	Nkomo (2022); Ramphal and Nel (2022); National Planning Commission (2012)
Gaps in Employee-Centred HRM Research	Literature lacks qualitative perspectives on employee experiences in regulatory public institutions.	Mokoena and Govender (2024); Ngwenya and Moyo (2023)

Source: Authors

Four dominant themes emerged: the transition of HRM from administrative to strategic functions; the role of HRM practices in enhancing organisational effectiveness; HRM's contribution to compliance and regulatory governance; and the notable absence of employee-centred qualitative research in public regulatory contexts. Each theme is supported by recent scholarly contributions, reinforcing the argument that HRM must be both strategically aligned and contextually responsive to effectively support institutional performance, compliance, and transformation.

In conclusion, the reviewed literature affirms the evolving role of HRM as a strategic enabler within the public sector, particularly in complex regulatory environments. Key HRM functions such as workforce planning, performance alignment, employee wellness, and compliance facilitation have been shown to directly support organisational effectiveness, policy execution, and ethical accountability. While strategic HRM frameworks are widely promoted in theory, implementation challenges persist due to bureaucratic rigidity, fragmented systems, and underinvestment in capacity building.

A significant gap exists in the empirical exploration of HRM from the perspective of public sector employees. Addressing this gap is crucial for developing responsive HRM practices that are both policy-compliant and contextually relevant. This study contributes to the body of knowledge by examining HRM through the lens of employees in a public sector regulatory institution, offering insight into how HRM practices shape and support institutional performance on the ground.

RESEARCH METHODOLOGY

This study adopted a qualitative research approach to gain in-depth insights into how HRM is experienced and understood by employees within a public sector regulatory organisation. A qualitative design was deemed appropriate given the study's aim to explore employee perceptions, meanings, and interpretations rather than measure predefined variables (Creswell and Poth, 2018).

Research Philosophy and Design

The study was grounded in a realist research philosophy, which assumes that while social reality exists independently, it is best understood through the perspectives of those who experience it (Maxwell, 2021). The design was cross-sectional and mono-method, focusing on a single regulatory entity at a specific point in time to examine HRM practices in their organisational context.

Sampling and Participants

A purposive sampling strategy was used to select participants who possessed direct experience with HRM practices across both operational and support functions. The sample comprised 35 employees from diverse demographic and professional backgrounds, including individuals in middle management, senior roles, and semi-skilled positions. This diversity allowed for a comprehensive understanding of HRM across organisational levels.

A total of 42 employees were invited to participate in the study. Of these, 35 consented and were successfully interviewed, resulting in a response rate of approximately 83.3%. This high level of participation strengthens the representativeness and credibility of the findings, particularly in qualitative research where depth and diversity of perspectives are essential.

Data Collection

Data was collected through semi-structured interviews, which enabled the researcher to explore core themes while allowing participants the flexibility to elaborate on their experiences. Interviews were conducted face-to-face and digitally, recorded with consent, and transcribed verbatim to ensure data accuracy.

Data Analysis

The data was analysed using thematic analysis, facilitated by ATLAS.ti version 24, a computer-assisted qualitative data analysis software (Friese, 2019). The analysis involved coding participant responses, grouping codes into categories, and identifying overarching themes. An iterative process was followed to ensure that emerging insights were critically refined and grounded in the data (Miles, Huberman and Saldaña, 2019).

Validity and Reliability

To ensure validity of the research instrument, the interview guide was subjected to expert review by two qualitative researchers and refined through a pilot interview to improve question clarity and flow. Reliability was enhanced through multiple strategies: member checking, where participants verified the accuracy of transcribed responses; peer debriefing with two independent qualitative researchers to confirm coding consistency; and the use of thematic saturation as a stopping criterion to ensure adequacy of data collection. These steps collectively ensured that the instrument and findings were both credible and dependable. Following best practices in qualitative validation (Nowell *et al*., 2017; Connelly, 2021), these strategies enhanced methodological rigour and interpretive trustworthiness.

Trustworthiness

To ensure the credibility and trustworthiness of the study, strategies such as member checking, peer debriefing, and data triangulation were employed. Thick descriptions and direct quotes were used to preserve the voices of participants and enhance transparency (Lincoln and Guba, 1985).

RESULTS AND FINDINGS

Thematic analysis of the qualitative data revealed six dominant themes reflecting employee perceptions of HRM within the public sector regulatory organisation. These themes provide insight into how HRM practices are experienced and understood concerning strategic alignment, organisational performance, and employee well-being.

HRM as a Strategic Enabler of Organisational Objectives

Participants consistently described HRM as central to aligning the workforce with the organisation's mission, vision, and strategic goals. Rather than being confined to administrative tasks, HRM was perceived as a strategic function that influences institutional direction through its recruitment, workforce planning, and capability development practices.

"HR is the one that provides the workforce to meet the objectives. It must ensure the people we bring in are fit for purpose and can execute the mandate." (Participant 22)

"From my perspective as an executive manager, HR is critical in ensuring we have the right people in the right positions. Without that alignment, the organisation can't function effectively." (Participant 35)

"Human resources is the heartbeat of the organisation. It touches everything – strategy, service delivery, compliance. Nothing moves without HR." (Participant 29)

These insights resonate with literature asserting that HRM plays a foundational role in ensuring strategic coherence across public institutions (Ulrich *et al*., 2021; Armstrong and Taylor, 2023). Strategic HRM enables organisations to respond to complex policy environments by ensuring that human capital is effectively mobilised to meet institutional priorities (Tjale and Mofokeng, 2023).

Strategic workforce alignment, identified as a key tenet of public sector HRM, involves not only attracting qualified professionals but also anticipating future organisational needs through proactive talent management and succession planning (Mabunda and Bussin, 2021). This is particularly relevant in regulatory settings, where workforce capacity is directly tied to compliance, oversight, and operational delivery.

Scholars argue that HRM in the public sector must be positioned at the centre of strategic planning processes to ensure that organisational design and policy initiatives are supported by the necessary human capability (Maphumulo and Mafini, 2023). When HRM is sidelined, institutions face a disconnect between policy ambition and executional capacity, often resulting in service delivery gaps, compliance risks, and low employee morale (Ngwenya and Moyo, 2023).

Despite the generally positive recognition of HRM's strategic role, a few participants expressed concern over the inconsistency with which HRM is integrated into long-term planning processes.

"Sometimes HR is brought in too late. They should be at the table from the start when strategic decisions are made." (Participant 14)

This suggests that while the perceived role of HRM is strategic in theory, full integration into institutional strategy may still be an area for development. Aligning HRM more consistently with strategic initiatives could strengthen the organisation's agility, foresight, and overall effectiveness.

The integration of HRM practices into core institutional strategies is a defining feature of modern public sector management. Recent literature positions HRM as a system of interconnected processes, such as recruitment, training, performance management, wellness, and internal communication, that must function together to support strategic alignment and service delivery (Budhwar, Mellahi and Singh, 2022; Yousaf and Sanders, 2021).

In regulatory institutions, where compliance and ethical governance are important, strategic HRM integration ensures that institutional mandates are effectively translated into workforce capability and organisational culture (George and Tuvesson, 2022). This alignment fosters

responsiveness, reduces operational silos, and enhances organisational legitimacy (Omar, Davids and Radebe, 2021).

Research by De Moura, Vasconcelos and Cario (2021) highlights that such integration requires HR leaders to be embedded in strategic planning and policy formulation forums. In the South African context, this is particularly vital for navigating resource constraints, political complexity, and evolving compliance demands. Integrated HRM systems not only facilitate continuity in leadership and succession planning but also build institutional resilience by promoting coherence between policy, people, and performance.

Performance outcomes improve when HRM is part of decision-making processes and when organisational feedback loops are supported by structured communication and staff engagement practices (Nujjoo, van Zyl and Rothmann, 2023). As such, the strategic integration of HRM is not simply about structural positioning but about establishing HR as a cross-cutting enabler of institutional effectiveness.

Recruitment, Selection, and Talent Management

Recruitment and selection processes emerged as a key area of focus among participants, who highlighted the importance of appointing individuals with the appropriate skills, attitudes, and cultural fit to support the organisation's regulatory mandate.

"Talent is managed, but not consistently. We still rely too much on external recruitment rather than developing internal potential." (Participant 31)

"There are recruitment processes, but sometimes the appointment doesn't seem aligned with our operational needs. We need people who understand our regulatory environment." (Participant 7)

"There's talent in the organisation, but we're not grooming people enough for future leadership roles. It's always easier to recruit outside than invest in our own." (Participant 19)

These experiences echo broader concerns in the literature regarding fragmented recruitment practices in the public sector, where political influence, rigid bureaucratic structures, or poorly implemented succession strategies can undermine long-term organisational effectiveness (Geldenhuys and Fourie, 2022). According to Armstrong and Taylor (2023), effective recruitment should be both strategically aligned and competence-driven, ensuring that new hires can contribute meaningfully to current operations and future growth.

Talent management, which encompasses succession planning, career development, and leadership pipeline creation, was identified as a weak point in the current HRM system by many participants.

“Sometimes we lose good people because there’s no path for growth. Talent leaves when it’s not nurtured.” (Participant 12)

Maphumulo and Mafini (2023) stress that public sector organisations must invest in internal talent pipelines to mitigate the risks of skill shortages and institutional memory loss. Similarly, Tjale and Mofokeng (2023) argue that talent retention and succession planning are essential for long-term resilience, especially in compliance-heavy environments where specialised knowledge is critical.

“Recruitment has improved in terms of transparency and fairness, but it must go further—especially in how we prepare our people to step into senior roles.” (Participant 3)

The findings suggest that while recruitment structures exist, they are not fully leveraged to support strategic workforce development. Strengthening talent management and promoting internal growth pathways may enhance employee engagement, reduce turnover, and better align human capital with the organisation’s future needs.

Training and Development for Regulatory Effectiveness

Training and development were identified by participants as critical enablers of institutional effectiveness, particularly in a regulatory context where compliance, technical knowledge, and policy interpretation are essential. Employees across operational and support functions emphasised the importance of regular training opportunities to enhance individual competence, organisational readiness, and public accountability.

“Training helps us stay current with regulations. Without it, compliance would suffer.” (Participant 2)

“We’re in a dynamic sector—new laws, new technologies. If training doesn’t keep up, we fall behind and that affects service delivery.” (Participant 9)

“Sometimes the training is relevant and very helpful. But it’s not always frequent enough or tailored to our real operational needs.” (Participant 21)

These insights support the view that training is not merely a capacity-building tool but a strategic function that safeguards compliance and institutional agility. According to Naidoo and Van Rensburg (2021), in regulatory institutions, training must be continuous and sector-specific to address shifting compliance requirements, technical updates, and performance gaps. Effective training systems also enhance employee confidence and organisational adaptability. Research by Maphumulo and Mafini (2023) highlights that employee training in public entities contributes to both individual development and institutional legitimacy, especially when linked to clearly defined learning objectives and performance frameworks.

Moreover, well-executed training programs reduce error rates, increase decision-making accuracy, and promote regulatory responsiveness (Tjale and Mofokeng, 2023).

"Some workshops are too general. We need training that focuses on the specific laws, regulations, and scenarios we deal with daily." (Participant 26)

"There's no structured learning path or personal development plan. You attend a few workshops, but there's no follow-up or progression." (Participant 5)

This concern aligns with Nkomo's (2022) observation that many public institutions adopt a compliance-based training model rather than a developmental one, which limits the potential for long-term skills growth and leadership pipeline development.

"We don't all get the same opportunities. Sometimes the same people go on training repeatedly, while others are left behind." (Participant 17)

These findings suggest that while training is acknowledged as a strategic HRM practice, its implementation remains uneven. Enhancing the consistency, relevance, and strategic alignment of training interventions will be critical for strengthening organisational performance, regulatory readiness, and equitable workforce development.

Wellness and Employee Support Systems

Employee wellness was consistently described by participants as a cornerstone of organisational sustainability and performance. In the high-pressure environment of a public sector regulatory body, wellness programmes were viewed not merely as optional benefits but as essential interventions that support retention, morale, and productivity.

"Wellness is taken seriously. We have wellness days and counselling if we need it. That support really matters." (Participant 33)

"When people are well mentally and physically, they perform better. We see it even in how teams interact. HR's efforts in this space are visible." (Participant 6)

"We've had financial wellness talks, blood pressure screenings, and even trauma counselling. But these aren't always consistent across departments." (Participant 11)

These reflections align with the broader understanding of wellness as a strategic HRM tool. According to Tjale and Mofokeng (2023), public institutions that prioritise wellness build psychological safety, enhance work satisfaction, and reduce absenteeism, factors directly linked to performance outcomes. Employee support services, particularly those addressing mental health and financial stress, are increasingly recognised as integral to risk mitigation and organisational resilience (Naidoo and Van Rensburg, 2021).

Research by Maphumulo and Mafini (2023) indicates that wellness programmes in the public sector are most effective when they are holistic, inclusive, and linked to broader organisational goals such as talent retention, diversity management, and transformation. In the context of a compliance-driven organisation, where workload intensity and emotional fatigue are common, such interventions also serve as preventative measures against burnout and disengagement (Nkomo, 2022). However, participants expressed concern regarding the uneven implementation of wellness initiatives. Several reported disparities in access, with some units benefiting more than others, depending on location, departmental leadership, or perceived priority.

"There's good support, but it's not evenly distributed. Some units have regular wellness events; others hardly get anything." (Participant 13)

"The EAP [Employee Assistance Programme] is available, but many don't know how to access it. Awareness and communication need improvement." (Participant 25)

This inconsistency points to the need for a more structured and standardised approach to wellness integration within the HRM framework. As noted by Mabunda and Bussin (2021), wellness initiatives must be institutionalised rather than event-based, with clear metrics for effectiveness and equitable participation across all employee categories.

"Wellness should be part of how we lead. Managers need training too—on how to support teams in a human-centred way." (Participant 30)

These insights reinforce the growing understanding that employee wellness is a strategic imperative and not a peripheral function.

Communication and Policy Dissemination

Effective communication of policies and organisational expectations was frequently cited by participants as a key function of HRM, particularly in a regulatory environment where clarity and compliance are critical. HRM was acknowledged for taking proactive steps to raise awareness of internal policies.

"They explain policies in sessions and check that we've understood. It helps us know what's expected." (Participant 10)

"We've had roadshows where HR presents policy updates, and we can ask questions. That helps with transparency." (Participant 18)

"There are awareness emails and presentations, but the most helpful are when they come to our region and engage with us directly." (Participant 27)

This aligns with recent literature emphasising the importance of clear and continuous communication between HRM and employees in maintaining organisational coherence and promoting a shared understanding of policies (Tjale and Mofokeng, 2023). In public sector settings, effective communication has also been shown to enhance trust, reduce ambiguity (Maphumulo and Mafini, 2023).

"Policies are there, but how they're applied is another story. Sometimes what's on paper isn't what happens in practice." (Participant 8)

"It's top-down. They tell us the policies, but don't always follow up or create channels for real engagement." (Participant 16)

These findings reiterate Naidoo and Van Rensburg's (2021) concern that in many public institutions, policy communication tends to be unidirectional, focused on instruction rather than dialogue. Without opportunities for staff feedback or contextual adaptation, policy compliance risks becoming superficial or inconsistent across units (Mokoena and Govender, 2024).

"We sometimes learn about policies informally, not from HR. That creates confusion, especially when processes differ between departments." (Participant 15)

"The suggestion boxes are good, but there's little follow-up. We don't know what happens with the feedback." (Participant 4)

As supported by Nkomo (2022), effective policy dissemination in public institutions should be participatory, iterative, and aligned with the organisational culture.

HRM's Role in Conflict Resolution and Culture Building

Participants consistently acknowledged the role of HRM in fostering a healthy organisational culture and resolving interpersonal and departmental conflicts.

"*When there's a conflict, HR steps in, listens, and helps us find a solution. That builds trust."* (Participant 27)

"They treat us with respect and handle complaints seriously. Even when there's a disagreement, we feel heard." (Participant 13)

"*HR has a role in reminding us of the values we should uphold. They're not just about policies, they shape the environment we work in."* (Participant 5)

These perspectives align with research by Mokoena and Govender (2024), who argue that conflict resolution mechanisms are a strategic HRM function that supports organisational learning, fairness, and long-term stability. In the public sector, where diversity, bureaucracy, and complex mandates intersect, the ability of HRM to manage conflict constructively is a critical enabler of performance and transformation (Maphumulo and Mafini, 2023).

“The workshops on respect and ethics help. They remind people how to treat one another.” (Participant 23)

“We come from different backgrounds and regions. HR helps unify us by reinforcing values and encouraging collaboration.” (Participant 30)

“HR does its best, but without management backing, their interventions don’t always go far enough.” (Participant 8)

These findings are supported by Nkomo (2022), who notes that in many public organisations, HRM’s influence is limited by institutional silos, political dynamics, or resistance from line management. Scholars such as Naidoo and Van Rensburg (2021) advocate for HRM to play a more active role in culture-building by integrating values-based leadership, emotional intelligence training, and change management support into its broader strategy.

Table 2 presents a consolidated summary of the key findings derived from the thematic analysis of participant interviews. It outlines six core themes that capture employee perceptions of HRM practices within the public sector regulatory context.

TABLE 2: SUMMARY OF RESULTS AND KEY FINDINGS

Theme	Key Findings	Illustrative Participant Quotes
HRM as a Strategic Enabler	HRM is viewed as central to aligning workforce with strategic goals, beyond administrative tasks.	"HR is the one that provides the workforce to meet the objectives." – P22 "HR is critical in ensuring we have the right people." – P35
Recruitment, Selection, and Talent Management	Structured processes exist, but internal succession and talent development need improvement.	"We rely too much on external recruitment." – P31 "There’s talent in the organisation, but we’re not grooming people enough." – P19
Training and Development	Training supports compliance and adaptability but is often irregular and not tailored to real needs.	"Training helps us stay current with regulations." – P2 "Some workshops are too general." – P26
Wellness and Employee Support	Wellness programmes are valued, but access and consistency vary across units.	"Wellness is taken seriously." – P33 "We don’t all get the same opportunities." – P17
Communication and Policy Dissemination	HRM engages through sessions and roadshows, but gaps remain between policy and implementation.	"They explain policies in sessions." – P10 "Policies are there, but how they’re applied is another story." – P8
Conflict Resolution and Culture Building	HRM facilitates fair conflict resolution and promotes an ethical organisational culture.	"HR steps in, listens, and helps us find a solution." – P27 "HR reminds us of the values we should uphold." – P5

Source: Authors

Each theme is accompanied by a description of the key insights and illustrative quotes, providing evidence of the strategic and operational contributions of HRM. The table also highlights areas requiring improvement, such as inconsistent implementation, limited internal talent development, and uneven access to support services. By creating these insights, the table reinforces the study's central argument that HRM, when effectively integrated and supported, plays a critical role in enhancing organisational performance, regulatory compliance, and employee engagement.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The findings of this study highlight several implications for HR practitioners and public sector leaders seeking to enhance the strategic value of HRM within regulatory environments.

- Integrate HRM into Strategic Planning Processes

Given that HRM is viewed by employees as a strategic enabler, HR leaders must be actively involved in institutional planning forums (Ulrich, Younger and Brockbank, 2021; Budhwar, Mellahi and Singh, 2022). HR professionals should not merely execute staffing mandates but should contribute to forecasting skills needs, succession planning, and aligning human capital strategies with regulatory goals. This integration can bridge the gap between workforce capacity and organisational mandates.

- Strengthen Internal Talent Pipelines and Succession Planning

Managers should prioritise developing and retaining internal talent rather than defaulting to external recruitment. A structured succession planning framework, complemented by mentorship, career development pathways, and leadership training, can build institutional memory, reduce recruitment costs, and improve morale (Maphumulo and Mafini, 2023; Armstrong and Taylor, 2023).

- Institutionalise Targeted and Equitable Training Programmes

Training should be aligned with actual operational needs and regulatory developments. The organisation would benefit from establishing personal development plans (PDPs), regular training needs analyses (TNAs), and digital learning systems to promote continuous, tailored learning. Equitable access across regions and levels must also be ensured to promote fairness and competency growth (Naidoo and Van Rensburg, 2021; Tjale and Mofokeng, 2023).

- Formalise Wellness Programmes Across All Units

Wellness must be embedded into organisational policy rather than delivered through ad hoc initiatives (Nujjoo, van Zyl and Rothmann, 2023; George and Tuvesson, 2022). A formal wellness strategy, including mental health services, financial counselling, and psychosocial support, should be standardised across departments and monitored for participation and effectiveness.

- Enhance Two-Way Communication and Feedback Mechanisms

While employees acknowledged efforts at policy communication, there is a need for improved engagement and follow-through. HRM should strengthen two-way communication platforms such as structured feedback loops, policy forums, and anonymous reporting tools to improve employee voice and encourage participatory governance (Mokoena and Govender, 2024; Naidoo and Van Rensburg, 2021).

- Empower HRM in Conflict Resolution and Culture-Building

HRM should be equipped with the authority and resources to enforce dispute resolution processes and influence workplace culture, including training managers in people-centred leadership, creating values-based workshops, and actively monitoring organisational climate (Ngwenya and Moyo, 2023; Maphumulo and Mafini, 2023).

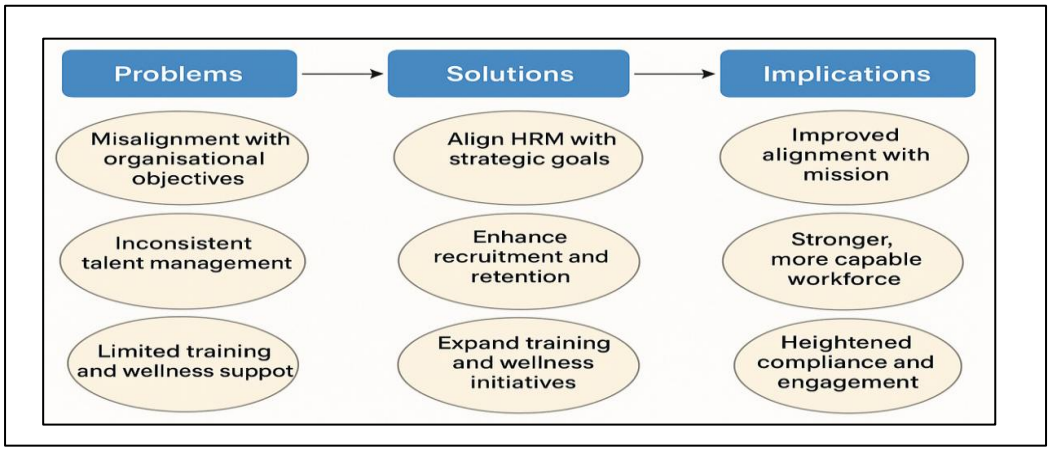
- Standardise Implementation Across Regions and Departments

Many concerns raised by employees related to inconsistency in the application of HR policies, access to programmes, and follow-up support. Managers should audit regional implementation patterns and ensure standard operating procedures are uniformly applied to enhance fairness, compliance, and accountability (Ramphal and Nel, 2022; Geldenhuys and Fourie, 2022).

FRAMEWORK FOR STRATEGIC HRM PRACTICES IN PUBLIC SECTOR REGULATORY INSTITUTIONS

This conceptual framework illustrates the relationship between HRM challenges, strategic interventions, and organisational outcomes within a public sector regulatory context. The left section identifies key HRM problems such as fragmented communication, talent management gaps, and inconsistent wellness implementation.

FIGURE 1: FRAMEWORK FOR STRATEGIC HRM PRACTICES



Source: Authors

The central section highlights core strategic HRM practices including workforce alignment, targeted training, employee engagement, and policy integration. The right section outlines the intended organisational outcomes, most notably improved organisational effectiveness, ethical culture, and regulatory compliance. This diagram provides a visual summary of how context-specific HRM interventions can transform institutional challenges into strategic opportunities, thereby reinforcing HRM's role as a driver of sustainable public sector performance.

CONCLUSION

This study set out to explore the strategic role of HRM in a South African public sector regulatory body through a qualitative lens. The findings illustrate that HRM is perceived by employees not merely as a support function but as a strategic contributor to institutional success. Participants highlighted the significance of HRM in aligning the workforce with organisational goals, driving compliance, supporting employee wellness, and cultivating a values-based organisational culture.

However, inconsistencies in implementation, talent development gaps, and limited participatory communication channels indicate areas requiring focused intervention. To address these, HRM must evolve into a fully integrated and empowered partner within public institutions, equipped with the tools, authority, and strategic insight to influence both policy and practice. By adopting the practical recommendations outlined above, public sector institutions can unlock the full potential of HRM to enhance institutional alignment, regulatory performance, and workforce resilience, ultimately contributing to more effective, ethical, and people-centred governance.

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THE EFFECT OF TALENT MANAGEMENT DIMENSIONS ON TALENT RETENTION OF TVET COLLEGES' LECTURERS

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ABSTRACT

Talent management (TM) is a critical strategic issue for higher education institutions (HEIs) in South Africa (SA), given its impact on institutional performance. Retaining academic talent remains a challenge in this highly competitive work environment. This study aimed to investigate the effect of specific TM dimensions—talent training and development (TT&D), performance management (PM), and compensation—on talent retention of lecturers at public technical and vocational education and training (TVET) colleges in the North West province, SA. Quantitative research gathered data from 124 lecturers using self-completed questionnaires. Results revealed that most respondents considered leaving their positions, citing dissatisfaction with TT&D, PM, compensation, and TR practices. A strong positive correlation was found between TT&D and TR, compensation and TR, and a moderate positive correlation between PM and TR. The strategic development of policies to improve TT&D, PM, compensation, and TR practices at public TVET colleges is emphasized.

Keywords: academics; higher education institutions; talent management dimensions; talent retention

INTRODUCTION

The National Development Plan (NDP) seeks to have a post-school system in South Africa (SA) that provides quality learning opportunities to young people, adults who want to change careers or upgrade skills, people who have left school before completing their secondary education, and unemployed people who wish to start a career (National Planning Commission [NPC], 2012a). The NDP is supported by the Department of Higher Education and Training (DHET), which aims to develop capable and well-educated citizens who can sustain and diversify the South African economy to meet the development objectives of the country (ChaaCha and Oosthuysen, 2023), thus indicating that competent talent is indispensable in the academic environment. Marozva, Barkhuizen, and Mageza-Mokhethi (2024) posit that the higher education industry plays a key role in developing any country, and talented academics ensure that organisational objectives are met. To realise quality education, the Higher

Education & Training Research Agenda 2023-2028 developed a research focus area which recognizes that, as the technical and vocational education and training (TVET) colleges sector expands, it will need appropriately qualified and competent teaching staff to respond to the burgeoning student enrolments (DHET, 2023). The significance of academics in the performance of higher education institutions (HEIs) remains uncontested (Davies and Davies, 2010), and HEIs consequently require academic talent for lecturing, researching, administrative duties, and student support (Pedro, Alves and Leitão, 2022).

Talent attraction, development, and retention have been acknowledged as significant challenges facing companies worldwide (Gallardo-Gallardo, Thunnissen, and Scullion, 2020). It is conceded that talent management (TM) has predictive potential for various individual and organizational outcomes in the Southern African context (Barkhuizen, Lesenyeho, and Schutte, 2020). Increased talent management concerns have been presented as a growing concern for the HEIs (Barkhuizen *et al*., 2020; Musakuro and de Klerk, 2021). 2021), in a competitive workplace era and a war for talent fuelled by competition among HEIs and with the private sector (Musakuro and de Klerk, 2021). It is acknowledged that overcoming some of the challenges faced by TVET colleges is crucial, given that the South African government recognised the significance of the TVET sector in the NDP, thus becoming a major driver in tackling poverty, inequality, and unemployment (Sithole, Wissink, and Chiwawa, 2022). DHET Research Agenda 2023-2028 key theme of recruitment and retention of lecturers in PSET institutions (DHET, 2023), cemented this study's focus on TR in the TVET colleges.

The TVET colleges have unfortunately been exposed to various challenges since the abolishment of the apartheid era in SA, such as, among others: low student enrolment levels (NPC, 2012a; Paterson, 2016; DHET, 2019b; Sithole *et al*., 2022); unattractive image (Chang and Shehadeh, 2020; DHET, 2020); low throughput rate (NPC, 2012b; Badenhorst and Radile, 2018; DHET, 2021); inadequate student support services (DHET, 2020; Tewari and Ilesanmi, 2020); high level of unqualified and under-qualified teachers (Chong and Ho, 2009; NPC, 2012a; Badenhorst and Radile, 2018; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2002; Matabane, Matabane, Moloib, and Sibaya, 2022); lack of funding (NPC, 2012a; Tewari and Ilesanmi, 2020; Matabane *et al*., 2022); lack of resources (UNESCO, 2002; UNESCO, 2015; Education, Training and Development Practices Sector Education and Training Authority [ETDPS-SETA], 2018).

Factors underlying employee retention outside HEIs include, among others: TR, TT&D, PM, compensation, management support (MS), succession planning (SP) (Kaushik and Gaur, 2022). Talent management practices notably emerge as pivotal determinants of employee retention, contributing to an organization's effectiveness and overall productivity (Kaushik and Gaur, 2022). Research on HEIs' talent management in SA Africa revealed predominant

attention on universities and neglect of TVET colleges (Theron *et al*., 2014; Barkhuizen *et al*., 2020; Saurombe and Barkhuizen, 2022). To fill this gap, this study was pursued to investigate the effect of specific talent management dimensions, viz., TT&D, PM, and compensation, on talent retention of lecturers at the public TVET colleges in the North West province, SA. The present study sought to contribute to improved TR of lecturers at the public TVET colleges in the North West province in SA by making recommendations on TT&D, PM, and compensation practices aimed at retaining lecturers based on the findings of this study. Based on the above discussions, the following secondary research objectives were developed:

SRO1: To examine the effect of talent training and development on talent retention.

SRO2: To investigate the effect of performance management on talent retention.

SRO3: To examine the effect of compensation on talent retention.

LITERATURE REVIEW AND PROBLEM INVESTIGATION

Talent retention

TR is the implementation of policies and practices that encourage talent to be more attached to their companies and thus stay longer (Mazlan and Jambulingam, 2023). TR refers to the plans a business creates to reduce the likelihood of staff turnover and the procedures it implements to boost top TR (Urme, 2023).

Most higher education institutions' current talent management strategies are ineffective because they fail to ensure TR (Chethana and Noronha, 2023). Inability to attract and retain competent staff in the South African Post-School Education and Training (PSET) system was identified as a weakness in the Department of Higher Education and Training Strategic Plan 2020–2025 (DHET, 2019a). Retention of talented employees is necessary for companies' competitive edge (Kumar, 2020; Mazlan and Jambulingam, 2023). Employee turnover rate has increased in recent years and is associated with turnover costs such as replacement costs, loss of productivity, and brand image (Kumar, 2020). Retaining talent is therefore imperative for organisations as it improves productivity, innovation, and overall organizational success and lowers turnover costs (Urme, 2023). Regarding higher education institutions, Al Aina and Atan (2020) submit that TR contributes to their sustained and improved business performance.

Kaushik and Gaur (2022) found that talent management techniques positively and significantly influenced employee retention. De Koker, Schutte, and Barkhuizen (2022) established that voluntary turnover rates among talented academics are alarmingly high, especially in developing countries where there is a need for skilled and competent staff. A study by

Lesenyeho, Barkhuizen, and Schutte (2018) established that more than half of early-career academics voluntarily quit their jobs.

Talent training and development

Employee training is considered a systematic process of changing work behaviour and level of competencies (knowledge, abilities, and skills), including employee motivation, which helps to reduce the gap between subjective qualifications and objective qualifications and to increase labour productivity (Urbancová, Hudáková, and Petru, 2021). Talent development (TD) is developing skills and competencies of employees considered 'talent' that match employees' short and long-term endeavours with organizational needs (Kaliannan, Darmalinggam, Dorasamy, and Abraham, 2023).

Barkhuizen and Gumede (2021) concede that the repercussions of poorly applied talent development practices include job dissatisfaction and consideration of quitting jobs. Consequently, organisations without continuous T&D of their employees will not develop in today's highly competitive environment (Urbancová *et al.,* 2021). T&D provides benefits of additional skills, knowledge, and abilities, and produces intangible results such as high self-esteem, enhanced morale, and satisfaction of subordinates (Nguyen and Duong, 2020). Training improves work efficiency, develops work interests, satisfies employees, and strengthens the commitment to the organization, leading to the retention of employees (Kalyanamitra, Saengchai, and Jermsittiparsert, 2020).

Results of studies indicates that T&D is fundamental in increasing employee retention (Nguyen and Duong, 2020); have a strong and significant effect on employee retention (Malik, Baig, and Manzoor, 2020); and helps employees to develop new goals and careers that results in increased level of satisfaction and increased retention in the same organisation (Kalyanamitra *et al*. (2020). Based on what is already known about TT&D concerning TR, the following hypothesis was developed:

H1: Talent training and development have a positive relationship with talent retention.

Performance management

PM is a continuous process of identifying, measuring, and developing the performance of individuals and workgroups and aligning performance with the organization's strategic goals (Aguinis and Burgi-Tian, 2021). In higher education, performance management is an activity where universities use the information acquired through performance measurement to achieve and demonstrate progress towards a predetermined set of goals (Kivistö, Pekkola, Berg, Hansen, Geschwind, and Lyytinen, 2019).

Public TVET college educators' governance by the school-oriented Employment of Educators Act No. 76 of 1998 challenges public TVET colleges as it subjects them to the same performance appraisal system as school teachers (Black, 2022). Musakuro and de Klerk (2021) established that HEIs in SA do not have a formal PM policy that should guide PM practices, and line managers at the HEIs do not have complete knowledge and skills to conduct PM. PM is also identified as one of the most common critical skills gaps for TVET college managers (ETDPS-SETA, 2018). Urme (2023) indicates that employees can identify their strengths and areas for progress with the help of clear performance standards, periodic reviews, and helpful feedback. Effective PM clearly defines jobs, enables employee engagement, clarifies employees' goals, and assists organisations to clarify their goals (Luthia, 2022). Given the importance of the PM system in the organisation, Luthia (2022) suggests that the PM system should be considered as a talent management strategy instrumental in realizing business value and rewarding the individual contributions of employees.

Studies have established that performance appraisals significantly impact perceptions of employee retention (Alajlani and Yesufu, 2022; Malik *et al*., 2020). Participants in a study by Barkhuizen *et al.* (2020) pointed out that more attention should be paid to performance evaluation. Given the above discussion about PM and TR, the following hypothesis was developed:

H 2: Performance management has a positive relationship with talent retention

Compensation

Compensation is the entire sum of monetary and non-monetary pay agreed to be given to an employee by the employer in return for work performed as required (Bussin and Brigman, 2019). Employees' cumulative rewards for their dedication and effort in their jobs and contribution to an organization's success are called compensation and benefits (Beijer, Peccei, Van Veldhoven, and Paauwe, 2021).

Compensation is a key challenge faced by the TVET subsystem in SA since the DHET Strategic Plan 2020-2025 acknowledged that highly qualified professional staff are employed and remunerated at the same level as administrative staff, resulting in qualified staff leaving the system when they find better opportunities, and consequently resulting in the system with unsuitably qualified staff to support students (DHET, 2019a). The TVET colleges' lecturers have lower status than general school teachers and are poorly remunerated compared to their industry counterparts (Papier, 2017) and cannot compete with experienced artisans and specialists from the private sector, making it exceedingly challenging to entice those with industry experience to join the TVET sector (Black, 2022).

Employees, according to Urme (2023), are more likely to feel satisfied with their jobs when they believe that they are being appropriately paid for their labour, and consequently, employee retention rates increase because contented workers are less likely to look for work elsewhere. Enterprises can appeal, retain, and motivate employees to achieve high employee performance with the help of a reward management system (Manzoor, Wei, and Asif, 2021).

Research has shown that dissatisfaction with compensation is one of the main reasons employees leave organisations (Kumar, 2020; Mabaso and Moloi, 2016). Alansari and Javed (2021) established that incentives are designed to attract capable people, motivate them towards superior performance, and retain them over an extended period. Studies established that benefits and compensation affect employee retention positively and significantly (Alajlani and Yesufu, 2022; Kalyanamitra *et al*., 2020). Based on the above discussion, the following hypothesis was developed:

H3: Compensation has a positive relationship with talent retention.

RESEARCH OBJECTIVES AND HYPOTHESES

The primary objective of this study was to investigate the effect of specific talent management dimensions, viz., TT&D, PM, and compensation, on talent retention of lecturers at the public TVET colleges in the North West province, SA.

The following secondary objectives have been formulated to support the primary objective:

SRO1: To examine the effect of talent training and development on talent retention.

SRO2: To investigate the effect of performance management on talent retention.

SRO3: To examine the effect of compensation on talent retention.

The following hypotheses have been developed based on the literature review:

H1: Talent training and development have a positive relationship with talent retention.

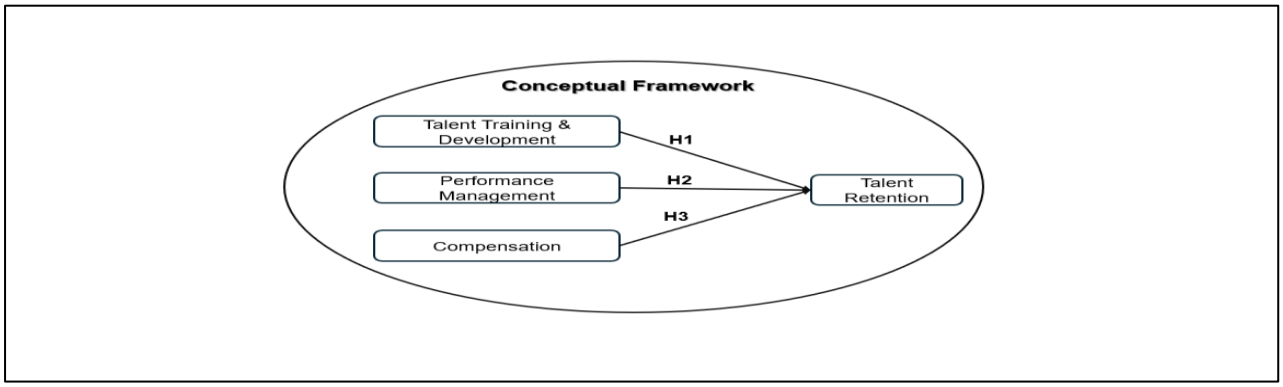
H 2: Performance management has a positive relationship with talent retention.

H3: Compensation has a positive relationship with talent retention.

Research framework and theoretical underpinning

This study is underpinned by the social exchange theory (SET) by Blau (1964), from the biases that high-quality social relationships that result from positive social exchanges, such as T&D, PM, and compensation from public TVET colleges, can reinforce beneficial conduct and initiate positive transactional chains, such as TR of lecturers in the public TVET colleges (Cropanzano *et al.,* 2017). The conceptual framework, in Figure 1, presents the dependent variable (TR) and independent variables (T&D, PM, and compensation).

FIGURE 1: CONCEPTUAL FRAMEWORK



RESEARCH METHODOLOGY

Research design

This study is grounded in a positivist research paradigm associated with objectivism, quantitative data collection methods, and statistical analysis involving hypothesis testing to obtain “objective” truth (Creswell and Creswell, 2023). The quantitative research approach, looking at numbers and statistical interpretation of the data (Creswell and Poth, 2017), was considered suitable for using structured, predetermined response options in a formalised procedure (Burns and Veeck, 2020), and a descriptive research design was used.

Sample and procedure

The target population (N = 674) of lecturers yielded a sample of 214 self-completion questionnaires distributed in person to selected campuses using a proportional cluster sampling technique. Received and usable questionnaires from respondents amounted to 124 (66.4% response rate), and acceptable response rates have been reported from 40% to 75% across different specialties (Sataloff and Vontela, 2021). The ethics clearance certificate issued by the North-West University Institutional Research Ethics Regulatory Committee (NWU-IRERC), a letter of support issued by DHET (Research Coordination, Monitoring and Evaluation [RCME]), and an application form from the DHET (DHET 004: Appendix 1) were submitted to the three public TVET colleges in the North West province guided by Policy Standard on Approval to Conduct Research in Public Colleges: DHET 004 (DHET, 2015).

Measuring instrument

The adapted questionnaire was pretested with volunteer public TVET college lecturers and a few lecturers at the North-West University (Mahikeng campus). The structure and design of the self-completion questionnaire consisted of nine demographic questions and 42 questions related to talent management variables, including TT&D (8), PM (16), CM (7), and TR (8).

Statistical analysis

Statistical Package for the Social Sciences (SPSS version 28.0) (International Business Machines Corporation [IBM], 2021) was used for data analysis. Measure of sample adequacy (MSA) for determining sample size adequacy, exploratory factor analysis for factor structure of the measuring instruments, reliability analysis, and descriptive data analysis for the sample dataset description were conducted (Burns and Veeck, 2020). A 5-point Likert rating scale was used (Chetwynd, 2022), and Cronbach's alpha was used to measure the consistency of responses to a set of questions to measure a particular concept (Hair, Black, Babin, and Anderson, 2019; Chetwynd, 2022). Pearson product-moment correlation was used to measure the linear relationship between two variables, and the t-test was used to test the hypothesis (Burns and Veeck, 2020).

RESULTS

Reliability and validity

Kaiser-Meyer-Olkin (KMO) test values were above 0.7, and values ranging from 0.7 to 0.9 are acceptable (Creswell and Creswell, 2023). Additionally, the values of Bartlett's test of sphericity for all variables were zero. All Cronbach's alpha coefficients obtained were above 0.8, implying relatively high internal consistency of the instrument (Hair *et al.,* 2019).

Demographic characteristics

Most of the respondents were females (54.0%), aged between 36 and 50 years (64.5%), employed for less than 11 years (55.6%), and without a professional teaching qualification (57.3%) and industry experience (63.7%). Respondents were overwhelmingly Black/African (87.9%), lecturers (78.2%), permanently employed (90.3%), and from the commerce department (73.4%), and without an occupational certificate (79.8%). Respondents' academic qualifications varied among diploma/advanced certificate (20.2%), bachelor's degree or advanced diploma (32.3%), and an honours degree (25.0%), constituting a total of 77.5%.

Descriptive statistics

Respondents, on average, had a neutral view about TT&D, PM, key variables considered for performance evaluation, and significant reasons for performance evaluation; however, they disagreed with TR and compensation practices at public TVET colleges. Respondents often searched for another position outside their organization when considering certain conditions concerning resignation. Respondents, however, revealed that they sometimes wanted to leave their current position and planned to leave the current organisation. Respondents agreed that TR practices, remuneration, career development opportunities, T&D practices, promotion opportunities, and talent attraction practices were the primary factors they were

dissatisfied with that would most likely make them leave a TVET college. An overwhelming majority of the respondents (90.3%) considered leaving their organisation.

Correlation and testing the hypotheses

Pearson correlation analysis results presented in Table 1 show a high positive correlation between TR and TT&D, and between TR and compensation; however, a moderate positive correlation is noted between TR and PM. The p-values of the following paths: from TTA to TR, PM to TR, and C to TR are all insignificant at the 5% significance level (p-values > 0.05). This implies that the independent variables TT&D, PM, and C do not significantly inform the dependent variable TR at the public TVET colleges in the North West province.

TABLE 1: CORRELATION MATRIX OF THE STUDY VARIABLES AND HYPOTHESIS TESTING

Correction					**Hypothesis testing**				
	TT&D	TR	PM	C	H#	DV	t-value	p-value	Decision
TT&D	1				H1	TR	.367	.714	Not supported
TR	.863*	1							
PM	.581**	.647**	1		H2	TR	1.166	.243	Not supported
C	.686**	.743**	.579**	1	H3	TR	1.734	.083	Not supported

**. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed)., indicating Pearson's correlation coefficients (Sig. -2 tailed, n= 124). H#. Hypothesis, DV. Dependent Variable.

Source: Developed by authors

Discussion of results

The findings indicate that there is a positive correlation between TT&D and TR. This concurs with previous studies that established a positive relationship between T&D and employee retention (ER) in their findings (Kalyanamitra *et al*., 2020; Malik *et al.,* 2020; Nguyen and Duong, 2020). This study's findings revealed a positive correlation between performance management and TR. This supports previous studies, which established a positive correlation between performance management and talent retention (Barkhuizen *et al.,* 2020; Alajlani and Yesufu, 2022). This study's findings revealed a positive correlation between compensation and TR. This is supported by studies that revealed compensation positively correlates with employee retention (Maru and Omodu, 2020; Sorn *et al*., 2023). None of the hypotheses of this study are supported as their p-values are above 0.05 as depicted in Table 1.

This study determined a low retention of talent of lecturers in the public TVET colleges in the North West province. An overwhelming majority of respondents (90.3%) indicated that they considered leaving their organization, confirming the results of Lesenyeho *et al.* (2018) study, which established high levels of voluntary turnover intentions among academic staff. Poor TT&D, PM, and compensation have probably influenced the low levels of talent retention in the public TVET colleges, which encouraged voluntary talent turnover intentions.

This study used the social exchange theory (SET) (Blau, 1964) to help understand TR, in which employees are expected to be loyal and stay longer in exchange for better treatment, such as TT&D, PM, and compensation. The findings of this study validate the applicability of the SET in the context of HEIs, specifically public TVET colleges, given that high-quality social relationships that result from positive social exchanges, such as TT&D, PM, and compensation of public TVET college lecturers, can reinforce beneficial conduct and initiate positive transactional chains, such as TR of public TVET college lecturers.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

This study has important managerial implications as it highlights the importance of having sound TT&D, PM, and compensation policies and practices geared at TR of lecturers at public TVET colleges. Training and development of lecturers is expected to be tailored to the needs of lecturers, and public TVET colleges' lecturers' performance should be continuously and fairly evaluated and recognised through PM practices, and appropriately compensated to ensure TR. Respondents were, however, particularly dissatisfied with TR practices, and this consequently calls for the review of TT&D, PM, compensation, and TR policies and practices to realise the desired TR. Therefore, public TVET colleges' management must take note of this study's findings and take proactive action to prevent turnover due to poor TT&D, PM, and compensation of their lecturers. Therefore, this implies that TT&D, PM, and compensation should be considered a strategic priority for retaining talent.

The study's cross-sectional nature presented a limitation of data collection at one point, thus limiting cause-and-effect inferences over the longer term. The respondents in this study were limited to public TVET colleges in the North West province, and, consequently, the results cannot be generalised to other TVET colleges in SA.

The following practical recommendations are presented:

- Consider talent management as a strategic priority at the public TVET colleges, which is instrumental in helping public TVET colleges realise their strategic priorities, such as, among others, improved organisational performance and talent retention.

- Review of TM policies, strategies, and practices, key among others, TT&D, PM, compensation, and TR, intended to realise desired TR.
- Development of sound TM policies, strategies, and practices, including TT&D, PM, and compensation, aimed at TR of lecturers at public TVET colleges.

The following future research recommendations are presented:

- A study with a larger sample composed of several public TVET colleges in SA to allow generalization of results.
- A comparative study of both private and public TVET colleges in SA to establish the influence of TT&D, PM, and compensation on the retention of lecturers.
- A pluralistic research approach study will be used to explain quantitative results in more detail, and an exploratory study will be conducted to explore other talent management dimensions hindering TR of lecturers, including TVET colleges.

In recognition of the conclusions made, practical and future research recommendations are presented for the benefit of policymakers, practitioners, and researchers.

CONCLUSIONS

This study aimed to determine the effect of specific talent management dimensions, viz., TT&D, PM, and compensation, on talent retention of lecturers at the public TVET colleges in the North West province, SA. The study provides empirical evidence on the relationship between its variables, as it found a high positive correlation between TT&D and TR, compensation and TR, and a moderate positive correlation between PM and TR. The three hypotheses were not supported after testing. This study provides relevant insights from theoretical and empirical perspectives in talent management within the HEIs. Firstly, theoretical understanding is broadened by introducing TT&D, PM, and compensation as independent variables influencing TR from the perspective of HEIs, particularly public TVET colleges. Secondly, this study provided a theoretical implication by giving further empirical evidence on the SET, in which talent management practices have been hypothesised as resources for TR. The findings support the proposition of the SET that high-quality social relationships that result from positive social exchanges can initiate positive transactional chains.

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THE RELATIONSHIP BETWEEN WORKPLACE BULLYING, WORKPLACE HARASSMENT ON WORK CLIMATE AND EMPLOYEE PERFORMANCE

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ABSTRACT

The retail sector plays a vital role in the economies of Namibia and South Africa by contributing to lower unemployment rates. Creating and maintaining a positive work environment is essential for enhancing the productivity of retail workers.

This study explored the relationship between workplace bullying, workplace harassment and employee performance. A quantitative correlational study approach was used to investigate trends and patterns between workplace bullying, harassment and employee performance in retail organisations. Data was conveniently collected from the major retail outlets (grocery) in Windhoek and 256 usable questionnaires were obtained.

Correlation results revealed a strong overlap between bullying and harassment ($r = .83$, $p < .001$), indicating that these behaviours frequently co-occur. Both bullying and harassment were significantly and negatively associated with workplace climate and employee performance, while workplace climate showed a positive correlation with performance ($r = .19$, $p = .002$). However, regression analyses demonstrated that bullying was the strongest predictor of employee performance, explaining 6.4% of the variance, whereas harassment and climate did not add significant predictive power. Mediation patterns suggested that climate affects performance indirectly through bullying and harassment, consistent with Conservation of Resources and Social Exchange perspectives.

These findings support Social Cognitive Theory and the Job Demands–Resources Model, highlighting bullying and harassment as resource-draining job demands and positive climates as resource enhancing conditions.

As the first empirical study of its kind in Namibia, the results contribute to the regional literature and provide practical guidance for organisations to design policies, training, and anti-bullying strategies that foster healthier and more productive workplaces. Organisations in the retail sector are encouraged to raise awareness and provide training to create healthier workplaces,

in addition anti-bullying policies and support systems should be implemented to reduce harmful conduct and improve worker productivity and wellbeing.

Keywords: workplace bullying; workplace harassment; employee performance; work climate

INTRODUCTION

The retail industry is one of the largest contributors to the economies of Namibia, offering numerous employment opportunities that help reduce unemployment rates and stimulate economic development. The retail sector provides jobs to individuals from diverse backgrounds, including those with limited formal education, enabling them to meet their basic needs and reducing poverty and unemployment. Employees in this sector play a critical role in shaping customer experiences, brand perceptions, and the overall profitability of retail businesses (Ward and Pillay, 2023) and to perform effectively, retail workers require a supportive and positive work environment. A favourable workplace reduces employee turnover, enhances job satisfaction, and contributes to improved organisational outcomes (Nizamuddin and Mokhtar, 2024)

The significance of the retail industry is immense, however, the retail sector in Namibia has also seen a growing issue: workplace harassment and bullying. Recently there is increasing reports which show that workplace stress resulting from such behaviours creates hostile and toxic environments, lowering employee morale and performance (Robert, 2018). Eliminating bullying and harassment fosters more positive work conditions, which can significantly improve employee performance, conversely, when toxicity is present, affected employees often perform poorly (Chia and Kee, 2018). Awareness around workplace bullying and harassment has increased due to their serious consequences. A toxic work environment can result in significant legal consequences for employers (Namie, 2020) and employees exposed to bullying are less motivated and less likely to contribute meaningfully to the organisation's success, often resulting in poor performance and high staff turnover. Following on this, this study sought to explore how workplace bullying and harassment negatively impact the work environment and, in turn, employee performance particularly within retail settings.

LITERATURE REVIEW AND PROBLEM INVESTIGATED

Workplace bullying and harassment are increasingly prevalent issues that negatively affect organisational environments, ultimately undermining employee performance. Such behaviours have detrimental consequences for employees, often leading to fear, heightened emotional exhaustion, and long-term declines in overall job performance. Within the retail sector, diminished employee performance poses significant challenges for organisational effectiveness and service delivery. Moreover, the presence of bullying and harassment creates pressure on employees to resign, while also disrupting their rest patterns and

contributing to fatigue, low self-esteem, and reduced confidence (Vessey *et al*., 2010). Hostile work environments not only impair employees' attitudes towards their roles but also disrupt the broader work climate (Kurniawan, Bamumin, and Kusnandar, 2023). As a result, workplace bullying and harassment are recognised as major contributors to declining organisational performance and deteriorating employee well-being.

Addressing these challenges requires an indepth understanding of the underlying causes of bullying and harassment to inform effective strategies that foster healthier work environments. Implementing robust policies and interventions can reduce absenteeism, strengthen employee relationships, and promote mutual respect. An ideal workplace environment would be free from harassment and bullying, enabling staff to build positive relationships, remain engaged, and deliver high-quality services. Enhancing such positive working conditions not only improves employee determination and motivation but also contributes to optimal individual and organisational performance (Anitha, 2014).

LITERATURE REVIEW

Workplace Bullying and Employee Performance

Pradhan and Joshi (2019) examined the correlation between bullying, work environment, and employee performance using a mixed-method design with a convenience sample. Their findings revealed a strong negative association, with the work environment exerting the greatest impact on performance, followed by bullying. The study recommended policies and training interventions to combat inappropriate workplace conduct. Similarly, Mehmood *et al*. (2020) confirmed that workplace bullying reduces employee productivity and job effectiveness, with psychological well-being further mediating this relationship. Their findings underscored the importance of interventions aimed at minimising unpleasant incidents in the workplace to safeguard employee performance.

In support of these conclusions, Yahaya *et al*. (2012) investigated work-related bullying, person-related bullying, and workplace bullying more broadly, reporting significant associations with employee performance. They suggested strategies to create a more positive work environment conducive to effective performance. Malik and Sattar (2020) also explored this relationship in the Pakistani context, using a cross-sectional, self-reported survey design. Their study confirmed a significant negative relationship between bullying and performance and highlighted a research gap due to the limited literature in that region. They recommended longitudinal designs for future research and stressed the importance of awareness campaigns and interventions for managers and psychologists to create a positive work climate.

Devonish (2013) extended this line of research by examining psychological well-being, job satisfaction, and work-related depression as mediating and moderating variables in the

bullying–performance relationship. Using a cross-sectional survey of 262 employees in the Caribbean, the study found that depression partially mediated the relationship, while job satisfaction interceded the correlation between bullying and task performance. These findings highlighted that bullying can directly and indirectly impair employee performance. However, Devonish (2013) acknowledged methodological limitations and recommended longitudinal designs for stronger causal inference.

In contrast, Robert (2018) reported somewhat divergent findings. Using a quantitative survey of 250 participants, the study found a strong correlation between bullying and job stress, but only a weak correlation between bullying and performance. The study suggested the use of qualitative methods to capture richer insights into employee experiences, as reliance on questionnaires may have limited the validity of the results. Robert (2018) also highlighted the lack of generalisability due to the limited scope of the sample, recommending that future studies focus on developing proactive workplace policies and monitoring systems to address bullying.

Workplace bullying is negatively related to employee performance, although the strength of this relationship varies across studies and contexts. Mediators such as psychological well-being, job satisfaction, and depression, as well as contextual factors like the organisational environment, play an important role in shaping the impact of bullying on performance. The existing research also reveals gaps, particularly the need for longitudinal and qualitative studies, as well as greater exploration across diverse organisational and cultural contexts.

Workplace Harassment and Employee Performance

Ngwane (2019) examined harassment among academic and non-academic employees in South Africa using stratified random sampling and questionnaires. The study confirmed that harassment negatively influences employee performance and recommended the implementation of training and counselling interventions, as well as legislative frameworks, to prevent workplace harassment.

Further support is provided by Muhereza (2024), who combined surveys and interviews with 60 employees using a mixed-methods design. Their findings revealed that harassment lowers morale, motivation, and performance, with detrimental effects on corporate success. The study attributed these outcomes to the absence of strong anti-harassment regulations and recommended awareness campaigns, training, and therapeutic support for victims. More recently, Walker (2024) used a qualitative approach guided by ego depletion theory to investigate harassment and bullying in small and medium-sized organisations. Semi-structured interviews with 21 participants revealed consistent negative effects of harassment on both individual performance and organisational outcomes. The study stressed the

importance of awareness initiatives, training, and a focus on organisational culture to reduce workplace harassment.

Literature highlights that workplace harassment diminishes employee performance by fostering stress, disengagement, and reduced morale. While quantitative studies provide evidence of significant negative correlations between harassment and productivity (Ngwane, 2019), qualitative findings add depth by illustrating how harassment erodes psychological well-being and workplace culture (Walker, 2024). Across contexts, scholars agree on the necessity of robust anti-harassment policies, awareness programmes, and psychological support systems to mitigate these effects and create healthier work environments.

Workplace Bullying and Work Climate

Rosander and Salin (2023), using a longitudinal probability sample, demonstrated a reciprocal relationship: bullying thrives in hostile climates, while negative climates intensify bullying. They recommend that organisations identify vulnerable employees and implement measures to minimise toxic atmospheres. Similarly, Zahlquist *et al*. (2023) found that employees in hostile climates were more prone to role conflict and bullying, highlighting the influence of organisational climate on bullying behaviours. Hidaya *et al*. (2022), through a cross-sectional quantitative study, confirmed a negative but significant relationship, showing that unfriendly environments increase the likelihood of bullying. They emphasised the importance of creating a healthy climate to reduce conflict and distress.

Expanding on the role of leadership, Tuckey *et al*. (2022) adopted a qualitative interpretivist approach to examine organisational factors that foster bullying. Their findings revealed that ineffective leadership practices undermine the work climate, leaving organisations vulnerable to bullying. They recommend leadership development, positive workplace relationships, and attention to employee well-being as strategies to prevent bullying and foster a safe climate.

Sector specific evidence supports these findings. Yun *et al*. (2014), in a study of 134 nurses using the Korean Work Environment Scale and the NAQ-R, reported that poor work environments heightened bullying risks, while supportive climates reduced them. They recommend structural models and organisational policies that directly target environmental factors contributing to bullying. These studies highlight a cyclical relationship between bullying and workplace climate: hostile environments facilitate bullying, and bullying, in turn, deepens hostility. Ineffective leadership further amplifies this cycle, while supportive and structured climates can break it (Rosander and Salin, 2023; Zahlquist *et al*., 2023; Hidaya *et al*., 2022; Tuckey *et al*., 2022; Yun *et al*., 2014).

Workplace Harassment's Influence on Work Climate

Workplace harassment correlates strongly with toxic work environments, negatively affecting not only victims but also bystanders. Harassment erodes trust, diminishes psychological safety, and worsens the overall workplace climate. However, further research is still needed to explore causality (Einarsen *et al*., 1994). Shetty and Nithyashree (2017) recommended organisational policy reforms aimed at cultivating healthier workplace climates. Yet, a notable research gap persists: while much of the literature examines how a toxic climate enables harassment, fewer studies directly investigate how harassment itself deteriorates the work climate (Shetty and Nithyashree, 2017).

Einarsen *et al*. (1994) examined connections between social and organisational settings and workplace harassment using a postal questionnaire distributed to 4,200 individuals, of which 2,215 responded (47% response rate). Findings demonstrated a significant relationship between the frequency of bullying and harassment and all seven measured work environment factors. The results confirmed that both victims and observers of harassment experience the consequences of toxic work settings. This study recommended creating effective reporting mechanisms and raising awareness through programmes to mitigate harassment by highlighting its harmful effects.

Shetty and Nithyashree (2017), adopting a quantitative non-experimental cross-sectional survey with random sampling, investigated the impacts of workplace harassment on employees aged 20–60 years. Their study emphasised informed consent and voluntary participation, using a demographic and harassment experience tool to measure variables. Findings suggested the need for structured policies and guidelines to address harassment while promoting healthy climates and supporting employee success.

Despite such contributions, most existing studies highlight the way negative climates foster harassment rather than the reverse. Thus, a knowledge gap remains regarding how harassment itself generates toxic work environments. Addressing this gap would deepen understanding of workplace dynamics and help organisations design interventions that directly reduce harassment while improving the broader work climate

THEORETICAL PERSPECTIVE

The Social Cognitive Theory

Bandura’s Social Cognitive Theory (SCT) is highly relevant to workplace dynamics as it emphasises the role of observational learning, modelling, and imitation in shaping individual behaviour (Bandura, 1986). The theory posits that people learn not only through personal experiences but also by observing others in their environment. In the workplace, employees

often mirror the behaviours and attitudes of leaders and colleagues, which significantly influences performance and work culture (Rayes and Albelaihi, 2023). When applied to organisations, SCT highlights that managers who model positive behaviours can encourage employees to follow suit, thereby enhancing teamwork and productivity.

Research has shown that interventions grounded in SCT principles such as promoting social responsibility and accountability can effectively reduce bullying behaviours (Wei *et al*., 2023). By incorporating social and emotional learning principles into training, organisations can foster climates where employees feel empowered to report or intervene in bullying incidents. Such practices promote respect, accountability, and long-term organisational sustainability.

A number of strategies derived from SCT can be used to reduce bullying and harassment in workplaces. These include: Fostering empathy and support, enabling workers to raise concerns without fear of retaliation. Training programmes focused on self-efficacy and observational learning, helping employees understand the consequences of their actions and take proactive steps to prevent toxic behaviours (Rean and Shevchenko, 2022). Modelling positive behaviours, where reinforcement of constructive actions encourages imitation, while negative behaviours are discouraged through corrective measures (Manik *et al*., 2022).

The core SCT concepts of observation, reinforcement, and modelling are particularly useful in shaping workplace behaviours. Employees observe peers and leaders, learn from the consequences of actions, and adjust their own behaviour accordingly (Hardiyana and Maemonah, 2023; Oseramhen and Ehiremen Adesua, 2023). When leaders reward positive conduct and address negative behaviours, they set behavioural cues that guide others in the organisation.

In the context of workplace bullying and harassment, SCT explains how hostile behaviours can undermine employee performance and the overall work climate. Employees exposed to negative behaviours may internalise them or disengage, while supportive environments encourage confidence, resilience, and collaboration (Hidayat and Tannady, 2023). Furthermore, reciprocal determinism a central tenet of SCT emphasises the interaction between personal characteristics, behaviours, and environmental influences, illustrating how toxic climates perpetuate negative outcomes (Almulla and Al-Rahmi, 2023).

Thus, SCT provides a strong theoretical foundation for this study as it not only explains the relationship between bullying, harassment, employee performance, and work climate but also offers practical insights for designing interventions. By leveraging SCT principles, organisations can create healthy workplace environments that discourage bullying, enhance employee self-efficacy, and foster optimal performance (Swearer *et al*., 2014).

The Job Demands–Resources (JD-R) Model

The Job Demands–Resources (JD-R) Model provides a comprehensive framework for understanding how job demands and resources interact to influence employee performance and well-being. The model asserts that excessive job demands defined as aspects of work requiring sustained mental or physical effort can lead to stress, burnout, and reduced performance if not adequately balanced with resources. Conversely, job resources, such as autonomy, social support, and opportunities for professional development, can buffer the negative effects of high demands while promoting engagement, motivation, and growth (Wang *et al*., 2023).

Workplace demands often include workload, emotional pressures, and time constraints, whereas workplace resources encompass managerial support, feedback, and career development opportunities. The JD-R Model suggests that sufficient resources not only reduce the harmful effects of excessive demands but also enhance job satisfaction and work engagement, thereby fostering higher levels of performance (Yao *et al*., 2022). For this reason, organisations seeking to sustain employee well-being and productivity must simultaneously focus on lowering unnecessary demands and strengthening available resources.

Bullying and harassment in the workplace can be interpreted through the JD-R lens as critical job demands that undermine employee well-being and performance. Research demonstrates that exposure to bullying behaviours negatively affects productivity, teamwork, and motivation, while fostering hostile environments that reduce employee engagement (Gomez and Quintos, 2023). Similarly, bullying behaviours impose psychological strain that impairs employees' ability to cope with responsibilities, leading to burnout, reduced job satisfaction, and increased turnover intentions (Markovič *et al*., 2024).

The model also highlights the importance of equipping employees with resources to counteract such negative demands. For instance, training in conflict resolution and cognitive rehearsal has been shown to help nursing students cope with bullying, thereby enhancing resilience and professional development (Park and Choi, 2023). When organisations provide adequate resources such as supportive leadership, peer assistance, and skill-building opportunities employees are better able to withstand high-pressure environments and maintain strong performance outcomes.

In this context, the JD-R Model underscores that bullying and harassment should not be viewed solely as interpersonal issues, but as detrimental job demands that erode employee resources. By actively fostering positive work environments and investing in supportive interventions, organisations can reduce the negative impacts of bullying, strengthen resilience, and promote sustainable employee performance and organisational effectiveness.

Research objectives and/or hypotheses

H_1: There is a statistically significant relationship between workplace bullying and employee performance.

H_2: There is a statistically significant relationship between workplace harassment and employee performance.

H_3: There is a statistically significant relationship between workplace bullying and the work climate.

H_4: There is a statistically significant relationship between workplace harassment and the work climate.

H_5 workplace bullying and workplace harassment mediate the relationship between work climate and employee performance.

RESEARCH METHODOLOGY

This study employed a quantitative, correlational design grounded in a positivist philosophy to investigate the relationships between workplace bullying, perceived workplace climate, and individual work performance among retail sector employees in Windhoek, Namibia. A mixed sampling strategy (simple random sampling for outlets, convenience sampling within outlets) are clearly defined. While convenience sampling within stores can introduce selection bias (e.g., more satisfied or available employees might be more likely to participate), the large sample size (N=256) and the achievement of a high confidence level (89.3%) lend statistical credibility. Questionnaires were distributed to participants to collect data suitable for quantitative statistical analysis. Internal consistency

The study employed four standardized questionnaires to measure key workplace constructs, each demonstrating strong reliability. Workplace bullying was assessed using the Negative Acts Questionnaire-Revised (NAQ-R), a 9-item tool with a Cronbach's alpha ranging from 0.96 to 0.97, indicating excellent internal consistency. Workplace harassment was measured using a 20-item questionnaire validated for Korean finance and service workers, which showed a high Cronbach's alpha of 0.93. Work climate was evaluated via the 15-item Work Climate Questionnaire (WCQ), with a reliability score exceeding 0.60, confirming its adequacy for measuring perceived autonomy support. Finally, employee performance was gauged using the Individual Work Performance Questionnaire (IWPQ), which demonstrated strong reliability across its subscales: 0.75 for task performance, 0.88 for contextual performance, and 0.77 for counterproductive performance, with an overall Cronbach's alpha of 0.86. Collectively, these instruments provide robust and psychometrically sound measures for assessing workplace dynamics.

RESULTS/FINDINGS

Inferential statistics

TABLE 1: CORRELATIONS BETWEEN VARIABLES

Variable	Workplace bullying	Workplace harassment	Workplace climate	Employee performance
Workplace bullying	----------	.827***	–.451***	–.260***
Workplace harassment	827***	------	–.454***	–.253***
Workplace climate	–.451***	–.454***	-------	.192**
Employee performance	–.260***	–.253***	.192**	--------

Pearson product moment correlation coefficients were computed to examine the relationships between workplace bullying, workplace harassment, workplace climate, and employee performance. Table 1 presents the results. Workplace bullying was strongly and positively correlated with workplace harassment ($r = .83$, $p < .001$), indicating that employees who reported higher levels of bullying also tended to report higher levels of harassment. Workplace bullying was significantly negatively correlated with workplace climate ($r = –.45$, $p < .001$) and with employee performance ($r = –.26$, $p < .001$). This suggests that greater bullying was associated with poorer perceptions of the work climate and lower levels of performance. Similarly, workplace harassment was significantly negatively correlated with workplace climate ($r = –.45$, $p < .001$) and with employee performance ($r = –.25$, $p < .001$), suggesting that harassment undermines both climate and performance. Finally, workplace climate was positively correlated with employee performance ($r = .19$, $p = .002$), indicating that employees who perceived a more positive climate also tended to report higher performance.

TABLE 2: REGRESSION ANALYSIS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.253[a]	.064	.060	25.69299	.064	16.823	1	246	.000	
2	.259[b]	.067	.059	25.70608	.003	.749	1	245	.387	
3	.269[c]	.072	.061	25.68139	.006	1.471	1	244	.226	2.015
a. Predictors: (Constant), workplacebullying										
b. Predictors: (Constant), workplacebullying, workplaceharsment										
c. Predictors: (Constant), workplacebullying, workplaceharsment, workplaceclimate										
d. Dependent Variable: employeeperfomance										

Table 2 shows the hierarchical multiple regression analysis was conducted to examine the predictive effects of workplace bullying, workplace harassment, and workplace climate on employee performance. The analysis was performed in three steps, entering predictors sequentially to determine their incremental contribution to explaining variance in employee performance. Model 1 included workplace bullying as the sole predictor. The model was statistically significant, $F(1, 246) = 16.82$, $p < .001$, and explained approximately 6.4% of the variance in employee performance ($R^2 = .064$, adjusted $R^2 = .060$). This indicates that higher levels of workplace bullying were associated with lower employee performance. Model 2 added workplace harassment to the regression. The change in explained variance was minimal ($\Delta R^2 = .003$), and the addition of workplace harassment did not significantly improve the model, F change (1, 245) = .749, p = .387. This suggests that, after accounting for workplace bullying, workplace harassment does not significantly predict employee performance. Model 3 incorporated workplace climate as an additional predictor. Again, the increase in variance explained was small ($\Delta R^2 = .006$) and not statistically significant, F change (1, 244) = 1.47, p = .226, indicating that workplace climate did not significantly contribute to predicting employee performance above and beyond bullying and harassment. The overall model including all three predictors explained 7.2% of the variance in employee performance ($R = .269$, $R^2 = .072$, adjusted $R^2 = .061$). The Durbin-Watson statistic of 2.015 suggests that the residuals were independent and that there were no issues with autocorrelation.

TABLE 3: HAYES MEDIATION

Outcome	Predictor	B	SE	t	p	R^2	95% CI
Bullying/Harassment	Workplace Climate	−24.82	3.23	−7.67	< .001	.193	[−31.19, −18.44]
Employee Performance	Workplace Climate	0.095	0.066	1.44	.152	.068	[−0.035, 0.225]
Employee Performance	Bullying/Harassment	−0.0035	0.0012	−2.95	.0035	.068	[−0.0058, −0.0011]
Indirect Effect	Workplace Climate → Bullying/Harassment → Employee Performance	0.086	0.031	—	—	—	[0.028, 0.149]

A mediation analysis was conducted using PROCESS Model 4 (Hayes, 2018) with workplace climate as the independent variable, combined workplace bullying and harassment as the mediator, and employee performance as the dependent variable. Results revealed that workplace climate was a significant negative predictor of workplace bullying and harassment ($a = −24.82$, $SE = 3.23$, $t = −7.67$, $p < .001$, $R^2 = .19$). In turn, workplace bullying and

harassment significantly predicted employee performance, with higher levels associated with lower performance (b = −0.0035, SE = 0.0012, t = −2.95, p = .0035). The direct effect of workplace climate on employee performance was not statistically significant (c′ = 0.095, SE = 0.066, t = 1.44, p = .152). However, the indirect effect through workplace bullying and harassment was significant (ab = 0.086, BootSE = 0.031, 95% CI [0.028, 0.149]), indicating that a more positive workplace climate enhances employee performance primarily by reducing bullying and harassment. The overall model for employee performance accounted for 6.8% of the variance, $R^2 = .068$, $F(2, 245) = 8.98$, $p < .001$. These results demonstrate an indirect-only mediation, whereby the effect of workplace climate on employee performance is transmitted through its negative association with workplace bullying and harassment.

Discussion of the results

The present study examined the relationships between workplace bullying, workplace harassment, workplace climate, and employee performance. Correlation analysis revealed strong and significant associations among these variables. Workplace bullying and workplace harassment were highly correlated ($r = .83$, $p < .001$), indicating that these negative behaviours frequently co-occur, consistent with prior research emphasising the overlap between bullying and harassment in shaping toxic workplace dynamics (Walker, 2024; Ngwane, 2019).

Both bullying and harassment were significantly and negatively related to workplace climate ($r = –.45$, $p < .001$) and employee performance ($r = –.26$, $p < .001$ and $r = –.25$, $p < .001$, respectively). These findings align with previous studies demonstrating that exposure to bullying and harassment undermines employee morale, job satisfaction, and overall performance (Devonish, 2013; Mehmood *et al*., 2020; Muhereza 2024; Devis,2024). The results also reinforce Rosander and Salin's (2023) argument that toxic workplace climates both foster and are exacerbated by bullying and harassment.

Additionally, workplace climate was positively associated with employee performance ($r = .19$, $p = .002$), suggesting that supportive climates contribute to higher performance levels. This aligns with prior research highlighting the protective role of positive work environments and effective leadership in mitigating workplace mistreatment and enhancing performance (Yun *et al*., 2014; Tuckey *et al*., 2022).

Hierarchical regression analysis further clarified the predictive relationships among the variables. In Model 1, workplace bullying significantly predicted employee performance, explaining 6.4% of the variance, corroborating prior findings that bullying directly undermines employee productivity and effectiveness (Pradhan and Joshi, 2019; Malik and Sattar, 2020). The addition of workplace harassment in Model 2 did not significantly improve prediction, suggesting that its effect on performance may overlap with or be mediated by bullying.

Similarly, workplace climate in Model 3 did not significantly increase explanatory power despite its positive bivariate association with performance, indicating that the relationship between climate and performance may operate indirectly through mediators such as job satisfaction, psychological well-being, or engagement (Devonish, 2013; Wang *et al*., 2023).

These findings align closely with prior work positioning the work environment as a proximal determinant of performance partly through social and interpersonal mechanisms. Pradhan and Joshi (2019) reported that the work environment exerts the greatest impact on performance, followed by bullying; our data clarify a mechanism consistent with that claim, indicating that climate's influence is transmitted through reduced bullying. The results also converge with Mehmood *et al*. (2020), who showed that bullying diminishes productivity and job effectiveness and that psychological well-being mediates these effects. Our model positions bullying and harassment as mediators of climate's influence on performance, yet the logic is parallel: adverse social conditions erode personal and task resources, impairing performance a pathway explained by Conservation of Resources theory (loss spirals from interpersonal stressors) and Social Exchange perspectives (poor climate signals low support, inviting incivility and withdrawal).

The significant X → M path (work climate → bullying/harassment; $B = -24.46$, $p < .001$) echoes Yahaya *et al*. (2012) and Malik and Sattar (2020), who documented robust links between bullying and poorer performance and called for climate-level strategies to curb mistreatment. Devonish (2013) further demonstrated indirect pathways via affective states (e.g., depression, job satisfaction), reinforcing the broader point that bullying harms performance both directly and through strain-related processes. Our finding of a non-significant direct effect of climate on performance after accounting for bullying ereconcile mixed evidence, such as Robert (2018), who found a strong bullying–stress but weak bullying–performance association: when key interpersonal mechanisms are modelled, the apparent direct link from climate (or bullying) to performance may attenuate, revealing that indirect routes carry much of the effect.

From a practical standpoint, this pattern strengthens calls from Pradhan and Joshi (2019), Mehmood *et al*. (2020), and Malik and Sattar (2020) for policies, training, and monitoring systems that (a) improve climate norms (civility, fairness, voice, and psychological safety) and (b) directly target bullying through clear codes of conduct, confidential reporting, and leader accountability. Because the mediator is interpersonal mistreatment, manager training in early detection, bystander intervention, and restorative practices should yield performance benefits by interrupting the bullying pathway.

Overall, the findings suggest that workplace bullying exerts the most direct and robust effect on employee performance, while harassment and climate, although strongly interrelated, may

influence performance more indirectly. This interpretation aligns with Social Cognitive Theory (Bandura, 1986), which emphasizes modelling and reinforcement in perpetuating negative behaviours, and the Job Demands–Resources Model (Demerouti *et al*., 2001), which conceptualizes bullying and harassment as job demands that deplete resources, while positive climates act as resources that enhance engagement and resilience.

This study makes a significant contribution as the first empirical investigation in Namibia examining the relationships among workplace bullying, harassment, work environment, and employee performance in the retail sector. By applying Social Cognitive Theory and the Job Demands–Resources Model, it offers a novel theoretical and contextual understanding of how these negative behaviours affect employees in the Namibian workplace. The findings not only address a critical gap in local literature but also provide practical guidance for organisations seeking to implement interventions, policies, and strategies that promote healthier, more productive work environments.

Practical managerial implications and recommendations

Based on the findings of this study, several recommendations are proposed for organisations in the retail industry in Namibia, as well as for future research. First, institutions should raise awareness and provide regular training to ensure employees clearly understand what constitutes workplace bullying and harassment. Data collection revealed that many individuals lacked awareness of these behaviours and their consequences. Awareness campaigns and educational initiatives can help employees recognise inappropriate conduct, reduce tolerance for harmful behaviours, and encourage timely reporting.

Second, organisations should develop and strictly enforce anti-bullying and anti-harassment policies, supported by effective reporting mechanisms and accessible support systems. These measures are essential for reducing harmful conduct, safeguarding employee well-being, and enhancing both productivity and organisational climate. Third, as workplace bullying emerged as the only significant predictor of employee performance, employers should prioritise targeted interventions specifically aimed at reducing bullying. While harassment and workplace climate were correlated with performance, their effects were not significant once bullying was considered highlighting its central role in undermining performance outcomes.

From a research perspective, the study's cross-sectional design limits causal interpretations. Future studies should adopt longitudinal approaches to examine the long-term impact of bullying and harassment on employee performance and workplace climate. This would help determine whether these behaviours cause lasting damage or whether recovery is possible over time. Finally, future research should evaluate the effectiveness of different intervention strategies, including organisational policies, training initiatives, and employee support

systems. Comparative studies across organisational contexts could help identify best practices and guide evidence-based strategies to foster healthier and more productive workplaces.

CONCLUSION

This study examined the relationship between employee performance, work environment, bullying, and harassment in Windhoek's retail sector. Findings revealed that workplace bullying and harassment negatively affect both performance and the overall work climate. Guided by the Social Cognitive Theory and the Job Demand-Resources Model, the study highlighted the need for organisations to implement strict anti-bullying policies and proactive measures to foster a positive workplace. Overall, the study provides a foundation for future research and valuable insights for improving organisational practices.

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TRACK 13: CRITICAL MANAGEMENT STUDIES

LEADERSHIP STYLES IN AFRICA: QUANTIFYING THE UNIQUENESS OF THE HUMANE ORIENTATION

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ABSTRACT

Ubuntu, widely seen as the embodiment of African humanness, is believed to underpin effective leadership in Sub-Saharan Africa (S-SA). This study investigates whether humane-oriented leadership (HOL), as a proxy for Ubuntu leadership, reflects African views on effective leadership. Using GLOBE study data, the analysis compares HOL scores across regional clusters, focusing on S-SA and the Anglo cluster, and examines HOL's ranking among six leadership styles. Results show that S-SA's mean HOL score is significantly above the global average, though not the highest overall. The Anglo cluster's score is only slightly lower. In both regions, HOL ranks fourth on leadership effectiveness. While HOL is strongly associated with S-SA, it is not exclusive to the region and shows unexpected similarity to Anglo leadership preferences. The study offers quantitative support for HOL's relevance in Africa, while also highlighting the surprising alignment between African and Anglo leadership values, an insight often overlooked in qualitative research.

Keywords: Ubuntu; African humanness; GLOBE study; humane-orientated leadership; emic framework; WEIRD; cross-cultural

INTRODUCTION

Ubuntu is often described as African humanness and is deeply rooted in Southern African traditions (Allais, 2022; Udom, 2024). While interpretations of what Ubuntu exactly entail vary, there is broad scholarly consensus that it embodies a uniquely African philosophy (Mbigi & Maree, 2005; Metz, 2020). African ways, and Ubuntu, are often contrasted with Western thought (Gaim & Clegg, 2021; Nkomo, 2011). However, despite widespread claims that Ubuntu represents a distinctly African worldview, these assertions are primarily made by philosophers (Molefe, 2024; Ntibagirirwa, 2024) and politicians (Omodan, 2022; Risimati, 2023), and are largely supported by qualitative research (Abubakre *et al*., 2021; Mickson Kayuni & Tambulasi, 2012). Empirical evidence demonstrating a higher prevalence of Ubuntu among African populations remains limited (see Grobler & Koen, 2024; Muller *et al*., 2019). The predominantly qualitative nature of these claims raises important questions about the

uniqueness or universality of Ubuntu across regions and invites a closer examination of its African foundations.

This research aims to examine whether humane-orientated leadership (HOL), as a proxy to Ubuntu leadership, is more prevalent among indigenous African populations than among those from other global regions, and if it is the dominant leadership style in Sub-Sahara Africa (S-SA). The use of HOL, as defined in the Global Leadership and Organisational Behaviour Effectiveness (GLOBE) study (House *et al*., 2004), is a tolerable proxy to Ubuntu leadership, as humane orientation is per definition closely associated with Ubuntu and some even calling Ubuntu African humanness (Gathogo, 2008; Metz, 2021; Murove, 2012) or African humanism (Mutsonziwa, 2020; Sibanda, 2014; Tschaepe, 2013). Exploring the unique bond between Ubuntu and Africa could offer valuable insights into African cultural identity and enrich our understanding of leadership in African societies. This is important, as Ubuntu, both in philosophy and practice, is widely hailed as a means to overcoming Africa's struggles and reclaiming its past greatness (Chowdhury *et al*., 2023; Naude, 2019).

LITERATURE REVIEW

The literature will explore the dynamic between the West and other regions, particularly the perceived predominance of Anglo-Saxon thought and its influence on global discourse. It will also examine HOL, as presented in the GLOBE study, alongside Ubuntu and Ubuntu leadership. The discussion of Ubuntu will highlight its overlap with HOL, a key focus of this research. The section will conclude with a synopsis as well as setting the hypotheses.

Geography, culture, the West and globalisation

Geographical location plays a role in shaping behaviour and behavioural patterns (Hoerger *et al*., 2019; Rentfrow, 2014; Rentfrow & Gosling, 2021; Rentfrow & Jokela, 2019; Wei *et al*., 2017), and leadership styles are no exception (House *et al*., 2004). Behavioural patterns in different regions often reflect local cultural influences, shaping how people act and interact, which reinforces the culture (Markus & Kitayama, 1991). This reciprocal relationship between culture, environment and behaviour is referred to as the "scientific theory of culture" (Malinowski, 2015). Behaviour, and by extension leadership styles, within a given context can be understood as a process in which symbolic resources—namely, culture—serve as primary self-configuring tools that shape behaviour, a concept referred to as "culture configuring" (Đorđević, 2021, p. 460). Consequently, it can be inferred that geographical context not only affects behaviour but also contributes to shaping broader social structures, which, in turn, reinforce human behavioural patterns (Steyn, 2023).

Cross-cultural studies, along with the many journals dedicated to this field, are founded on the premise that individuals from different geographical regions exhibit distinct behavioural

patterns. Extensive cross-national research has substantiated these differences, exploring whether certain behaviours are universal or shaped by regional cultural influences. Such studies often differentiate not only between countries (Allik, 2013) but also between broader geographical regions (Tarakeshwar *et al*., 2003). Contemporary cross-cultural comparisons, such as the GLOBE study (House *et al*., 2004) and the World Values Survey (Inglehart *et al*., 2014), further highlight how geographical and cultural contexts shape human behaviour.

A significant portion of behavioural theories and assessment tools in psychology have been developed based on research conducted primarily within Western, industrialised academic settings (Henrich *et al*., 2010a, 2010b; Jones, 2010). This also applies to the development of leadership theories (see Bass & Avolio, 1994; Hersey & Blanchard, 1969; Lewin *et al*., 1939), many of which continue to be taught in universities worldwide. This has led to the use of the acronym WASP (Western Academic Scientific Psychology) to describe how “the discipline [that is] is culture-bound, limited in its origins, concepts, and empirical findings to only this small portion of the world” (Berry, 2015, p. 342). Similarly, the term WEIRD (Western, Educated, Industrialized, Rich, and Democratic) highlights the limitations of applying Western psychological frameworks universally (Henrich *et al*., 2010a). Researchers are increasingly urged to recognise that psychological constructs derived from Western contexts may not always hold the same relevance in non-Western societies (Berry *et al*., 2002). These calls for rethinking Western influence are commonly referred to as given calls for decolonisation (Betts, 2012; Minga, 2021; Molefe, 2022).

The premise of decolonisation is that those who were colonised think, act and have a culture distinct from that of their oppressors (Drabinski, 2019; Outlaw Jr., 2022). Globalisation is reshaping cultures (Chiu *et al*., 2011; Jensen *et al*., 2011), narrowing cultural divides between nations (Sergeeva *et al*., 2018) and promoting commonalities across once-diverse societies (Kajonius & Mac Giolla, 2017). Across the globe, there is a widespread aspiration for economic growth, modernisation and improved living standards (Ergashev & Farxodjonova, 2020), characteristics commonly associated with Western societies and amplified through access to mass media (Castells, 2000; Scheuerman, 2023). As globalisation, some say (Daramola & Oyinade, 2015; Ogar *et al*., 2019), largely shaped by Western influences, continues to unfold, the imitation of Western norms has proliferated across various regions (Rosenmann, 2016). This illustrates how globalisation contributes to cultural transformation. In some instances, it may even foster cultural homogenisation (Voisey & O'Riordan, 2010), while also giving rise to cultural hybridisation, where diverse traditions merge to create a globalised cultural fusion (Pieterse, 2018).

Ubuntu and humane-orientated leadership (HOL)

Synonym definitions (Alberts, 2019), such as those by Mboti (2015, pp. 126-127), who declares that “the settled definition of choice seems to always return, again and again, to the saying ‘umuntu ngumuntu ngabantu’ (in Nguni languages), ‘motho ke motho ka batho’ (in Sotho languages), ‘a person is a person through other persons’ (in English), and so on”, contribute little to the understanding of the behaviour associated with the concept. However, it points to the African routes of Ubuntu. Along these lines, Mbiti (1990 [1969]) describes “the African view of man” as “Whatever happens to the individual happens to the whole group, and whatever happens to the whole group happens to the individual”. The individual can only say: ‘I am, because we are; and since we are, therefore I am’” (p. 106). The words of Mbiti reiterate the Africanness of Ubuntu.

Thaddeus Metz (2017; 2021) and Mogobe Ramose (2002; 2015), seen as thought-leaders on Ubuntu (Taylor, 2023), describe Ubuntu as humanness. Metz (2021) states that Ubuntu is a word from the African Nguni language group that denotes humanness, and being a good person. "To have ubuntu is to be a person who is living a genuinely human way of life, whereas to lack ubuntu is to be missing human excellence or to live like an animal. It is common for black people indigenous to the African continent to believe that one’s basic aim in life should be to exhibit ubuntu, … which one can do by prizing communal relationships with other people” (Metz, no page). Ramose (2015) states that botho/hunhu/ubuntu should be interpreted as humanness but goes a step further and explains that “it means that to be human is to affirm one’s humanity by recognising the humanity of others and, on that basis, establish humane relations with them” (p. 70). The concept of "humanness" is, in classical (Western) philosophy, well-aligned to the humanness (Ramose, 2015). For Aristotle, humanness is defined through rationality and virtuous action (Kraut, 2023), for Kant, it revolves around autonomy and moral reasoning (Johnson & Cureton, 2024), and for Sartre, humanness is created through individual choice and responsibility (Reynolds & Renaudie, 2024). Virtuous action, moral reasoning and responsibility imply the recognition of others.

From the aforementioned, we could conclude that Ubuntu is African and related to humanness, but more is needed to understand the behaviour associated with Ubuntu. Several definition-through-denotations (Alberts, 2019) shed light on it. Kamwangamalu (1999) states that Ubuntu embodies qualities such as respect for all people, human dignity, sharing, obedience, humility, solidarity, caring, hospitality, interdependence and communalism. Eliastam (2015, p. 4) includes terms such as hospitality, compassion, humanness, sharing and respect as central to discussions of Ubuntu. Letseka (2013, p. 339) emphasises that “Ubuntu implies the capacity in African cultures to express compassion, reciprocity, dignity, harmony, and humanity.” Similarly, Khomba and Kangaude-Ulaya (2013, p. 673) define Ubuntu as “the capacity in an

African culture to express compassion, reciprocity, dignity, humanity, and mutuality in the interests of building and maintaining communities with justice and mutual caring." These denotations provide insights into the behaviour that could be indicative of a leader who acts in an Ubuntu manner.

The proxy that will be used in this study of Ubuntu leadership is HOL as defined and presented in the GLOBE study (House *et al*., 2004). HOL is one of nine cultural dimensions of leadership behaviour; the others are power distance, uncertainty avoidance, institutional collectivism, in-group collectivism, gender egalitarianism, assertiveness, future orientation and performance orientation (Kabasakal & Bodur, 2004), on which societies differ. In the GLOBE study, "humane orientation" refers to the degree to which a culture encourages and rewards individuals for being fair, altruistic, friendly, generous, caring and kind to others (House *et al*., 2004). GLOBE highlights societal values related to compassion, tolerance and concern for the well-being of others as elements of humanness (Kabasakal & Bodur, 2004). In the GLOBE study, questions such as "In this culture, effective leaders are [very concerned about others / not at all concerned about others]" and "Effective leaders in this culture are [very sensitive towards others' feelings and needs / not at all sensitive towards others' feelings and needs]", provide insights into what humane-orientated leaders do. All of these align well with the definition-through-denotations (Alberts, 2019) of Ubuntu.

Synopsis and hypotheses

It could be argued that, given Ubuntu's prominence as an ideology in Africa, it is more widely practised there than in any other region. Similarly, as Ubuntu originates from Africa, it is likely to be more strongly endorsed in Africa than in Anglo-Saxon societies. Furthermore, among various leadership styles, HOL, presented here as a proxy for Ubuntu leadership, could be regarded as the most effective leadership style in Africa.

1 H10: Worldwide leaders who display humanness are deemed effective. H1a: Humanness and leader effectiveness is primarily a Sub-Sahara African (S-SA) link.
2 H20: HOL is endorsed in S-SA as much as in the West (the Anglo cluster). H2a: HOL is endorsed more in S-SA than in the West (the Anglo cluster).
3 H30: HOL is ranked as the most effective leadership style in both S-SA and in the West (the Anglo cluster). H3a: HOL is ranked as more effective as a leadership style in S-SA compared to the West (the Anglo cluster).

The alternative hypotheses may point to several matters, including that Ubuntu is a universal concept, with little variation across regions, making Ubuntu not uniquely African. The alternative hypotheses may also expose the importance of Ubuntu as a leadership style in Africa, and its ranking across the globe.

METHODOLOGY

Design

Cross-sectional survey data, as collected under the supervision of the Globe Coordinating Team, with R. J. House as principal investigator (House *et al*., 2004), were analysed. The data used comes from Kabasakal and Bodur (2004), Chapter 18 (Humane orientation in societies, organizations, and leader attributes) and Dorfman *et al*. (2004) report, in Chapter 21 (Leadership and cultural variation: The identification of culturally endorsed leadership profiles) of the GLOBE study.

Data collection

Data collection in the GLOBE study involved a multi-phase process of collecting quantitative survey data, where researchers gathered information from over 17 370 middle managers across 951 organisations and 62 countries (House *et al*., 2004). At the country level, country co-investigators collected data.

Measurement

Leadership orientations were measured with the GLOBE Leader Attributes and Behaviour Questionnaire (LABQ). The LABQ includes 112 items, spanning 21 leadership subscales and six global leaders' behaviour dimensions. The six leadership dimensions identified in the GLOBE study are charismatic/value-based, team-oriented, participative, humane-oriented, autonomous and self-protective leadership (House & Javidan, 2004).

HOL is the primary focus of this study. Kabasakal and Bodur (2004) report that HOL is characterised by being concerned about others, being sensitive towards others, being friendly and tolerating mistakes. The following is a sample question: "Effective leaders in this culture are [very compassionate and supportive / not at all compassionate and supportive]". Practices were measured on a seven-point scale (Hanges & Dickson, 2004), where a low score reflects behaviour or characteristics that greatly inhibit a person from being an outstanding leader and a high score reflects behaviour or characteristics that contribute greatly to a person being an outstanding leader.

Reliability and validity

The reliability and validity of the data will be presented in the results section of the paper.

Analyses

The analyses conducted to assess the perceived effectiveness of the HOL was an inspection of Table 18.16 from Kabasakal and Bodur (2004). Mean scores and standard deviation (SD) are reported per cultural cluster (N=61). The presented data in the abovementioned table can

be interpreted directly to address the first hypothesis. Should the means not be the same, H10 could be rejected. H1a could be accepted, should the S-SA countries have the highest mean.

To quantify mean differences, S-SA's standing compared to the rest of the world, Cohen's d-values ($d = Mean^1\text{-}Mean^2 / ((SD^1 + SD^2)/2)$) (Cohen, 1988) were calculated. This determines if the mean groups differed on a practical level, thus practical significance (Kirk, 1996), reflecting meaningful real-world differences and implications. The guideline followed for effect sizes was that d .2 was considered negligible, d between .2 and .5 indicated subtle but real differences, d between .5 and .8 was classified as moderate, and d>.8 represented large and practically significant differences (Cohen, 1988). Does S-SA have a higher mean than the rest of the world? The rest of the world's mean, SD and minimum and maximum scores on HOL were found in Table 18.15a, from Kabasakal and Bodur (2004), which allowed for comparison.

To compare S-SA with the Anglo cluster, the effect size of the difference between the Anglo cluster and the world mean, as well as the difference between the Anglo and S-SA clusters were determined. In this case, Cohen's d-values were calculated again. For H20, the practical significance of the difference between the Anglo and S-SA clusters was decisive.

Data captured in Table 21.5 (Dorfman *et al*., 2004) were used to address H30. Here, the S-SA cluster was contrasted to the Anglo cluster. The analyses simply involved an inspection of the table that represented the endorsement of different leadership styles in both clusters.

Ethical considerations

The GLOBE study's results are open to all interested parties and are referenced in this document extensively (see House *et al*., 2004). No data were collected specific to this research and existing data, from the GLOBE study were analysed. At a university level, the use of this secondary data was approved by the local ethics committee: 2022_SBL_AC_001_SD.

RESULTS

Results are presented below, first focusing on the demographics and the psychometric matters, and then on the results related to the set hypotheses.

Sample

The sample constituted 17 370 middle managers (1 943 from phase 1 and 15 427 from phase 2) across 951 organisations and 62 countries (Hanges, 2004).

Reliability and validity

Hanges and Dickson (2004, p. 137) report internal consistency of .76 and interrater reliability of .93 for the HOL part of the LABQ. Hanges and Dickson (2004, p. 145) report that the

instruments developed represent “culturally shared implicit theories of leadership” and that scales were found to be aggregatable, unidimensional and that “evidence for construct validity of the cultural scales was provided from several sources”.

Descriptive statistics

Only data pertaining to HOL (assessed with LABQ) is presented as this was the focus of the study. For the total sample, the HOL mean score was 4.89 (Standard deviation (SD)=.40, minimum=3.82, maximum=5.75, n=61) on a seven-point scale, where low values indicate that the set behaviour or characteristics inhibit a person from being an outstanding leader and high scores reflect that the behaviour or characteristics contribute to a person being an outstanding leader. These results are presented in Table 1.

TABLE 1: PERCEIVED EFFECTIVENESS SCORES FOR HUMANE-ORIENTATED LEADERSHIP (HOL)

Cultural cluster	Mean	SD	Rank
Anglo: United States, Canada, Australia, United Kingdom, Ireland, South Africa (white sample), New Zealand.	5.08	.19	3
Latin Europe: France, Italy, Portugal, Spain, Switzerland (French- and Italian-speaking regions).	4.45	.33	9
Nordic Europe: Denmark, Finland, Sweden.	4.42	.27	10
Germanic Europe: Austria, Germany (former East and West), Netherlands, Switzerland (German-speaking regions).	4.71	.19	7
Latin America: Argentina, Brazil, Colombia, Mexico, Venezuela, Ecuador, El Salvador, Costa Rica, Guatemala, Bolivia.	4.85	.18	5
Eastern Europe: Greece, Hungary, Poland, Russia, Albania, Georgia, Kazakhstan, Slovenia.	4.76	.53	7
S-SA: Zimbabwe, Namibia, Zambia, Nigeria, South Africa (Black sample).	5.16	.25	2
Middle East: Egypt, Morocco, Turkey, Kuwait, Qatar.	4.80	.45	6
Confucian Asia: China, Hong Kong, Japan, Singapore, South Korea, Taiwan.	5.04	.26	4
Southern Asia: India, Indonesia, Iran, Malaysia, Philippines, Thailand.	5.38	.24	1

Source: Adapted from Kabasakal and Bodur (2004, p. 591). Note: N=61; Though counterintuitive, Iran forms part of the Southern Asia cluster (see Gupta and Hanges (2004)).

From Table 1, it can be observed that HOL is revered across the globe, at various levels, with S-SA scoring relatively high. S-SA, the cradle of Ubuntu, had a mean score of 5.14, with a

standard deviation of .25. Using this data, and the overall mean score, Cohen's d-value ($d=Mean^{Total}-Mean^{S-SA}$ / $((SD^{Total}+^{SDS-SA})/2)$= (4.89-5.16 / (.40+.25)/2) =-.76, which indicates a moderate and very close to large effect (Cohen, 1988). S-SA scored higher than the world population. It can also be observed that S-SA has the second-highest mean, just behind Southern Asia, with the Anglo cluster in position number three. From these results, hypothesis 1 could be addressed: H10 could be rejected as we can see in Table 1 that mean scores differ, and it was calculated, then in some instances, S-SA versus the total, these differences are significant. However, H1a could not be accepted as Southern Asia, more than S-SA, displayed an appreciation of HOL as being effective.

Comparing the Anglo cluster with the world mean ($d=Mean^{Total}-Mean^{Anglo}$ / $((SD^{Total}+SD^{Anglo})/2)$= (4.89-5.08 / (.40+.19)/2)=-.64), the difference is also practically significant. Thus, the Anglo mean was moderately higher than the world mean. More importantly for hypothesis 2 is that the difference between S-SA and the Anglo cluster was significant ($d = Mean^{S-SA}-Mean^{Anglo}$ / $((SD^{S-SA}+SD^{Anglo})/2)$ = (5.16-5.08 / (.25+.19)/2)=.36). The difference was subtle (Cohen, 1988). Thus, S-SA scored higher than the Anglo cluster. H20, “HOL is endorsed in S-SA as much as in the West (the Anglo cluster)” could thus be rejected, and H2a, “HOL is endorsed more in S-SA than in the West (the Anglo cluster)”, should be endorsed.

Table 2 presents the relative rankings of different leadership styles, comparing S-SA, with the Anglo cluster. Is, as suggested with hypothesis 3, HOL the preferred leadership style in Sub-Sahara Africa?

TABLE 2: LEADERSHIP SCORES FOR SUB-SAHARAN AFRICA

Cluster			**Dimensions**			
	Charismatic/value-based	Team-oriented	Participative	Humane orientation	Autonomous	Self-protective
S-SA	5.79	5.70	5.31	5.16	3.63	3.55
Rank	1	2	3	4	5	6
Anglo	6.05	5.74	5.73	5.08	3.82	3.08
Rank	1	2	3	4	5	6

Source: Adapted from Dorfman *et al*. (2004 p. 680).

From Table 2 it can be observed that HOL is not ranked as the leadership style most often seen as indicative of effective leadership in S-SA, nor in the Anglo cluster. In fact, it only ranked fourth, behind charismatic/value-based, team-oriented and participative leadership. It is interesting to note that the ranking from S-SA mirrored, without exception, that of the Anglo

cluster, the cluster often used to contrast African values. Thus, H30 (HOL is ranked as the most effective leadership style in both S-SA and in the West (the Anglo cluster) should be rejected. However, H3a (HOL is ranked as more effective as a leadership style in S-SA compared to the West (the Anglo cluster), cannot be accepted. What should be concluded is that HOL is not the preferred leadership style in S-SA, nor in the Anglo cluster, and that counterintuitively, the Anglo cluster mirrors the S-SA cluster.

DISCUSSION

The study explored the prevalence of HOL within the context of the S-SA, with HOL, as measured by the GLOBE study, as a proxy for Ubuntu. Ubuntu is presented as a distinctive cultural trait endemic to African societies, particularly among indigenous populations of S-SA. Comparisons were also drawn with the Anglo countries, given our familiarity with the English language and culture and the extent to which it is promoted via the mass media and its prominence in the globalisation movement.

Data was collected from 17 370 middle managers across 951 organisations and 62 countries (Hanges, 2004). The result of the study is based on the HOL data provided. Dorfman *et al*. (2004) and Kabasakal and Bodur (2004), embedded in the GLOBE study (House *et al*., 2004), a highly influential study, cited more than 5 760 times (Google Scholar, 2025). HOL data proved to be reliable and valid (Hanges & Dickson, 2004).

The analyses of the data involved the inspection of tables, adapted from the original authors (Dorfman *et al*., 2004; Kabasakal & Bodur, 2004), and organised in such a manner as to address the set hypotheses. To advance a more statistical manner to interpret the mean differences reported in the tables, Cohen's d-values were calculated. This allowed for the comparison of mean differences, expressed in shared SD. The analyses exposed practically significant differences, more important than statistically significant differences (Kirk, 1996), which can easily occur when the sample size is large, as was the case here.

Regarding hypothesis 1 (H10: Worldwide leaders who display humanness are deemed effective. H1a: Humanness and leader effectiveness is primarily a Sub-Sahara African (S-SA) link.), the null hypothesis could be rejected. Table 1 shows large differences between clusters, with the highest score for Southern Asia (Mean=5.38; SD=.24) and the lowest for Nordic Europe (Mean=4.42; SD=.27). The alternative hypothesis could however not be accepted, particularly with the claim that Ubuntu is an exclusively African concept. Southern Asia scored higher than S-SA and many regions had HOL scores above zero. However, S-SA scored high on HOL, with a large effect, indicating that, compared to the rest of the world, S-SA is more HOL orientated than most other regions. This tarnishes thoughts that Ubuntu is an exclusively

African way, forwarded by Mboti (2015), Mbiti (1990 [1969]), Metz (2017; 2021) and Ramose (2002; 2015). Ubuntu is a way, high in Africa, but not exclusively.

With hypothesis 2 (H20: HOL is endorsed in S-SA as much as in the West (the Anglo cluster). H2a: HOL is endorsed more in S-SA than in the West (the Anglo cluster)), a practically significant difference between the means of S-SA and the Anglo states were found (d=.36). The difference was subtle (Cohen, 1988). The null hypothesis could be rejected and the alternative embraced: HOL is endorsed more in S-SA than in the West (the Anglo cluster). From an African perspective, it could be said that, compared to the Western world, S-SA is most exposed to (the Anglo cluster) and Africans are more inclined to Ubuntu.

The results in Table 2 address hypothesis 3 (H30: HOL is ranked as the most effective leadership style in both S-SA and in the West (the Anglo cluster). H3a: HOL is ranked as more effective as a leadership style in S-SA compared to the West (the Anglo cluster)). Inspection of the table reveals that HOL was not ranked as the most effective leadership style in S-SA or the Anglo cluster. H30 could thus be rejected. However, H3a could not be embraced as charismatic/value-based leadership was most endorsed in S-SA and HOL was only fourth in the line of six leadership styles.

S-SA and the Anglo cluster scored very similarly on the leadership styles. After proofing that S-SA scores higher on HOL compared to the Anglo cluster (H2), it can be observed that preferred leadership styles mirror each other on all six leadership styles. Two aspects of the results pertaining to H2 are important. As stated, HOL is not perceived as the most effective leadership style among S-SA managers. This implies that other leadership styles were selected as being more effective. Secondly, charismatic value-based was selected as the most effective by S-SA respondents, and the least effective, the self-protective leadership, which could well be interpreted as an aversion to individualism – often associated with Western culture. However, what is perceived as effective and ineffective in S-SA is also perceived as effective and ineffective in the Anglo region (see Table 2). These results were surprising, and it could well be asked if this is the effect of colonisation, WEIRD influences (Henrich *et al*., 2010a, 2010b; Jones, 2010), the mass media (Castells, 2000; Scheuerman, 2023) or are effective leadership styles universally?

CONCLUSION

The study supports the argument that Ubuntu embodies a strong humane orientation in African cultures, particularly in S-SA, where the indigenous people demonstrate higher humane orientation scores compared to Western populations (Gade, 2012; Kamwangamalu, 1999). However, while the findings highlight humane orientation as central to African identity, they also revealed that this value may not be exclusive to Africa, as similar high scores were

observed in other global clusters. This calls into question the cultural specificity of humane orientation and suggests a shared global dimension, as reported in the GLOBE study (Kabasakal & Bodur, 2004).

Though Ubuntu, expressed as HOL, is prominent in Africa, HOL is not the primary leadership style associated with effectiveness in S-SA. Managers who use other leadership styles were deemed more successful. Humane orientation is on the lower part of the chart when Africans rank leadership styles' effectiveness. Why would Ubuntu not be preferred? Also, why would the Anglo and African preferences be so similar? Is specific leadership universally effective? And if so, should calls for decolonisation (Betts, 2012; Minga, 2021; Molefe, 2022) imply the elevation of Ubuntu to a principal leadership style then not detract from what is known to be effective leaders?

To conclude:

> *Humane-orientated leadership (Ubuntu leadership) is not unique to Africa, it is not seen as the most effective leadership style to adopt in Africa, and African perception of effective leadership mirrors those of people living in the (Anglo) West.*

Limitations

The scope of the available data was limited as only five Sub-Saharan African countries were included. Additionally, the West was represented solely by the Anglo cluster, which comprised only English-speaking nations, excluding Germanic, Latin and Nordic Europe—regions also associated with the West. That said, in countries such as South Africa, Zimbabwe and Zambia, the Anglo influence has historically played a more significant role in shaping society than broader European influences.

With regard to the measurement instrument, the GLOBE team has acknowledged potential biases in their methodologies (House *et al*., 2004). However, these are not indicative of flawed work but rather a humble recognition of the inherent imperfections in human endeavour. It should, however, be acknowledged that the GLOBE study has Western underpinnings and applies Western standards in measuring HOL, whereas Ubuntu could be assessed on different terms, drawing on African epistemologies or participatory field research.

A possible limitation could be the use of HOL as a proxy for Ubuntu leadership. While these concepts are not identical, the authors believe that the literature section provides sufficient evidence to support the convergence between the constructs. It should, however, be acknowledged that Ubuntu is philosophically broader than a leadership style, as Metz (2011, 2021) frames it as an ontology encompassing ethical and relational dimensions. The reliance on HOL as a stand-in for Ubuntu risks conceptual flattening.

One potential criticism of this study is its reliance on data from 2004. However, the dataset remains highly valuable due to its depth, uniqueness and the lack of comparable studies since its collection. If cultural values and practices evolve gradually, as suggested by Inglehart and Baker (2000), the findings may still hold relevance today. Conversely, if significant cultural shifts have occurred, the study should be viewed as a historical snapshot, offering insights from a rare and comprehensive dataset.

Future research

The collection of new data using the GLOBE instruments is recommended to provide updated insights. This would allow for an examination of current values and behaviours, as well as comparisons with past trends. While the results from GLOBE 2020 are not yet available (see GLOBE Project), they should be incorporated into future research as soon as they are published.

This article focused on HOL as an indicator of Ubuntu leadership. Future studies could adopt a broader approach by incorporating other indicators of Ubuntu, such as institutional collectivism, which assesses the extent to which resource sharing and collective action are encouraged and rewarded (Gelfand *et al.*, 2004) in the analyses. Institutional collectivism could serve as an additional proxy for Ubuntu leadership.

Furthermore, this research engages with philosophical debates on the interplay between globalisation (including Western influence), decolonisation (which often emphasises emic perspectives) and efficiency. Addressing these complex issues will likely require interdisciplinary approaches, combining insights from cultural studies, political philosophy and organisational behaviour.

Author contribution

Conceptualisation, RS and PM; methodology, RS and PM; validation, PM; formal analysis, RS; investigation, RS; resources and data curation, RS; writing – original draft preparation, RS; writing – review and editing, PM; supervision, PM. RS and PM have read and agreed to the published version of the manuscript.

Data availability statement

The data used in this article is publicly available in the published articles used to inform this study. No new data were created.

Conflict of interest

The authors have no conflicts of interest to disclose.

Generative Artificial Intelligence (AI)

ChatGPT (December 2024 version) was used as an aid to improve sentence construction and grammar in the text.

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TRACK 14: ARTIFICIAL INTELLIGENCE

ADOPTING ROBOTICS PROCESS AUTOMATION FOR DIGITAL TRANSFORMATION IN THE INSURANCE INDUSTRY

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ABSTRACT

This study explores factors influencing the adoption of Robotics Process Automation (RPA) as a catalyst for digital transformation in the insurance industry. A qualitative approach was employed, using thematic analysis to interpret data from semi-structured interviews with staff at a South African insurance company. The study identifies efficiency, job security, performance expectations, and change management as critical determinants of RPA adoption. Employees embraced RPA when job security was assured, tasks were executed effectively and efficiently, and sufficient training was provided. This paper provides actionable insights for insurance companies aiming to advance digital transformation through RPA, enhancing productivity and customer experience. It underscores RPA's benefits and challenges, emphasising the need for clear guidelines and regulatory frameworks to mitigate issues like job displacement and data security risks. The findings offer strategies for insurance companies to effectively leverage RPA, driving improved productivity and customer experience.

Keywords: robotics; insurance; technology adoption model; business process

INTRODUCTION

While Robotics Process Automation (RPA) is used across many industries, the insurance industry lags behind. RPA in insurance can automate tasks such as processing healthcare claims, generating bills, answering customer queries, and validating insurance sales (Lacity and Willcocks, 2016). The paper focuses on a financial company transitioning from a traditional insurer to an Insurtech, emphasising digitalisation as key enabler of this transformation. Digitalisation is increasingly important across various sectors, including public administration, finance, banking, insurance, marketing, and logistics (Siderska, 2020). RPA, with its scalability and potential when combined with advanced technologies, is expected to transform knowledge-driven work. However, for software robots to truly assist humans, they must perform tasks intelligently, not just automatically (Kirkwood, 2019).

The use of robotics in various fields is driven by its ability to reduce humans' workload. RPA automates company processes using software bots for repetitive tasks, and interacting with existing programs without altering their code (Asquith and Horsman, 2019). However, RPA is limited to rule-based tasks and relies on humans for setup, making it vulnerable to errors and system failures (Fernandez and Aman, 2021). Despite positive initial results, RPA has not yet achieved human-like cognitive abilities. With limited research, understanding the challenges and adoption rates, especially in the insurance sector, remains difficult (Van der Aalst, Bichler and Heinzl, 2018). The study aims to identify the factors motivating workers in a South African insurance company to use RPA technology for digital transformation, ascertain the obstacles to RPA adoption, and determine the primary facilitators for implementing RPA in the company.

LITERATURE REVIEW

Robotic process automation (RPA)

RPA digitises tasks that simulate human labour by interacting with other computer systems' user interfaces (Van der Aalst, *et al*., 2018). It enables staff to focus on more innovative and valuable projects, with the programmer setting task rules through parameters and screen captures (Siderska, 2020). RPA is less invasive than conventional technologies as it operates over the information infrastructure. It automates activities such as form completion, email reading, data entry, and system authentication (Enríquez, *et al*., 2020). RPA systems track and replicate a user's actions in a GUI, creating virtual staff to enhance corporate agility and client satisfaction (Devarajan, 2018). This scalable approach handles various process variables and values, automating rule-governed tasks with regular data and predictable outcomes (George, Ali, Papakostas, 2021).

Benefits and challenges of RPA

RPA can replace two to five full-time employees (FTEs) with one robot, increasing efficiency and reducing costs (Kaya, Turkyilmaz and Birol, 2019). It allows workers to focus on creative, analytical, and service-oriented tasks, enhancing team productivity and employee satisfaction, while also encouraging skill development through more meaningful work (Parker and Appel, 2021). However, challenges such as accurately identifying which processes are suitable for automation (Leopold, Van der Aa and Reijers, 2018), and establishing criteria for process eligibility must be considered. The rapid replacement of industrial jobs by physical robots and the potential for white-collar jobs to be taken over by software-based chatbots pose significant concerns (Madakam, Holmukhe and Jaiswal, 2019). Barriers to RPA adoption include a lack of knowledge, strategies for adoption and maintenance, governance issues, and employees' fears of job loss (Syed *et al*., 2020).

Business processes

Business process management

The industrial environment's need for innovation has a knock-on effect on business processes, necessitating regular and tightly monitored improvements. Businesses are pressured to improve their goods and services to meet the demands of stakeholders and consumers (Borgianni, Cascini and Rotini, 2015). The need for straight-through processes in digital businesses propels the RPA industry's swift expansion. Given it facilitates the creation of new products, evolving company models, and the transformation of organisational processes, the use of RPA ought to be viewed as one of the drivers of Industry 4.0 and digital transformation (Siderska, 2020). Organisations perform better if they devote time to their business processes from beginning to end because managing business processes incorporates an organisational mindset underpinned by various methods and tools (Reijers, 2021). Therefore, it is imperative to optimise and improve processes before automating them.

Process identification

According to Siderska (2020), the primary obstacle in adopting and executing RPA is determining which processes are best suited. Appropriate process selection for robotisation is essential since it varies from the prototype phase to organisational deployment. Thus, selecting the proper process to automate is essential for the successful implementation of RPA (Moreira, Mamede and Santos, 2023). Some RPA projects fall short because company personnel perceive RPA technology as an imminent threat. According to Rutaganda *et al*. (2017), whenever an RPA project is unsuccessful, the use case or candidacy process is typically the primary cause of its failure rather than the technologies. Most research has concentrated on developing criteria and detailed instructions to help organisations deal with this problem (Leopold *et al*., 2018). Among other things, a criterion-based selection method can help identify pertinent processes, choose between different options for process automation, and incorporate people (Hofmann, Samp and Urbach, 2019).

Change management

The ever-evolving technological landscape necessitates change management processes in the workplace to prepare employees for forthcoming difficulties (Masum, *et al*., 2018). Essential competencies in change management and IT will facilitate the effective execution of a digital transformation plan (Mantyi and Sethibe, 2021). Changing practices that entail the widespread use of information and communication technologies (ICT) over a population of users that is impacted by both identified and unidentified impediments to technology adoption is seldom easy (Smuts, Lalitha and Khan, 2017). Change management can help during the transformation process by preparing staff. Identifying the elements that support or obstruct

employees' attitudes towards technology adoption is crucial (Ahmed, Qin and Martínez, 2019). When implementing new systems management should ensure good communication, allay staff's fear and mistrust to avoid poor adoption rates.

Technology adoption

Various models and theories serve as theoretical frameworks for researching organisational adoption of emerging technologies, and as assessment and testing method of new acceptance at individual and company levels. The Technology Organisational and Environmental (TOE) framework explores how technology is adopted at organisational level (Tornatzky and Fleischer, 1990). This framework offers an analytical framework that helps analyse the uptake and integration of various IT innovations (Lippert and Govindarajulu, 2006), and is the focus for this paper. According to Tornatzky and Fleischer (1990), a company's adoption of procedures and application of technological innovations are guided by three key factors, namely the technological, organisational, and environmental settings. Oliveira and Martins (2010) state that these factors can either facilitate or impede adoption. The technological context of an organisation comprises current technologies in use and emerging ones relevant to its operations. The organisational context, on the other hand, refers to the attributes and assets of the organisation that can either facilitate or hinder the adoption process. Lastly, the environmental context encompasses the external factors that affect an organisation's operations, including but not restricted to rivals, the business community, and regulatory authorities. Kane *et al*. (2019) elucidated that individuals' adoption of new technologies is a crucial component of digital disruption rather than the technology itself.

METHODOLOGY

Research design and case selection

The research utilised a qualitative method with thematic analysis to examine data from participants (Braun and Clarke, 2006). The insurance company was named Insurance S to maintain its confidentiality. The study aimed to explore key drivers and challenges of RPA adoption in the insurance sector, using the TOE framework to structure the research and analyse the factors affecting RPA adoption in the industry. Insurance S, an African financial services provider with over 10,000 employees, offers a range of financial solutions including life insurance, unit trusts, pension annuities, health solutions, and investments. They focus on client well-being by helping clients achieve long-term financial goals and investing in ways that benefit individuals, families, communities, and society, ensuring their business's long-term viability.

Sample and data collection

The study collected data through semi-structured interviews, using thematic analysis to identify recurring themes and patterns. Purposeful sampling was employed to ensure diverse viewpoints on Robotic Process Automation (RPA) adoption. Between November 2023 and February 2024, ten participants from various divisions of a South African insurance company were interviewed (see Table 1). Their educational backgrounds ranged from bachelor's to master's degrees, and they had varying levels of experience with RPA implementation—successful, attempted, or ongoing.

Participants met specific inclusion criteria, requiring prior RPA experience, gender diversity, willingness to share both positive and negative experiences, and current employment at the company. The participants held roles in divisions such as Investment, Risk, Health, Corporate, and Technology, with responsibilities ranging from business process management to technology implementation and strategic decision-making. Their experience levels varied, with some having direct involvement in RPA projects, others having attempted but failed implementations, and a few having successfully deployed RPA solutions.

Each interview lasted 25–40 minutes and covered 22 key questions, focusing on identifying RPA processes, data privacy and security, RPA advantages and challenges, creating a Minimum Viable Product (MVP), training and change management, RPA implementation, and concerns about job loss. All interviews were scheduled at convenient times to ensure minimal disruption to participants' daily responsibilities. Table 1 provides a detailed summary of participant demographics, professional roles, and RPA experience.

TABLE 1: PARTICIPANTS' BIOGRAPHIC DATA

Code	Business Unit	Gender	Race	Tenure (years)	Job Level	Education
S1	Retail	Male	White	8	Executive	Bachelor's Degree
S2	Investment	Male	White	12	Senior Manager	Bachelor Honour's Degree
S3	Insure	Male	Black	6	Senior Manager	Bachelor's Degree
S4	Health	Male	Colour	14	Executive	Master's Degree
S5	Risk	Female	Black	5	Manager	National Diploma
S6	Core business	Male	Indian	16	Executive	Bachelor's Degree

S7	Core business	Female	Black	10	Executive	Master's Degree
S8	Core business	Female	White	4	Senior Manager	Bachelor Honour's Degree
S9	Technology	Male	Indian	7	Executive	Bachelor's Degree
S10	Technology and Strategy	Male	Indian	20	Executive	Bachelor's Degree

Data analysis and interpretation

The thematic analysis framework of Braun and Clarke (2006) presents a six-stage process for qualitative RPA adoption data analysis. It begins with Data Familiarisation to understand the data, followed by Generating Codes for key features, Searching for Themes to organise codes, Reviewing Themes for validation, Defining and Naming Themes for clarity, and concludes with Producing a Report to document the findings. This method is flexible, allowing for iterative refinement within a structured approach.

Results and interpretation

Participants identified factors influencing RPA adoption, categorised into three main themes: motivators, obstacles, and facilitators, with twenty subthemes and forty-three codes for organisation and analysis

TABLE 2: FACTORS INFLUENCING RPA ADOPTION ORGANISED USING THE TOE FRAMEWORK

TOE	Themes	Subthemes	Codes
Technology	Motivators	Efficiency and quality, Performance expectations	Cost reduction, elimination of tedious tasks, improved quality of work, reduction in errors, availability of technology, 24/7 working, routine tasks consuming time, improved turnaround time.
	Obstacles	Lack of skills, legacy systems, Privacy and data security	Complexity in programming the bots, potential hacking of bots, unauthorized access to data, poor infrastructure, Fragmented systems, Identified malfunction post-implementation, and need to navigate various systems.
	Facilitators	Training and education, Change management and communication, Minimum Viable Products (MVP),	Training and educating users, change management and communicating the reasons behind the implementation, Knowledge gain in modern technology, Prototypes to show the potential benefits, Proof of concepts, and products with basic features.

Organisation	Motivators	Management buy-in, trust and transparency.	Executives lead by example, have transparency about the consequences, and demonstrate future benefits.
	Obstacles	Anxiety and Job loss fear, Weak processes	Job assurance after RPA goes live, lack of candidate processes, retrenchment possibilities, resistance to change, unemployment, and mental health.
	Facilitators	Digital culture, Sandboxes and innovation hubs	Culture reset for the digital world, ongoing experimentation, and exploration, innovation.
Environment	Motivators	Net Promoter Score, Rewards	Perceived customer experience and loyalty, competition, ability to enter new markets, capability to create new products, industry unique performance rewards, conferences and international traveling.
	Obstacles	Government regulations, Labour Unions	Lack of government policy on new technologies, Labour unions resisting layoffs, RPA exacerbating unemployment problem
	Facilitators	Clients, Image and brand	Technology savvy customers' demands, brand associated with advancement, being relevant in the market.
		20	43

Table 1 show that, for technology, motivators included efficiency and cost reduction, obstacles were skills gaps and data security concerns, and facilitators involved training and MVPs. For Organisation, motivators included management support and transparency, obstacles covered job loss fears and weak processes, and facilitators were digital culture and innovation hubs. For Environment, motivators were customer loyalty and market competition, obstacles included regulatory and union challenges, and facilitators were client demands and brand image.

DISCUSSION

An analysis of the study's objectives follows by scrutinising the results using the TOE framework. The data gathered from interview themes, subthemes and codes correspond to each perspective of the framework, namely Technology, Organisation and Environment.

Objective 1

To determine the factors that motivate workers in a South African insurance company to utilise RPA technology to enable digital transformation initiatives.

RPA adoption is motivated by improvements in efficiency, quality, and performance. Key factors include cost reduction, modern technology acquisition, elimination of tedious tasks, error reduction, 24/7 operation, and enhanced turnaround times. Automation enhances work quality and performance by reducing manual intervention in routine tasks, leading to better efficiency, productivity, and resource allocation. This aligns with findings that automation reduces expenses, improves work quality, and shortens turnaround times, facilitating the adoption of new technologies like RPA automation (Waal, Maris and Ravesteyn, 2017; Zaharia-Radulescu, *et al*., 2017).For RPA adoption, effective leadership and transparency are crucial. Executives setting a positive example and being transparent about RPA's implications help build trust and confidence among employees. Demonstrating the future benefits of RPA, such as skill enhancement and improved morale, supports adoption and stresses the need for strong leadership in implementing new technologies (Willcocks and Lacity, 2015. The adoption of RPA is influenced by NPS and industry rewards. Companies focus on improving customer experience and loyalty, using RPA to enhance client interactions and gather data for better personalisation. Additionally, high-performing employees are rewarded with international conference attendance, which serves as a competitive advantage for attracting and retaining talent. This approach boosts employee engagement and supports RPA adoption by creating a positive work environment and enhancing the company's employer reputation.

Objective 2

To determine possible obstacles to robotics process automation technology adoption in a South African insurance company.

The adoption of RPA faces significant obstacles from a technological perspective, including a lack of expertise, outdated systems, and concerns about privacy and data security. These issues manifest in challenges such as difficulty with programming bots, potential hacking, unauthorised data access, inadequate infrastructure, fragmented systems, malfunctioning bots post-implementation, and the need to navigate multiple systems. Research indicates that RPA is still developing with limited technical expertise available (Stople *et al*., 2017), and companies often struggle to attract skilled bot developers due to intense competition, compelling them to hire offshore specialists. Investing in training to improve programming skills is suggested, aligning with the findings of Cooper *et al*. (2019). Integrating RPA into existing legacy systems is complicated by fragmented infrastructure and inflexible architecture

(Rutaganda *et al*., 2017). The insurance sector has a strong preference for data security over new technology benefits, making users hesitant to adopt RPA despite its potential advantages.

From an organisational viewpoint, the adoption of RPA is hindered by concerns about job displacement and ineffective processes, which are divided into six specific challenges: job security after RPA implementation, lack of suitable processes for robotisation, the possibility of layoffs, resistance to change, unemployment, and mental well-being. Literature by Dilla, Jaynes and Livingston (2015) highlights significant concerns about job loss due to automation. In South Africa, with its high unemployment rate, especially among the youth, intelligent automation's workforce displacement is expected to impact the economy significantly (World Economic Forum, 2017). One participant noted that employees fear for their job security when bots are introduced, resulting in potential acts of undermining the RPA project. While staff understand which processes are suitable for RPA, they are hesitant to identify them due to job security concerns. This reluctance can result in withholding crucial data needed for bots to function optimally, thereby lowering project success and adversely affecting RPA adoption.

From an environmental standpoint, the adoption of RPA is impeded by government regulations and labour unions. These concerns involve lack of government policies on new technologies, resistance from labour unions against layoffs, and RPA exacerbating unemployment. Sensationalism around robots replacing jobs adds to these concerns, influencing RPA adoption and efficiency (Davenport and Kirby, 2016). One respondent noted that RPA adoption in South Africa's financial industry, including insurance, depends on business usage scenarios and government regulations. However, the industry's highly regulated nature obscures RPA's full impact. Labour unions, supported by the government, leverage their bargaining power to ensure consumer protection and fair labour practices, resisting automation to protect well-compensated jobs (SASBO, 2018). This creates fear and hesitance to adopt RPA, despite employees' willingness.

Objective 3

To identify the primary facilitators of robotics process automation technology implementation in a South African insurance company.

From a technological perspective, the adoption of RPA is facilitated by three key subthemes: training and education, change management and communication, and MVP. These subthemes can be divided into five specific areas: training and educating users, managing changes associated with RPA implementation, communicating the reasons for implementation, creating prototypes to demonstrate potential benefits, and executing Proof of Concepts. Historical trends in automation highlight RPA's potential to drive significant changes across industries, but achieving this requires a thoughtful approach that prioritises change

management, education, and skills development (Dilla *et al*., 2015). Participants emphasised the importance of clear communication and addressing uncertainties to ensure successful transitions, aligning with findings by Masum *et al*. (2018). Comprehensive training for all users is crucial for effective technology use, a perspective endorsed by Cooper *et al*. (2019). To initiate RPA adoption, the company piloted a contact centre RPA initiative as the MVP, demonstrating the solution's functionality with minimal capital investment (Ries, 2011). Creating prototypes in customer service areas has also driven adoption, supported by funds allocated for developing and testing new solutions. Managers highlighted the importance of presenting use cases and business scenarios to users, emphasising the risks of failing to adopt new technologies. Communication of both positive and negative news about the RPA project was essential, with leaders prepared to handle potential adverse outcomes for the company's best interest.

From an organisational perspective, the adoption of RPA is promoted by two key subthemes: digital culture and sandboxes, and innovation hubs. These subthemes are categorised into three main areas: culture reset for the digital world, ongoing experimentation and exploration, and fostering innovation. A strong relationship exists between innovation and improved performance within organisational culture. This encourages experimentation and concept testing, which is consistent with Sethibe and Steyn's (2016) findings. The company fostered a safe working environment that minimised risks early through experimentation, allowing employees to explore RPA initiatives without regulatory concerns. This encouraged employees to incorporate new technology into their routines, facilitating adoption. These opinions align with Kane *et al*.'s (2019) principles of technology change, where users initially adopt technology for personal use before the organisation adapts and integrates it into business operations. One participant emphasised the importance of establishing an organisational "DNA" that promotes exploration and experimentation without fear of mistakes, which is crucial for cultivating a digital community culture ready to adopt new technologies.

From an environmental perspective, the facilitator theme highlights two main subthemes that foster the implementation of RPA: clients and brand image. These subthemes can be divided into technology-savvy customers' demands, brands associated with advancement, and maintaining market relevance. The financial services industry is highly competitive, with analysts closely monitoring customer experience. Automation has benefited insurance companies by improving service delivery times and client feedback, consistent with Davenport and Kirby's (2016) findings on RPA's customer benefits. One participant emphasised the importance of maintaining a sophisticated and innovative image, as adopting advanced technologies like RPA enhances the brand and increases customer satisfaction. This positive

customer experience encourages employees to adopt supportive technologies, benefiting both clients and organisations.

CONCLUSION AND MANAGERIAL IMPLICATIONS

This study analysed the adoption of RPA in a South African insurance company using the TOE framework, identifying factors that motivate adoption, obstacles encountered, and facilitators of implementation. RPA adoption is driven by improvements in efficiency, quality, and performance. Key motivators include cost reduction, error elimination, continuous operation, and enhanced turnaround times. Effective leadership, transparency, and strong customer experience also play significant roles in encouraging RPA adoption.

However, the adoption of RPA faces several obstacles. Technological obstacles include a lack of expertise, outdated systems, and concerns about privacy and data security. Organisational obstacles are fears of job displacement and ineffective processes. Environmental obstacles involve government regulations and resistance from labour unions. Facilitators of RPA adoption include comprehensive training, effective change management, and the use of MVPs to demonstrate benefits. Fostering a digital culture that encourages experimentation and innovation, along with meeting technology-savvy customer demands and maintaining a sophisticated brand image, also promotes RPA implementation. Effective adoption of RPA requires strong leadership and transparent communication to build trust and ensure a smooth transition. Investing in comprehensive training and promoting continuous learning are essential to equip employees with the necessary skills. Implementing robust change management strategies is crucial, especially to alleviate job security concerns and to foster a culture of experimentation. Additionally, upgrading technological infrastructure and ensuring data security are necessary for seamless RPA integration. Collaboration with government bodies, labour unions, and industry stakeholders helps manage regulatory challenges and aligns RPA implementation with market demands. Attention to these factors will enable companies to navigate challenges, leverage facilitators, and successfully drive digital transformation.

LIMITATIONS AND FUTURE RESEARCH

The study's positive outcomes highlight the benefits of RPA in digital transformation but its limitations need to be acknowledged. It exclusively used a qualitative methodology, and the results might differ with a mixed-method approach. The dataset gained from only one insurance company may not fully represent the broader population, limiting the generalisability of the findings. Future research could explore the integration of RPA with advanced technologies like machine learning and AI and assess RPA's impact under evolving regulatory

frameworks in the insurance industry. Evaluating these aspects could provide further insights into maximising RPA's benefits and addressing regulatory challenges.

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AI AND THE FUTURE OF BUSINESS LEADERSHIP TRAINING: RETHINKING MANAGEMENT EDUCATION IN SOUTH AFRICAN PRIVATE INSTITUTIONS

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ABSTRACT

Artificial Intelligence (AI) is reshaping business leadership training, prompting a fundamental shift in management education. In rethinking management education to fit the needs of a fast-changing digital economy, South African Private Higher Education Institutions (PHEIs) are under growing pressure to match their curricula with Fourth Industrial Revolution (4ir) capabilities as artificial intelligence technologies, including machine learning, virtual simulations, and intelligent tutoring systems, change educational methods worldwide. There is a lack of research in the integration of AI in business leadership training. Hence, the current study aims to address the gap in the literature. Using a qualitative approach, semi-structured interviews with academic and administrative personnel, curriculum document analysis, and institutional policy evaluations. Results showed inconsistent integration across universities with notable obstacles, including insufficient faculty digital skills, obsolete infrastructure, and ethical issues connected to data privacy and algorithmic prejudice.

Keywords: artificial intelligence; Private Higher Education Institutions; curriculum innovations; digital education transformations; leadership training

INTRODUCTION

Historically, management education in South Africa has relied on static curricula and instructor-led approaches. The capacity of AI's capacity to personalise learning, simulate complex business scenarios, and deliver real-time feedback offers new tools for cultivating leadership competencies such as critical thinking, decision-making, and systems thinking. With higher education rising as a major arena for innovation, the arrival of artificial intelligence (AI) is bringing about revolutionary changes in many industries. (Ajani *et al*., 2024; Wang & Xie, 2024). Particularly, business leadership training is changing dramatically as AI-driven technologies start to enhance and, in some cases, alter conventional teaching approaches.

The integration of artificial intelligence presents a fascinating chance to reimagine management education in line with the needs of a fast-digitising world economy in South Africa's private higher education institutions (PHEIs), where flexibility and innovation sometimes outpace public counterparts.

There is lack of research in the integration of AI in business leadership training, hence the current study aims to address the gap in literature. In addition, the ethical consequences of artificial intelligence, including questions about data privacy, algorithmic prejudice, and educational equity, demand thoughtful deliberation to guarantee responsible use(Mary & Joyce, 2024 This paper looks at how AI is now being used in PHEIs to promote industry-relevant competencies and adaptive leadership while also critically evaluating the structural and pedagogical changes needed to enable this change. In doing so, it aims to offer ideas for teachers, administrators, and private sector interests on using artificial intelligence to create flexible, future-ready corporate leaders.

BACKGROUND OF THE STUDY

In South Africa, the need for innovative management curricula is accentuated by the rapid digitalisation of education and the increasing demand for agile, future-ready leadership. Private institutions, in particular, are under pressure to incorporate AI-driven tools into their teaching and learning environments to remain competitive in a rapidly evolving digital economy (Ajani *et al*., 2024; Wang & Xie, 2024). This transition is not without its challenges; faculty members face the dual demands of adapting to novel instructional paradigms and acquiring necessary AI literacy, while institutions must also address ethical considerations such as data privacy and the digital divide that may hinder equitable access (Anjani *et al*., 2024). However, there are only a few empirical studies investigating the effects of Integrating AI in business leadership training, hence, the need for the current study to close the gap. Therefore, the current research seeks to explore the effectiveness of these AI-powered learning environments, assessing their capacity to foster adaptive leadership competencies alongside industry-relevant skills.

This study intends to provide significant insights into the integration of AI within management education by examining how technologies like machine learning, virtual simulations, and intelligent tutoring can be optimally deployed to enhance educational quality. It will also address potential barriers to AI adoption in the context of South African PHEIs, thereby contributing to the broader discourse on redefining management education in the era of advanced digital transformations (Abbas *et al*., 2023; Ismail *et al*., 2023; Mary & Joyce, 2024). Ultimately, the outcomes of this investigation are expected to inform education practitioners and private sector executives regarding strategic implementations of AI in business leadership

training, ensuring that future business leaders are well-prepared for the complexities of a dynamic, digital business environment (Anjala, 2024).

LITERATURE REVIEW: THEORETICAL AND CONCEPTUAL BACKGROUND

AI defined

AI is the modelling of human intellectual processes, including learning, reasoning, and self-correction, by computers, especially computer systems. Russell and Norvig (2020) define AI as "the study of agents that receive percepts from the environment and perform actions," stressing its fundamental role of smart interaction with its surroundings. In many sectors like healthcare, banking, education, and communication, AI technologies allow automation of decision-making, usually calling for human intellect. Grounded in fields like computer science, mathematics, linguistics, psychology, and neuroscience, AI is evolving. Ethical issues like openness and responsibility have become increasingly important for the proper use of AI as it develops (Russell & Norvig, 2020).

The shift in management education

Historically, management education in South Africa has been characterised by static curricula and predominantly instructor-led approaches. Such traditional models have long served as the foundation of management training; however, these methodologies are increasingly challenged by the emerging demands of a digital economy that requires adaptability, data literacy, and strategic foresight. Several studies indicate that South African higher education has undergone significant transformation over the past two decades through technology-enhanced teaching and learning practices (Ng'ambi *et al*., 2016). The emergence of digital platforms, accelerated by the disruptions of the COVID-19 pandemic, has necessitated a transition from conventional pedagogies to more flexible, technology-driven models (Ajani & Maphalala, 2023; Chomunorwa *et al*., 2023). This transition is underscored by the need for curricula that incorporate contemporary digital tools and foster essential leadership competencies, such as critical thinking and systems thinking, that are vital for navigating complex business environments.

AI APPLICATIONS IN BUSINESS LEADERSHIP TRAINING

The inclusion of AI in corporate leadership training is a revolutionary development in management education. AI-driven innovations are helping to create more flexible and tailored learning environments, which are especially important in developing the skills needed for contemporary leadership. Predictive analytics, for example, diagnoses student strengths, weaknesses, and learning trajectories to provide customised learning paths, enabling a data-informed approach to instructional design (Ng'ambi *et al*., 2016). Virtual simulations, too, offer immersive digital settings where students may interact with actual business situations in a risk-

free environment, hence fostering experiential learning and the testing of leadership techniques (Ajani & Maphalala, 2023). The digital gap, which hinders fair access to sophisticated AI technologies and calls for thorough faculty development to guarantee efficient integration into courses, is a significant concern (Woldegiorgis, 2022). These studies taken together show that although AI can improve business leadership training by stressing adaptive thinking, resilience, and lifelong learning, its practical use calls for systematic curricular changes and strong institutional support to control natural technological and socio-economic inequalities (Chomunorwa *et al*., 2023; Mhlanga *et al*., 2022). Several AI-driven innovations are currently influencing curricula design and instructional methodologies.

Predictive Analytics

Predictive Analytics enables personalised learning pathways by identifying student strengths, weaknesses, and learning trajectories. Predictive analytics in AI-driven leadership training offers significant potential in designing personalised learning pathways by systematically identifying students' strengths, weaknesses, and learning trajectories. This technology leverages complex data sets to forecast students' future performance, thereby enabling tailored educational experiences that reinforce strategic decision-making and leadership effectiveness (Horchuk *et al*., 2024). Farid (2024) elaborates that by providing data-driven insights, predictive analytics equips educators and program designers to address learning gaps in real time, ultimately facilitating more responsive and adaptive curricula. The ability to anticipate individual learning needs directly contributes to cultivating resilient leaders capable of making informed decisions in dynamic business environments (Farid, 2024).

Virtual Simulations

Immersive business environments enhance experiential learning, allowing students to test leadership strategies in risk-free digital spaces. The utilisation of virtual simulations marks a significant shift in experiential learning, offering business students immersive environments where they can experiment with leadership strategies without the risk associated with real-world decision-making. Colon *et al*. (2024) demonstrate that virtual simulations allow for the replication of complex business scenarios and leadership challenges, thereby enhancing students' practical understanding of strategic and operational concepts. These simulated environments support developing critical thinking and systems thinking, as learners are exposed to realistic decision-making processes and organisational dynamics. This approach augments traditional classroom instruction and aligns with the broader shift towards technology-enabled, experiential learning in management education (Colon *et al*., 2024).

Machine Learning Algorithms

Machine Learning Algorithms (MLA) are used for real-time assessment and optimisation of teaching methods. MLA are increasingly incorporated in business leadership training to provide real-time assessment and continuous optimisation of teaching methodologies. Farid (2024) emphasises that such algorithms analyse massive data streams generated by student interactions, enabling prompt adjustment of instructional strategies to match individual learning progressions better. Although intelligent tutoring systems provide one-on-one, tailored instructional support that improves accessibility and responsiveness in learning, MLA are often used more for real-time evaluation and optimisation of teaching strategies (Ajani & Maphalala, 2023). However, the research points highlighted notable difficulties in the South African setting, despite the encouraging promise of these technologies. By continuously monitoring performance metrics and refining educational content, these algorithms shift the educational paradigm from static delivery to a dynamic learning process that evolves with students' needs. The application of these algorithms ensures that the training environment remains adaptive and responsive.

Intelligent Tutoring Systems (ITS)

Intelligent Tutoring Systems (ITS) provide individualised support, mimicking one-on-one instruction and enhancing accessibility. ITS have emerged as a critical application of AI in leadership training, providing individualised support that mimics one-on-one instruction. These systems can analyse a learner's performance in real time and offer tailored feedback, thereby creating a more personalised and engaging learning experience. Portillo (2025) illustrates that successful AI integration in leadership development programs often includes features that emulate personalised coaching, thereby enhancing the overall quality of training. Moreover, Farid (2024) highlights that ITS are instrumental in bridging the gap between traditional instructor-led approaches and modern, technology-driven education, enabling learners to develop key leadership competencies such as critical thinking and adaptive learning at their own pace. These tools align well with contemporary leadership development goals, emphasising adaptive thinking, resilience, and continuous learning.

RESEARCH OBJECTIVES

The study sought to achieve the following main objectives:

1. To investigate how artificial intelligence (AI) is being included in corporate leadership training inside South African Private Higher Education Institutions (PHEIs).
2. To assess the institutional preparedness, pedagogical changes, and ethical issues influencing the use of artificial intelligence in leadership education.

3. To offer strategic advice in line with industry demands and inclusive educational policies, improving AI-driven leadership development.

METHODOLOGY

This study adopts a qualitative research methodology, drawing on case studies, document analysis, and semi-structured interviews to examine the integration of AI in business leadership training within PHEIs. Case studies of organisations like Eduvos and Bolthale AI provide empirical anchors to investigate how AI technologies are now being used to close skills gaps, improve competitiveness, and promote inclusive learning. Document analysis comprises strategic plans, regulatory frameworks, and publicly accessible reports on AI integration in South African higher education. This triangulation of sources provides a thorough knowledge of the possibilities and constraints of AI adoption. Primary qualitative data was gathered via semi-structured interviews with faculty members, administrators, and leadership training coordinators at chosen PHEIs to supplement secondary data. A total of 20 respondents were interviewed. These interviews investigated institutional preparedness about AI implementation, attitudes, and experiences of participants. Particularly concerning ethical issues, infrastructural limitations, and pedagogical changes, thematic analysis helped to highlight recurring patterns and insights. This method lets one investigate the phenomena with a background relevant to the South African business sector, providing rich insights on the interaction between artificial intelligence and leadership education.

RESULTS

Justification of AI in PHEI leadership training

Justifications for including artificial intelligent (AI) into leadership development in South African PHEIs are growingly based on industry alignment, curricular relevance, and graduate employability. Identifying AI as a fundamental competence for future corporate executives, policy papers from several universities stress the necessity to match educational offers with Fourth Industrial Revolution (4IR) goals. Reviews of the curriculum at universities such as Eduvos and Monash show that modules are being changed to incorporate AI-enhanced decision-making simulations, predictive modelling, and real-time data analysis. These additions are meant to close the skills gap between theoretical leadership models and pragmatic, technology-driven corporate difficulties. The concept emphasises a paradigm change from static, knowledge-heavy material towards flexible, experiential learning frameworks meant to equip students for dynamic leadership contexts.

Responses to interviews with academic and administrative staff members help to support this change even further. According to one academic staff member:

"Our students are entering a world where leaders are expected to interpret big data and make decisions faster than ever." AI lets us reproduce that sort of high-stakes atmosphere in the classroom.

Another professor underlined how AI-driven simulations help to promote adaptable thinking.

Our virtual business scenario tools let students interact using artificial intelligence. It's not about rote learning anymore; it's about how they react to real-time factors.

From an administrative point of view, a senior curriculum director said:

"*Competitiveness is the reason. Institutions that don't update their leadership programs with artificial intelligence may find it difficult to draw students who wish to be future-ready. Artificial intelligence is, in our opinion, an investment in relevance.*

These comments show an increasing institutional agreement that AI improves pedagogical delivery and increases institutional attractiveness in a competitive education market.

Furthermore, data from curricular policy papers supports the opinion that including AI is required rather than optional. Institutional strategy plans examined throughout the study often include AI literacy as a goal for executives graduating. One such paper claims, *"All future business curricula will require foundational AI competency*," suggesting an institutional dedication to integrating AI at both programmatic and systemic levels. Comments from professors who saw significant rises in student involvement and learning depth when AI technologies were included in classes help to support this rationale. These results show a well-substantiated rationale for AI in leadership training based on pedagogical effectiveness, institutional strategy, and labour market needs.

RESULTS ON CHALLENGES IN ADOPTING AI

Institutional readiness and pedagogical shifts

Analysis of policy documents and semi-structured interviews conducted with faculty and administrators across five South African PHEIs revealed significant disparities in institutional readiness for AI integration. While some institutions, such as Eduvos, have begun embedding AI into strategic plans and curricula, others remain in exploratory phases due to resource limitations and lack of faculty preparedness. Interviewees consistently emphasised the transformative potential of AI in teaching and learning. However, they pointed to the need for a coordinated, institution-wide approach that encompasses digital literacy, ethical oversight, and infrastructure development.

Respondents from urban institutions expressed greater optimism about AI integration, citing access to funding and partnerships with tech providers. In contrast, those in rural institutions voiced concern about limited connectivity and professional development opportunities. These

findings suggest that AI adoption will remain fragmented without deliberate policy alignment and support structures, and risk widening institutional disparities.

Faculty adaptation

Interviews and institutional training records reveal that faculty adaptation remains one of the most significant hurdles to AI integration. Faculty members across all institutions expressed a need for upskilling and greater institutional support. One respondent noted:

"*We understand AI's value, but we lack the technical training to integrate it meaningfully into our courses. Workshops help, but they are not consistent."*

This sentiment aligns with Pramjeeth's (2024) findings, which highlight that while educators acknowledge AI's role in future-proofing education, they require structured professional development to engage effectively with AI tools. Interview data also reflected changes in faculty mindset, with many expressing increased openness to technological experimentation. These responses confirm Frantz *et al*. (2020) and Musundire (2025)'s claims that leadership-driven training initiatives and knowledge management systems are essential to fostering digital literacy and pedagogical innovation.

Curriculum development

Curriculum analysis of business leadership programs from three PHEIs showed varying degrees of AI integration. Institutions like the University of Johannesburg have redesigned modules to incorporate 4IR content and real-time data analytics, validating Adelowotan *et al*. (2025)'s observation that curriculum reform must be interdisciplinary and industry-aligned. Faculty interviews reinforced the value of stakeholder engagement in curriculum redesign, with one curriculum coordinator explaining:

"*We worked closely with industry partners to ensure our AI modules reflect real-world needs. It's not just about coding; it's about thinking differently."*

This was supported by Dube and Setlalentoa's (2024) theoretical framework, which emphasises a shift from static to dynamic, experiential learning models. Curricula that integrated simulations and AI-driven decision-making tools demonstrated greater alignment with academic outcomes and industry demands.

Infrastructure and access

Institutional reports and interview feedback confirmed the persistent digital divide across South African PHEIs. Rural institutions cited unreliable internet access and outdated computer labs as key barriers to effective AI adoption. Interviewees from such institutions stressed that even basic digital tools, l*et al*one complex AI platforms, were a challenge. This validates

findings by Mncube (2024) and McNulty (2023), who identify budgetary constraints and infrastructure inequity as major obstacles.

Further, curriculum implementation data from under-resourced campuses revealed inconsistent access to digital materials, affecting student engagement. Lubinga *et al*. (2023) and Goh *et al*. (2024) argue that these infrastructural gaps must be addressed through both national funding mechanisms and institutional strategic planning. Respondents suggested that building information technology capacity and offering ongoing support, not just hardware, are essential for sustainable digital transformation.

Ethical and Social Considerations

Ethical considerations emerged prominently in both interviews and policy document analysis. Data privacy was a chief concern, particularly regarding compliance with South Africa's Protection of Personal Information Act (POPIA). Several faculty members reported uncertainty about how student data was being stored and analysed through learning management systems. One respondent noted:

"*We collect a lot of student data, but I'm not sure we've ever discussed how that data is secured—or who has access*."

Concerns about algorithmic bias also surfaced, particularly from educators working with diverse student cohorts. Interviewees warned that AI may reinforce existing educational inequities unless algorithms are contextualised and regularly audited. These insights align with broader literature, including the Information Regulator's 2022 report, and emphasise the need for regulatory frameworks and ethical training for educators using AI tools.

Opportunities for South African PHEIs

Despite the challenges, interviewees and document analysis revealed strong enthusiasm for AI's potential. Eduvos was frequently cited as a case study in proactive adoption, using AI to enhance employability through real-time business simulations and predictive analytics in coursework. Curriculum analysis showed that these programs were well-received by students and aligned with labour market needs, especially in finance and entrepreneurship modules.

Moreover, Bolthale AI's use of natural language processing to localise content in indigenous languages was highlighted as a model of inclusive innovation. This addresses a recurring theme in the interviews: the importance of using AI not merely to automate learning, but to expand access and personalise instruction for diverse student populations.

DISCUSSION OF FINDINGS

The results of this study show the unequal adoption of artificial intelligence across South African PHEIs, hence showing differences in institutional preparedness that correspond with

previous studies. Literature emphasises that faculty expertise, infrastructure strength, and curriculum alignment are three key factors determining effective AI adoption in education (Musundire, 2025; Tarisayi, 2024). Interview answers showing that many lecturers are still adjusting to digital pedagogies, often with little formal training support, confirmed this.

Agreeing to the above finding is the study by Pramjeeth (2024) who alluded that although lecturers understand the importance of AI, systematic and continuous professional development is still quite lacking. The transition from conventional to AI-enhanced education calls for technical expertise and a mental shift, which several universities support via leadership-supported training and knowledge-sharing initiatives (Frantz *et al*., 2020). From a curricular point of view, the empirical study revealed that institutions that have adopted multidisciplinary cooperation and industry-aligned curriculum reform are more advanced in integrating artificial intelligence. This backs Mdletye's (2024) and Dube and Setlalentoa's (2024) claims for the restructuring of management education to mirror Fourth Industrial Revolution (4IR) competences like data literacy and strategic foresight. Institutions such as Eduvos show this change by including artificial intelligence technologies into business courses that mimic actual decision-making situations. Meanwhile, many universities still consider AI a secondary subject rather than a fundamental teaching tool. This gap points to a need for thorough curricular restructuring, driven by cooperation between academics and industry to guarantee future business leaders are equipped with both technology fluency and critical thinking skills.

Adoption of AI is made more difficult by ethical issues and infrastructural inequalities. Interviews and institutional reports reveal a digital difference between urban and rural PHEIs. This is supported by the study of McNulty (2023) and Lubinga *et al*. (2023), who argue that unequal distribution of digital tools is hampered by poor internet connectivity and antiquated infrastructure. Furthermore, worries about data privacy and algorithmic bias, emphasised by the Information Regulator (2022) and supported in faculty interviews, suggest a demand for unambiguous ethical frameworks and regulatory control. The danger of perpetuating socio-economic disparities becomes clearer as AI systems guide evaluation and learning routes more and more. Therefore, universities must not only spend money on infrastructure but also put rules in place guaranteeing openness, student permission, and inclusive use of artificial intelligence, creating an educational environment where ethical obligation balances innovation.

PRACTICAL MANAGERIAL IMPLICATIONS

The results of this study are very important for educational leaders inside PHEIs as well as for industrial players. Academic institutions will need to change their management approach if

artificial intelligence is included in leadership training: away from conventional administration and towards innovation-led governance. Investments in digital infrastructure, faculty development, and AI-informed curriculum design should take first place for educational managers. This calls for creating strategic alliances with industry to jointly create material and provide students with actual experience of AI uses in corporate leadership. Moreover, to properly guide organisations through digital transformation, managers have to adopt adaptive leadership techniques themselves. Institutional competitiveness in the higher education industry is defined by the capacity to read data, run technology-driven teams, and lead transformation.

From an industrial point of view, the research emphasises the need to create a workforce with AI-informed leadership abilities. Organisations want more and more leaders who can read sophisticated data, use artificial intelligence technologies in strategic decision-making, and inspire creativity. Industry participants can guarantee that graduates have technical knowledge and the necessary critical soft skills, such as ethical reasoning, adaptability, and collaborative problem-solving, by working with PHEIs to develop AI-focused leadership training programs. These partnerships also produce a pipeline of flexible, future-ready experts that can close the gap between technology capacity and strategy execution, hence improving organisational performance and resilience in a fast-evolving digital economy.

RECOMMENDATIONS FOR STAKEHOLDERS

For academic staff

Academics must engage in continuous professional development focused on digital literacy, AI tools, and data-driven pedagogy. This involves understanding how AI works and integrating it meaningfully into instructional design to personalise learning and enhance student engagement. Initiatives such as the "Teaching with Technology" programs run by some South African institutions (e.g., the University of Johannesburg) can serve as models for scaling educator training in private institutions.

For PHEI Administrators

Institutional leaders at PHEIs should prioritise investments in AI infrastructure, including digital learning platforms, data analytics systems, and virtual simulation tools. Equally important is fostering academic-industry collaborations to ensure that curricula reflect evolving workforce needs. For instance, partnerships between Eduvos and South African tech firms have already enabled the development of AI-enhanced business programmes, demonstrating the feasibility and benefits of such collaborations.

For Policymakers

Government and regulatory bodies must develop clear guidelines and supportive policies that encourage the ethical use of AI in education. These should address data privacy, algorithmic bias, and equitable access to digital tools. The Department of Higher Education and Training (DHET) should also consider targeted subsidies or incentives for PHEIs adopting AI-based innovations, especially those serving underserved regions.

For Leadership Trainees

Future business leaders must actively develop AI literacy as a core component of their leadership toolkit. This includes understanding how AI influences decision-making, business strategy, and organisational behaviour. Trainees should engage with AI simulations, case studies, and tools like chatbots or analytics platforms to gain practical exposure. Programmes that embed AI into leadership training, like those piloted by Henley Business School Africa, serve as exemplary models for cultivating AI-informed, agile leaders.

CONCLUSIONS

This study looked at how AI was included in corporate leadership training inside South African Private Higher Education Institutions (PHEIs), therefore uncovering both encouraging trends and significant obstacles. Interviews, curriculum research, and policy papers provide empirical evidence that artificial intelligence is progressively changing management education, driving schools away from conventional content delivery systems towards dynamic, data-driven, and immersive learning settings. Faculty and administrative personnel see artificial intelligence as a revolutionary tool for improving leadership skills, especially in strategic thinking, flexibility, and decision-making. Uneven degrees of institutional preparation and infrastructure differences still impede the universal and fair use of AI throughout the industry.

Faculty adaptability became a significant concern as constant professional growth and leadership-driven capacity building will determine the success of AI integration. Institutions that engage in digital literacy training and support systems usually embrace AI-enhanced teaching methods more quickly. Ensuring that graduates are equipped with pertinent, future-ready leadership abilities also depends on curriculum change based on industry cooperation and 4IR ideas. Still, ethical and social issues—including data privacy, algorithmic prejudice, and the digital divide—seriously complicate things that call for institutional responsibility and strong regulatory control. The report emphasises that AI adoption might aggravate rather than reduce current disparities without ethical guardrails.

Notwithstanding these obstacles, the research finds that AI has great power to revolutionise leadership education in South Africa. By personalising learning for different student groups,

PHEIs that adopt AI strategically stand to increase the employability of their graduates, strengthen their global competitiveness, and promote inclusive innovation. Eventually, this change calls for a joint effort from academia, business, and government to create ethical, accessible, and sustainable AI systems. Digital age leadership education has to emphasise how to use AI and create leaders who can ethically and critically interact with it. Focusing on maximising AI integration for educational quality and social fairness, this paper provides a basis for future policy, research, and related work.

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FROM GUIDANCE TO GOVERNANCE: INTEGRATING ARTIFICIAL INTELLIGENCE RISK MANAGEMENT STANDARDS

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ABSTRACT

The National Institute of Standards and Technology (NIST), the International Organization for Standardization (ISO), and the International Electrotechnical Commission (IEC) all issued guidelines on Artificial Intelligence risk management in recent years. This study aimed to develop an artefact to determine organisational readiness for managing risks related to developing, deploying and maintaining Artificial Intelligence (AI) systems. To this end, a document analysis was conducted on these AI risk management frameworks to determine which additional risk management requirements are expected from organisations planning to use AI systems. This analysis highlighted the following nuanced changes to current organisational risk work practices to manage AI systems: responsible AI systems governance, applying critical thinking and a safety mindset, identification of AI assets and their impact, identification of AI risk sources, changes to current risk governance, identification of unique controls, defining risk criteria to accommodate assessment of AI risks, and responsible AI design development and deployment.

Keywords: artificial intelligence; AI risk management standards; governance; organisational readiness; risk work practices

INTRODUCTION

Ensuring a common understanding of the key concepts used in this article is essential. Artificial intelligence (AI) is a task-processing technology that produces human-like results. These models are trained on existing data to understand its patterns and structures, enabling them to produce new data with similar features, often based on specific prompts (Buiten, 2019; NIST, 2023a; OECD, 2022). Responsible practices involve designing, developing, and deploying AI systems that prioritise trustworthiness, ethics, and accountability, thus aligning with societal well-being, fairness, and transparency (NIST, 2023a; OECD, 2022). Risk is “the effect of uncertainty on objectives” (ISO, 2023b). Risk management is the systematic establishment, application, and maintenance of structures, policies, procedures, and risk work to identify, analyse, evaluate, treat, monitor, and review risks associated with AI systems within

an organisation (ISO, 2018; SARB, 2018). Risk work is “situated human effort, in combination with material infrastructure, through which risk management and governance practices come to be constructed”. Therefore, the employees’ activities, approaches, and tools utilised in risk management to support decision-making (Hardy *et al*., 2020; M. Power, 2016). A risk control framework and strategy are designed to ensure that policies, procedures, and governance structures assist organisations in effectively managing risks throughout the AI lifecycle. Thus, it ensures that AI systems are trustworthy, reliable, and aligned with organisational goals (ISO, 2023b; NIST, 2023a; SARB, 2018).

Standards Developing Organisations (SDOs) such as the National Institute of Standards and Technology (NIST), the International Organization for Standardization (ISO), and the International Electrotechnical Commission (IEC) all issued technical standards for managing novel risks throughout the organisational lifecycle of AI. The NIST AI risk management framework, the ISO/IEC 23894 AI risk management framework, and the ISO/IEC 42001 AI governance framework were all recently issued. There is a need for organisations using AI systems to integrate and operationalise these technical standards to achieve a more structured and comprehensive approach to tackling both organisational and technical AI risks, as well as accounting for the internal and external impacts of AI system development, deployment and maintenance. The mentioned guidelines and the EU Regulation 2024/1689 propose a risk-based approach embedded in the AI system’s lifecycle, thus ensuring thoroughness and relevance at every organisational level. A risk-based approach will also support responsible and compliant AI innovation. However, adopting this integration requires the consideration of the organisation’s unique needs and context to ensure compliance aligns with the disrupted organisational culture (EU, 2024; IRMSA, 2025; ISO, 2023a; NIST, 2023a).

In a world where AI-related legislation is still in its infancy, organisations are forced to self-regulate to ensure safety, fairness, trust and minimal harm to people and the planet. It is, therefore, important to consider AI from a socio-technical perspective (DCDT, 2024a; McLoed, 2024). A global research survey by Riskconnect (StrategicRISK, 2023) found a significant shortfall in managing AI-related risks. This survey found that only 17% of the risk and compliance executives trained their teams on the fundamentals associated with AI. According to the survey, most firms (93%) are aware of AI risks, but fewer than 10% believe they are ready to control them effectively. A study by Somer and Thakmann (2023) supports these findings and highlights the importance of businesses devising innovative control strategies to manage and protect their organisations during AI development and deployment. This study identified a research gap in the organisational readiness to implement AI systems from a risk management framework perspective.

NIST (2023a) argues that when AI systems lack proper controls, they can exacerbate inequitable or undesirable outcomes for individuals and communities. However, with appropriate controls, AI systems can mitigate these inequities. Responsible AI practices align system decisions with intended values, emphasising human-centricity, social responsibility, and sustainability. Risk management plays a crucial role in the responsible development and use of AI systems, prompting organisations and their internal control teams to consider context and potential impacts critically. Understanding and managing AI risks enhances trustworthiness and should foster public trust.

Traditional IT risk management approaches often fall short when applied to AI projects due to the unique challenges AI systems present (ISO, 2023b). Research by Somer and Thakmann (2023) concluded that there is a lack of formal organisational risk management frameworks to handle unique AI risks. Before such frameworks can be developed in organisations, it is essential to have a comprehensive understanding of the integrated requirements across all the recently published AI risk management standards. This study, therefore, aims to address this gap by comparing the new AI standards to an established risk management standard to determine what additional risk management practices are proposed to accommodate the unique challenges of AI systems development, deployment and maintenance. This paper forms part of a broader study on managing AI-related risk at a South African insurer. However, any organisation can use the results of this study to perform a gap analysis on their current risk management frameworks, policies and procedures.

BACKGROUND

African countries lack comprehensive national policies to address AI development and its socio-technical impacts. While some African nations, including Botswana, Egypt, Mauritius, South Africa, Tunisia, and Zambia, have initiated national AI programs, others, such as Ghana, South Africa, Kenya, and Nigeria, have enacted data privacy laws that are potentially applicable to AI. These frameworks are still nascent. As a result, AI deployment remains largely unregulated on the continent. There is a pressing need for African countries to develop strategic AI deployment techniques akin to those in developed regions such as China, the EU, and the US. The Conference on the State of AI in Africa emphasised the importance of implementing these policy frameworks effectively and ensuring accountability to guarantee the proper implementation of AI applications (CIPIT, 2025; Filipova, 2024).

The future of AI in South Africa

The South African Department of Communications and Digital Technologies (DCDT) issued a National AI Policy Framework in August 2024. DCDT stated that the policy framework represents the “initial step” in formulating a national AI policy for South Africa. Upon finalisation

and publication, this AI policy will act as the “core foundation” for establishing AI regulations and possibly an AI Act in the country (DCDT, 2024b; McLoed, 2024). According to the AI framework, the following trends are shaping the future of AI in South Africa:

- Technological advancement: The rapid global progression of AI technologies necessitates South Africa’s adoption of these innovations to remain competitive and relevant. Keeping pace with global advancements is crucial to avoid lagging in technological capabilities.
- Economic necessity: AI holds significant potential for economic growth by boosting productivity, creating new industries, and fostering innovation. Embracing AI can drive South Africa’s economic development, generate job opportunities, and enhance overall economic resilience.
- Social demands: There is a growing demand for AI-driven solutions in critical sectors such as healthcare, agriculture, education, financial services, and public safety. AI can offer innovative solutions to social challenges, thereby enhancing service delivery and quality of life.
- Policy momentum: Global trends in AI governance and the need to align with international standards are also prompting South Africa to develop AI policies. Aligning with international norms and standards is essential to ensure ethical and responsible deployment of AI.

Normative aspects of current AI regulation

While most would concur that the light-touch regulation granted to the internet for over two decades fostered an environment conducive to technological growth, recent years have seen policymakers attempting to rectify this with new laws and heightened antitrust scrutiny. The initial regulatory approach, grounded in principles like net neutrality, self-regulation, and the safe harbour doctrine, was intended to encourage technological innovation and expansion. However, this laissez-faire stance also allowed malicious actors to exploit the internet. Cybercrime, fraud, and social media manipulation have led to direct theft, business disruptions, privacy breaches, and election interference (Blevins, 2019; Bond, 2001). The recent policy shift, including the imposition of billions in fines, the implementation of the EU’s General Data Protection Regulation, and the intensification of antitrust investigations across multiple continents, indicates that regulators are unlikely to grant AI the same level of freedom that was once afforded to the internet (Ernst & Bergakker, 2024; Smuha, 2021).

AI regulation is in its infancy worldwide, except for the EU AI Act. The Act came into effect on August 1, 2024. This legislation aims to ensure the responsible development and deployment of AI within the EU, focusing on minimising risks to citizens’ health, safety, and fundamental rights. Various initiatives were initiated, such as the International Panel on Artificial Intelligence

(IPAI), which aims to promote and guide the responsible adoption of AI, ensuring it is human-centric and rooted in human rights, inclusion, diversity, innovation, and economic growth. IPAI will foster international collaboration among the scientific community, industries, civil society, relevant international organisations, and governments in a multistakeholder approach (Littman *et al*., 2021; OECD, 2024).

As early as July 2017, China's State Council unveiled the New Generation Artificial Intelligence Development Plan, outlining its strategy to advance AI. The plan's goal is to make China the leading nation in AI deployment and monetisation by 2030, thereby setting the pace in establishing ethical norms and standards for AI development and implementation worldwide (Filipova, 2024).

AI risk and governance frameworks

Over the past three decades, many risk management tools, including frameworks, methodologies, and models, have been developed. These frameworks shape the discourse of risk management, forming its perceived reality. These methodologies offer a language and structure for discussing risk management and serve as evidence of its implementation within organisations. Through the lens of these models, we can assess and rank the effectiveness of risk work practices in organisations (Michael Power, 2016).

It is recommended by Butcher and Beridze (2019), as observed in (Somer & Thakmann, 2023), to screen existing published frameworks and assess their requirements and suitability for organisational risk work. Most authoritative AI-related frameworks were issued during 2022 and 2023, such as ISO/IEC 23894:2023 Guidance on Artificial Intelligence Risk Management (AIRM), AI RMF 1.0:2023 Artificial Intelligence Risk Management Framework, ISO/IEC 42001:2023 Artificial Intelligence Management System (AIMS), and the OECD Framework for the Classification of AI systems (ISO, 2023a, 2023b; NIST, 2023a; OECD, 2022). There is a current gap in the interpretation and application of these frameworks in academia and practice (Benraouane, 2024). This study analysed in more detail the additional aspects and techniques proposed by these governance and risk standards.

According to NIST (2023a), the 'people and planet' aspect is crucial to the risk governance framework for implementing AI within organisations. The AI stakeholders in this dimension form a distinct AIRM audience that provides insights to the primary actors. These stakeholders might include industry associations, standards-developing bodies, regulators, lobby groups, researchers, civil society organisations, end-users, and those potentially affected, such as individuals and communities. Ideally, risk work begins with the development phase within the application context and continues throughout the entire AI system lifecycle.

Effective risk management hinges on collective responsibility among the various organisational AI actors. Risk management functions benefit from various perspectives, disciplines, professions, and experiences. Diverse teams foster open sharing of ideas and assumptions about the purposes and functions of technology, making these implicit aspects more explicit. This broader collective perspective creates opportunities to surface problems and identify existing and emerging risks (NIST, 2023a; Sharma *et al*., 2024).

RESEARCH OBJECTIVE

The objective of this study was to gain insight into additional risk practices recommended by the ISO/IEC/NIST standards that inform AI risk management, as well as the changes required to conventional risk management frameworks to ensure the responsible development, deployment, and maintenance of AI systems across various industries.

METHOD

Research approach and design

Scholars such as Cardno (2018) purport that document analysis is the most suitable method for evaluating standards, policy documents, and regulations. Document analysis enables researchers to make sense of their resources and select the appropriate pieces for their studies. This deductive research approach was employed through a detailed analysis that compared and contrasted the various risk management elements stipulated in the standards to identify similarities and differences. Therefore, additional risk management practices were identified to accommodate the responsible use of AI systems from a socio-technical perspective.

Sampling technique

The purposive sampling technique was employed, as standards from only authoritative SDOs on AI risk management and governance were considered, such as the NIST, ISO, and the IEC. These standards are internationally recognised as best practice guides.

Data sources

There are currently over 20 published standards related to AI. The inclusion criteria for key data sources in this study were to consider only publicly accessible standards or acquired through an SDO user license agreement that covers aspects of risk management. The following standards were used in the document analysis:

- ISO 31000:2018 Risk management – Guidelines
- ISO/IEC 23894:2023 Guidance on Artificial Intelligence – Risk Management (AIRM)
- ISO/IEC 42001:2023 Artificial Intelligence – Management System (AIMS)

- NIST AI RMF 1.0 (2023) Artificial Intelligence Risk Management Framework (AI RMF 1.0)
- At the time of this study, no South African national standard (SANS) has yet been adopted for any of these standards.

Data collection and analysis

The components listed in the ISO 31000:2018 Risk Management Standard were used as a proxy of existing generic risk management practices. The proposed risk management practices outlined in the AI guidelines were compared and mapped to those captured in ISO 31000. This allowed for a systematic and detailed analysis of the various standards, enabling the identification of additional risk management practices needed to accommodate AI systems. The author concedes that organisations tailor the risk management elements to suit their organisational culture, legislative frameworks, and industry.

Procedure

Data extracted from the standards were mapped in a matrix using a worksheet to document similarities and differences between the four standards across the various risk management framework components. The detailed analysis results were tested against other crosswalk studies on some of these standards to ensure the credibility, consistency and completeness of the mapping (NIST, 2023b, 2023c). Key gaps identified in this analysis are outlined in Appendix A.

RESULTS AND DISCUSSION

The document analysis of the identified AI standards yielded additional considerations beyond current risk management practices. An AI policy, aligned to the organisational values and regulatory requirements, is recommended to ensure responsible design, development, deployment, and continual improvement of AI systems. Organisations should take steps to understand uncertainty in all aspects of the AI systems they deploy, including data sets, software, models, hardware components, and human participation. Emphasis is placed on documenting the AI system's design and resources to ensure alignment with organisational objectives and intent.

AI systems can introduce new safety and security exposures that extend beyond the scope of classical information systems, thus necessitating critical thinking and a safety mindset in designing and using AI systems. Safety concerns relating to human life or health, such as automated transport or medical devices, should be considered. Risk mitigation strategies should also consider new system security issues, like data poisoning, model stealing, and adversarial attacks.

New risk identification and assessment techniques should be developed to measure the socio-technical impacts of AI assets, along with differentiated measures to rate and rank AI risks over their lifecycle. Redefining risk tolerance limits and risk appetite must include the impacts of AI on the internal and external environments. The reviewed standards provide guardrails for developing new and unique controls. The detailed analysis results are provided in Appendix A.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

Organisational risk governance needs to be recalibrated to support new AI systems. It is recommended that the details in Appendix A be used as a tool to determine what changes in risk management processes should be considered to accommodate the inclusion of AI systems in current organisational risk management frameworks.

First, management should amend current risk criteria and assessment techniques. Risk management procedures must incorporate continuous assessments to monitor the evolving risks associated with AI. This includes robust monitoring and assurance on AI decision-making processes. Protocols are necessary for bias detection, security measures, and testing on compliance with an emerging AI regulatory universe.

Second, the revised risk management framework should provide for establishing AI governance teams with clear responsibilities, by creating new roles such as Chief AI Officer, AI Risk Manager, and AI Ethics Officer. Management should encourage cross-functional collaboration to manage AI effectively. Upgrading the current information technology infrastructure and security is critical. Scalable AI frameworks aligned with the ISO/IEC 42001 recommendations should be considered.

Third, augmented skill sets are required to ensure the ongoing maintenance of AI systems. A continuous learning programme is required to improve the AI literacy of employees at different levels in the organisation. Staff must be trained on AI risk management procedures to effectively manage AI risks, adhere to ethical guidelines for AI, and ensure operational oversight.

Finally, management needs to foster a culture of AI risk awareness by encouraging interdepartmental collaboration on AI projects and promoting an environment where staff can voice concerns about AI systems.

CONCLUSION

From the results of the detailed document analysis of the four standards, it is evident that AI brings unique and unpredictable exposures to organisations venturing into AI systems. AI is considered a rapidly evolving technology, and therefore, necessitates continuous monitoring

and regular re-evaluation of the effectiveness of risk management practices to address dynamic risk exposures. Organisational management, risk practitioners and AI project teams should consider the results of this study before developing AI systems in their operations, as organisational readiness is key to managing AI-related risks proactively. This study was explorative and by no means meant to be comprehensive. Other researchers may consider developing industry-specific risk frameworks.

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APPENDIX A
Additional processes required to manage AI system risks

No	Theme	Sub-theme	Description	Reference
1	**Responsible AI design, development and deployment**		**Governance to ensure a responsible AI systems approach**	
1.1		AI model transparency	The AI model is explained, validated, and documented. The AI system output is interpreted within its context to inform responsible use and governance. Potential risks of accountability and transparency are identified and documented.	AI RMF MEASURE 2.8, 2.9
1.2		Responsible AI systems design, development and enhancement	The organisation should identify and document objectives and data management processes to guide the responsible development of AI systems throughout the AI development lifecycle.	AIMS B.6.1.2, B.7.2
1.3		AI system deployment governance	The organisation should document a deployment plan, determine essential AI system technical documentation for all interested parties (users, partners, and supervisory authorities), define and document a process for recording data provenance, and provide necessary information to system users, including technical details, instructions, and general notifications.	AIMS B.6.2.5, B.6.2.7, B.7.5, B.8.2
2	**Responsible AI systems governance**		**Mapping of the organisational context of the AI system**	
2.1		Intended AI system benefits	Intended AI system functionality and performance documented.	AI RMF MAP 3.1
2.2		Application scope	Determining and documenting the scope of the AI management system.	AI RMF MAP 3.3 AIMS 4.3
2.3		AI system performance and trustworthiness	Processes for operator and practitioner proficiency with AI system performance and trustworthiness are defined, assessed, and documented.	AI RMF MAP 3.4
2.4		Human-in-the-loop (HITL)	Processes for human oversight are defined, assessed, and documented in line with organisational policies.	AI RMF MAP 3.5
2.5		Human competence	The organisation should ensure competent individuals perform AI-related tasks, and their competencies and actions taken are documented.	AIMS 7.2, 8.2
3	**AI systems documentation**		**Documentation of organisational objectives, requirements, specifications, AI system verification and validation, and identifying interested parties.**	
3.1		Documentation of AI system design and development	The organisation should document the AI system design, development, and resources (data, tooling, human, systems and computing) to ensure the system is based on organisational objectives, documented requirements and specification criteria.	AI RMF MAP 2.1 AIMS B.6.3.2, B.4.2 to B.4.6
3.2		AI systems documentation	Determine what AI system technical documentation is needed for each relevant category of interested parties, such as users, partners, and supervisory authorities, and alike.	AIMS B.6.1.3, B.6.2.7, B.8.2, B.10.3
3.3		Documentation of AI system's knowledge limits	Define and document the data for the development and enhancement of an AI system in terms of the data management processes, the acquisition of data, requirements for data quality, data provenance, and data preparation.	AI RMF MAP 2.3 AIMS B.6.1.3, B.6.2.4, B.7.2 to B.7.6

No	Theme	Sub-theme	Description	Reference
4	**Critical thinking and a safety mindset**		**Organisational measures to foster a critical thinking and safety-first mindset in the development, deployment, and maintenance of AI systems**	
4.1		Responsible development	Objectives and processes for the responsible development of AI systems should be identified, documented, and integrated into the AI development lifecycle.	AIMS B.6.1.2, B.6.1.3
4.2		Responsible use	Objectives and processes for the responsible use of AI systems should be identified, documented, and integrated into the AI development lifecycle.	AIMS B.9.2, B.9.3
4.3		Alignment of suppliers	Suppliers to ensure that their usage of services, products or materials provided aligns with the organisation's approach to the responsible development and use of AI systems.	AIMS B.10.3
5	**Identification of AI assets and their impacts**		**Identify tangible and intangible assets related to the development and use of AI and their socio-technical implications**	
5.1		Value to organisations	Value to organisations, such as data, models, AI system, reputation and trust.	AI RMF MAP 1.6 AIMS B.5.4, B.5.5
5.2		Value to individuals	Value to individuals, such as personal data, privacy, health and safety.	AIRM 6.4.2.3 AIMS B.5.5
5.3		Value to communities	Value to communities and societies, such as environment, socio-cultural aspects, community knowledge/education and equity.	AIRM 6.4.2.3 AIMS B.6.2.2
5.4		Systems impact	Assess the potential consequences for individuals, groups of individuals, or both, and societies that can result from the AI system throughout its lifecycle.	AIMS B.5.2, B.5.4
6	**Identification of AI risk sources**		**Identification of risks unique to AI development, deployment and maintenance**	
6.1		The organisation's intended use of the AI system	The organisation should document a policy and processes for the responsible use of AI systems, ensuring AI systems are used as intended and according to documentation.	AIMS 4.1, B.2.2, B.8.2, B.9.2, B.9.4
6.2		Development and deployment risks	Identification of risk sources relating to AI development and deployment within the organisational context.	AIRM 6.4.2.3
6.3		Exposures from using third-party AI components	Internal risk controls for the AI system components, including the use of third-party data, software or technology, should be flagged for legal and intellectual property risks.	AI RMF MAP 4.1. 4.2

No	Theme	Sub-theme	Description	Reference
7	**Identification of potential events and outcomes**		**Identification of AI risks based on various internal and external sources**	
7.1		Identification context	The organisation should define and establish an AI risk assessment process that is aligned with the AI Policy and AI objectives, ensuring consistent, valid and comparable results of documented risk assessments.	AIMS 6.1.2
7.2		Use standardised methods and sources	Organisations should identify potential risks related to the development or use of AI through methods, sources, and tools such as simulations, technical reports, field trials, stakeholder reports, expert opinions, and usability studies.	AIRM 6.4.2.4
7.3		Independence and consultation of assessors	Risk assessments and updates should be performed by internal experts who were not part of the AI systems development and independent assessors. The frontline AI actors are consulted to support the assessments.	AI RMF MEASURE 1.3
8	**Identification of unique controls**		**Identification of internal and automated controls**	
8.1		Controls relevant to the development or use of AI systems	The organisation should identify and document internal risk controls for AI systems components, including third-party AI technologies, during risk work activities to ensure control efficacy.	AI RMF MAP 4.2 AIRM 6.4.2.5
8.2		Establishment and alignment of the AI Policy	Top management must establish an AI Policy that aligns with the business strategy, organisational values, risk levels, legal requirements, ensuring continual improvement and effective AI system management. Management should determine where other organisational policies can apply or be affected by the organisation's AI systems' objectives.	AIMS 5.5, 6.2, B.2.2, B.2.3
8.3		AI systems' security and resilience	AI system security and resilience should be evaluated and documented. These measures should be aligned with other organisational policies.	AI RMF MEASURE 2.7 AIMS B.2.3, B.3.2, B.6.1.2, B.6.2.3, B.7.2, B.9.3
9	**Identification of consequences**		**Organisations should differentiate between business, individual, and societal impact assessments when assessing consequences in a risk assessment.**	
9.1		Business, individual and societal impact analysis	The organisation should establish criteria to perform impact analysis on business activities, on individuals, and on societies.	AIRM 6.4.3.2
9.2		AI system safety risk tolerance	AI systems must be safe, reliable, and robust. They must have documented verification measures, real-time monitoring, and support to ensure they fail safely and meet agreed-upon risk tolerance limits. A specific safety metric should be established.	AI RMF MEASURE 2.6 AIMS B,8.2, B.6.2.4, B.6.2.6, B.6.2.8

No	Theme	Sub-theme	Description	Reference
10	**Assessment of likelihood**		**The likelihood of risk events and outcomes should be assessed qualitatively or quantitatively in line with AI risk criteria**	
10.1		Factors informing likelihood estimates	Likelihood should be informed by the number of risk sources, threat frequency and severity, internal factors (such as policy effectiveness and internal actor motivation), external factors (including social, economic, and environmental concerns), and the success or failure of controls. Likelihood calculations aid in identifying treatments but face challenges when precision is difficult.	AIRM 6.4
10.2		External data on past use of AI to be considered	The likelihood and magnitude of each identified impact (both potentially beneficial and harmful) are identified and documented based on expected use, past uses of AI systems in similar contexts, public incident reports, feedback from those external to the team that developed or deployed the AI system, or other data.	AI RMF MAP 5.1
11	**Defining AI risk criteria**		**Define risk criteria that are unique to the development and use of AI**	
11.1		Measurement criteria befitting fast-moving technology	As IA is a rapidly evolving technology, organisations should attempt to comprehend uncertainty in all parts of the AI system, including data, software, models, hardware and human activities. Risk measurement methods must be regularly assessed for their relevance and may require recalibration. There should be a uniform approach to determining risk levels.	AIRM 6.3.4, Annexure A
11.2		Define organisational AI risk capacity	The organisation's AI risk appetite should be informed by its capacity, knowledge, and ability to mitigate AI risks. Processes and procedures will determine the needed level of risk work activities based on risk tolerance. The organisational risk tolerances should be documented and communicated. Risks that cannot be measured should be documented.	AIRM 6.1.1, 6.3.4 AI RMF GOVERN 1.3, MAP 1.5, MAP 3.2, MEASURE 1.1
11.3		Assess risk and opportunities	When planning for the AI management system, the organisation should consider the issues and the requirements and determine the risks and opportunities that must be addressed. Positive and negative consequences, including individual and societal impacts, should be assessed. A similar process should be followed when significant system changes occur.	AIMS 6.1.1, 6.4.6.2, 8.4

GENERATIVE ARTIFICIAL INTELLIGENCE IN ACADEMIC WRITING: AN INTEGRATIVE LITERATURE REVIEW OF PROMISES, DOWNSIDES AND ETHICAL IMPLICATIONS FOR POLICY AND PRACTICE

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ABSTRACT

The rapid integration of Generative Artificial Intelligence (GenAI) into academia is transforming scholarly writing, offering both significant benefits and pressing challenges for academic integrity and knowledge production. This study examines the use of specific GenAI tools in academic writing through an integrative literature review of peer-reviewed articles published between 2021 and 2025. Findings indicate that GenAI can enhance writing efficiency, quality, and creativity, but also raise concerns over overreliance, plagiarism, academic dishonesty, and the generation of inaccurate content. Ethical considerations regarding the incorporation and responsible use of AI-generated text are discussed. The paper calls on researchers to investigate the cognitive impacts of GenAI and develop ethical use frameworks; institutions to implement training, revise policies, and adopt learning models that integrate GenAI; and policymakers to ensure equitable access while upholding rigorous ethical standards.

Keywords: artificial intelligence; generative AI; academic writing; ethics; integrative literature review

INTRODUCTION

Academic writing involves conducting research, evaluating information, organising thoughts, presenting arguments, responding to others' arguments, analysing data and expressing ideas clearly and effectively through writing (Prasantham, 2023). As this is essential for scholarly discourse and knowledge creation, academic writing demands a serious approach and specific skills, focusing on reasoning and evidence (Romrome, 2024). However, the rise of AI-powered tools has introduced new dynamics to this process. These technologies, increasingly common and accessible, now play a significant role in shaping writing practices and competencies across disciplines.

Artificial intelligence (AI) powered tools in academic writing have significantly increased in use and familiarity and are vital in developing writing competence across various disciplines. Extant studies have explored GenAI's impact across various studies and highlight AI technologies as tools to enhance learning outcomes and educational efficiency (Bahroun, Anane, Ahmed and Zacca; Annamalai, Bervell, Mireku and Andoh, 2025; Gasaymeh, Beirat and Qbeita, 2024). Studies have also shown that students engaging in interactive processes with GenAI-powered assisting tools generally perform better in writing tasks (Nguyen, Hong, Dang and Huang, 2024). Generative Artificial Intelligence (GenAI) and large language models have revolutionised academic writing and education in general (Garg, Nisumba Soodhani and Rajendran, 2025). Because these models can generate human-like text and provide instant, contextually relevant responses, they offer support in various educational activities (Khalifa and Albadawy, 2024).

However, the growing use of GenAI in academic writing in the higher education context raises essential ethical, methodological and authenticity concerns (Van Niekerk, Delport and Sutherland, 2025; Schlagwein and Willcocks, 2023). These problems necessitate the development of clear guidelines and responsible practices to ensure ethical use. As such, this study's contribution is threefold: First, the study critically analyses the literature on GenAI in academic writing using an integrative literature review (ILR) methodology to explore the state of AI in academic writing. Second, although integrating AI in academic writing has received considerable scholarly attention, there remains a gap in comprehensive investigations that systematically explore the benefits and challenges of AI tools using the ILR methodology. While existing research often focuses on specific aspects, few studies adopt an integrative approach to synthesise the interplay between innovation, integrity and authenticity in the context of GenAI. Third, the study offers actionable insights for researchers, educators and policymakers to navigate the complexities of AI integration while upholding scholarly standards in the evolving landscape of academic writing.

PROBLEM STATEMENT

While GenAI tools offer innovative support through content generation, grammar correction and structural enhancements, they challenge traditional concepts of authorship, originality and academic integrity (John, Hussin, Yusoff, Rocky, Nawi, Hussain and Mutalip, 2024). This presents a pressing dilemma for educational institutions, educators and students, who must define ethical boundaries for AI use without hindering technological progress. A comprehensive understanding of balancing GenAI's benefits and ethical risks remains limited. Therefore, there is a critical need for an integrative review that synthesises existing literature to inform policy and practice. The ILR method is uniquely suited for this purpose, as it draws

on diverse perspectives and methodologies to offer a holistic view of GenAI's role in academic writing.

AIM AND AREAS OF INVESTIGATION OF THE STUDY

This study aims to explore the use of GenAI in academic writing by examining its benefits, challenges and risks and to propose recommendations for its effective use.

Considering the above background, problem and study aim, the following areas of investigation arise:

- To investigate the benefits of GenAI tools in academic writing.
- To identify the downsides of using GenAI tools in academic writing.
- To examine the ethical implications of using Generative AI in academic writing.
- To propose actionable recommendations for balancing innovation, integrity and authenticity when integrating GenAI tools into academic writing practices.

LITERATURE REVIEW

IBM (2024) defines AI as the technology that enables computers and machines to simulate human autonomy. GenAI is an AI technology that automatically generates content in response to prompts in natural-language conversational interfaces (UNESCO, 2023). Its core is pre-trained large language models (See Table 1) that use vast datasets to produce human-like content in various conversational formats based on natural language inputs (Ng, Chan and Lo, 2025).

Improvements in transformer-based deep neural networks and extensive language models (LLMs) have enabled an AI boom in generative AI systems in the 2020s (Metz, 2023). Companies such as OpenAI, Anthropic, Microsoft, Google and Baidu, as well as numerous smaller firms, have developed powerful GenAI tools that are increasingly integrated into educational contexts. These tools are increasingly used to support academic writing by assisting with idea generation, language refinement, and formatting. Examples of GenAI tools commonly used in academic writing are exhibited in Table 1 below.

TABLE 1: SOME EXAMPLES OF GENAI TOOLS IN ACADEMIC WRITING

Tool	Main Function
ChatGPT	Text generation, summarisation and brainstorming
scite.AI	Citation analysis and research insights
Grammarly	Grammar, style and clarity suggestions
Microsoft Copilot	AI assistance in Microsoft Office for writing and data tasks

Source: Author’s compilation.

The literature review reveals the need for strategies to maintain rigorous scholarship while avoiding AI overreliance, a more profound exploration of human-AI collaboration in higher education, frameworks for ethical considerations and transparency, standardisation of AI usage declarations and guidelines for responsible integration of AI in academic work. Additionally, there are gaps in understanding the relationship between AI and academic writing skills and limited research comparing academic and non-academic perspectives on AI usage.

METHODOLOGY

By following an ILR process and methodology to examine literature related to GenAI in academic writing, this study aimed to identify all empirical evidence that fit a set of pre-specified inclusion criteria and to answer a particular research question (Snyder, 2019). The study also followed a systematic approach comprised of five steps, namely, designing the review, establishing inclusion/ exclusion criteria, literature search, extracting relevant literature and critical analysis and synthesis (Kutcher and LeBaron, 2022; Snyder, 2019; Torraco, 2016).

In addition to following an ILR process, an inductive thematic analysis was conducted to interpret and synthesise the extracted data. This approach facilitated the identification of patterns and themes grounded directly in the dataset, free from the constraints of pre-existing theoretical constructs (Hecker & Kalpokas, 2025; ATLAS.ti, 2025). The thematic development process was iterative and reflexive: initial codes were refined through repeated engagement with the data and progressively organised into broader conceptual categories aligned with the research question. Prior research underscores the value of inductive thematic analysis in GenAI-related investigations, particularly its ability to reveal emergent themes while upholding analytical rigour (Perkins & Roe, 2024; Nyaaba *et al*., 2025). This method ensured that findings remained empirically grounded and conceptually coherent, thereby enhancing the review's depth, interpretive richness, and practical relevance.

Designing the review

The SPIDER framework (Sample, Phenomenon of Interest, Design, Evaluation and Research type) (Cooke, Smith & Booth, 2012) was used to design the literature review. The SPIDER framework was selected as it provides a structured outline to guide the study in formulating a clear and focused study aim, and it helps identify searchable parts of a question and focus the search on relevant results. Applied to this study, each letter in the SPIDER acronym shown corresponds to a specific aspect that contributed to shaping the ILR purpose or question, as shown in Table 2 below:

TABLE 2: THE SPIDER FRAMEWORK USED TO DEVELOP THE PURPOSE OF THE STUDY

Element	Description
S – Sample	The review focused on peer-reviewed literature examining the integration of Generative AI tools in academic writing, published between 2021 and 2025.
PI – Phenomenon of Interest	The use of GenAI tools in academic writing, focusing on benefits, challenges, ethical implications and their impact on scholarly standards.
D – Design	An ILR methodology, incorporating qualitative content analysis to synthesise diverse findings across multiple studies.
E – Evaluation	Evaluation of the influence of GenAI tools on writing quality, learning outcomes, academic integrity and ethical considerations.
R – Research type	Qualitative research covers conceptual papers and empirical studies related to phenomena of interest.

Source: Adapted from Lubbe, Ham-Baloyi and Smit (2020)

Establishing the inclusion/exclusion criteria

To establish the inclusion/exclusion criteria, the study adopted the Attributable, Legible, Contemporaneous, Original and Accurate (ALCOA) tool (Boston University Medical Campus, 2011). Each component of the ALCOA tool represents an essential characteristic of high-quality data (Sushmita, Nikhil and Drashti, 2023). Following the ALCOA guidelines, each article is shown in Table 3 below.

TABLE 3: ALCOA CRITERIA FOR ESTABLISHING THE INCLUSION/EXCLUSION CRITERIA FOR THE STUDY

Criteria	Brief Definition and How This Criterion Was Applied in the Study
Attributable	Data must be traceable to the originator. Each article or source was cited with comprehensive bibliographic details, ensuring traceability to the original authors.
Legible	Data should be readable and understandable. All articles were reviewed for clarity and accessibility, ensuring the language and content were understandable and relevant to the study's objectives.
Contemporaneous	Data must be recorded at the time of activity. The articles analysed were published between 2021 and 2025, ensuring relevance to the current era of AI advancements and generative writing tools.
Original	Data should be in original form or verified copy. Articles were sourced from primary, peer-reviewed journals and verified academic publications. In vivo coding was employed to preserve the originality and relevance.

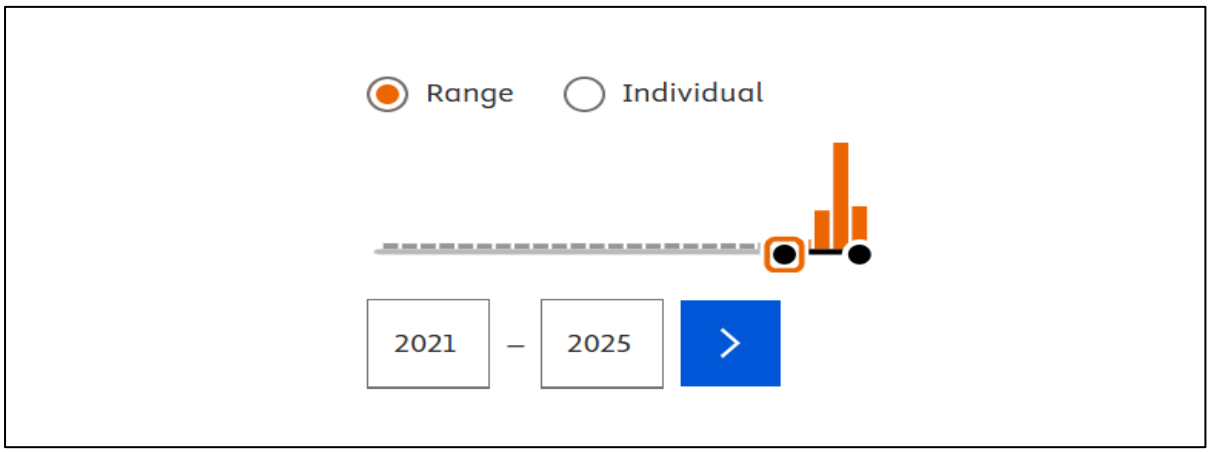
Accurate	Data must be correct, complete, valid, reliable and reflect what was observed. A rigorous verification process was conducted for each article. Consistent analysis methods were employed to ensure accuracy and reliability.

Using the ALCOA criteria in Table 3, the resultant inclusion criteria consisted of studies focusing on the integration of AI tools in academic writing; the benefits, challenges and risks of AI in academic writing; ethical concerns, methodological limitations and threats to authenticity in AI-assisted academic writing; recommendations for balancing innovation, integrity and authenticity in academic writing practices; articles published from 2021 to 2025.

Literature search

The literature search across Google Scholar, Semantic Scholar, ResearchGate, Web of Science and Scopus databases yielded 67 articles, with most of the reviewed literature published between 2023 and 2025 (see Figure 1), indicating a recent surge in academic interest and justifying the range of 2021–2025.

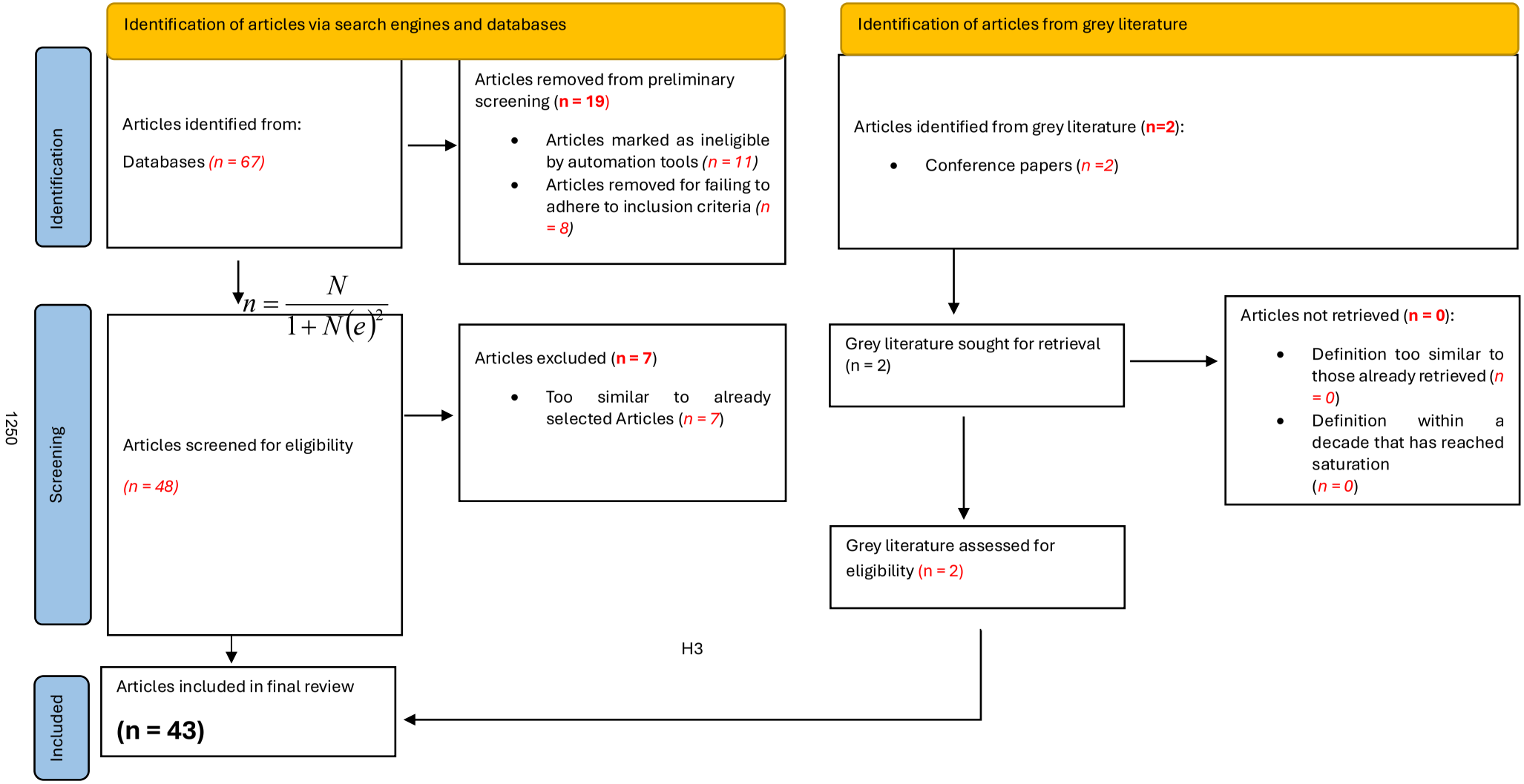
FIGURE 1: PUBLICATIONS ON AI AND ACADEMIC WRITING OVER THE YEARS



Source: Scopus.com

This search used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework (PRISMA, 2015). After the preliminary screening, 19 articles were removed—11 by automation tools and 8 for failure to adhere to set inclusion criteria—leaving 48 for eligibility screening. Of these, 7 were excluded for being too similar to existing selections after a deeper analysis of major findings, leaving 41 articles. An additional 2 articles were identified from grey literature (conference papers), both of which were assessed and included. In total, 43 articles were included in the final review. FIGURE 2 summarises the literature search using the PRISMA framework.

FIGURE 2: PRISMA DIAGRAM EXHIBITING THE PROCESS OF SCREENING THE ARTICLES



Source: Adapted from PRISMA (2020).

Extracting relevant data from the selected articles

In this fourth step of the ILR process, 43 articles identified in the previous step were identified for detailed analysis focusing on major findings and arguments. The extraction process was based on two coding methods: In-vivo coding and axial coding (Saldaña, 2021) (see Table 4). In-vivo coding was used as the first cycle coding method, while axial coding was implemented as the second cycle coding method. In-vivo coding in qualitative data analysis is a method where participants' actual words or phrases are used as codes (Arije, Oyedun and Omisile, 2021). This approach helps capture participants' authentic voices by preserving their language and expressions. In this case, participants' words were extracted directly from the articles, presented using rich text features in Times New Roman, size 9. Mulyanto, Hartati and Wardoyo (2022) note that text feature extraction enables multiple pathways for analysis. Rich text also enhances classification accuracy, reduces dimensionality, and filters out irrelevant data (Pintas, Fernandes and Garcia, 2021).

TABLE 4: AN EXAMPLE OF A DATA EXTRACTION TABLE

Title, Author(s) & Year	**Some Major Findings / Arguments [in-vivo]**
***Artificial Intelligence In Teaching And Teacher Professional Development: A Systematic Review* (Tan, Cheng, & Ling, 2025)**	"Application of Artificial Intelligence (AI) technology in education is increasingly recognised as a key driver of educational innovation" "Extensive literature exists on the integration of AI technologies in educational settings" "65% of the studies examined the application of AI in teaching, including technologies such as conversational AI, AI-driven learning and assessment systems, immersive technologies, visual and auditory computing, and teaching and learning analytics"

Source: Author's design.

The study also included grey literature to improve the quality of the findings. Grey literature—comprising theses, dissertations, conference papers, government reports, and policy papers—is often overlooked in computerised bibliographic databases. Toronto and Remington (2020) assert that grey literature is a critical resource that provides access to a wealth of information, including innovative ideas not yet widely explored, thereby reducing publication bias (Gul, Shah, Ahmad, Gulzar, and Shabir, 2021).

Once the relevant data was extracted using in vivo coding, the subsequent step involved coding it through axial coding as a second cycle. During this phase, data was categorised using axial coding to identify key themes that emerged in the study. Axial coding is the process of relating categories to their subcategories, linking them at the level of properties and

dimensions (Brailas, Tragou, and Papachristopoulos, 2023). This step helps understand the studied phenomena's context, conditions and consequences. An example of data reduction during the first cycle coding process is exhibited in Table 5 below.

TABLE 5: AN EXAMPLE OF DATA REDUCTION DURING THE FIRST CYCLE CODING PROCESS

Title, Author (s) & Year	Major Findings / Arguments [In Vivo]	Second Cycle [Axial] coding
Artificial Intelligence In Teaching And Teacher Professional Development: A Systematic Review (Tan *et al*., 2025)	"Application of Artificial Intelligence (AI) technology in education is increasingly recognised as a key driver of educational innovation" "Extensive literature exists on the integration of AI technologies in educational settings" "65% of the studies examined the application of AI in teaching, including technologies such as conversational AI, AI-driven learning and assessment systems, immersive technologies, visual and auditory computing, and teaching and learning analytics"	- AI integration in education - Research imbalance in AI focus - Under-researched teacher development

Source: Author's compilation

In the last stage, axial codes were grouped into categories, which were subsequently grouped into higher levels of abstraction to develop themes presented in the next section. This process also involved verification with primary data to ensure accuracy while avoiding premature conclusions.

Critical analysis and synthesis

After selecting the final sample of articles, a structured approach was applied to extract data relevant to the research aim. Following Snyder (2019), descriptive and conceptual information—such as author, year, study type, key findings, and theoretical perspectives—were systematically abstracted. This ensured that the synthesis remained aligned with the research areas of investigation. As the review focused on conceptual and thematic insights rather than statistical measures, an interpretive analysis suited for integrative reviews was used. This process allowed for identifying recurring themes, gaps in the literature and areas needing further research. The synthesis approach strengthened the review's credibility by ensuring the analysis was appropriate, rigorous and reflective of empirical findings and theoretical contributions (Snyder, 2019).

FINDINGS

Promises of GenAI in Academic Writing

The first benefit of GenAI tools in academic writing is enhanced efficiency. GenAI tools can significantly reduce the workload of researchers by automating micro-tasks such as outlining,

drafting and editing, thus accelerating the writing process and allowing more time for critical analysis and discovery. Lin (2023) contends that GenAI tools enhance writing quality and efficiency, ease communication, empower authors, and foster diversity in science. Korinek (2023) notes that in economic research, GenAI boosts productivity by automating micro-tasks, potentially reshaping cognitive labour. Tools like Grammarly provide real-time feedback, helping students improve their writing and refine their work. This immediate support promotes better learning outcomes and facilitates more efficient collaboration.

The second benefit of GenAI tools in academic writing is improved writing skills and creativity. GenAI can simulate creativity and foster innovation, helping students and researchers enhance their writing and critical thinking skills by providing new perspectives and ideas during the prewriting and writing stages. This capability helps overcome writer's block and fosters innovation in academic work. Despite students' concerns about misinformation and data security, Gasaymeh *et al.* (2024) find that GenAI writing tools can simulate creativity and foster innovation.

The third benefit of AI-powered tools is functions such as text generation, proofreading, editing and paraphrasing, which can improve the overall quality of academic writing. These tools help refine the text, ensure clarity and enhance coherence, which is crucial for effective academic communication. GenAI tools provide suggestions for structure, coherence and fluency. These tools refine language, improve clarity, and strengthen coherence—elements essential for effective scholarly communication. GenAI tools like ChatGPT support students and researchers by improving structure and fluency. Research by Malik, Pratiwi, Andajani, Numertayasa, Suharti, Darwis and Marzuki (2023) found that students experienced better writing outcomes when using AI tools, while Hapsari and Wu (2022) highlighted AI's contribution to learning autonomy and reflective thinking.

The fourth benefit from the analysis was that GenAI could act as a leveller in academic publishing by assisting linguistically diverse scholars in producing high-quality English text. This way, AI writing assistance can help bridge language barriers and make academic writing more accessible. An Indonesian study conducted by Malik *et al*. (2023) revealed that GenAI tools elevate students' English writing competence, self-efficacy and self-regulated learning. AI-based automated evaluation feedback positively influences students' motivation for writing and achieves high satisfaction in spelling, vocabulary, grammar and expression correction accuracy (Cheong, 2024).

The fifth benefit of GenAI tools is that they enable educators to leverage AI tools to assist with administrative tasks such as lesson planning, and curriculum development, allowing them to dedicate more time to engaging with students and enhancing the learning experience.

Bahroun, *et al*. (2023) assert that GenAI can automate routine tasks such as grading and providing feedback, which enhances the efficiency of the assessment process and allows educators to allocate more time to direct student interaction. These tools can also assist in creating diverse instructional materials, which can be tailored to meet specific educational goals and student needs (Pesovski, Santos, Henriques and Trajkovik, 2024).

The sixth benefit of GenAI tools is that it offers personalised learning experiences by adapting to individual learning styles and providing tailored feedback. This personalisation can enhance students' academic writing skills and motivation. Maity and Deroy (2024) argue that GenAI enhances personalised education through dynamic content generation, real-time feedback, and adaptive learning pathways in Intelligent Tutoring Systems.

Although GenAI can significantly aid in various areas of academic writing and education it is important to know that an overreliance can have dire consequences.

The downsides of GenAI in academic writing

First, the review finds that overdependence on AI to generate responses can significantly hinder the development of critical thinking, creativity and information literacy skills among students. Students may become dependent on AI tools for completing assignments, undermining their ability to think critically and formulate original ideas (Van Niekerk, Delport and Sutherland, 2025). In addition, overreliance on GenAI tools diminishes personal expression and generic or homogenised outputs and impacts students' ability to develop their unique writing styles and creative problem-solving skills (Zhai, Wibowo and Li, 2024).

Second, GenAI tools in academic writing result in heightened risk of plagiarism and academic dishonesty due to overreliance on AI-generated content. According to Annamalai *et al*. (2025), AI can raise significant concerns regarding plagiarism and academic dishonesty. Students using AI-generated content without proper attribution can blur the lines of authorship and lead to ethical violations. This dishonesty often arises when students submit work that does not accurately reflect their understanding or capabilities, undermining the educational process. This raises ethical questions about student work's authenticity and academic assessments' integrity, and calls have been made for institutions to reconsider assessment design and formats (Surahman and Wang, 2022).

A third drawback of using GenAI tools in academic writing is their potential to produce inaccurate or inconsistent information, which can mislead students and hinder learning (Annamalai *et al.*, 2025). Academics are especially concerned that AI-generated text is increasingly difficult to detect, despite often lacking factual reliability. While such content may appear coherent, it demands careful revision and critical scrutiny. Additionally, some learners find GenAI feedback overwhelming or irrelevant, leading to confusion rather than improvement

(Kohnke *et al*., 2025). These issues underscore the importance of strong evaluative skills and reliable verification when using AI in academic contexts.

Ethical implications of Gen AI in academic writing

The study's findings demonstrate that using GenAI tools questions academic integrity as it could facilitate academic dishonesty, including plagiarism and submitting work that does not genuinely reflect scholarly abilities (Schlagwein and Willcocks, 2023; Zohny, McMillan and King, 2023). This finding also chimes with Cotton, Cotton and Shipway (2023), who established that while ChatGPT offers benefits in academic writing, such as increased efficiency and engagement, ethical concerns related to plagiarism, academic integrity, and authorship accountability have emerged in the use of this tool, which raises questions about the integrity of academic assessments. The study also establishes that authorship attribution policies remain unclear across many institutions where GenAI tools are involved in the writing process. Current editorial policies emphasise that AI should not be credited as an author, raising issues about appropriately attributing contributions in collaborative academic work. This lack of clarity, which can lead to disputes over intellectual property and the ethical use of GenAI-generated content, is a significant study gap that needs further exploration.

In addition, the review demonstrates that using GenAI in academic writing can lead to legal issues, such as copyright infringement and privacy violations. Generating content that may be offensive or misleading further complicates the ethical landscape surrounding GenAI in education (Cutler, 2024). The use of AI in academic writing also raises privacy issues, particularly regarding handling sensitive data (Atwadkar, Patil and Upadhye, 2024).

Another ethical issue potentially arising from using GenAI in academic writing pertains to misinformation and bias. GenAI-generated content can sometimes produce inaccurate or biased information, which can mislead both students and educators (Al-Kfairy, Mustafa, Kshetri, Insiew, and Alfandi, 2024; Kenthapadi, Lakkaraju and Rajani, 2023; Monteith, Glenn, Geddes, Whybrow, Achtyes and Bauer, 2023). This can further exacerbate educational inequalities and misinform academic discourse, as biased information may be presented as credible (Baker and Hawn, 2021). In their current forms, AI systems can perpetuate existing biases present in their training data, leading to the generation of content that may be discriminatory or biased.

Recommendations and implications for policy and practice

The third area of investigation was to propose recommendations for researchers, institutions and policymakers on balancing innovation, integrity and authenticity when integrating AI tools into academic writing practices.

For researchers, the study calls for more comprehensive studies investigating the long-term impact of GenAI tool usage on students' writing skills and critical thinking abilities. Future research could longitudinally trace the impact of AI in academic writing across different levels of education. Second, researchers can contribute towards developing ethical guidelines by adding literature and creating frameworks that outline acceptable uses of AI in academic writing, emphasising the importance of originality and proper attribution.

For institutions, the study recommends implementing training programmes that offer workshops and resources for students and staff on the effective and ethical use of AI tools in academic writing. This enhances AI literacy and self-efficacy among users. Institutions can also establish clear policies by formulating, communicating, and regularly reviewing clear policies regarding the use of AI tools in academic work. Lastly, institutions can encourage collaborative learning by promoting collaborative projects integrating AI tools and allowing students to engage with technology while fostering teamwork and critical analysis skills. This helps motivate students to use technology in a balanced way, where AI supports rather than replaces the critical intellectual processes necessary for academic success.

Policymakers can support research funding by allocating resources for studies exploring AI's educational implications. This helps inform future policies and shape practice. In addition, policymakers can promote equity in access by ensuring all students have access to AI tools and the necessary training to use them effectively, addressing disparities related to socioeconomic status and resource availability. It is vital to establish clear authorship policies, ensure AI usage transparency and promote ethical standards safeguarding academic integrity.

LIMITATIONS OF THE STUDY

While this ILR offers valuable insights into using GenAI in academic writing, it is subject to certain limitations. First, the review is limited to studies published between 2021 and 2025, potentially excluding earlier insights from when GenAI tools were still developing. Additionally, the review primarily focused on English-language publications, which may exclude valuable contributions from non-English academic contexts where GenAI adoption may differ. Last, the rapidly evolving nature of AI technologies means that some findings may become outdated as new tools and ethical guidelines emerge. These limitations highlight the need for continuous, longitudinal research to keep pace with technological advancements and their implications in academic settings.

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INSTITUTIONAL READINESS FACTORS FOR AI INTEGRATION INTO ERP SYSTEMS OF HIGHER EDUCATION INSTITUTIONS: A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

Integrating AI into enterprise resource planning systems (ERPs) is an imperative strategy for enhancing the administrative efficiency of all higher education institutions (HEIs). However, developed countries have made significant advancements in integrating AI into ERP systems, while HEIs in developing countries face unique institutional readiness challenges that make it difficult to embrace this integration. This study was set out to identify the readiness factors for AI integration into ERPs of HEIs. The study was guided by the ORIC model and ENTREQ framework to systematically review these factors. The review synthesised 76 peer-reviewed articles from 2021 to 2025. Template analysis identified key readiness factors grouped within technological, organisational, external, and ethical dimensions. These findings reveal that developed countries benefit from advanced digital ecosystems, unlike developing countries, where infrastructural, cultural, governance, and ethical readiness factors influence HEIs to integrate AI into ERPs.

Keywords: emerging technologies; artificial intelligence; enterprise resource planning systems; institutional readiness; higher education institutions

INTRODUCTION

Integrating artificial intelligence (AI) into enterprise resource planning systems (ERPs) has become increasingly popular in higher education institutions (HEIs) worldwide (Korapati, 2025). This is because it enhances administrative processes in student data management, boosts human resources productivity, improves financial information reporting, and analyses of estate data management (Antonova *et al*., 2024). However, adopting ERPs can be challenging and involves various factors that require careful analysis of technology readiness to sustain a competitive institutional landscape (Uren and Edwards, 2023). Therefore, the integration upsurge of AI technologies into ERPs is a complex process that has substantially transformed the administrative approaches in HEIs (Distor *et al*., 2023). These transformative changes have resulted in AI integration into ERP systems becoming the forefront of academic

discussions (Abulibdeh *et al*., 2025). However, the global adoption of AI integration into ERPs in HEIs has been cautiously accelerated, with notable benefits and challenges (Yang *et al*., 2024). Addressing these challenges requires a thorough exploration of institutional readiness and unique contextual factors that influence AI integration into ERPs (Hradecky *et al*., 2022).

AI integration into ERPs is an imperative strategy for enhancing the administrative efficiency of all HEIs (Uren and Edwards, 2023). The global increase in technology adoption popularity indicates a growing recognition of the benefits that AI integration into ERPs in HEIs provides, including but not limited to stakeholder satisfaction and enhanced administrative efficiency (Distor *et al*., 2023). However, developed countries worldwide have made significant advancements in adopting these emerging technologies (ETs) (Duah *et al*., 2025; Mhaskey, 2024), whereas HEIs in developing countries face unique institutional readiness and technology adoption challenges that require specific strategies (Distor *et al*., 2023).

This study systematically synthesises existing research on the readiness of HEIs to integrate AI into ERPs to enhance administrative processes (Alshahrani *et al*., 2024), with the focus on technological, organisational, external, and ethical dimensions (Jo and Hong, 2023). Numerous studies on significant theoretical models were analysed and ranked based on contextual relevance and the factors related to institutional readiness (Jo and Hong, 2023; Satyro *et al*., 2024). This study, therefore, is guided by Organisational Readiness for Implementing Change (ORIC) theory (Weiner, 2009). The ORIC highlights the significance of readiness dimensions, offering a multifaceted interplay of factors and focusing on the internal capabilities crucial for institutional readiness and digital transformation in resource-constrained environments (Jo and Hong, 2023). Hence, the research questions for this study are formulated as follows:

- What are the generic factors affecting HEIs in integrating AI into their ERPs?
- How can the ORIC Model be used to identify the readiness factors of HEIs in integrating AI into their ERPs?
- How can the key readiness factors of HEIs in integrating AI into their ERPs be hierarchically classified?

The paper begins with a comprehensive overview of ERP Systems, emerging technologies, and AI integration capabilities and background for the theoretical discussions.

OVERVIEW OF ERP SYSTEMS AND EMERGING TECHNOLOGIES IN HIGHER EDUCATION

Globally, ERPs continuously evolve to meet the diverse needs of industries, forming the backbone of HEIs (Wahabi *et al*., 2024). While ERP solutions are widely adopted, their

implementation and impact differ significantly across various continents, regions, and countries (Bajolle, 2024). The global characteristics of ERPs in HEIs, including Oracle PeopleSoft, Academia ERP, ITS Integrator, and Oracle Student Cloud, underscore the importance of customised solutions that align with their strategies and compliance with reporting regulations (Alhazmi *et al*., 2023). However, HEIs in developing countries encounter challenges with traditional ERPs that struggle to integrate AI and other emerging technologies, resulting in costly transition initiatives (Yang *et al*., 2024).

HEIs increasingly adopt ERPs that integrate emerging technologies to transform their administrative processes (Kabanda, 2025). In developed countries, HEIs leverage modern ERPs to optimise core institutional processes (Korapati, 2025). Conversely, integrating emerging technologies within ERPs remains underexplored in developing countries (Aderibigbe *et al*., 2023). The modern ERPs in HEIs, influenced by emerging technologies in information systems, serve as the operational foundation for core institutional processes (Wood, 2024). The current study highlights key pioneering transformative technologies and integration capabilities within big data analytics, internet of things (IoT), AI, and machine learning (ML) (Godbole and Josyula, 2024; Mishra *et al*., 2024; Taherdoost, 2023). These technologies signify the evolving technological landscape within HEIs, enhancing decision-making, enabling data analytics, and providing coordinated user experiences (Khanfar *et al*., 2024). An overview of these transformative technologies is provided below:

- **Big data analytics** complements the integration of IoT and AI by providing tools and techniques to extract valuable insights into institutional performance and resource allocation from vast amounts of data (Wood, 2024). It further emphasises the strategic advantages of leveraging large datasets for institutional competitive advantage (Prakash, 2024). HEIs use analytics within ERP systems to process, visualise, and analyse collected data, which improves administrative reporting by identifying patterns, trends, and anomalies (Korapati, 2025). Furthermore, big data analytics improves ERP system reliability, resulting in increased administrative efficiencies and predictive maintenance (Hossain *et al*., 2024; Wood, 2024).
- **IoT** has enabled the interconnection of AI components and ERP system modules, allowing for seamless collaboration and data interchange (Rashid and Kausik, 2024). By incorporating IoT capabilities into the ERP integrations, HEIs can successfully improve stakeholders' experience and outline advanced ERP system specifications that modernise administrative processes, collecting and analysing big data from various sources (Hassan *et al*., 2024; Wood, 2024). The significance of IoT capabilities is underscored by rapid expansion in areas such as institutional automation (Al-Quraishi *et al*., 2024).

- **AI** empowers ERP systems to perform complex administrative functions like predicting academic outcomes and management that typically require precise human intelligence efforts (Farhan *et al*., 2025). Integrating AI into ERP systems modernises and enhances the system with intelligent capabilities for making autonomous decisions, improving administrative efficiencies, and overall institutional performance (Wood, 2024). Moreover, the proliferation of AI algorithms within ERP systems in HEIs can optimise big data analytics and real-time administrative reports, maintaining business continuity through enabled predictive automated recovery and protection techniques (Distor *et al*., 2023; Rashid and Kausik, 2024).
- **ML** is also a crucial component in the modern ERP system infrastructure (Gollangi *et al*., 2024). ML algorithms are influenced by advancements in chip computation, involving the development of intelligent models that can learn from collected data (Rashid and Kausik, 2024). Furthermore, ML algorithms allow models to approximate any process when provided with sufficient data in the appropriate format (Godbole and Josyula, 2024). Consequently, the ML component represents a form of AI that permits institutional ERP systems to learn and evolve without being explicitly programmed (Solaimani *et al*., 2024; Wood, 2024). It involves using algorithms and statistical models to analyse big data collected in real-time, make decisions and detect emerging trends based on that data without human intervention (George and George, 2024).

However, of all the emerging technologies, AI is the widely adopted transformative technology in HEIs (Kabanda, 2025). Currently, HEIs often opt for generative (GenAI) and agentic AI to comply with the evolution of industrial technology (Cordero *et al*., 2025; Duah *et al*., 2025). GenAI offers advantages such as digital marketing and content creation (Marcinkevage and Kumar, 2025), while agentic AI is autonomous and offers decisions on coding assistance, patient care, and customer service (Larichev *et al*., 2025). The increasing integration of AI into ERP systems in HEIs is motivated by numerous prospects that differ in some ways, including but not limited to the flexibility of real-time decision-making and predictive analytics, automated administrative processes, and customer satisfaction (Antonova *et al*., 2024; Mhaskey, 2024).

AI Integration into ERPs

Despite potential challenges noted in various studies, advancements in AI play a significant role in the pillars of digital transformation, particularly within administrative processes (Abulibdeh *et al*., 2025; Farmakis *et al*., 2025). Therefore, the majority of diverse studies underscored the significance of integrating AI into ERPs, providing a comprehensive understanding by considering technological, organisational, external and ethical factors within

the diverse developed and developing landscapes (Pramanik *et al*., 2024). Table 1 illustrates the grouping of ERPs and their AI integration capabilities.

TABLE 6: ERPS AND AI-DRIVEN FUNCTIONS INTEGRATION FOR HEIS (RASHID AND KAUSIK, 2024)

ERP Systems	Custom AI Use Cases	Machine Learning	Predictive Analytics	GenAI and AI Agents	Relevant References
Oracle PeopleSoft	Medium	High	High	High	(Godbole and Josyula, 2024)
Academia ERP	Medium	Medium	High	High	(SourceForge, 2025)
ITS Integrator	Low	Medium	Medium	Low	(Govender, 2025; Mhaskey, 2024)
Oracle Student Cloud	Medium	Medium	High	High	(Al-Quraishi *et al*., 2024; Rîndaşu *et al*., 2025)

Note: The table source is the researchers' contribution.

THEORETICAL BACKGROUND

To investigate the institutional readiness for AI integration into ERPs in HEIs, this study employs the ORIC model, originally developed by Weiner (2009) and expounded upon by subsequent researchers (Jöhnk *et al*., 2021; Rusly *et al*., 2012; Shea *et al*., 2014).

Organisational Readiness for Implementing Change

The ORIC model offers a qualitative, multidimensional, and multilevel framework that operates across technological, organisational, and external levels (Jo & Hong, 2023). Global research highlights its effectiveness in evaluating institutional readiness within complex assessments, including in higher education institutions (HEIs) (Jo & Hong, 2023). It assesses readiness through two key factors: change commitment and change efficacy (Weiner, 2009). Additionally, the model integrates leadership with institutional culture and employee engagement, thereby strengthening organisational readiness for change (Ford *et al*., 2021). While HEIs in developed countries generally meet technological infrastructure requirements (Duah *et al*., 2025), institutions in developing regions often encounter resistance to change and limited digital literacy (Theodorio *et al*., 2024).

The model also responds effectively to external influences such as regulatory standards, market demands, and socio-political pressures (Jo & Hong, 2023). Its adaptability to changing

contexts presents a clear advantage over more static models, such as the readiness assessment framework (Jo & Hong, 2023; Kriz *et al*., 2023). Previous studies confirm that HEIs, particularly those in resource-limited settings, have successfully employed the ORIC model to assess implementation success, thus validating both its theoretical dimensions and practical utility (Duah *et al*., 2025; Felemban *et al*., 2024). In contrast to the rigid structure of the McKinsey 7-S model (Jain & Kansal, 2023), ORIC allows for flexible and context-sensitive implementation (Eby *et al*., 2000; Felemban *et al*., 2024). Overall, this cohesive model enhances its credibility and relevance to the present study, particularly in exploring institutional readiness for integrating artificial intelligence into ERP systems within HEIs (Rusly *et al*., 2012; Weiner, 2009).

The review findings were guided by the ORIC model, maintaining the readiness dimensions to reveal the complexities of institutional readiness for AI integration into ERP systems in HEIs (Shea *et al*., 2014). Supported by Jo and Hong (2023), this approach is particularly relevant for highlighting research gaps and opportunities for future studies to address the unique challenges in HEIs, thereby assessing institutional readiness for AI integration into ERPs.

RESEARCH METHODS AND DESIGN

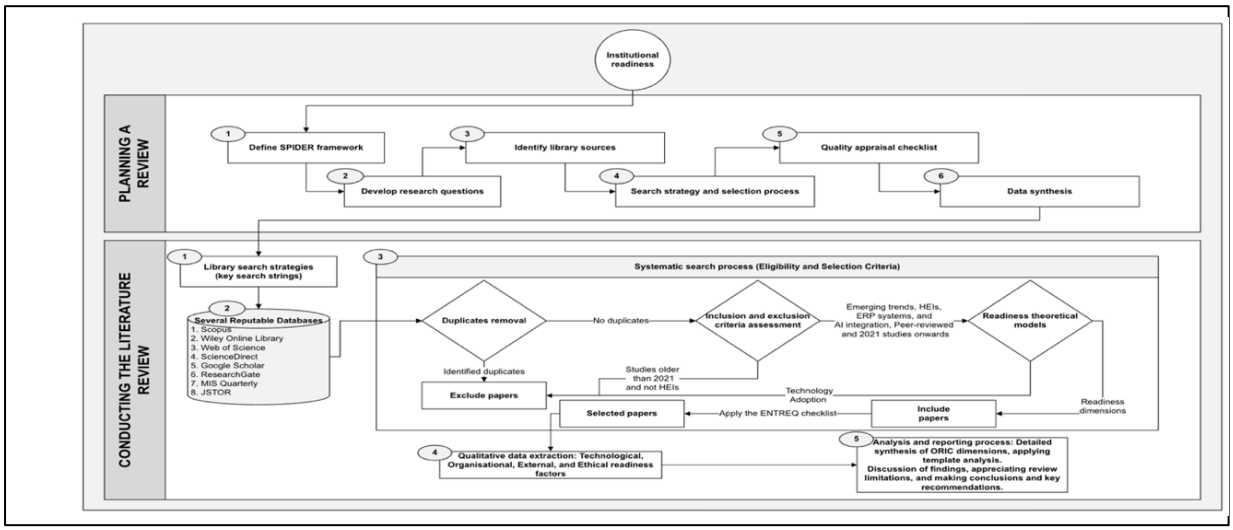
This study utilised a systematic literature review to establish the theoretical foundation and findings (Ali and Khan, 2024; Carrera-Rivera *et al*., 2022), following best practices for conducting systematic reviews in information systems, computer science, and management research (Okoli, 2015; Sauer and Seuring, 2023). This systematic review is guided by the Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ) reporting model (Tong *et al*., 2012), to explore the readiness of HEIs to integrate AI into ERPs to enhance administrative processes.

Integrating AI into ERP systems has become increasingly popular in HEIs worldwide (Korapati, 2025), hence the AI focus among other emerging technologies in this study. Additionally, the digital transformation within HEIs has witnessed a global rise in integrating AI into ERP systems (Antonopoulou *et al*., 2023). In light of these transformative advancements, HEIs are directing their investments towards integrating AI into the ERP systems (Duah *et al*., 2025; Yang *et al*., 2024). However, adopting these transformed systems can be challenging and involves various factors that require careful analysis of institutional readiness to sustain a competitive institutional landscape (Hradecky *et al*., 2022; Uren and Edwards, 2023).

The review is structured around two main phases: planning the review and conducting the literature review (Carrera-Rivera *et al*., 2022). The components of the review are defined and discussed within the context of the ENTREQ model (Okoli, 2015; Tong *et al*., 2012). A documented systematic search process was followed to explore the literature and broaden

the inclusion criteria (Amir-Behghadami, 2024). This study leveraged several reputable academic databases (see Figure 1), integrating a variety of peer-reviewed literature as data sources (Wits Library, 2025). Additionally, a combination of Boolean operators (AND/OR) with search strings ensured the retrieval of relevant, wide-ranging content (de Jong *et al*., 2021).

FIGURE 1: THE ENTREQ FRAMEWORK FOR INSTITUTIONAL READINESS



Source – adapted from Tong *et a*l. (2012)**.**

The key terms in the search string comprised (“emerging technology” OR “emerging technologies” OR “new technologies”) AND (“AI integration” OR “artificial intelligence integration” OR “AI-integrated” OR “AI-enabled”) AND (“Enterprise resource planning systems” OR “ERP systems”) AND (“Higher education institutions” OR “HEIs” OR “Higher education”) AND (“Institutional readiness” OR “organisational readiness” OR “Readiness”) AND (“Developed countries” OR “Developing countries”).

The search database contained recent English publications from 2021 to 2025 that explored institutional readiness, readiness factors, integration of AI into ERPs in HEIs, and foundational theoretical models within the scope and transition of emerging technologies to allow for a comprehensive literature synthesis. The ENTREQ guideline aligned with the applied SPIDER framework used in crafting the research questions (Amir-Behghadami, 2024), employing a structured synthesis approach to develop the inclusion and exclusion criteria for qualitative studies. For maintained rigour, the specified systematic search process adhered to the transparent screening using the ENTREQ reporting checklist (Tong *et al*., 2012), allowing for the selection of 76 articles for analysis after the duplicate removal. Similarly, to uphold academic integrity and thematic alignment, the guideline facilitated the exclusion of non-peer-reviewed publications, studies not focusing on HEIs, opinion blogs, and non-English articles (de Jong *et al*., 2021; Tong *et al*., 2012).

To ensure data integrity during the synthesis approach, NVivo 14 assisted in template analysis of institutional readiness within technological, organisational, external, and ethical dimensions (King *et al*., 2018). The data coding and theme organising were systematically reorganised into a hierarchical structure comprising interpretive categories that align with research questions (King *et al*., 2018). The flexible applicability of template analysis permitted the analytical coding of a limited number of data items (Braun and Clarke, 2023) and inductively facilitated the validation of existing literature (Flick, 2025). Guided by the ORIC theory, the template coding facilitated the identification of readiness factors that HEIs should consider when integrating new technologies like AI (Jo and Hong, 2023).

Ethical Considerations

This study adhered to all ethical standards for scholarly research (Denzin *et al*., 2023), following the code of ethical practice endorsed by the University of the Witwatersrand and relevant national legislation (Adams *et al*., 2021). As the research was based solely on publicly available online literature, no human or animal participants were involved.

FINDINGS

This study analysed theoretical perspectives and explored institutional readiness to integrate AI into ERPs in HEIs (Pramanik *et al*., 2024). HEIs should demonstrate fundamental institutional readiness to implement digital transformation successfully (Alshahrani *et al*., 2024). The recent review landscape on institutional readiness for AI integration into ERPs critically explored key findings from published and peer-reviewed articles and identified research gaps in existing literature (Abulibdeh *et al*., 2025). Table 2 provides a comprehensive overview of institutional readiness on a global scale, highlighting evidence and perspectives from developed and developing countries (Pramanik *et al*., 2024). As a result, a synthesis provided a structured overview that bridges the gap between theory and practice (Yang *et al*., 2024).

TABLE 7 : REVIEW EVIDENCE ON GLOBAL AND REGIONAL STUDIES

Institutional Readiness Focus	Geographic Location	Relevant References
Integration of AI in ERPs	North America	(Mhaskey, 2024)
Organisational readiness to adopt AI	Western Europe	(Hradecky *et al*., 2022)
Change management and AI	Europe	(Mainardi, 2024)
AI and Organisational Change	India	(Chhatre and Singh, 2024)
Model for AI across the curriculum	North America	(Southworth *et al*., 2023)

Strategic integration of AI in higher education	West Asia	(Abulibdeh *et al*., 2025)
Educational Transformation through ETs	Europe	(Mena-Guacas *et al*., 2025)
AI and organisational change	South Asia	(Chhatre and Singh, 2024)
Integrating AI in HEIs cybersecurity	North America	(Roshanaei and Jachura, 2025)
Change management and AI	Europe	(Mainardi, 2024)
Readiness of organisations to adopt AI	Asia	(Felemban *et al*., 2024)
Generative AI adoption in Higher Education	Europe	(Duah *et al*., 2025)
The European Union AI Act	Europe	(Clark *et al*., 2024)
AI in developing countries	Western Africa	(Aderibigbe *et al*., 2023)
Enhancing cybersecurity through AI	Europe	(Ejjami, 2024)
Data policies and practices for harnessing AI	North Asia	(World Bank *et al*., 2024)
AI readiness in HEIs	Western Africa	(Omenka *et al*., 2024)
AI readiness in HEIs	Asia	(Kabanda, 2025)
Integration of AI in higher education	Southern Africa	(Hlongwane *et al*., 2024)
Technology integration in higher education	Africa	(Amponsah and Bekele, 2023)
AI integration, education, and academic libraries	Africa	(Buitrago-Ciro *et al*., 2025)
AI needs assessment	Africa	(Prateek and Bhanu, 2021)
Impact of AI on higher education	West Asia	(Al-Zahrani and Alasmari, 2024)
Technology readiness and the organisational journey towards AI adoption	Europe	(Uren and Edwards, 2023)

Note: The table source is the researchers' contribution.

Global Institutional Readiness for AI Integration

The global review on the institutional readiness to integrate AI into traditional ERPs exhibited considerable variability across continents and regions (Buitrago-Ciro *et al*., 2025). Numerous studies indicated that innovative culture in HEIs consistently anchors institutional readiness for successful AI integration in developed countries (Abulibdeh *et al*., 2025). HEIs in North

America have implemented effective conceptual frameworks, established a dynamic cybersecurity landscape, and developed roadmaps for emerging technologies, resulting in notable shareholder satisfaction and improved administrative efficiency (Roshanaei and Jachura, 2025).

Mainardi (2024) also underscored AI integration within European HEIs, highlighting the alignment of change processes and matrix structures with regional strategies, to ensure synchronised transition of emerging technologies and administrative personnel. Similarly, Clark *et al*. (2024) embraced the adoption of AI within HEIs in Europe, emphasising the need for constant adherence to AI ethical regulatory frameworks, strategic alignment with the EU AI Act, employee empowerment, and structured readiness frameworks. Therefore, review evidence suggested that HEIs in developed countries typically leverage and maintain global dominance in administrative efficiency, well-resourced research capabilities, and possess a stable institutional readiness for the integration of emerging technologies, including AI (Southworth *et al*., 2023).

Institutional Readiness in Developing Countries

Several studies examining the readiness of HEIs to integrate AI highlighted a range of anticipated benefits and challenges specific to developing countries (Hlongwane *et al*., 2024). Recent reviews concentrated on HEIs in African and Asian contexts, acknowledging the positive opportunities of AI integration into ERPs in enhancing administrative efficiency, academic performance, and leadership efficacy (Kabanda, 2025). However, these authors also emphasised the necessity of addressing the digital divide and challenges posed by emerging technologies, particularly AI in HEIs. The World Bank *et al*. (2024) also referenced benchmarks on Korea's data governance, digital data infrastructure, and advanced data policies to illustrate the possibilities of implementing AI policies and guiding frameworks in other developing countries, highlighting the key role of government support, government policies, and institutional infrastructures as key enablers of AI integration.

Regional studies embraced the integration of AI technologies within HEIs, particularly administrative processes (Buitrago-Ciro *et al*., 2025). However, they also highlighted significant challenges, including ethical considerations and academic integrity in HEIs within developing countries. Amponsah and Bekele (2023) further stipulated the importance of African contextual considerations in HEIs, focusing on academic cultures through philosophical, theoretical, and policy lenses. Other studies noted several interdisciplinary perspectives and limited readiness models, underscoring the need for future research that is ethically aligned regarding emerging technologies (Al-Zahrani and Alasmari, 2024). In conclusion, HEIs in developing countries face distinct deficiencies that severely influence AI

integration readiness, including the importance of AI governance policies and legal regulatory frameworks from diverse African and Asian perspectives (Felemban *et al*., 2024).

DISCUSSION

This section reports on the systematically synthesised readiness factors, which were guided by the ORIC model (Weiner, 2009). The model permitted flexibility in the organisation and grouping, enabling the readiness factors to be framed around technological, organisational, external, and ethical dimensions of readiness (Felemban *et al*., 2024). Illustrated in Table 3 are the success factors influencing institutional readiness for AI integration into ERPs.

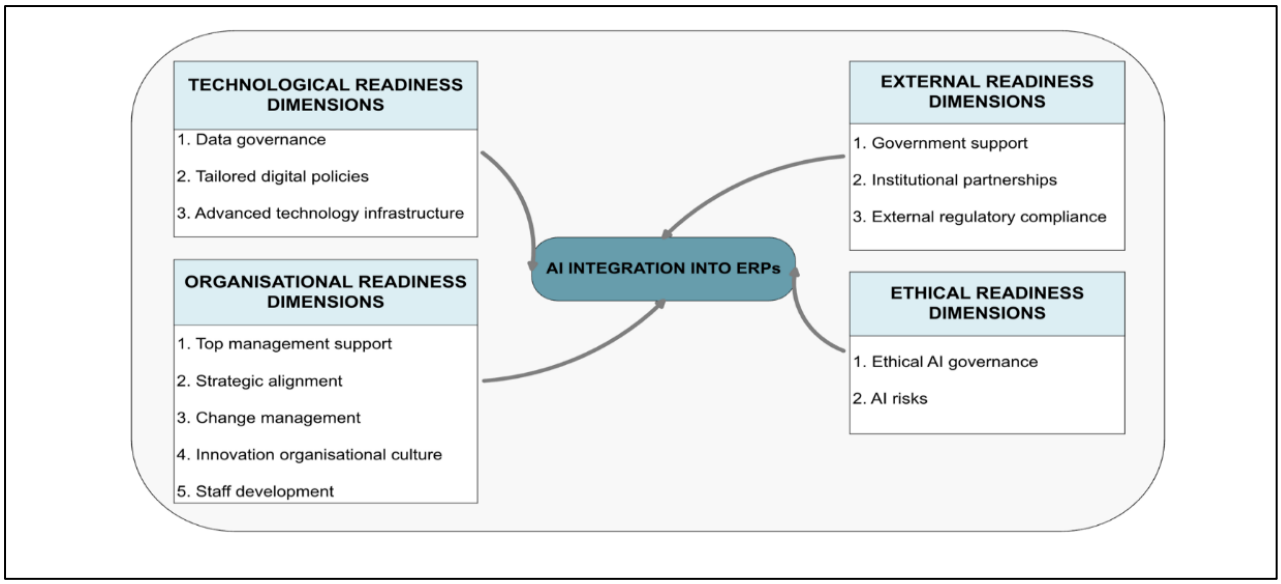
TABLE 8: SUCCESS FACTORS INFLUENCING INSTITUTIONAL READINESS

Success Factors	Dimension	References
Data governance, Tailored digital policies, Advanced technology infrastructure	Technological readiness	(Aderibigbe *et al*., 2023; Clark *et al*., 2024; Ejjami, 2024; Mhaskey, 2024; Roshanaei and Jachura, 2025; World Bank *et al*., 2024)
Top management support, Strategic alignment, Innovation organisational culture, Change management, Staff development	Organisational readiness	(Abulibdeh *et al*., 2025; Al Samman, 2024; Chhatre and Singh, 2024; Duah *et al*., 2025; Mainardi, 2024; Marcinkevage and Kumar, 2025; Mhaskey, 2024; Omenka *et al*., 2024; Southworth *et al*., 2023)
Government support, Institutional partnerships, External regulatory compliance	External readiness	(Aderibigbe *et al*., 2023; Clark *et al*., 2024; Duah *et al*., 2025; Felemban *et al*., 2024, 2024; Omenka *et al*., 2024; World Bank *et al*., 2024)
Ethical AI governance, AI risks	Ethical readiness	(Abulibdeh *et al*., 2025; Buitrago-Ciro *et al*., 2025; Marcinkevage and Kumar, 2025)

Note: The table source is the researchers' contribution.

The information contained in Table 3 guided the development of the framework shown in Figure 2. This figure provides a conceptual summary of the consolidated findings on readiness dimensions from the literature, supported by insights drawn from the ORIC model (Weiner, 2009). It further demonstrates how institutional readiness dimensions for AI integration into ERPs in HEIs are mapped (Jo and Hong, 2023).

FIGURE 2: THE INTERRELATED DIMENSIONS OF INSTITUTIONAL READINESS CONCEPTUAL FRAMEWORK



Source – Researcher's contribution.

Technological Readiness Factors

The advancement and ongoing maintenance of digital infrastructures fundamentally influenced institutional readiness for AI integration into ERPs in HEIs (Mhaskey, 2024). Numerous studies in developed countries underscored several essential readiness factors, including robust cybersecurity frameworks, rapid internet connectivity, and scalable ERPs essential for HEIs to effectively integrate AI innovations (Roshanaei and Jachura, 2025). Similarly, the technological maturity assessments provided quantitative assessments to enable HEIs to benchmark their digital capacities for AI integration (Mhaskey, 2024). Therefore, without the prerequisite digital capability for stable infrastructure, HEIs encounter extreme challenges in integrating AI technologies that require high computational resources and real-time data processing (Yang *et al*., 2024).

Prioritising data privacy, algorithmic transparency, and resilience against cyber threats for HEIs integrating AI into ERPs further highlights the notable alignment between ethical standards and cybersecurity measures with technological resources (Duah *et al*., 2025). Furthermore, Abulibdeh *et al*. (2025) outlined how strategic roadmaps for the integration of emerging technologies could enhance institutional readiness for evolving AI capabilities while also mitigating possible risks. Therefore, the review synthesis on technological readiness not only highlighted the availability of systems but also emphasised proactive engagement with emerging technologies, infrastructure advancements, security best practices, and compliance with global AI integration regulatory frameworks (Radanliev, 2025).

Organisational Readiness Factors

Review findings from developed contexts denoted that organisational culture and top management commitment were central success factors underpinning AI integration readiness (Al Samman, 2024; Ali and Khan, 2024). Felemban *et al*. (2024) consistently emphasised the importance of institutional leadership support and innovative organisational cultures within HEIs to facilitate AI integration into ERPs. Change management strategies that promoted digital literacy and staff re-education were equally important (Mainardi, 2024). A work environment conducive to transdisciplinary collaboration experiences greater success in AI and ERP integration (Hradecky *et al*., 2022).

However, HEIs with institutional dormancy and employee defiance encountered significant readiness challenges to AI integration (Eby *et al*., 2000; Marcinkevage and Kumar, 2025), especially where traditional ERPs dominated operational workflows (Alhazmi *et al*., 2023). Structured governance frameworks defined institutional responsibilities, decision-making hierarchies, and operational standards to ensure coherent integrated processes (Mena-Guacas *et al*., 2025). Godbole and Josyula (2024) also stipulated that clear organisational policies, including for AI integration, exhibit enhanced institutional readiness levels. In conclusion, although organisational and technological readiness factors are interdependent, the former is deeply embedded into culture, governance, reskilling, and leadership practices (Uren and Edwards, 2023).

External Readiness Factors

External environmental factors, such as regulatory compliance frameworks, government support, and stakeholder involvement, significantly influenced institutional readiness towards emerging technologies, especially for AI integration (Ali and Khan, 2024). Governing policies on emerging technologies, particularly digital transformation, AI ethics, and education innovation, served as readiness factors (Abulibdeh *et al*., 2025). In developed countries, supportive regulatory compliance frameworks, like the European Union's AI Act (Clark *et al*., 2024), provide clear ethical and legal governance guidelines, enhancing institutional confidence in integrating AI technologies. Therefore, external regulatory compliance with HEIs encouraged institutional readiness for innovation pilots through funding schemes, accreditation frameworks, and institutional collaborations (Duah *et al*., 2025; Felemban *et al*., 2024).

In contrast, evidence from Kabanda (2025) underscored how inadequate government policies, limited government funding, and outdated infrastructure impede readiness for AI integration in developing countries. HEIs frequently struggled with outdated governing policies, a lack of training initiatives, insufficient AI regulations, and a deficit in external partnerships (Singun,

2025). Furthermore, societal perceptions of AI integration, particularly concerns about ethical use, data privacy, and employment displacement, also influenced institutional readiness to integrate AI in HEIs (Funa and Gabay, 2025). Therefore, external readiness is inseparable from other readiness factors that extend beyond the institutional boundaries of HEIs (Alshahrani *et al*., 2024).

Ethical Readiness in AI Integration

Ethical considerations are essential for institutional readiness in AI integration into ERPs (Al-Zahrani and Alasmari, 2024). Recent studies highlighted the importance of HEIs to address AI integration challenges such as data privacy and accountability, within their core functions to enhance their readiness for successful integration (Radanliev, 2025). HEIs should align AI technologies with pertinent ethical standards to safeguard rights, maintain integrity, and uphold credibility to maintain trust among stakeholders (Meerten *et al*., 2024). Schiff *et al*. (2024) further recommended the establishment of AI ethics committees to oversee research approvals, audit data practices, and evaluate AI outcomes to mitigate potential bias and ensure transparency and fairness. Therefore, the review synthesis highlighted a need for making AI ethics readiness a fundamental aspect of institutional readiness (Ali and Khan, 2024).

CONCLUSION

The systematic literature review identified the readiness factors influencing institutional readiness for integrating AI into ERPs in HEIs (Solaimani *et al*., 2024). The synthesis of institutional readiness necessitates consideration of influential readiness factors before initiating AI integration processes (Ali and Khan, 2024). Although institutional readiness factors emerged interdependently, technological readiness emerged as key, with technology infrastructure and flexible digital policies (Roshanaei and Jachura, 2025). HEIs in developed countries benefited from comprehensive and scalable policies that align with international standards (Ejjami, 2024). However, several HEIs, particularly in developing countries, struggled with the existing ERPs' ability to integrate emerging technologies that require high computational capacity and real-time analytics, like AI (Felemban *et al*., 2024).

The readiness factors on organisational readiness encompassed top management buy-in, effective change management capabilities, and a culture of digital innovation (Al Samman, 2024; Mainardi, 2024). HEIs in developed countries reported that dedicated AI strategic roadmaps and comprehensive staff reskilling programs significantly enhanced readiness (Rajapakse and Thushara, 2023). However, HEIs in developing countries encountered limited managerial digital literacy and fragmented governance frameworks, undermining readiness enablers (Chhatre and Singh, 2024). Similarly, supportive regulatory compliance and

guaranteed government funding influenced and catalysed the integration of emerging technologies such as AI, into ERPs in HEIs of developed countries, ensuring the success of external readiness (Clark *et al*., 2024; World Bank *et al*., 2024). However, in developing countries, HEIs encountered the absence of coherent AI regulations and weak institutional collaborations, hindering the readiness initiatives (Aderibigbe *et al*., 2023; Kabanda, 2025).

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LEVERAGING AI TO ENHANCE OPERATIONAL RISK MANAGEMENT PRACTICES IN SOUTH AFRICAN RETAIL BANKING

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ABSTRACT

This paper explored the capability of artificial intelligence (AI) to improve operational risk management (ORM) within South African retail banking. ORM techniques were mainly reactive, leveraging historical data and manual procedures. AI brings the possibility of enabling more proactive, data-driven ORM techniques. Despite the expansion of AI applications, the literature on its effect on ORM in banking is limited. This research conducted interviews with seasoned risk managers and AI specialists. Thematic evaluation of interview transcriptions exposed clear themes, consisting of challenges of defining AI for ORM, obstacles to adopting AI, and the vital function of data management. Research limitations were that findings were limited by the small sample size and dependence on self-reported data. Potential applications of AI in ORM are recognised, particularly in fraud detection, predictive analytics, sentiment analysis, and policy interpretation. This research provides an understanding of AI in ORM and adds to the broader conversation on AI.

Keywords: operational risk; artificial intelligence; risk mitigation strategies; proactive risk management

INTRODUCTION

In recent years, the global financial landscape has been significantly impacted by various ORM events, prompting regulatory bodies to enhance ORM practices (Boyar-Sozonovitch *et al*., 2021; Weekes-Marshall, 2020; Yusuf *et al*., 2024). The 2008 financial crisis highlighted the consequences of inadequate ORM, revealing systemic vulnerabilities in the financial sectors (Yusuf *et al*., 2024). This study focused on the South African retail banking sector, where ORM had traditionally been reactive, relying on historical data and manual processes (Sityata *et al*., 2021).

This report addressed the challenge of integrating AI into ORM practices to enhance effectiveness. Despite growing literature on AI applications, a notable gap remained regarding its impact on ORM within South African banks. This gap presented an opportunity to explore

how AI could transform ORM from a reactive to a proactive, data-driven approach. The motivation for this study stemmed from the increasing frequency and complexity of operational risks, particularly after recent crises. By leveraging AI, banks can improve risk detection and enhance operational efficiencies, fostering greater resilience. This research aimed to provide insights for risk managers and policy developers on integrating AI into ORM within a South African bank.

The study's objectives included identifying challenges and opportunities associated with AI adoption in ORM, exploring specific AI applications to enhance ORM, and providing actionable recommendations for stakeholders. Qualitative research was conducted through semi-structured interviews with SMEs in AI and ORM. The findings contributed to existing knowledge by highlighting themes such as the need for clear AI definitions, clean data, and applicable governance frameworks.

This report is structured with an overview of the research context and objectives, followed by findings and discussions, and concluding with reflections on the research process and personal learning outcomes. The study aimed to enhance understanding of AI's role in ORM and its potential to reshape risk management practices in South African banking.

The last decade has seen numerous material events influencing the world economy, prompting regulatory bodies to focus on ORM (Yusuf *et al*., 2024). The 2008 financial crisis underscored the importance of reliable ORM, as several financial institutions flouted governance protocols, leading to severe repercussions (Weekes-Marshall, 2020). Andersen *et al*. (2011) cited the crisis as an example of ORM failure.

Within enterprise risk governance, Boyar-Sozonovitch *et al*. (2021) categorise risks into key categories, with OR, CR, and MR being the most prominent. Costa *et al*. (2022) defines ORM as identifying, assessing, monitoring, and controlling risks from operational failures, including systems, processes, people, or external events. ORM involves uncertainties in daily tasks by businesses and risk managers. Operational risk events include internal process failures, system issues, fraud, and climate-related risks (Boyar-Sozonovitch *et al*., 2021; Costa *et al*., 2022; Fares *et al*., 2022; Shiyyab *et al*., 2023).

A Stanford Report (2023) noted AI investment reached $25.2 billion in 2023, indicating AI's substantial influence on various sectors. This research explored leveraging AI to enhance ORM in a South African retail bank, highlighting difficulties and opportunities associated with AI adoption. Andersen *et al*. (2011) discussed the impact of inappropriate credit models on ORM, especially in the mortgage industry, leading to cascading ORM failures. The lack of governance protocols and disregard for robust risk practices compounded the issue. The authors concluded that failure to manage brokers resulted in poorly documented loans,

contributing to inadequate client assessments. Andersen *et al*. (2011) and Weekes-Marshall (2020) identified ORM as complicit in process and system failures and negligence.

Andersen *et al*. (2011) mentioned overreliance on credit models, which were inadequate for managing market complexities. Fares *et al*. (2022) and Shiyyab *et al*. (2023) highlighted the evolving nature of ORM and the need for advanced technologies. Fares *et al*. (2022) discussed data analytics' role in enhancing ORM, positioning it as a solution to traditional manual and qualitative practices.

Shiyyab *et al*. (2023) explored AI's impact on risk management in Jordanian banks, noting AI technologies like automation, predictive analytics, and enhanced risk assessments. They recommended better data quality, mature governance structures, and standardised disclosure practices.

Despite AI's proliferation, limited studies exist on AI and ORM in South African banking. More studies were found when generalising to AI in ORM within the financial sector. The literature review showed several studies in healthcare and insurance, integrating AI in operations and ORM. This study explored AI and ORM in the South African market, finding similar obstacles and opportunities as other industries.

AI has existed since Alan Turing's 'Bombe' device in World War II, with substantial advancements since (Russell, 2021). AI's capabilities are still being understood (Rashid & Kausik, 2024). The Oxford University Press (1955-2024) defines AI as "the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages."

This research involved 16 semi-structured interviews with risk and AI specialists. Themes included the need for clear AI definitions, governance, and normalised data. Literature by Fares *et al*. (2022), Shiyyab *et al*. (2023), and Sankar (2023) echoed these themes. Interviewees recommended fraud analytics, process automation, and predictive analytics for enhanced risk assessments, aligning with AI definitions.

This study proposed AI-based functionalities for South African retail banking. Understanding AI's role in enhancing ORM is essential for improving organisational resilience and reducing operational losses. The study explored leveraging AI concepts with ORM, suggesting AI could dramatically change ORM techniques. The advancement of AI definitions highlights its growing importance in different industries, especially ORM.

BACKGROUND:

This paper focused on two areas of expertise in different business and theoretical fields. ORM originated from the Basel Framework in the late 1990s, published in 2004, recognising the need for risk management beyond credit and market risks (Power, 2005). The Basel Accord institutionalised ORM by requiring banks to set aside capital for potential operational risks and losses (Power, 2005). The 1995 collapse of Barings Bank due to unauthorised trading highlighted the significance of operational risks (Power, 2005).

AI has been active since the 1940s (Aziz & Dowling, 2018; Russell, 2021). AI's impact on various sectors is inevitable (Stanford, 2023). Although older than ORM, AI investments have recently surged (Costa *et al*., 2022; Toosi *et al*., 2021). The US and China have invested significantly in AI development since 2013, with the US leading in AI-specific laws (Stanford, 2023). The volume of investment and legislation indicates AI's permanence in the global economy (Amalia, 2016).

A clear AI definition is crucial for understanding its applications within ORM (Bigham, 2018). It helps identify specific AI techniques to enhance ORM and ensures adequate governance over AI applications, mitigating associated risks (Bigham, 2018). Lack of a clear AI definition leads to organisational resistance and hinders AI adoption for improved ORM.

Definitions Of AI

AI definitions vary from traditional to modern and across industries (Minsky, 1968). Alan Turing, considered the father of AI, described AI as “a machine that could simulate any human intelligence task” and proposed the Turing test to determine machine intelligence (Minsky, 1968). Minsky (1968) defined AI as “the science of making machines do things that would require intelligence if done by men.” Traditional AI definitions focus on machines performing tasks requiring intelligence (Andersen *et al*., 2011).

Modern AI definitions emphasise human-machine interaction (Andersen *et al*., 2011; Dong & Heo, 2015; Russell, 2021). Following the AI winter, Sabharwal (2011) defined AI as “the study of agents that receive perceptions from their environment and perform actions.”

Comparative Analysis

In Table 3, an attempt has been made to contrast the various definitions of AI and to highlight its complexity. As noted above and indicated below, defining AI is not as simple as one would expect. This could be inferred as a potential reason for why there has been no specific AI definition within the retail banking industry that considers ORM and the leveraging of AI. Definitions of AI differ in scope and complexity due to the specificity required within the definition. Definitions, furthermore, have complexities related to whether they are defined by traditional or modern definition aspects.

TABLE 3: COMPARATIVE ANALYSIS OF AI DEFINITIONS

Aspect	Traditional definitions	Modern definitions	Industry-specific definitions
Scope and focus	Focus on general AI capabilities	Highlighting autonomy and adaptability	Tailored to specific sectors/applications addressing unique challenges and opportunities
Complexity and specificity	Abstract; focus on theoretical aspects of AI	Practical; detailing how AI systems operate and interact with their environment	Reflecting the evolving nature of AI technologies and their specific applications in fields such as finance and ORM
Examples	– Andresen (2002): "The science and engineering of making intelligent machines"	– Sabharwal (2011): "The study of agents that receive precepts from the environment and perform actions"	– Financial sector (Fares *et al*. (2022): "The use of algorithms and software to approximate human cognition in the analysis of complex data"
	– Minsky (1968): "The science of making machines do things that would require intelligence if done by men"	– European Commission (2020): "Systems that display intelligent behaviour by analysing their environment and taking actions – with some degree of autonomy – to achieve specific goals"	– ORM (Sheikh *et al*., 2023): "Technologies that enable machines to perform tasks that typically require human intelligence, such as recognising patterns, learning from experience, and making decisions"
Relevance to ORM	Providing a general understanding applicable across various fields	Emphasising learning, decision-making, and interaction with the environment, aligning with ORM needs	Directly addressing the practical applications and challenges of AI in ORM, such as predictive analytics and fraud detection

The interpretations reflect the dynamic and adaptable nature of AI, focusing on applications and the ability to operate autonomously. Industry-specific interpretations tailor the concept of AI to a particular application, such as finance or ORM. The definitions and complexities discussed highlight the need for a practical definition of AI in an ORM context, considering the uniqueness and specific applications of ORM in the retail banking industry as opposed to those in the insurance, financial, and corporate sectors of the banking industry (Kaggwa *et al*., 2024).

AI Techniques And Components

AI has revolutionised industries, including risk management (Dicuonzo *et al*., 2019). AI-enhanced technologies improve safety, security, entertainment, and information processing

(Rashid & Kausik, 2024). Industries like healthcare, agriculture, mining, art, music, and insurance have benefited from AI, with no signs of slowing down (Rashid & Kausik, 2024).

AI can be classified based on intelligence and capabilities (Rashid & Kausik, 2024). AI components and their potential benefits to ORM are discussed later in the paper. AI is still in its research and development phase, with potential threats to consider.

Machine Learning (ML)

ML algorithms are the cornerstone of AI applications, enabling machines to learn from data and predict future events (Tayal & Kulkarni, 2023). ML uses statistical models and algorithms to identify patterns, make predictions, and automate decision-making (Dicuonzo *et al*., 2019). ML has subvariants namely supervised and unsupervised learning. Supervised learning uses labeled databases with clear criteria (Dicuonzo *et al*., 2019). Unsupervised learning identifies patterns in databases without predefined labels (Tayal & Kulkarni, 2023). Examples include predicting diseases from patient data and recommendation systems used by Netflix and Amazon. However, ML can be biased, as seen in Amazon's hiring process, which favoured male applicants due to biased data.

Natural Language Processing (NLP)

NLP analyses emails, reports, and social media content from unstructured databases. It determines sentiment by analysing customer feedback and social media posts, helping institutions gauge public attitudes and identify reputational risks (Sankar, 2023). NLP can also monitor communications for early warnings of potential operational risks, such as compliance breaches or civil unrest (Tayal & Kulkarni, 2023).

For example, a South African bank used sentiment analysis to analyse two million customer social media accounts. NLP identified specific customer complaints and sentiments, leading to operational changes during peak hours and improved client sentiment (Subha *et al*., 2025). However, NLP can generate false positives, as seen in a financial institution's AI-based risk monitoring model, which led to unnecessary account freezes and customer complaints (Sheikh *et al*., 2023).

Big Data Analytics

Big data refers to vast volumes of structured and unstructured data, crucial for AI systems to learn and adapt for informed decisions (Fares *et al*., 2022). It is characterised by volume, velocity, and variety, necessitating advanced technologies for real-time analysis and insights (Fares *et al*., 2022; Sankar, 2023). Applying big data in AI for ORM enhances risk management (Dicuonzo *et al*., 2019). AI can predict potential operational risk events through predictive analytics and identify patterns indicative of fraudulent activities, minimising financial losses (Sheikh *et al*., 2023). AI applications using big data, social media platforms, and customer feedback can highlight reputational risk events (Sankar, 2023). However, big data

poses risks, including data privacy and cybersecurity issues (Batini & Scannapieco, 2016). For example, Equifax exposed 147 million users' details in 2017 due to a software vulnerability (Sankar, 2023). Data quality is also crucial, as poor data can lead to inaccurate forecasting and financial losses (Sankar, 2023).

Generative AI (GenAI)

Generative AI refers to algorithms generating new content like text, images, or music (Tayal & Kulkarni, 2023). With deep learning, GenAI applications extend to images, text, speech, and complex data, benefiting industries like art, writing, software development, finance, and entertainment (Sankar, 2023). GenAI trends lean towards larger models trained on larger datasets for more accurate results. GenAI can simulate risk scenarios for proactive business continuity and test risk strategies against hypothetical scenarios (Tayal & Kulkarni, 2023). Automated responses to customer inquiries reduce the need for employees, saving costs (Tayal & Kulkarni, 2023). However, GenAI poses risks, such as deepfake videos swaying public opinion and creating phishing emails mimicking legitimate communications, leading to cyberattacks (Dicuonzo *et al*., 2019). A UK cinema canceled a showing after patrons were notified the film was produced by ChatGPT only (Dicuonzo *et al*., 2019).

Predictive Analytics (PA)

PA combines statistical algorithms and ML techniques to identify potential future outcomes based on historical data (Sheikh *et al*., 2023). Extracting patterns from data to forecast trends, anomalies, events, or behavior makes PA a powerful decision-making tool (Sheikh *et al*., 2023). PA is widely used in the financial services industry to predict fraudulent activities (Sheikh *et al*., 2023). In marketing, PA segments customers based on behavior and preferences, allowing tailored marketing campaigns (Abonamah & Abdelhamid, 2024). In manufacturing, Komatsu used historical data to predict maintenance needs, reducing downtime and repair costs (Abonamah & Abdelhamid, 2024). Financial institutions use PA for credit scoring and risk assessments by analysing historical data to determine repayment behavior and default potential (Abonamah & Abdelhamid, 2024).

The Wells Fargo account opening scandal in 2016 highlights the dangers of PA without proper data governance (Abonamah & Abdelhamid, 2024). Data quality issues and aggressive sales targets led to millions of illegitimate accounts, resulting in financial penalties and reputational risk (Abonamah & Abdelhamid, 2024). Target's PA system incorrectly classified a teenage girl as pregnant, causing emotional pain and reputational damage (Abonamah & Abdelhamid, 2024).

In conclusion, AI can enhance ORM practices through data analysis, predictive modeling, automation, and fraud detection. Traditional ORM practices can benefit from AI's enhanced

capabilities. However, AI poses risks, including data quality issues and the need for robust governance and clear definitions. A strategic approach to AI adoption, involving comprehensive data management, continuous model adaptation, and targeted training, is necessary. The review also highlighted the gap in AI's practical application in ORM within South African retail banks.

RESEARCH OBJECTIVE

The research explored AI and ORM in SME skills using a qualitative methodology to delve into ORM complexities and AI capabilities. Semi-structured interviews, guided by a core set of questions (Maher *et al*., 2018), were conducted with operational risk and AI specialists via Microsoft Teams. Purposeful sampling allowed in-depth exploration of participants' experiences. Participants were selected for their relevant knowledge. Purposeful sampling and a pilot study ensured clarity and effectiveness of interview questions. Thematic analysis identified patterns within the interview data, providing a comprehensive understanding of ORM and AI themes (Maher *et al*., 2018).

The study's small sample size and reliance on self-reported insights introduced bias. Triangulation and a diverse sample helped mitigate these limitations. Document analysis provided context and expanded on interview information, reviewing various ORM and AI documents, including bank policies and research studies. Ethical considerations ensured participants' welfare and privacy, complying with the Protection of Personal Information Act 4 of 2013 (POPIA). Informed consent was obtained, and participation was voluntary. Pseudonyms protected participants' identities, and data security measures were implemented. Document analysis was conducted carefully to ensure academic compliance and respect legal and confidentiality concerns.

RESULTS AND DISCUSSION

This section presents the results of the qualitative research, which was aimed at exploring the potential of leveraging AI for enhanced ORM in a South African bank. The findings were based on feedback and discussion themes identified from interviews with 16 participants comprising operational risk managers and AI experts. The interviews were supplemented by document analysis that acted as a means of triangulating the coded data and supporting the themes identified.

All interviewees had more than 11 years of banking experience in their respective SME fields. This experience included a substantial understanding of the banking industry, corporate culture, and organisational behaviour. Of the interviewees, a total of 44% were employed at middle management level, while the remaining 56% held senior management positions. This was an important aspect, as it indicated an involvement in tactical and strategic planning within

their respective fields in the bank because it implied that topics of culture and strategic intent could be explored based on actual experience and not just an opinion that was open to bias.

All the themes identified from the interviews were corroborated by academic references discussing the same content aspects. The themes were explored from both the viewpoints of positive benefit and negative risk sentiment, as extracted from the literature reviewed. Each theme identified from the interviewees is discussed in its own section, with the contributions from the literature and real-world examples added in the section to provide a balanced view. What follows are the clear themes that emerged from the coding of the interviews, which are supported by academic findings and real-world events, and which clearly indicate that AI can be leveraged for enhanced ORM practices, but that it does not come without risks and should be considered with the risk appetite of the bank before implementing any recommendations.

FIGURE 1: KEY THEMES IDENTIFIED IN THE INTERVIEWS AND THE FREQUENCY WITH WHICH THEY WERE MENTIONED

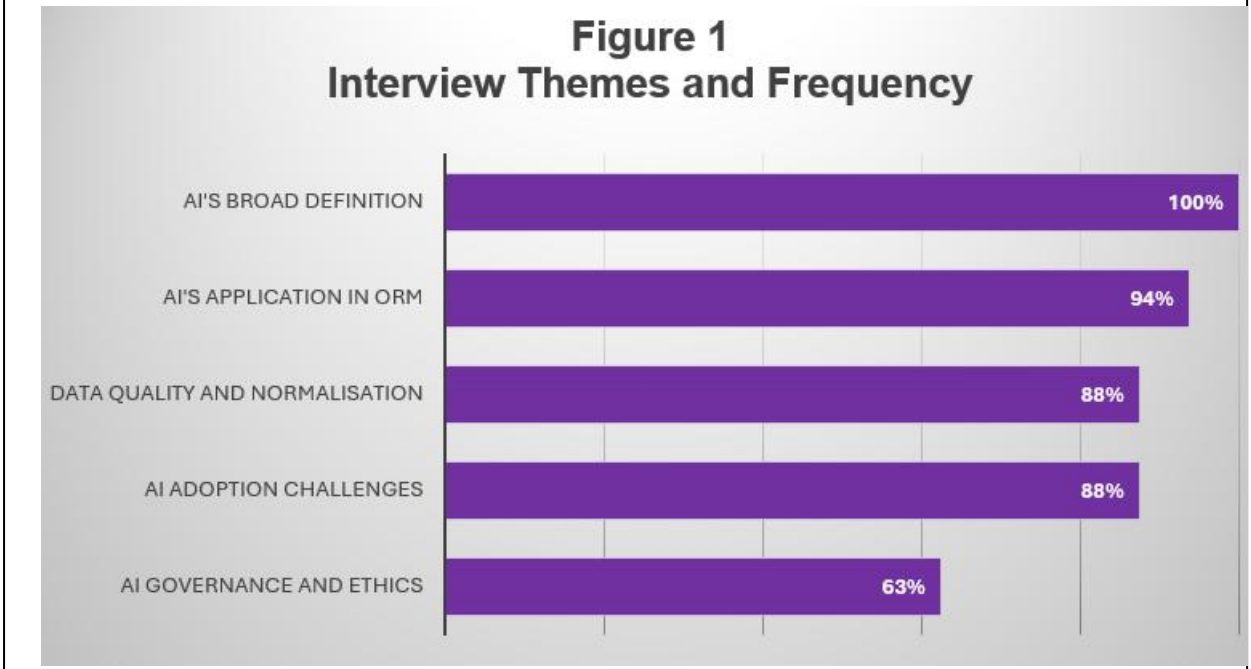


Figure 1: Key themes identified in the interviews and the frequency with which they were mentioned

Key Themes Identified

Lack Of A Clear Definition Of AI

A consistent theme from the interviews was the lack of a clear AI definition within the bank. All 16 interviewees (100%) mentioned the absence of defined AI parameters as a hindrance to leveraging AI in ORM. Participants also noted the lack of a standard industry definition of AI, complicating its application in ORM.

Four interviewees (25%) highlighted the evolving nature of AI and the difficulty of defining it due to its ever-changing applications. Ten interviewees (62%) noted the vague understanding of AI within the financial sector and the lack of a central body of knowledge in South Africa. Seven interviewees (44%) mentioned that robotic process automation (RPA) was often considered a subset of AI. The need for a broad AI definition to accommodate various interpretations was emphasised, along with distinguishing AI from other technologies. Although AI is not new, it is only recently becoming mainstream again (Sheikh *et al*., 2023).

Literature also notes the lack of understanding and interpretation of AI. Rubeis (2024) and Wang (2008) researched AI definitions over the last two decades, highlighting the confusion in defining intelligence in terms of human performance. Some authors prefer an abstract

definition of intelligence as rationality (Andersen *et al*., 2011; Fares *et al*., 2022; Sheikh *et al*., 2023). Fares *et al*. (2022) mentioned the generational gap as a reason for the lack of understanding of AI.

Sheikh *et al*. (2023) published a book series titled 'Research for Policy,' exploring AI definitions and the difficulties of establishing a universally accepted definition. The authors argue that AI's dynamic nature is why there is no standard definition. Interviewees agreed, noting that the lack of a clear, industry-specific definition complicates AI application in ORM (Sheikh *et al*., 2023). Emmert-Streib *et al*. (2020) discussed the challenges and misconceptions surrounding AI definitions, noting that finding a universally acceptable definition is nearly impossible.

The lack of a clear AI definition has several implications for the banking sector. Without a clear definition, banks face challenges in effectively implementing AI, leading to inconsistent application and misunderstandings of internal governance. Seven interviewees (44%) considered RPA a form of AI, complicating the development of governance structures and policies. This lack of clarity makes it difficult to create comprehensive AI policies, leading to gaps in governance and oversight.

Convincing stakeholders of AI's value becomes difficult without a clear definition, resulting in resistance from decision-makers unsure of AI's benefits and risks (Sheikh *et al*., 2023). Educating stakeholders and bridging the understanding gap are crucial for gaining support and facilitating AI adoption (Fares *et al*., 2022). The lack of a clear definition hinders leveraging AI in risk management, slowing AI solution development and deployment. Additionally, risk managers need to be upskilled in AI aspects. A clear AI definition is crucial for designing appropriate learning programs and curricula.

The application of AI in ORM: A significant theme from the interviews was the potential applications of AI in ORM, with 15 out of 16 interviewees (94%) agreeing. Participants differed on which aspects of AI could be leveraged, but there was consensus that AI could benefit existing ORM techniques. Predictive analytics was a core theme, with one interviewee mentioning its use in detecting fraudulent activities in clients' accounts and transactions, limiting losses. A model was being developed at the bank by the forensics team.

Most SMEs from the risk management arena mentioned the reactive nature of current risk management practices and agreed that leveraging AI could enhance ORM. Examples included a social media monitoring bot for early detection of reputational risks and an AI-based application to monitor sentiment to prevent losses. AI could enable greater proactivity by analysing extensive data footprints or operational risk classes, particularly external fraud,

cyber threats, and damage to physical assets, which could be consumed by ORM structures to develop proactive ORM techniques.

Literature echoes the interviewees' sentiments. Sheikh *et al*. (2023) and Fares *et al*. (2022) discuss opportunities for AI in ORM, particularly enhancing predictive analytics. AI can analyse vast amounts of data to determine patterns and predict potential anomalies, allowing organisations to take proactive measures to mitigate risks, leading to more efficient and effective risk management practices. Jerbi (2023) indicates that AI can enhance decision-making processes by providing risk managers with more accurate and timely information. AI can also monitor and analyse compliance-related data, ensuring adherence to regulations and avoiding penalties, enhancing relationships with regulators and governing bodies.

However, Grover *et al*. (2022) highlight challenges and barriers to AI application in operations management. The complexities of AI and the lack of understanding among decision-makers are significant barriers to widespread adoption. These findings align with themes identified by Sheikh *et al*. (2023) related to difficulties in standardising AI definitions and limited understanding of AI parameters among business leaders. The lack of a clear AI definition hinders AI application in ORM. A strategic approach to overcome these barriers must be emphasised by educating stakeholders and establishing robust governance frameworks (Jerbi, 2023).

Data Management For AI

Effective AI implementation requires clean, normalised data, which was emphasised by multiple participants. Having clean and normalised data is critically important for AI to function effectively. Clean data refers to data that is accurate, consistent and free from errors and discrepancies (Batini & Scannapieco, 2016). A total of 88% of the participants highlighted the challenges banks faced in preparing data for AI consumption, noting that even though banks had large quantities of good data, it was often not ready for use by AI. The need for a governance model around AI and data was discussed to ensure that AI operated within ethical and accurate parameters. Two interviewees discussed the critical role of data quality in AI success. One expressed the intention to delve deeper into data risk management, recognising its importance in supporting AI initiatives. Efforts to engage with data risk management professionals and the potential for AI to perform generalist tasks more efficiently than humans were mentioned by an interviewee.

The article ‘Utilisation of Artificial Intelligence in the Banking Sector: A Systematic Literature Review’ by Fares *et al*. (2022) provides a comprehensive review of AI utilisation in the banking sector, emphasising the critical role of data management. Effective AI implementation in banking, particularly for ORM, hinges on having clean, well-organised data. The authors

discuss various challenges banks face in preparing data for AI, such as data silos, inconsistent data formats, and the need for robust data governance frameworks. They argue that without high-quality data, AI systems cannot function optimally, leading to inaccurate risk assessments and potential operational failures. Continuous data quality monitoring and the establishment of clear data governance policies are essential to ensure that AI systems are both effective and ethical (Fares *et al*., 2022).

Similarly, the study titled ‘Navigating the Power of Artificial Intelligence in Risk Management: A Comparative Analysis’ by Howard and Schulte (2024) explores the application of AI in risk management, focusing on the necessity of clean and normalised data for AI to be effective. The authors emphasise that data quality is paramount for the success of AI in ORM, as poor data can lead to flawed risk predictions and decisions. They discuss the need for a comprehensive data governance model that includes ethical considerations and privacy protections. The dynamic nature of AI models, which require continuous updates and adaptations to remain effective, is highlighted. The authors suggest that banks should invest in data management infrastructure and training for staff to ensure that data used in AI applications is accurate, complete, and up to date. This approach not only enhances the effectiveness of AI in ORM, but also builds trust in AI systems among stakeholders.

Both articles align well with the themes identified in the interviews, particularly the critical importance of data management for successful AI implementation in ORM. They highlight the need for clean, well-governed data and continuous monitoring to ensure that AI systems are effective and ethical. The integration of these insights underscores the necessity for banks to prioritise data quality and governance to fully leverage the potential for AI to enhance ORM.

AI Governance And Adoption Challenges

The third most recurring theme from the interviews was the difficulties in adopting AI in the bank. Fourteen out of 16 interviewees (88%) expressed concerns about early AI adoption challenges. A primary hurdle was the lack of enterprise buy-in, stemming from limited understanding by mandated officials of AI's parameters and capabilities. This lack of understanding led to apprehension and resistance among decision-makers wary of accountability and potential negative perceptions associated with AI.

One interviewee identified organisational culture and structure as barriers to AI adoption. The lack of appetite for new AI initiatives due to risk aversion and the absence of AI governance and approval structures were mentioned. The existing mandate model within the bank was not conducive to integrating AI technologies as a first-to-market concept, negating the first-to-market advantage due to bureaucracy and lack of governance structures. This was despite the bank's strong technology focus, similar to other banks in the sector.

While the availability of AI specialists is crucial, an interviewee noted that a larger issue would be the lack of established mandates and appetite for AI initiatives. This seems counterintuitive, as the lack of skills is considered one of the main barriers to AI implementation in an organisation (Fares *et al*., 2022). Overcoming these cultural and structural barriers requires a strategic approach to change management and education to build an AI-friendly environment.

Future research could delve deeper into developing robust AI governance frameworks, focusing on comprehensive models addressing ethical guidelines, data governance policies, and accountability structures. These structures should have shared accountability and be transparent, fair, and non-discriminatory. Additionally, research could explore best practices for creating governance models that balance innovation and revenue generation with ethical considerations. Studies could also focus on the role of regulatory bodies in overseeing AI governance and the impact of various governance models on AI adoption. Future research could explore strategies for improving data quality and data management practices, overcoming data silos and inconsistent data formats, and providing continual data monitoring programs. Lastly, identifying cultural, structural, and organisational barriers to AI adoption could provide valuable insights into overcoming these challenges. Addressing these barriers could help banks create a supportive environment for AI adoption, leading to more effective and innovative ORM practices.

PRACTICAL MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

To effectively leverage AI in ORM, it is imperative to develop comprehensive data management strategies that ensure data quality and establish robust data governance frameworks to support AI initiatives. Establishing clear AI definitions and governance structures is essential to create a common understanding of AI among stakeholders and develop ethical guidelines and accountability structures. Enhancing workforce training through tailored programs will improve employees' understanding of AI, its applications, and implications for ORM. Additionally, fostering an organisational culture conducive to AI adoption requires addressing cultural and structural barriers through strategic change management and education. Finally, leveraging AI for proactive ORM involves utilising AI for predictive analytics, fraud detection, and sentiment analysis to shift ORM practices from reactive to proactive.

CONCLUSION

This research underscored the potential for AI to enhance ORM. The findings revealed that AI could shift ORM practices from predominantly reactive to more proactive, data-driven strategies. This would improve risk detection and operational efficiencies and enhance the overall resilience of the bank. This would not come without challenges, including the lack of a

clear AI definition of ORM, organisational resistance by decision-makers, and data quality issues.

The study contributed to the fields of AI and ORM by providing insights into the specific applications of AI in risk management within a retail bank in South Africa. It highlighted the criticality of data governance and the necessity for robust frameworks that support AI initiatives. By identifying the barriers to AI adoption, this research lays the groundwork for future studies and practical implementations in the banking sector. To facilitate strategies for improving AI integration, it is essential to develop comprehensive data management and governance strategies. This process should include clear definitions of AI tailored to the banking industry to foster a common understanding among stakeholders. It should, furthermore, include the implementation of robust data governance frameworks that ensure data quality and the ethical use of AI technologies. Workforce development would also require tailored training programmes to enhance all employees' understanding of AI, its applications, and the implications for ORM.

The limitations of the study, due to a small sample size and reliance on self-reported data, resulted in it being open to bias. Through triangulation, this was largely mitigated successfully; however, the focus on the internal factors of the bank in South Africa meant that external factors, such as regulatory changes and market dynamics, were not extensively explored. Future studies should focus on investigating the empirical implications of AI in ORM, ensuring that applications are aligned with global and local ethical standards and current societal expectations. Further exploration of emerging AI technologies and their impact on ORM practices should be undertaken within the context of market conditions. Lastly, the development of best practices for AI implementation across diverse organisational contexts beyond the retail banking environment could add value to all industries. By addressing these areas, future studies could further enhance AI in ORM, thereby contributing to more resilient and adaptive risk management practices in the financial sector

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TRACK 15: TOURISM MANAGEMENT

INVESTIGATING THE USE OF SOCIAL MEDIA IN REGIONAL TOURISM MARKETING: A CASE STUDY

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ABSTRACT

This article examines the use of social media to promote regional tourism amid the challenges facing the tourism industry. Tourism is an important sector in the local economy, and any innovation that can increase tourism figures must be considered significant. This exploratory, qualitative research investigated how social media is used small and medium enterprises, as well as the regional tourism office to promote tourism in Kleinmond/Hangklip to benefit the local tourism market. Findings indicated that a limited number of social media channels is used as effectively as possible. Social media is considered an important tool for building and maintaining relationships with industry partners; however, care must be taken to ensure cybersecurity and prevent the misuse of content. Gaps in the regional marketing strategy can be improved with stronger leadership from local government and more coherent industry participation. Future trends include virtual reality to create exciting immersive experiences to market products and regions.

Keywords: social media; regional tourism; marketing; case study; Western Cape

INTRODUCTION

The Overstrand Local Municipality (OM) lies on the East coast of the Western Cape, and forms part of the Whale Route. The region attracts visitors interested in whale migration, as well as adventure tourists engaging in activities such as cycling, walking, diving, snorkelling, and zip-lining through the protected nature areas, and families visiting the blue flag beaches. However, OM stretches over a vast geographic area from the village of Rooi Els in the South, through Pringle Bay, Betty's Bay, Kleinmond, Hermanus, Stanford, and Gansbaai (Overstrand Municipality, 2025). Tourism promotion in this area is organised by sub-region, with Hermanus serving as the primary hub. As the largest centre, Hermanus offers the amenities and infrastructure typically associated with urban areas. This prosperous area attracts visitors who travel from Cape Town, through the villages of Rooi Els, Pringle Bay, Betty's Bay, and Kleinmond, often without stopping, to Hermanus.

The challenge for these four small villages (collectively called the Kleinmond/Hangklip area) is to encourage visitors to stop for a few nights and experience these small villages before continuing their journey.

Attracting tourists to a specific region in a highly competitive tourist area can be a challenge for small and medium-sized tourism enterprises, such as small tour operators, guesthouses, and individually owned restaurants or chauffeur services. While social media has become a primary tool for attracting customers' attention to a specific product or service, owners of Small, Medium, and Micro Enterprises (SMMEs) often lack confidence or expertise in using different social media platforms to their full potential. This exploratory research intends to investigate how SMMEs utilise social media to promote tourism within a specific geographic area of the Western Cape to develop and expand the local tourism market.

From this, the following research questions are formulated:

- How do tourism enterprises in the Kleinmond/Hangklip area use social media to promote their products/services?
- How do tourism enterprises in the Kleinmond/Hangklip area use social media to promote tourism to their unique geographic area?
- How do tourism enterprises in the Kleinmond/Hangklip area see the future of social media use to promote tourism to their own and the region's advantage?

LITERATURE REVIEW

Uses and Gratifications Theory (U&G)

To guide the analysis of how social media marketing can be used in regional tourism marketing, this study draws on the Uses and Gratifications (U&G) Theory. U&G theory shifts focus from what media does to people, to what people do with media, exploring the psychological and social motivations behind media use (Ruggiero, 2000). It is predominantly useful in understanding user interaction with social media content, especially in tourism marketing where engagement, satisfaction, and behavioural intentions are shaped by both content design and audience needs.

The aim of the U&G is to understand why individuals use media platforms or information systems. It emphasises how individuals select and use these resources to suit their needs (Wang, Zhang, Luo and Guo, 2022). Fundamental to U&G is the concept of gratification, which maintains that user satisfaction promotes consistent use of a system or platform. U&G theory adjusts to new technologies and platforms by considering their unique features and affordances in order to stay relevant in a rapidly changing media ecosystem (Mehrad and Tajer, 2016). Whiting and Williams' (2013) study identified ten uses and gratification of social media use, with social interaction, information searching, leisure, entertainment,

communication, sharing, and relaxation among the most popular ones. The authors suggest that this theory should be given greater emphasis in social media marketing and research.

According to Keelson, *et al*.'s (2024) study on the impact of social media on tourist destination decisions in Ghana, using U&G, social media meets a variety of tourist needs, such as social integrative needs (making connections with friends and family and asking for recommendations), personal integrative needs (increasing self-esteem through positive travel experiences), cognitive needs (learning about destinations and making travel plans), and affective needs (satisfying cravings for excitement, novelty, and adventure). This concept emphasises how travellers use social media in a variety of intentional ways to achieve their travel-related objectives. In a study conducted by Agyapong and Yuan (2022) in China, they discovered that social media sites like Facebook, YouTube, Instagram, Twitter, and WeChat are crucial avenues for disseminating information on travel destinations, images, and experiences thereby influencing choices.

The study by Agyapong and Yuan (2022) found that tourist satisfaction, destination image, behavioural goals, and information availability all have significant impact on social media usage when it comes to tourism destination decisions. However, social media use alone does not directly affect passengers' preferences for their destination, indicating that additional aspects not considered, may be important. Happy customers are more inclined to post about their positive experiences online, enhancing the establishment's reputation and encouraging others. Additionally, a positive impression of a location generated by social media content encourages more people to use these platforms for travel planning, highlighting the potential for places to deliberately use social media to attract tourists. (Keelson, *et al*., 2024). This study uses the U&G Theory to examine how local tourism groups might modify their social media strategies to better align with the interests and requirements of their target markets, and hence increasing marketing efficacy and engagement.

Regional tourism

Tourism plays a vital role in the economic revitalisation of regional areas, particularly those affected by the decline of traditional industries such as agriculture, forestry, fishing, and mining. It provides an alternative path for growth by leveraging a region’s unique natural and built assets (Jackson and Murphy, 2006). According to Bassil, Harb and Daia (2023) tourism can drive regional growth through increased revenue, an influx of foreign currency and investment in infrastructure. Tourism also boosts regional productivity through the transfer of knowledge from visitor interactions and generate job opportunities. Over the years tourism has become a significant economic sector with coastal regions widening the gap with inland areas (Mejjad *et al*., 2022; Wen and Tisdell, 2001).

A key focus in the literature is the shift from comparative to competitive advantage. Rather than relying solely on existing resources, regions must transform these assets through collaboration, innovation, and strategic partnerships within the tourism sector. This transition involves leveraging natural attractions and cultural heritage to develop a distinctive identity that appeals to tourists while fostering sustainable economic growth (Jackson and Murphy, 2006; Kotler, Bowen, Makens and Baloglu, 2017; Kirillova *et al*., 2020). The ability to harness these resources effectively ensures regions remain competitive in an increasingly crowded tourism market. Regional tourism development is increasingly shaped by the strategic use of place branding, particularly in emerging destinations. According to Ageeva and Foroudi (2019) tourism is recognised as a key driver of economic growth, and place branding serves as a vital tool for regions seeking to enhance their tourism appeal. As competition intensifies among regions for visitors, investors, and residents, it becomes essential for destinations to create distinctive and attractive identities (Kirillova *et al*., 2020).

A study by Montenegro *et al*. (2024) examining the evolution of industrial tourism research and its role in regional development highlights the importance of customising tourism strategies to align with each place's unique history, culture, and resources. Furthermore, by creating links with other sectors, tourism promotes economic growth through powerful multiplier effects and fosters interregional development by benefiting areas alongside the host region (Bassil *et al*., 2023).

A study conducted by Kim *et al*. (2021) on *coastal tourism spatial planning at a regional unit they discovered that to enable better policy decisions and maintain sustainable development, hotspot identification at* several spatial levels (regional, local, and national) is necessary for effective coastal tourist management. The study also demonstrates how regional differences in population, infrastructure, and natural resources shape tourism trends (Kim *et al*., 2021).

The role of social media marketing in regional tourism

The rise of access to the internet and social media over the past two decades has further transformed the tourism landscape. Social media now plays an integral role in assessing tourism experiences and serves as a powerful tool for promoting destinations. Tourists increasingly rely on platforms such as Tiktok, Facebook, Instagram, YouTube, and TripAdvisor to research, choose, and share their experiences at destinations (de Almeida Vasconcelos, *et al*. 2023). Integrating social media data with traditional statistics offers dynamic insights for regional tourism planning, enabling better policy decisions and sustainable development (Kim *et al*., 2021). This shift sets the foundation for exploring the role of social media marketing in regional tourism.

Social media marketing is considered significantly more cost-effective than traditional marketing methods (Arunprakash *et al*, 2021). Social media platforms are also notably good at generating word of mouth (WOM) due to the interactive nature of these platforms compared to traditional media (Creevey, Coughlan and O'Connor, 2022). When developing a social media strategy, businesses need to take a comprehensive approach to its social media activities and goals. With social media users bombarded by millions of messages daily, marketers can no longer rely on reach alone to attract customers. Instead, they must focus on capturing and retaining attention through engaging platforms and messaging (Tafesse and Wien, 2018).

Creating interesting, pertinent, and audience-specific content is the cornerstone of successful social media marketing (Palle, 2021). As consumers increasingly seek relevant, peer-driven content, user-generated content (UGC) becomes a key component of these initiatives, as a potent tool for building authenticity, trust, and deeper connections within brand communities (Annamalai *et al*., 2021). Building on the importance of UGC and audience alignment, emotional content emerged as another essential tool for capturing social media users' attention. By encouraging a feeling of connection with the brand, emotional appeals could greatly affect audience behaviour. Such content is essential for generating passive engagement, likes, and shares, which are important KPIs for naturally increasing brand visibility, even though it might not necessarily elicit active participation through comments (Shahbaznezhad *et al*., 2021). Brands could establish a deeper connection with consumers by including emotional storytelling into their content strategies. This builds user loyalty and improves the efficacy of other marketing initiatives (Soares *et al*., 2022; Zhou, *et al*., 2021).

The effectiveness of social media marketing in tourism promotion

Creating interesting, pertinent, and audience-specific content is the cornerstone of successful social media marketing (Palle, 2021). As consumers increasingly seek relevant, peer-driven content, UGC has also become a potent tool for building authenticity, trust, and deeper connections within brand communities (Annamalai *et al*., 2021). To ensure that content not only grabs attention but also fosters sustained engagement and brand loyalty, successful content marketing relies on matching messages with the interests and behaviours of targeted consumers. Social media fosters travel-related content sharing through social capital dimensions such as social ties, trust, reciprocity, and shared vision. Furthermore, social media has changed how travellers plan and share experiences, supporting its role as a key source of information and interaction (Kumar *et al*., 2021)

In a study conducted by Kujur and Singh (2020) they discovered that visual communication plays an important role in engagement behaviour on social media, which can directly

contribute to sales. This highlights the importance of a social media presence for a tourist destination and the use of high-quality pictures and videos in their communication. High quality images and videos can help the page or the content posted by the tourist destination to stand out and be noticed by the online audience (Yim *et al*.,2021). The findings of the study conducted by Kujur and Singh (2020) also confirmed that customer engagement on corporate social media accounts improves when visual content is informative, entertaining, and incentive-driven.

This suggests that, when it comes to tourism, social media content that offer interesting details about places to visit, or incentives like travel discounts can effectively impact users' curiosity. Additionally, the study discovered that consumer-brand connections are positively impacted by consumer interaction. This corresponds to the notion that potential travellers are more likely to form a favourable bond with a destination and increase their likelihood of going when they actively interact with its social media material (Kumar *et al*., 2021).

Kurniawan *et al.* (2021) discovered that social media enables effective information delivery, when the Yogyakarta administration used Twitter to effectively inform both domestic and international travellers about tourism. This demonstrates how social media may be used to promote travel in a direct and efficient manner. According to the study, social media marketing may be a more effective, affordable, and inclusive strategy for promoting travel destinations.

Viewing a destination as a brand, actively engaging with its social media content, particularly visually appealing material, can strengthen travellers' emotional connection and enhance the likelihood of their visit (Kumar *et al*., 2021). Strategic planning, content production, integration, and social media marketing are necessary for efficient tourism promotion. Furthermore, social media data is indispensable for tracking and assessing the effectiveness of communications and offers insightful information on initiatives to promote travel.

Key social media marketing strategies for tourism promotion

Several key concepts underpin effective social media marketing strategies in tourism, including engagement and content strategies, paid and organic marketing approaches, influencer partnerships, and community building (Silveira and Pinto, 2022). These elements play a crucial role in shaping a comprehensive strategy by fostering meaningful connections, enhancing visibility, and driving brand loyalty (Zhou *et al*., 2021). According to Toduaa (2021) one of the key strategies for tourism promotions includes partnering with travel websites such as TripAdvisor, by posing informative content in travel websites with sufficient details on the geographical location, tourist attractions and amenities. Todua (2021) also suggests that the use of engaging, attractive and impactful content is key for effective social media marketing.

Moon and An (2022) state that travellers already use smartphones to record memories by taking photos and videos and sharing them on social media like Twitter and Facebook. This highlights the importance of visually appealing content and encouraging UGC on social media.

Promotional campaigns via social media platforms are identified to enhance the competitiveness of tourism, highlighting the use of social media as a channel for promotional activities (Toduaa, 2021). However, these campaigns must be strategically targeted to the right audience. Marketers should prioritise audience segmentation in their materials, as customised social media campaigns can boost engagement by addressing specific factors, such as generational preferences (Moon and An, 2022). According to Kurniawan., *et al* (2021) It is also crucial for marketers to maintain an active social media presence to ensure that the information provided on their social media pages is current and it keeps the destinations top of mind for audience and travellers. They further state that it is important to prioritise content creation and specifically engaging and persuasive content plays a big role in attracting and retaining the audience's interest

Key strategies that have been highlighted by authors include associating with online travel platforms, creating engaging content, building online communities, providing valuable and up-to-date information, ensuring user-friendly mobile access, actively using social media networks, presenting tailored recommendations, and targeting specific audience segments (Toduaa; 2021).

Opportunities and challenges in social media tourism marketing

Social media is a vital marketing tool for companies of all sizes, particularly in the tourism industry, as it has a significant impact on travellers' purchasing decisions (Armutcu *et al*., 2023; Onofrei *et al*., 2022). With the growing number of social media users, businesses need to use digital platforms to draw in and interact with potential travellers. Through sharing high quality images and videos as well as engaging content, marketers can affect traveller's decisions on where to visit and increase awareness and enhanced brand visibility (Armutcu *et al*., 2023). Numerous platforms such as Facebook, Instagram, Twitter, YouTube, and WhatsApp Business are utilised to engage with travellers and encourage them to investigate travel possibilities. In addition to increased awareness of tourism services digital marketing promotes adoption and positively influences purchase behaviour (Lama, 2024).

Social media tourism marketing offers several opportunities, including better communication with travellers, travel agents and prospective traveller as well as offering real time industry insights (Armutcu *et al*., 2023). By sharing photos, videos, and reviews on social media platforms such as Instagram, Twitter, and LinkedIn, travellers often produce authentic content that influences other visitors' decisions.

This content acts as a form of recommendation and valuable endorsements for destinations. Positive experiences shared by travellers can encourage others to visit, while businesses can strengthen their brand identity and establish a strong online presence to appeal to their target audience. Furthermore, social media provides businesses the ability to customise their marketing campaigns according to target audiences' demographics, interests, and behaviours, which boosts campaign efficacy. It gives prospective tourists quick access to essential travel information and offers and cost-effective means of reaching a large audience (Cloete *et al*., 2024). Additionally, it provides businesses a direct line of communication to get feedback, reviews, and traveller insights, enabling them to refine their services based on customer opinions (Lama, 2024).

While social media has proven to be an effective and cost-efficient channel for reaching large audiences, its reach and impact can be restricted by a digital divide, brought on by differences in digital literacy and infrastructure, especially in disadvantaged areas (Cloete *et al*., 2024). While uneven access to digital devices and slow internet connectivity might make it difficult to evenly distribute marketing messages, tourists with lesser levels of digital literacy may find it difficult to interact with online information. Additionally, a brand's reputation can be damaged by the dissemination of fake news, and offensive material. Overreliance on social media can occasionally overshadow other vital aspects of the tourism experience (Armutcu *et al*., 2023). Concerns about security and privacy are also crucial, requiring businesses to handle customer data responsibly to maintain trust (Lama, 2024). Furthermore, potential tourists may experience information overload due to the abundance of internet content, making it difficult for potential tourists to distinguish credible sources (Cloete *et al*., 2024).

To remain competitive, businesses must stand out by leveraging UGC, carefully curated posts, and marketing strategies that align with modern travellers' aspirations. Businesses must, however, efficiently manage both positive and negative reviews in order to manage UGC. The rapid evolution of social media platforms necessitates continuous adaptation, with features such as virtual and augmented reality becoming critical for engagement, the quick growth of social media platforms also calls for constant adaptation (Lama, 2024). Additionally, audiences used to short, readily assimilated content on sites such as Instagram and TikTok may present a challenge for marketers to get them to engage with more complex marketing messaging (Cloete *et al*., 2024).

RESEARCH OBJECTIVES

The aim of this work is threefold. Firstly, to investigate how tourism enterprises in the Kleinmond/Hangklip area use social media to promote tourism and attract interest in their specific products and services, secondly to investigate how tourism enterprises in this area use social media to promote tourism to their unique geographic area, and lastly to test their

opinions on the future use of social media to promote tourism to their own advantage and that of the region.

RESEARCH METHODOLOGY

This small-scale case description follows a qualitative research methodology involving informal semi-structured interviews with owners of tourism enterprises in the Kleinmond/Hangklip area, supported by content analysis of digital media relating to the promotion of tourism to the area. The sample selection was limited to tourism operators active in the Kleinmond/Hangklip area and a probability sampling method was used to identify respondents. Of the five organisations identified, two were available for interviews, although one individual represented two distinct organisations. Input was requested from the Overstrand Municipality's tourism desk; however, they were not available to be interviewed. A short e-mail statement was received from them, which was considered in the analysis.

The interview schedule was compiled with the assistance of an AI programme. The use of AI in academic research is debated by various authors (Chubb, Cowling & Reed, 2022; Christou, 2023; Ateriya, Sonwani, Thakur, Kumar and Verma, 2025). The consensus is that transparency in the use of AI in peer reviewed research is important, combined with the human factor to control the AI input.

The research team entered the contents of the literature review and background in ChatGPT and asked the AI to construct a series of questions based on the content. The questions generated were then reviewed and edited to form the interview schedule used to gather data for this project. Some of the questions suggested by the AI platform were discarded, and some were edited to create a useful measurement instrument. The interview schedule was divided into four sections, testing general business and social media usage; the effectiveness and challenges of social media usage; engagement and customer interaction on social media; and trends and outlook regarding the use of social media in the marketing of tourism to the products and the region.

FINDINGS AND ANALYSIS

The findings will be reported as it relates to the three research objectives.

Using social media to promote tourism to their own products

The businesses represented were one adventure tour operator, a tour operator with a broader focus, and a tour guide training institute (one participant represented the last two entities). Both participants mentioned that they limit their channel selection on social media to Facebook, Instagram, WhatsApp groups and a limited use of LinkedIn.

Facebook is used to supplement and support website information, there is limited use of LinkedIn and Instagram, and WhatsApp groups are created to communicate directly with existing and potential customers, as well as with organisations in the industry – this includes collaboration with other tourism products to find the best solutions for customers, conference and event WhatsApp groups, as well as communication with organisations in their immediate supply chain, such as IT services. This correlates with the discussion of the key social media marketing strategies, which indicates the importance of partnerships in the supply chain and with other sectors in the area.

The use of social media increased over the past five years. The success of a social media marketing campaign will depend on the quality of the database that is used to send out promotional messages. According to Respondent 1, the response rate on digital marketing campaigns is approximately 2 – 4% of the total followers on any platform. This is similar to previous research for traditional media, in her experience.

Customer interaction and engagement is driven by customisation. After COVID-19 and in the current global economic environment, her customer profile shifted to a higher LSM group, as the spending power of the traditional middle class has been eroded. Competition in this market hinges on customisation and exclusivity in every experience. This also correlates to previous research reported in the literature review, that indicated the importance of audience specific customisation of social media strategies and campaigns to build loyal communities around your product and your region.

The participants mentioned the benefits of using social media for product marketing include brand recognition, building long-term relationships with repeat customers from established markets, the ability to reach people that are interested in your specific offering, and then to communicate directly to them through WhatsApp groups or through individual WhatsApp messages or emails. In this way product offerings can be customised to the requirements of the customer. Social media also provides the opportunity to show customer generated content such as testimonials and photos of experiences, which encourages others to seek out your company and your product.

Disadvantages and risks associated with social media included the danger of having your content hi-jacked and used to promote other companies, or to have your customers contacted by other tour operators who will offer better deals after they see their enquiries on your social media (such as Facebook). Cybersecurity is also a growing issue, as one of the respondents has had her profile hijacked and had to close accounts and restart the process of building her social media profiles.

It has become very important to have a structured approach to the monitoring and handling of online complaints.

Using social media to promote tourism to the area

Promoting tourism to the area depends on a coordinated approach driven from a central office. The Overstrand Municipality used to have a Tourism Desk that coordinated this function, however after recent restructuring, this desk has fallen away and the function to promote tourism to the region now resides under the Municipal Manager.

“We need the support of local government. Good destination marketing from the local government is very important to drive the tourism to the region. Overstrand area does not really have a brand at the moment.” (Respondent 1)

Response from the Municipality simply stated:

“Overberg and Overstrand Tourism actively monitor our social media to understand trends and visitor preferences. Sourcing influencers, content and high-res photos can be challenging due to supply chain processes, and budget limitations.” (OM Tourism office)

This lack of coordination from a central office is a disadvantage to the region. Examples from other towns in the region, notably Stanford, indicates that the industry can come together to create such a coordinating function. This is a process that needs to develop in this region as well.

Future use of social media to promote tourism to the area

Trends in the use of social media will be driven by the changing demographic profile of tourists. As mentioned previously, the income bracket of international and local travellers is changing. Respondent 2 is of the opinion that marketing efforts must shift from the traditional European and UK markets to include tourism from China and the USA. These long-haul tourists expect different offerings to suit their travel patterns. Long distances necessitate breaking travel time into time spent in three to four destinations, instead of travelling for 40 hours to reach a single destination. Each stop in this chain of destinations must provide a unique experience, whether it be for a day, a week-end or a longer stay. Operators must link with industry partners to create a unified experience for smaller groups consisting of families or individuals. This movement away from bulk tourism necessitates a different use of social media channels and content. Tourists want to have exclusivity in their experiences and in the communication about the experience, from the marketing, booking, arrival and through the stay to aftercare. This trend will bring with it a different level to customisation in the product offering, which will be reflected in the marketing campaigns.

One way to use social media to create unique experiences might not be new, but the future might see expanded use of geo-location mapping, where the tourist is provided with a set of geo-located map coordinates to find through an app on a smart phone. At each location a specific experience or “treasure” can be collected to complete the map. This creates a unique and fun experience to explore the environment and learn about cultural and natural phenomena in the area. The type of routes that can be created is unlimited and can range from culinary experiences, wine routes, adventure hot-spots, natural sight-seeing points, art routes, and customised treasure maps available on some local farm-stay properties.

Digital directories are already available containing information and maps of the area, and including emergency numbers. These can be accessed through QR codes in local restaurants, but the directories need to be expanded to include as much information as possible. This was recently made available online, but the marketing of this directory should be increased to improve the awareness.

One of the respondents mentioned the possibility of using virtual reality software to create advertisements and/or short tour experiences. This will help potential tourists to make travel decisions based on immersive experiences of destinations, for example swimming with dolphins, or diving with sharks, or simply walking through the natural fynbos, seeing, smelling, and experiencing the bird and insect life.

“Actually, all your tours will be virtual reality marketing, because people won’t look at pictures and presentations and things like that anymore. They want to sit in the area on a boat and see the dolphins around them and things like that. So Virtual tours is the way to go.” (Respondent 2)

“The marketing is going to let the people think, do I really have to be there? Do I want to interact with the people and the customs and that? So, if you do want that, then you will take the marketing and you will come. But if it’s enough for you to just see the sceneries, then it will be fine.” (Respondent 2)

MANAGERIAL IMPLICATIONS

The importance of social media as a marketing and relationship building tool to create awareness of often overlooked regions, cannot be emphasised enough. It should be used consistently as part of the marketing and communication strategy of the enterprise, to create awareness and remind customers of new product offerings, but also to generate excitement through visual and emotional stimuli. Support from regional and local government is important, to build a regional tourism strategy where every town and area has a distinct identity that contributes to the regional brand.

CONCLUSION

This research was prompted by the pressing challenge of how to use social media to market regional tourism within the current challenges facing the tourism industry. This discussion was structured around three objectives. Firstly, to investigate how tourism enterprises in the Kleinmond/Hangklip area use social media to promote tourism and attract interest in their specific products and services, secondly how tourism enterprises in this area use social media to promote tourism to their unique geographic area, and lastly to test their opinions on the future use of social media to promote tourism to their own and the region's advantage.

An exploratory investigation revealed that the use of social media post COVID-19 is more important than ever to reach a critical and discerning potential customer base. It is used as a relationship building tool, and is at its best when building trusting relationships with repeat customers. The respondents to this limited study indicated that they used a limited number of social media channels, but that it was important to use these channels as effectively as possible in conjunction with their corporate websites. Social media is also seen as important to build and maintain relationships with industry partners, to the benefit of potential and existing customers, but care must be taken to ensure cybersecurity and to deal with trusted partners. There are gaps in the regional marketing strategy, which can improve with stronger leadership from local government, and more coherent industry participation. The future of social media marketing includes exciting options, as indicated in the literature review, with virtual reality playing a part in creating exciting immersive experiences to market products and regions.

This exploratory study should be followed up with a more in-depth analysis and the inclusion of more opinions from different tourism products, which might yield different insights in this important phenomenon.

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SIGNALLING SUSTAINABLE TOURISM: THE IMPACT OF COMMUNICATION STRATEGIES ON CONSUMERS' GREENWASHING PERCEPTION AND HOTEL SELECTION IN SOUTH AFRICA

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ABSTRACT

As sustainability becomes central to tourism, how hotels communicate their environmental efforts is increasingly under scrutiny. This study compares the effects of two sustainability signals (eco-label certifications and pro-environmental actions) on consumers' willingness to select a hotel and their perceptions of greenwashing in the tourism industry. Grounded in the signalling theory and using a scenario-based experimental design, the research surveyed 196 South African travellers via simple random sampling. Results from an ANCOVA analysis reveal that both strategies significantly increase booking intentions and reduce greenwashing perceptions compared to a neutral control. The study also contributes to a multi-dimensional understanding of sustainable hotel practices, advancing theory and offering actionable guidance for tourism marketers and managers. Additionally, the nature of these signal types can influence trust in different ways. Therefore, such findings emphasise the importance of authentic and well-targeted sustainability messaging in building consumer confidence and driving ethical travel behaviour.

Keywords: eco-label certifications; pro-environmental actions; greenwashing; signalling theory; experimental research; tourism marketing

INTRODUCTION AND BACKGROUND

Tourism, a vital contributor to many economies, also imposes significant environmental strain, particularly through high resource consumption and carbon emissions (Raihan, 2024). In response, sustainable practices in the accommodation sector have garnered attention (Vilkaite-Vaitone and Tamuliene, 2024), with eco-label certifications and pro-environmental initiatives becoming common strategies for reducing tourism's ecological footprint. These measures aim to reduce operational impacts and serve as signals to environmentally

conscious consumers, positioning hotels as ethical and responsible entities (Težak Damijanić, Pičuljan, and Goreta Ban, 2023).

Two major categories of sustainable hotel practices have emerged: externally validated eco-label certifications and internally driven pro-environmental actions. While both aim to enhance sustainability, the perception and effectiveness of these approaches may differ (Težak Damijanić *et al.*, 2023). Eco-labels like Green Key provide third-party verification, potentially boosting consumer trust, while internal actions may be seen as more authentic but less standardised (Elhoushy, Elzek, and Font, 2025).

In South Africa, a country with rich biodiversity and a growing ecotourism sector, there is limited empirical research on how domestic tourists perceive and respond to these sustainability strategies. Although national frameworks and programs encourage green operations, such as the Tourism Grading Council's “Responsible Tourism” initiative (Chiwawa and Wissink, 2023), these signals’ uptake and consumer impact remain underexplored.

Concurrently, the rising concern around greenwashing complicates the interpretation of sustainability signals. Greenwashing undermines trust and can backfire, reducing willingness to engage with purportedly sustainable brands (Isac, Javed, Radulescu, Cismasu, Yousaf, and Serbu, 2024).

Understanding how different sustainability messages influence perceptions of authenticity and the broader industry’s credibility is thus crucial.

This study contributes to this conversation by examining the impact of sustainable practice types and whether eco-friendly labels are more impactful than pro-environmental actions, while also accounting for a control condition (a general hospitality award devoid of environmental messaging). The focus lies on their effects on two outcome variables (willingness to select sustainable hotels and perceived greenwashing of the tourism industry). These outcomes are pertinent as they represent both consumer behaviour (intentions) and attitudinal consequences (trust in sustainability).

The study’s relevance is twofold. First, it sheds light on whether the South African tourism market distinguishes between types of sustainability communication, a factor essential for tailoring effective strategies. Second, it interrogates whether such communications, though well-intentioned, risk eroding trust via perceived greenwashing. Therefore, as the hospitality sector continues its sustainability transition (Težak Damijanić *et al.*, 2023), identifying the most credible and effective signals becomes a strategic imperative for both ethical positioning and competitive differentiation.

PROBLEM INVESTIGATED

While sustainable tourism has gained prominence globally, the optimal form of sustainability communication within hotel marketing remains debated (Garcia de los Salmones, Herrero, and Martínez García de Leaniz, 2024). Scholars have examined eco-labels and internal environmental efforts, but few have directly compared these strategies under experimental conditions (Gosselt, van Rompay, and Haske, 2019). Furthermore, greenwashing, a rising concern, adds complexity to consumer trust, yet studies that explore its intersection with sustainability signals in emerging markets are scarce (Yang, Nguyen, Nguyen, Nguyen, and Cao, 2020).

In South Africa, tourism plays a vital socio-economic role (Chiwawa and Wissink, 2023), but the discourse around consumer perception of sustainable practices is underdeveloped. Literature either examines operational practices within hotels or consumer attitudes in general, often overlooking the impact of specific communication types on behavioural and perceptual outcomes (Acampora, Preziosi, Lucchetti, and Merli, 2022). Moreover, South African consumers' scepticism or receptivity to sustainability marketing, especially in light of global greenwashing controversies, remains poorly understood (van Niekerk and Conradie, 2020).

This study therefore addresses three critical gaps: firstly, the lack of comparative evidence on different types of sustainability communications (eco-labels vs pro-environmental actions), secondly, the absence of experimental methods that allow causal conclusions about their effectiveness, and thirdly, limited contextual understanding of South African consumer responses to sustainability in tourism. By focusing on willingness to select and perceptions of greenwashing, the paper investigates not only what works, but also what might backfire, offering meaningful insights for theory and practice.

RESEARCH PURPOSE

The core intent of this study is to advance a more nuanced understanding of how different types of sustainable communication strategies influence consumer perceptions and behavioural intentions in the hotel sector. While sustainability initiatives are increasingly integrated into hospitality management worldwide, the effectiveness of how these initiatives are communicated remains ambiguous, particularly in emerging markets like South Africa. Rather than simply cataloguing green practices, this research focuses on how those practices are interpreted by consumers, an area less understood in existing scholarship.

Drawing on signalling theory, which emphasises how cues influence judgment under information asymmetry (Fathi, Mohammadin, and Azarbayjani, 2024), this study investigates whether different forms of sustainability signalling, specifically eco-label certifications and pro-environmental actions, lead to divergent outcomes when compared to a neutral, non-

sustainability-based condition. The emphasis lies not only in measuring consumer preference but also in probing deeper perceptions of authenticity and potential mistrust, such as greenwashing, which can erode confidence in sustainable hospitality as a whole.

Main Research Question

To what extent do different sustainable communication strategies (eco-label certifications vs pro-environmental actions) influence willingness to select a hotel and perceptions of greenwashing among South African consumers?

Secondary Research Objectives

1) To assess the relative effectiveness of third-party eco-label certifications and internally driven pro-environmental actions in enhancing willingness to select sustainable hotels.
2) To explore the extent to which different sustainability communication strategies affect perceived greenwashing of the tourism industry.
3) To provide practical insights for hotel managers and marketers on how to communicate sustainability in a manner that is both impactful and trusted by consumers.

LITERATURE REVIEW

Underpinning Theoretical Framework

Signalling theory, originally introduced by Spence (1973) in the context of labour markets, has since been widely applied across marketing, management, and consumer behaviour literature. At its core, the theory addresses situations of information asymmetry, where one party possesses more information than the other. The informed party uses signals to convey unobservable or hidden qualities, and the receiver interprets these signals to make informed judgments (Fathi *et al.*, 2024).

Within the hospitality and tourism industry, signalling theory offers a powerful lens to understand how sustainability-related communications influence consumer decision-making. Consumers are generally unable to directly verify the environmental performance of a hotel (Yildiz, Tahali, and Trichina, 2024). Therefore, hotels rely on various signals, such as eco-label certifications or pro-environmental actions, to project their commitment to sustainable practices (Velaoras, Menegaki, Polyzos, and Gotzamani, 2025). These signals help bridge the information gap and influence perceptions of trustworthiness, credibility, and brand authenticity (Yildiz *et al.*, 2024).

In the context of this study, eco-label certifications act as formal, externally validated signals. These labels convey third-party verification and are designed to instil confidence in consumers that the hotel meets certain environmental standards (Elhoushy *et al.*, 2025). Conversely, pro-

environmental actions, such as stating that the hotel uses solar panels or recycles water, are informal, internally communicated signals (Adeel, Sabir, Shahnawaz, and Zafran, 2024). While potentially perceived as authentic, they lack external verification and may be more susceptible to scepticism, especially in a market increasingly alert to greenwashing (Chen, Bernard, and Rahman, 2019).

A key strength of signalling theory is its utility in explaining behavioural responses to different types of cues, especially in high-risk decision environments like travel (Su, Huang, and Hsu, 2018). For example, a consumer planning a vacation may face reputational, financial, and experiential risks (Lee, Park, and Jeong, 2022). Signals help reduce uncertainty by guiding the decision-making process, influencing both rational evaluations and emotional trust (Zhoua, Qinb, and Huangc, 2024). However, a limitation of signalling theory lies in its assumption that all signals are interpreted consistently by all consumers (Drover, Wood, and Corbett, 2018). In reality, signal effectiveness varies based on individual traits, such as prior environmental concern, cultural background, or past experiences. Moreover, signals can be mimicked or exploited, leading to signal dilution or distrust. For instance, when too many hotels falsely claim to be "green" without substantive action, consumers may begin to discount both genuine and insincere sustainability claims (Chen *et al.*, 2019).

Nonetheless, the study's experimental design is particularly well-suited to test the assumptions and implications of signalling theory. By manipulating the type of sustainability signal presented, and measuring its effect on both willingness to select and perceived greenwashing, the research can determine not only which signal is most effective but also how it might influence the broader sector. Thus, signalling theory helps frame the sustainability messages hotels use as tactical tools to manage perceptions under information asymmetry. Its application in this paper provides clarity on the conditions under which sustainable messaging either succeeds or fails to influence consumer behaviour in meaningful ways.

Underpinning Core Concept

Sustainability in the hospitality sector has evolved from a peripheral concern to a strategic imperative. As awareness of tourism's environmental footprint intensifies, hotels are under growing pressure to adopt and communicate eco-conscious practices. This study focuses on two distinct but commonly employed sustainability communication strategies: eco-label certifications and pro-environmental actions. While both aim to enhance perceived environmental responsibility, their characteristics and consumer impact can diverge significantly (Težak Damijanić *et al.*, 2023).

Eco-labels are formal, third-party certifications awarded to hotels that meet predefined environmental standards. These labels serve as externally validated signals, often issued by

reputable organisations such as Green Key (Elhoushy *et al.*, 2025). According to Yılmaz, Üngüren, and Kaçmaz (2019) eco-labels lend credibility by providing verifiable evidence that a hotel engages in sustainable practices, such as managing water and energy efficiency, reducing waste, and sourcing food locally. In theory, this external assurance mitigates the risk of greenwashing by introducing a standardised benchmark for sustainability claims (Devireddy, 2024). In practice, however, eco-label effectiveness depends on consumer awareness and understanding (Brécard, 2017). According to Sucheran and Arulappan (2020), despite the growing uptake of eco-label certifications among South African tourism businesses, many establishments identified low public awareness as a major barrier, which limits the clarity and effectiveness of eco-labels as signals. Furthermore, Devireddy (2024) cautioned that some eco-labels are more symbolic than substantive, potentially undermining their signalling strength when criteria are not transparent or rigorously enforced.

By contrast, pro-environmental actions are internally communicated efforts taken by hotels to operate sustainably without necessarily being certified. These may include using solar panels, greywater recycling systems, waste separation initiatives, or encouraging towel reuse (Adeel *et al.*, 2024). Unlike formal certifications, these actions often appeal to consumers seeking authentic, ground-level commitments to environmental stewardship. Such initiatives can be powerful when communicated clearly and backed by observable practices. According to Gupta, Dash, and Mishra (2019a), travellers responded more positively to green service encounters such as in-stay experiences that visibly reflected eco-friendly practices. They perceived them as more trustworthy and authentic compared to abstract environmental claims. However, Chen *et al.* (2019) found that in the absence of credible third-party certification, sustainability claims were often met with scepticism, as consumers questioned their legitimacy and viewed them as potential greenwashing.

By contrasting this construct into two dimensions, this study probes whether consumers interpret externally verified and internally driven signals differently in terms of perception and behavioural impact. The inclusion of a control condition (non-environmental hospitality award) allows for an assessment of whether sustainability signals outperform neutral recognition in influencing the two key outcomes. This core conceptual comparison is particularly novel in the South African context. With rising environmental awareness and increasing scrutiny of corporate green claims, the hospitality sector must understand not only what sustainable practices to adopt, but how to communicate them effectively. By distinguishing between externally validated and internally initiated signals, this study fills a gap in sustainable tourism literature and provides grounded, actionable insight for tourism stakeholders operating in emerging markets.

HYPOTHESIS DEVELOPMENT

Willingness To Select Sustainable Hotels

One of the core challenges facing sustainable tourism is how to effectively communicate environmental initiatives in a way that resonates with consumer values (Vilkaite-Vaitone and Tamuliene, 2024). A growing body of research suggests that both eco-label certifications and pro-environmental actions can positively influence consumer decision-making by acting as signals of ethical commitment and operational integrity. According to Godovykh, Fyall, and Baker (2024), an experimental study showed that the presence of sustainable hotel badges significantly improved guests' attitudes and booking intentions, confirming that visible eco-certification functions as a persuasive cue during hotel selection. These third-party certification bodies play a key role in building consumer trust and a positive hotel image, thus reducing uncertainty and increasing willingness to book. Similarly, Ko, Kang, and Seo (2023) found that guests at environmentally certified hotel restaurants who experienced visible sustainable practices, were more likely to perceive the hotel as responsible and expressed greater willingness to return and pay a premium.

Thus, the type of sustainability message still matters. While eco-labels provide formal assurance, consumers also value tangible, localised efforts, often perceiving them as more genuine (Gupta *et al.*, 2019a). Therefore, both forms of communication have persuasive potential but may vary in strength and appeal depending on situational context and consumer values (Janßen and Langen, 2017). This study contributes to literature by testing both messaging forms against a control (a non-sustainability-related hospitality award), which allows for a refined understanding of how sustainability cues influence willingness to select. The inclusion of a neutral condition helps determine whether these practices create a significant behavioural shift or merely reinforce pre-existing green preferences.

Therefore, this leads to the following hypothesis:

H^1: There is a positive and significant relationship between the dimensions of sustainable hotel practices (eco-label certifications | pro-environmental actions) and the willingness to select sustainable hotels.

Perceived Greenwashing Of The Tourism Industry

As sustainability becomes a mainstream expectation in tourism marketing, the risk of perceived greenwashing, where consumers view green claims as deceptive or insincere, has risen sharply (Vilkaitė-Vaitonė, 2024). Thus, understanding how different sustainability messages affect perceptions of authenticity is critical. According to Velaoras *et al.* (2025), environmental certifications such as LEED, help hotels demonstrate accountability and

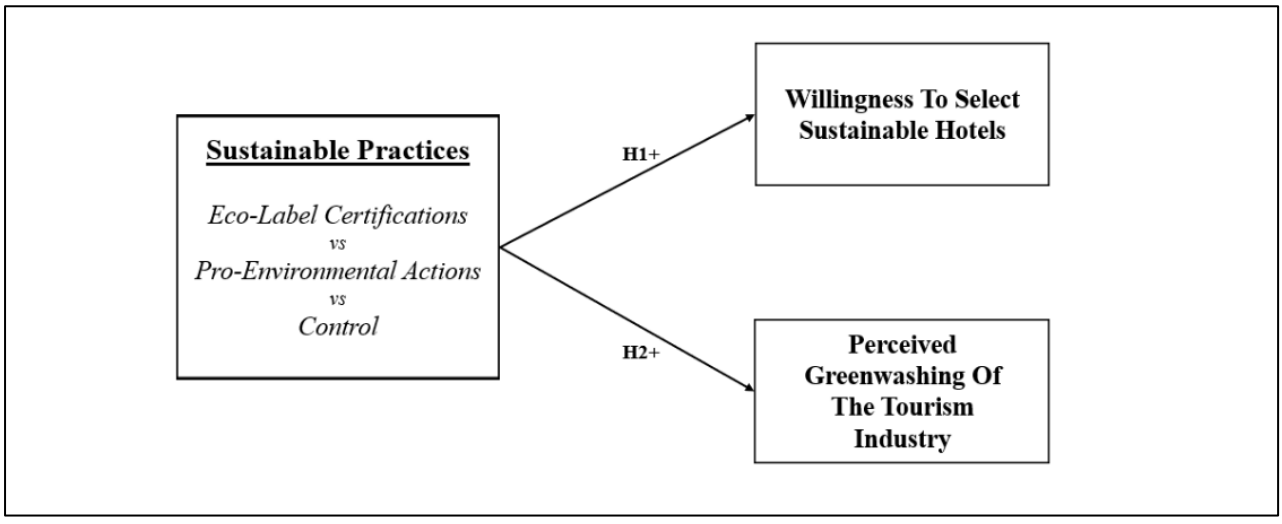
sustainability standards, which mitigate greenwashing concerns. They showed that consumers are more likely to forgive service or performance issues when hotels are certified by credible third-party organisations. Similarly, Devireddy (2024) found that transparent and verifiable sustainability disclosures, especially when backed by eco-labels and independent oversight, are pivotal to reducing perceptions of greenwashing. The study stated that vague or unsubstantiated claims, by contrast, led to higher scepticism and lower consumer engagement in both the message and the brand.

Additionally, Gupta, Dash, and Mishra (2019b) highlighted that consumer reactions to green practices in hotels can vary. They found that self-oriented guests appreciate tangible eco-actions for their personal value, while others remain sceptical without third-party validation. This is because trust is often grounded in externally endorsed credibility rather than internal claims alone, especially among individuals who lack in-depth knowledge of sustainability (Damberg, Saari, Fritz, Dlugoborskyte, and Božič, 2024). This study uniquely captures such dynamics by comparing not just certified versus non-certified claims, but also their impact on the broader perception of greenwashing in the tourism industry, a variable often overlooked. By positioning the control group as receiving no sustainability-related messaging, the research can assess whether sustainability communications genuinely reduce distrust or unintentionally amplify scrutiny.

Therefore, this leads to the following hypothesis:

H^2: There is a positive and significant relationship between the dimensions of sustainable hotel practices (eco-label certifications | pro-environmental actions) and perceived greenwashing of the tourism industry.

FIGURE 1: CONCEPTUAL MODEL



Source: Developed by the author

RESEARCH METHODOLOGY

Methodology

To address the research question and test the proposed hypotheses, this study followed a structured empirical approach rooted in positivist traditions. A positivism research philosophy was adopted to ensure objectivity and replicability, underpinned by the assumption that observable phenomena, such as consumer reactions to sustainability messaging, can be measured, compared, and generalised through statistical analysis. This stance aligns well with the study's focus on quantifying the influence of distinct communication strategies on consumer perceptions and behaviours in the hospitality sector.

A deductive research approach was applied to theory development. This allowed existing frameworks to guide the formulation of hypotheses and the construction of the research design. The aim was not to generate new theory, but to test and extend existing concepts under novel experimental conditions specific to the South African tourism context.

The research utilised a mono-method quantitative strategy, employing a scenario-based experimental design to simulate consumer decision-making. This is particularly suitable for testing causal relationships between independent and dependent variables. The scenario technique is also increasingly recognised in tourism and marketing research for its ability to generate ecologically valid responses in a controlled setting.

A conclusive cross-sectional research design and single time horizon was employed, as the study sought to provide specific, generalisable insights into consumer perceptions at a particular moment in time. This design supports data consistency and allows for efficient hypothesis testing, particularly when experimental conditions are manipulated.

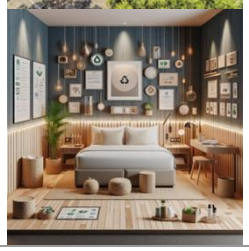
Each scenario was carefully crafted and pre-tested to ensure realism and equivalence in all non-manipulated attributes. A pilot study with 30 participants led to refinements in the text, layout, and phrasing of each condition to enhance clarity and remove bias.

In line with best practices in experimental research, two manipulation checks were included to confirm that participants accurately perceived the scenarios as intended. An attention check was also embedded in the experiment to display disengaged or inattentive respondents. Cases failing this check and those who did not fit the screening requirements were excluded from the final analysis to maintain data integrity.

Experimental Stimuli and Strategy

These distinct conditions were developed to represent the experimental manipulation, whereby participants were randomly assigned to only one of the three scenarios below:

TABLE 1: ECO-LABEL CERTIFICATION: CONDITION 1 SYNOPSIS

Hotel Services:	Hotel Characteristics:
Eco-Label Certification	Eco-label certificate recognised and delivered by Green Key: Karis Hotel adheres to strict criteria that ensures sustainability is integrated at a very high level, both in the operation and management of the establishment.
Location	Quiet and relaxing, close to a nice beach and ocean.
Hotel Rating	Four Stars: ☆☆☆☆
Images	  

Source: Developed by the author

TABLE 2: PRO-ENVIRONMENTAL ACTIONS: CONDITION 2 SYNOPSIS

Hotel Services:	Hotel Characteristics:
Pro-Environmental Actions	Karis Hotel has implemented an energy-efficient design. Furthermore, to reduce water and energy usage, bed sheets and towels are changed upon request.
Location	Quiet and relaxing, close to a nice beach and ocean.
Hotel Rating	Four Stars: ☆☆☆☆
Images	  

Source: Developed by the author

TABLE 3: CONTROL: CONDITION 3 SYNOPSIS

Hotel Services:	Hotel Characteristics:
Hotel Amenities	Bar and lounge, as well as a 24-hour front desk.
Award	TripAdvisor Travellers' Choice Award: Karis Hotel is among the top 10% of listings on the platform, honouring a commitment to hospitality quality.
Location	Quiet and relaxing, close to a nice beach and ocean.
Hotel Rating	Four Stars: ☆☆☆☆
Images	  

Source: Developed by the author

Sampling Design

The target population consisted of South African consumers aged 18 and older who had travelled in the past 12 months and booked accommodation through an online platform. This population was chosen to ensure that respondents had relevant, recent tourism decision-making experience.

A probability sampling method, specifically simple random sampling, was employed to ensure generalisability and minimise sampling bias. The data was collected online through Springvale Online, a professional research firm with established access to the country's broad national panel.

A final sample of 196 valid responses was obtained, distributed across the three conditions: 70 for the eco-label certification group, 69 for the pro-environmental actions group, and 57 for the control group. Data analysis was conducted using IBM SPSS Statistics.

Ethical Considerations

Ethical clearance was obtained from the affiliated university's ethics review committee prior to data collection. Participants were informed of the voluntary nature of the study, assured of their anonymity, and given the right to withdraw at any stage.

The external data collection company, Springvale Online, adhered to strict data protection protocols in line with South African data privacy legislation.

DATA ANALYSIS AND DISCUSSION OF FINDINGS

Demographic Profile of Respondents

This section reveals a predominantly female sample (66.8%), which aligns with South African travel research suggesting women are often key decision-makers in household tourism choices (Tisaker and Swart, 2023). The 26 – 35 age group (45.9%), followed closely by 18 – 25 (40.3%), reflects South Africa's youth. The country has one of the youngest populations in the world, with over 60% of citizens under 25 (Stats SA, 2024). This makes for an ideal segment to assess digital booking behaviours and sustainability attitudes. Educationally, most respondents held a degree (38.3%) or diploma (27.6%), indicating an informed sample likely capable of discerning sustainability claims, a vital aspect of this study. Employment levels were high, with 60.2% in full-time employment, while income was concentrated in the R10,001 – R25,000 range (32.1%), reflective of South Africa's working middle class. Therefore, these demographics are representative of the country's rising urban travel market.

Reliability and Validity

The reliability analysis confirms strong internal consistency for both scales. The Willingness to Select scale with four items (α = 0.781, CR = 0.855) and the Perceived Greenwashing scale with four items (α = 0.847, CR = 0.893) both exceed the acceptable thresholds of 0.7. This indicates reliable measurement. Convergent validity was supported through strong factor loadings (>0.7) and AVE values above 0.5. The item means are consistent across each scale, with positive inter-item correlations and high communalities (above 0.5 and 0.6 respectively). This suggests that each item contributes meaningfully to its construct.

As the hypotheses were tested using ANCOVA rather than structural equation modelling (SEM), assessments such as discriminant validity and model fit indices are not applicable or necessary within this analytical framework.

TABLE 4: ACCURACY ANALYSIS

Research Construct	Items	Communalities	α Value	CR Value	AVE Value	Factor Loading
Willingness To Select	**WTS1**	0.554	0.781	0.855	0.597	0.741
	WTS2	0.694				0.832
	WTS3	0.660				0.803
	WTS4	0.561				0.711
Perceived Greenwashing	**PG1**	0.648	0.847	0.893	0.676	0.802
	PG2	0.745				0.858
	PG3	0.712				0.841
	PG4	0.627				0.787

Source: Developed by the author

Using ANCOVA to Test the Hypotheses

To evaluate the proposed hypotheses, an Analysis of Covariance (ANCOVA) was conducted to test whether sustainable practices influence Willingness to Select (WTS) and Perceived Greenwashing (PG), while controlling for the covariates of age, education level, and household income. Although Levene's Test of Equality of Error Variances was significant, this alone does not necessarily indicate problematic heteroscedasticity, particularly when ANCOVA is robust to modest violations (Field, 2024).

Descriptive statistics revealed that respondents exposed to the eco-label certification condition (AM = 4.236) reported the highest WTS, followed closely by the pro-environmental action condition (AM = 4.167), with the control condition showing the lowest adjusted mean (AM = 3.851).

The ANCOVA results indicated a statistically significant difference in Willingness to Select across the conditions: $F(2, 190) = 6.668$, $p = 0.002$, confirming the influence of sustainability messaging on consumer intent.

The Partial Eta Squared value was 0.066, suggesting a small effect size, with 6.6% of the variance in WTS explained by the experimental conditions.

Post hoc comparisons (using Bonferroni adjustment) further revealed that the control group differed significantly from both the eco-label group ($p = 0.002$) and the pro-environmental action group ($p = 0.013$), *confirming support for Hypothesis 1*.

For Perceived Greenwashing, the eco-label certification condition produced the lowest adjusted mean (AM = 3.230), followed closely by pro-environmental actions (AM = 3.254), while the control condition resulted in the highest perception of greenwashing (M = 3.796).

ANCOVA results indicated a significant difference across the groups: $F(2, 190) = 7.651$, $p < 0.001$.

The Partial Eta Squared value of 0.075 suggests a small effect size, with 7.5% of the variance in PG explained by the conditions.

Post hoc tests confirmed significant differences between the control and both eco-label ($p = 0.002$) and pro-environmental ($p = 0.002$) groups, *providing support for Hypothesis 2*.

Lastly, when comparing the sustainable practices, participants exposed to the eco-label showed a higher likelihood to select the hotel and lower perceptions of greenwashing, however, it was not a significant difference to the hotel incorporating pro-environmental actions.

The results of the ANCOVA are summarised in the table below:

TABLE 5: ANCOVA RESULTS

Descriptives				
Independent Variables	**N**	**Adjusted Mean**		
		WTS	**PG**	
Eco-Label Certification	70	4.236	3.230	
Pro-Environmental Actions	69	4.167	3.254	
Control	57	3.851	3.796	
ANCOVA				
Dependent Variables	**F**	**df**	**p**	**Partial ε²**
Willingness To Select	6.668	2, 190	0.002	0.066
Perceived Greenwashing	7.651	2, 190	< 0.001	0.075

Source: Developed by the author

MANAGERIAL IMPLICATIONS

The findings from this study have several actionable implications for tourism and hospitality managers, particularly those responsible for sustainability communication and branding strategy.

Most notably, both eco-label certifications and pro-environmental actions were found to significantly enhance consumer willingness to choose a hotel, while also reducing perceptions of greenwashing compared to a control condition. This suggests that sustainability communication is not only beneficial, but expected, especially by contemporary travellers in South Africa who book accommodation online and have prior travel experience.

For marketing and brand managers, this research indicates that third-party eco-label certifications remain a valuable asset in building trust and credibility. When properly displayed, such labels serve as effective signals that reduce perceived risk, especially for first-time customers. However, the study also highlights that internally promoted pro-environmental actions, such as sustainable linen policies and a green building design, can match eco-labels in influencing customer behaviour when communicated clearly and authentically. This is particularly valuable for small- to mid-sized establishments that may not have the resources for certification but still engage in meaningful sustainability practices.

Importantly, these results imply that one-size-fits-all approaches to sustainability marketing may fall short. Managers should consider using a hybrid strategy, combining verified certifications with tangible, observable environmental actions to build both reputation and emotional resonance with guests. Given the ongoing scepticism around greenwashing, hotels must communicate their sustainability efforts transparently and consistently. Incorporating

customer-facing education, staff training on sustainability, and feedback mechanisms can strengthen trust further.

Lastly, for policymakers and tourism boards, these findings also justify continued investment in national sustainability certification visibility and consumer awareness campaigns.

THEORETICAL IMPLICATIONS

This study offers several important contributions to theoretical discourse in tourism and hospitality research. Most centrally, it provides empirical support for signalling theory by demonstrating that both eco-label certifications and pro-environmental actions function as effective signals in shaping consumer decisions. The findings validate the theory's central premise, that credible signals reduce information asymmetry and influence perceptions.

Additionally, the research advances theory by treating sustainable hotel practices as a multi-dimensional construct. Rather than viewing sustainability as a monolith, this study compares two discrete forms, externally certified and internally communicated practices, highlighting their unique and overlapping effects on key consumer outcomes.

The comparative design reveals a nuanced pattern: both signal types reduce greenwashing perceptions, suggesting a broader theoretical insight that even uncertified sustainability actions can gain legitimacy if communicated and carried out effectively.

OVERALL RECOMMENDATIONS

Firstly, hotel managers should segment their sustainability messaging according to their customer base's awareness levels. For highly environmentally conscious segments, emphasise pro-environmental initiatives in detail. For less-informed audiences, highlight the trustworthiness of recognised eco-labels to reduce scepticism.

Secondly, sustainability messaging should be embedded at key customer decision points, such as online booking platforms, room descriptions, and confirmation emails, where choice is actively being made. The visibility and placement of green signals may influence selection more than the content alone.

Thirdly, hotel training programs should incorporate modules on narrative sustainability storytelling. Empowering frontline staff to communicate environmental efforts can enhance perceived authenticity and mitigate potential doubts about greenwashing.

Furthermore, tourism bodies and certifying agencies should consider investing in public education campaigns to improve eco-label recognition among domestic travellers, making certification symbols more meaningful and effective.

Finally, future marketing should explore co-branding opportunities between eco-label programs and hotel chains to boost legitimacy and reach. By integrating certification logos with consumer-trusted travel platforms or loyalty apps, sustainability signals can carry broader persuasive power.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

While this paper offers valuable insights, several limitations should be acknowledged. First, the use of the scenario-based experiment, although effective for causal inference, may not fully capture the complexity of real-world booking environments where multiple stimuli compete for attention. Second, while the sample was representative of South African online travellers, findings may not generalise across other cultural or economic contexts. Lastly, self-reported measures may introduce social desirability bias, especially regarding sustainability perceptions.

Future research could explore longitudinal effects of sustainability communication on brand loyalty and revisit behaviours. Scholars may also test cross-cultural differences in signal interpretation to understand global tourism audiences. Additionally, integrating qualitative approaches, such as interviews, could enrich the understanding of how consumers interpret sustainability cues beyond stated preferences, offering depth to the behavioural insights established here.

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SAIMS

36th ANNUAL CONFERENCE PROGRAMME

THE BRAVE FRONTIER OF MANAGEMENT

SOLVING THE PUZZLE OF COMPLEXITY, OPPORTUNITY AND SUSTAINABILITY

14 - 17 SEPTEMBER 2025

SUN CITY CONVENTION CENTRE

HOSTED BY

NWU®

MONDAY, 15 SEPTEMBER 2025

08:00 - 08:30	**Registration and Coffee** Location: Mogolodi		
08:30 - 08:45	**Opening of the SAIMS conference** Location: Mogolodi		
08:45 - 09:30	**Welcome address: Prof Bismark Tyobeka** Location: Mogolodi		
Session 1: Digital Marketing Location: Mogolodi Chair: Prof. Roland Goldberg (North-West University)	**Session 2: Innovation and Sustainability** Location: Manica Chair: Prof. Martin Botha (North-West University)	**Session 3: Human Resource Management** Location: Zebe & Sena Chair: Prof. Alfred Henrico (North-West University)	**Session 4: Tourism Management** Location: Lupata Chair: Prof. Carinda Williams (North-west University)
09:30 - 09:50			
*Driving self-brand connection, loyalty, and word-of-mouth through social media engagement among Millennials Müller, Re-an (1); Coffie, Isaac Sewornu (1); Ocloo, Elikem Chosnie (2) 1: North-West University, South Africa; 2: Accra Technical University, Accra Ghana	**Impact of low-Earth orbit satellites on the mobile telecommunications industry in Southern Africa and societal development: A case study of Zimbabwe Moyo, Tabani (1); Gerwel, Cecile (1); Mutambara, Emmanuel (2) 1: University of KwaZulu Natal, Graduate School of Business & Leadership; 2: North-West University Business School, South Africa	*Experimenting with behavioural economics, financial literacy, personal financial efficacy, and retirement decisions among employees in a South African engineering organisation Botha, Leon Gerhard (1,2); De Beer, Leon T (2); Fouché, Jaco (2) 1: Steinmüller Africa (Pty) Ltd., South Africa; 2: North-West University, South Africa	*Signalling sustainable tourism: The impact of communication strategies on consumers' perceptions of greenwashing and hotel selection in South Africa Dello Russo, Daniele; Issock, Paul University of Witwatersrand, South Africa **Nominated for best paper award**
09:50 - 10:10			
**Strategic management of social media in African higher education: Context, challenges, and opportunities Leonard, Anne; Tlale, Thembi University of Pretoria, South Africa	**Sense of coherence and technological adaptation during the Fourth Industrial Revolution Khanyile, Sanele Bunle Cyril; Mayer, Claude-Helene University of Johannesburg, South Africa	*Predictors of voluntary turnover in a manufacturing company Schutte (Barkhuizen), Emmerentia Nicolene (1); Mahlope, Lerato (2); Schutte, Nico (3) 1: University of the Free State; 2: University of Johannesburg; 3: University of the Western Cape, South Africa	**Developing a comprehensive electronic customer relationship management (e-CRM) framework for small to medium tourism enterprises: A literature review Vallabh, Dinesh Walter Sisulu University, South Africa
10:10 - 10:30			
*Digital marketing of small businesses in the retail sector: Understanding the enablers Rootman, Chantal; Sidat, Sumaiya; Nkula, Asiphumeze Nelson Mandela University, South Africa	**Sustainable employee engagement as an enabler for communication about sustainability: An internal organisational perspective Botha, Yolandi; O'Mahony, Lauren Murdoch Univeristy, Australia	*Employee engagement at the Department of Social Development head office in Lesotho Du Toit, Masonette Maria; Lejalla, Toli University of the Free State, South Africa	*Investigating the use of social media in regional tourism marketing: A case study Du Plessis, Neeltje; Ntini, Sinegugu IMM Graduate School, South Africa

10:30 - 10:50			
**Prosumption and purchase intentions in African fashion: Insights from online communities Mbumbwa-Sithole, Tendai Ramona (1,2) 1: University of Cape Town; 2: Red & Yellow Creative School of Business, South Africa	**Sustainable disaster risk management: Addressing the adverse impacts of disasters on human health, well-being, and the environment van Rooyen, Nicolene North-West University, South Africa	**Competencies for the new world of work: An African perspective Kokt, Desere; Dreyer, Thomas F Central University of Technology, Free State, South Africa	**Friends of the War Museum events in Bloemfontein, Free State, South Africa: What does the future look like for heritage organisations? Proos, Eben Central University of Technology, Free State, South Africa
11:00 - 11:20	**Coffee Break** Location: Mogolodi		
Session 5: Human Resource Management Location: Mogolodi Chair: Prof Kirsty-Lee Sharp (North-West University)	**Session 6: Finance and Investments** Location: Manica Chair: Prof Martin Botha (North-West University)	**Session 7: Entrepreneurship and Small Business Management** Location: Zebe & Sena Chair: Prof Marko Van Deventer (North-West University)	**Session 8: General and Strategic Management** Location: Lupata Chair: Prof Alfred Henrico (North-West University)
11:20 - 11:40			
*The effect of talent management dimensions on talent retention of TVET college lecturers Tsatsimpe, Kagiso Wellington North-West University, South Africa	*Dividend payouts during crisis periods: Could escalation of commitment bias provide a viable explanation? Viviers, Suzette Stellenbosch University, South Africa	*Sustainable growth of taverns in the liquor industry: Understanding the enablers Rootman, Chantal; Smith, Elroy; Coutsourides, Peter Nelson Mandela University, South Africa	**Teaming and innovation enablers: A framework for managing high-performing innovation teams Maree, Lelani; Steyn, Kiana Stellenbosch University, South Africa
11:40 - 12:00			
*Job demands and burnout among call centre employees in Windhoek: The moderating role of job satisfaction Mpofu, Mthokozisi (1); Hlatywayo, C. K. (2); Pieters, W (2); Nehoya, Chelsi (2); Johannes, Maria (2) 1: IIE Rosebank, South Africa; 2: University of Namibia	**Risk-taking: The missing link between chief executive officer compensation and firm performance Bidoli, Benito; de Vries, Annalien; Johnson, Ruth Stellenbosch University, South Africa	*The impact of delegation challenges on SME performance in South Africa: A leadership and organisational perspective Adekomaya, Victoria Oluwafunmilayo University of Johannesburg, South Africa	*An alternative to work-life balance: Attaining life-work balance with load shedding Sepenyane, Retshepile Vanessa University of the Free State, South Africa
12:00 - 12:20			
*Enhancing municipal workforce excellence through competency-based management in Mpumalanga Province Malika, Isaac Kgobane; Toendepi, Joyce University of Johannesburg, South Africa	*The influence of gender stereotypes on the financial literacy of black students Antoni, Xolile; Nyathi, Vukosi; Mbaye, Zanele Rhodes University, South Africa	*A framework for categorising African family business research Farrington, Shelley; Billings, Cassidy; Venter, Elmarie Nelson Mandela University, South Africa	*Exploring internal risk-reporting practices in a South African petrochemical company Denyschen, Altus; Mulambya, Emmanuel North-West University, South Africa

12:20 - 12:40			
**A human capital approach to managing the employability of creative actors in South Africa Myeni, Sifiso Nhlanhla Durban University of Technology, South Africa	**Strategic integration of complexity, opportunity, and sustainability in management and retail financial management Pretorius, Tania Sol Plaatje University, South Africa	**Analysing the benefits of implementing the Industry 4.0 concept in enterprises Ślusarczyk, Beata Anna (1,2) 1: Czestochowa University of Technology, Poland; 2: North West University, South Africa	**Navigating complexity from the periphery: Junior doctors' embodied sense-making in South African public healthcare Samson, Shereen Judith; Le Roux, Catherine; Davis, Annemarie University of South Africa, South Africa
12:40 - 13:00			
	**The behavioural determinants of household savings Dhlembeu, Nyasha Tapiwa; Van Schalkwyk, Prof Henco; Visagie, Jacomien University of Pretoria, South Africa		
13:10 - 14:00	Lunch		
Session 9: Operations and Supply Chain Management Location: Mogolodi Chair: Dr Mpumelelo Longweni (North-West University)	**Session 10: Finance and Investments** Location: Manica Chair: Prof Luzaan Hamilton (North-West University)	**Session 11: Artificial Intelligence** Location: Zebe & Sena Chair: Mrs Aldi van Wyk (North-West University)	**Session 12: General and Strategic Management** Location: Lupata Chair: Prof Costa Synodinos (North-West University)
14:00 - 14:20			
*Modelling the effect of supplier and customer cooperation on green performance in South Africa Mangoukou Ngouapegne, Chriss Narick; Chinomona, Elizabeth Vaal University of Technology, South Africa	**A power-sorting approach to investigating the low-volatility anomaly in frontier African equity markets Steyn, Johannes Petrus Stellenbosch University, South Africa	*AI and the future of business leadership training: Rethinking management education in South African private institutions Matsane, Frank Sfiso (1); Mutangadura, Dr Joseph (2); Mbanje, Dr Samson (1) 1: Rosebank College, South Africa; 2: Tshwane University of Technology	**Developing a risk-resilience framework for effective adaptation during disruption Scholtz, Elsabe University of South Africa, South Africa
14:20 - 14:40			
*Nexus between education, logistics information integration, supply chain networks, and distribution performance: The case of retail SMEs in South Africa Omoruyi, Osayuwamen; Mwanza, Alfred; Antwi, Albert; Mabugu, Emmanuel Ramos; Dakora, Edward Sol Plaatje University, South Africa	**Integrating quality metrics into traditional value investing: Evidence from the JSE Ferreira, Philip Lodewyk Stellenbosch University, South Africa	*Leveraging AI to enhance operational risk management practices in South African retail banking De Bruyn, Ian Wayne (1); Lindeque, Edward George (2) 1: Nedbank; 2: North-West University, South Africa	**How Steinhoff used organisational façades to deceive stakeholders Venter, Petrus University of South Africa Graduate School of Business Leadership, South Africa

14:40 - 15:00			
*The influence of supply chain technology on information sharing and supply chain performance in the Vaal Triangle retail industry, South Africa Langton, Irvine; Mafini, Chengedzai Vaal University of Technology, South Africa	**Exploring the financial education of school leavers: A case of school leavers in Makhanda Williams, Ru-Nita Micheal; Msuthwana, Vusi; Mtimba, Sinaye Akhumzi Nelson Mandela University, South Africa	**Navigating AI's threats to learning and academic integrity Rousseau, Jacques Andre University of Cape Town, South Africa	*Navigating 4IR paradoxes in South African universities: Rethinking management education Khomokhoana, Pakiso Joseph; Ramafi, Pelonomi; Naidoo, Rennie University of Witwatersrand, South Africa
15:00 - 15:20			
*The importance of intermodal transport in maritime transport Grondys, Katarzyna Maria (1); Dickason-Koekemoer, Zandri (2) 1: Czestochowa University of Technology, Poland; 2: North West University	**Corporate disclosures on sustainable development in South Africa: Understanding, prioritising, and measuring the goals Mans-Kemp, Nadia; Rhode, Megan Stellenbosch University, South Africa	*Adopting robotics process automation for digital transformation in the insurance industry Mmakau, Sello (1); Sethibe, Tebogo (2) 1: Graduate School of Business Leadership (SBL), University of South Africa, Pretoria, South Africa; 2: Agriculture Research Council	*Unlocking strategic value through enterprise risk management Boikanyo, Dinko Herman University of Johannesburg, South Africa
15:20 - 15:40			
	*Migrant remittances and financial inclusion among households in South Africa Lesejane, Lesego Audrey University of Johannesburg, South Africa		**Prospective sense-making towards sustainable healthcare: Lived experiences of junior doctors Samson, Shereen Judith; Le Roux, Catherine; Davis, Annemarie University of South Africa, South Africa
15:30 - 16:00	**Coffee Break** Location: Mogolodi		
16:00 - 22:00	**Own time to explore Sun City**		

TUESDAY, 16 SEPTEMBER 2025

08:00-08:30	**Registration and Coffee** Location: Mogolodi
08:30-09:00	**Opening and Cengage presentation** Location: Mogolodi
09:00-10:10	**Keynote address by Musa Kalenga** Location: Mogolodi

Session 13: Operations and Supply Chain Management Location: Mogolodi Chair: Mrs Aldi van Wyk (North-West University)	**Session 14: Human Resource Management** Location: Manica Chair: Prof Carinda Williams (North-West University)	**Session 15: Entrepreneurship and Small Business Management** Location: Zebe & Sena Chair: Prof Danelle Fourie (North-West University)	**Session 16: Marketing management (excluding Digital Marketing)** Location: Lupata Chair: Prof Mia Bothma (North-West University)
10:10 - 10:30			
*Crowdsourcing in last-mile delivery: A bibliometric review and future research agenda Mogire, Eric; Kilbourn, Peter; Luke, Rose University of Johannesburg, South Africa	**Perceptions of assembly employees in an automotive organisation regarding capabilities required for 4IR Jonker, Bouwer Engelbertus (1); Olifant, Lebogang Billy (2) 1: North-West University, South Africa; 2: Tshwane University of Technology, South Africa	*Entrepreneurial education pathways to passion and intention among South African youths Mhlongo, Zinhle; Ntshangase, Sibusiso David; Ezeuduji, Ikechukwu Onyekwere University of Zululand, South Africa	**Journey to the top: Exploring the success drivers for female marketing managers in South Africa Human-Van Eck, Debbie Stellenbosch University, South Africa
10:30 - 10:50			
*Supply chain management in the South African Police Service: Practices, challenges, and strategies for enhanced public sector procurement Mwansa, Mushimbei Mwilima (1); Omoruyi, Osayuwamen (1); Chwethiso, Nosicelo (2) 1: Sol Plaatje University, South Africa; 2: National Prosecuting Authority	*Employee theft in South African retail: A multi-disciplinary investigation of management practices and employee morale as preventive mechanisms Turner, Jade; Mafuratidze, Norman University of Johannesburg, South Africa	*Values entrenchment: Organisational strategy formulation among indigenous black South African family businesses Kupangwa, Welcome; Farrington, Shelley Maeva; Venter, Elmarie Department of Business Management, Nelson Mandela University, Gqeberha, South Africa **Nominated for best paper award**	**It's been 20 years, are we family yet? Exploring employee-based brand equity at a selected University of Technology in South Africa Zwakala, Kuhle (1); Maseko, Mandla (2); Steenkamp, Pieter (2) 1: Stellenbosch University, South Africa; 2: Cape Peninsula University of Technology, South Africa
10:50 - 11:10			
*Mediating effects of trust, information quality, and supplier partnerships on commitment and performance within the automotive supply chain Mthiyane, Siphesihle Nokwanda (1); Omoruyi, Osayuwamen (2) 1: Vaal University of Technology, South Africa; 2: Sol Plaatje University, South Africa	*The relationship between workplace bullying, workplace harassment, work climate, and employee performance Mpofu, Mthokozisi (1); Diergaardt, Annebell Belinda (2); Hlatywayo, Clifford K. (2) 1: IIE Rosebank, South Africa; 2: University of Namibia	**Exploring the relationship between safety culture and compliance Raditsela, Reagile Kutlwano North-West University, South Africa	*Adopting UTAUT in the South African FinTech context Ngweyna, Thabani (2); Krüger, Janine (1); Sidat, Sumaiya (1) 1: Nelson Mandela University, South Africa; 2: Crossfin Ventures, South Africa

11:10 - 11:30			
**The economic impact of 4IR/5IR technologies on the automotive industry Nzama, Manqoba Lwazi; Olugbara, Oludayo O; Moyane, Smangele P Durban University of Technology, South Africa	*Harnessing Gen Z paradoxes for sustainable change in clinical research organisations Ndivane, Mathabo; Massyn, Liezel Business School, University of the Free State, South Africa		**Factors influencing uniqueness-seeking in LGBTQIA+ clothing consumption Monakali, Samkele North-West University, South Africa
11:40 - 12:00	**Coffee Break** Location: Mogolodi		
Session 18: Digital Marketing Management Location: Mogolodi Chair: Mr Samkele Monakali (North-West University)	**Session 19: Critical Management Studies** Location: Manica Chair: Prof Geoffrey Goldman (University of Johannesburg)	**Session 20: Entrepreneurship and Small Business Management** Location: Zebe & Sena Chair: Prof Costa Synodinos (North-West University)	**Session 21: Marketing management (excluding Digital Marketing)** Location: Lupata Chair: Prof Mia Bothma (North-West University)
12:00 - 12:20			
**Online impulse purchase of young consumers: Does gender play a role? Mashilo, Lerato Sarah; Redda, Ephrem Habtemichael; Dalziel, Riane North-West University, South Africa	*Leadership styles in Africa: Quantifying the uniqueness of the humane orientation Steyn, Renier; Msweli, Pumela University of South Africa, South Africa	*Spatial fluidity and firm competitiveness: Unpacking the nexus between entrepreneurial mobility and ecosystem dynamics Pigola, Angélica (1); Fischer, Bruno Brandão (1,2); Moraes, Gustavo Hermínio Salati Marcondes de (1,2) 1: School of Applied Sciences - University of Campinas - Brazil; 2: North-West University, South Africa **Nominated for best paper award**	**Exploring consumer adoption of plant-based meat alternatives: A value-attitude-behaviour and theory of planned behaviour approach Dilotsotlhe, Nombulelo University of South Africa, South Africa
12:20 - 12:40			
*Opportunity in complexity: Understanding German consumers' online shopping quality expectations through a demographic lens Ferreira, Danie (1); Jonas, Altouise (1); Schmäh, Marco (2); Kern, Manuel (3) 1: Nelson Mandela University, South Africa; 2: Reutlingen University, Germany; 3: Heilbronn University of Applied Science, Germany	**Not another boring, bullsh!t, ambiguous paper about sustainability Goldman, Geoffrey Andrew University of Johannesburg, South Africa	*The influence of age and gender on the business risk of small businesses in Gqeberha, Eastern Cape, South Africa Skoti, Thembani (1); Msuthwana, Vusi (2) 1: First National Bank; 2: Nelson Mandela University, South Africa	*Developing a conceptual framework of consumer engagement perceptions regarding the use of social media within the hotel industry Krüger, Janine; Smith, Elroy Eugene Nelson Mandela University, South Africa
12:40 - 13:00			
*The influence of augmented reality on purchase intention among South African Gen Z: A retail perspective Makhoba, Melusi Maxwell University of Johannesburg, South Africa	**The implications of Giorgio Agamben's inoperativity for labour and management Rathbone, Mark North-West University, South Africa	*Predicting small business success in the renewable energy industry in South Africa: An exploratory study Neethling, Adolph; Vermaak, Devan Joshua Stellenbosch University, South Africa	*Transitioning to sugar-free beverages through message framing: Consumer responses and proposed social marketing interventions Muposhi, Asphat; Zulu, Melissa University of the Witswaterand, South Africa

13:10 - 14:00	Lunch		
Session 23: Accounting, Banking, and Insurance Location: Mogolodi Chair: Mr Dewald Smit (Stellenbosch University)	**Session 24: General and Strategic Management** Location: Manica Chair: Ms Lelani Maree (Stellenbosch University)	**Session 25: Human Resource Management** Location: Zebe & Sena Chair: Dr Justus Wesonga (Vaal University of Technology)	**Session 26: Marketing management (excluding Digital Marketing)** Location: Lupata Chair: Prof Neo Logaraba (University of the Witwatersrand)
14:00 - 14:20			
**Blockchain and financial inclusion in South Africa: Banking the underbanked Smit, Dewald Stellenbosch University, South Africa	*Employee experiences of the effect of the transition to a hybrid working model on the organizational culture and employee well-being Makhubu, Palesa; Niemann, Rita University of the Free State, South Africa	*Strategic human resource management Sibiya, Bongani (1); Sibiya, Ayanda (2) 1: North West University, South Africa; 2: University of Johannesburg, South Africa	**The impact of sponsorship fit on the purchase intention of sponsored products: a South African sport study Theron, Edwin; de Lange, Caitlin; Pentz, Christian Donald Stellenbosch University, South Africa
14:20 - 14:40			
*Analysing the requirements of the South African GAAR against the newly amended Canadian GAAR Sefa, Gontse; Moroeng, Keoikantse Phatsimo University of the Witwatersrand, South Africa	*Transforming student engagement and learning though the implementation of gamification Mitchell, Bruce; Co, Mary Jesselyn Monash University, Australia	**Exploring foundational skills to drive the 4IR in South Africa Suliman, Arshad; Mayer, Claude-Helene University of Johannesburg, South Africa	*Great is your faith! A serial mediation model of brand faith and repurchase intentions: A multi-group analysis Ligaraba, Neo University of the Witwatersrand, South Africa
14:40 - 15:00			
*High school and first-year university accounting syllabi: Bridging the gap Mahlaule, Calvin; Fouche, Jaco; De Villiers, Rikus North-West University, South Africa	*Effect of technical competencies of women in core mining activities on team operational performance in South Africa Munilal, Suneshnee Sibanye Stillwater, South Africa	*Beyond the books: Exploring the well-being support needs of MBA students Sinra, Ronald; Massyn, Liezel University of the Free State, South Africa	**Leveraging ChatGPT to explore language cues: A case of Instagram influencers Kallier-Tar, Safura; du Bruyn, Monique University of South Africa, South Africa
15:00 - 15:20			
*Guiding the evolving role of the finance functions in a digital era for South Africa Sibanda, James; Nwosu, Prof Lillian; Pelser, DR Faan North-West University, South Africa	**The role of shared understanding in managing innovation within technology-based innovation teams Maree, Lelani; van Buynder, Rene Stellenbosch University, South Africa	*Effect of talent retention on organisational performance Wesonga, Justus Nyongesa; Van Der Westhuizen, Johan Vaal University of Technology, South Africa	*Identifying factors that influence customer experience in the peri urban sector: The case of spaza shops Yase, Tembelihle; van Eyk, Marle; Amoah, Felix Nelson Mandela University, South Africa

15:20 - 15:40			
	**Developing AI literacy through an authentic assessment of a job application and interview preparation Mitchell, Bruce; Mary Jesselyn Co Monash University, Australia		*Machine learning for predicting sustainable consumer-brand relationship in green beauty products Pigola, Angélica (1); Synodinos, Costa (2); Moraes, Gustavo Hermínio Salati Marcondes de (1,2) 1: State University of Campinas, Brazil; 2: North-West University, South Africa
15:50 - 16:10	**Coffee Break** Location: Mogolodi		
Session 28: Tourism Management Location: Mogolodi Chair: Dr Bianca Manners (North-West University)	**Session 29: Digital Marketing Management** Location: Manica Chair: Mr Lucky Mogwasa (Vaal University of Technology)	**Session 30: Entrepreneurship and Small Business Management** Location: Zebe & Sena Chair: Ms Sabrina Matthee (University of Stellenbosch)	**Session 31: Marketing management (excluding Digital Marketing)** Location: Lupata Chair: Prof Geoffrey Bick (University of Cape Town)
16:10 - 16:30			
**Push and pull factors influencing pet-friendly travel in South Africa: Insights from an emerging tourism market Manners, Bianca North-West University, South Africa	*Application of the theory of consumption value (TCV) dimensionality in the South African food delivery service environment Mogwasa, Lucky Seemola Vaal University of Technology, South Africa	**Strategic Approaches for the Sustainable Performance and Growth of Artisan Trade Small and Medium Enterprises Celliers, Cynthia; Toedepi, Joyce University of Johannesburg, South Africa	*The current landscape of place in social marketing: A scoping review Naidoo, Claire Liese; Issock Issock, Paul University of Witwatersrand, South Africa
16:30 - 16:50			
**Profiling of festival attendees: A case study of Mahikeng Metsi, Phatshimo; Mereotlhe, Kgomotso North-West University, South Africa	**The influence of Augmented Reality on purchase intention among South African Gen Z: A fast-food perspective Motau, Hugh Thabang (1); Makhoba, Melusi Maxwell (2) 1: Vaal University of Technology, South Africa; 2: University of Johannesburg, South Africa	**Marketing Social Missions: Exploring ethnic entrepreneurship tenets between Ghanaian immigrants in the United Kingdom and in South Africa Ansah, Martin Owusu; Boateng, Kofi Agyenim; Boateng, Rosemary Coffie; Ansah, Christina Boafo Kwame Nkrumah University of Science and Technology, Kumasi, Ghana	*Assessing the challenges and requirements for market entry in East Africa for a South African electrical manufacturing company Singh, Santosh (1); Bick, Geoffrey (2); Carmichael, Teresa (3) 1: Henley Business School, South Africa; 2: University of Cape Town, South Africa; 3: Wits Business School, University of the Witwatersrand, South Africa
16:50 - 17:10			
**From bad spot to tourist hotspot: Is user generated social media content the ultimate destination makeover tool? Makumbi, Mafanedza Brutus University of Pretoria, South Africa	*Examining advergaming efficacy: The moderating role of user control on flow experience and brand attitude among young (Generation Z) Burger King mobile players Nzita, Mayemba Karel; Lubbe, Isolde Ward University of Johannesburg, South Africa	**Exploring the critical resources for small business resilience post COVID-19: The case of the textile and clothing industry. Matthee, Sabrina; de Nobrega, Kerrin Stellenbosch University, South Africa	**Demographic differences in employees' perceptions of internal marketing, workplace well-being and organisational commitment in the grocery retail industry Pheme, Sampoto Daisy; Roux, Therese; Retief, Miri; Herbst, Tessie Tshwane University of Technology, South Africa
18:00 - 22:00	**Gala Event** Location: Seers		

WEDNESDAY, 17 SEPTEMBER 2025

09:00-09:10	**Day opening** Location: Mogolodi		
09:10 - 09:40	**SAIMS AGM** Location: Mogolodi		
09:40 - 10:00	**Coffee Break** Location: Mogolodi		
Session 33: Information, Communication technology and Economics Location: Mogolodi Chair: Prof Marko Van Deventer (North-West University)	**Session 34: Corporate Social Investment and Business Ethics** Location: Manica Chair: Prof Danelle Fourie (North-West University)	**Session 35: Artificial Intelligence** Location: Zebe & Sena Chair: Prof Kirsty-Lee Sharp (North-West University)	**Session 36: Marketing management (excluding Digital Marketing)** Location: Lupata Chair: Prof Frikkie Herbst (North-West University)
10:00 - 10:20			
*The role of information communication technologies in transforming Africa's socio-economic landscape Muridzi, Gibson; Dhliwayo, Shepherd University of Johannesburg, South Africa	**Linking corporate sustainability to the Sustainable Development Goals Johnson, Ruth Stellenbosch University, South Africa	*Institutional readiness factors for AI integration into ERP systems of higher education institutions: A systematic literature review. Hlongwane, Motjeo; Khomokhoana, Pakiso University of Witwatersrand, South Africa	**Green choice pedagogy: Applying TPACK and STACK in consumer-focused marketing education Boshoff, Salomien Akademia, South Africa
10:20 - 10:40			
*Digital orientation and strategy implementation: The public sector perspective Baloyi, Wiston Mbhazima; Meyer, Natanya; Rossouw, Dirk University of Johannesburg, South Africa	**Assessing ethics risk at a higher education institution in South Africa Abrahams, Estelle Sol Plaatje University, South Africa	*From guidance to governance: Integrating artificial intelligence risk management standards Lindeque, Edward George North-West University, South Africa	**Sustainable wine purchasing in South Africa: A study of intention, behaviour and communication Brohm, Isabella Cara; Human-van Eck, Debbie; Pentz, Chris Stellenbosch University, South Africa
10:40 - 11:00			
**Assessing the impact of external debt on economic growth: A comparative study of Africa's leading economies Siko, Mpho; Mokokgong, Moloko; Nkabinde, Nomzamo Rosebank College, South Africa	**Evaluating ethics governance, management practices, and disclosure at Sol Plaatje University: Challenges and Opportunities for Effective Governance Merahe, Gobonamang Jackson (1); Crous, Cornelie (2) 1: Sol Plaatje University, South Africa; 2: University of Free State, South Africa	*Generative artificial intelligence in academic writing: An integrative literature review of promises, downsides and ethical implications for policy and practice Mafuratidze, Norman University of Johannesburg, South Africa	*Influential factors that shape purchasing behaviours for luxury goods within the LGBTQI+ consumer segment Monakali, Samkele (1); Jonas, Altouise (1); Tait, Madele (2) 1: Nelson Mandela University (Gqebhera campus); 2: Nelson Mandela University (George campus)

11:00 - 11:20			
			*Cause-related marketing: Exploring the influence of visual and verbal non-profit cues on consumer attitude and intention Human-Van Eck, Debbie (1); Ferreira, Danie (2) 1: Stellenbosch University, South Africa; 2: Nelson Mandela University, South Africa
11:30 - 11:40	**Move between sessions**		
Session 37: Entrepreneurship and Small Business Management Location: Mogolodi Chair: Prof Luzaan Hamilton (North-West University)	**Session 38: Digital Marketing Management** Location: Manica Chair: Prof Roland Goldberg (North-West University)	**Session 39: Operations and Supply Chain Management** Location: Zebe & Sena Chair: Dr Mpumelelo Longweni (North-West University)	**Session 40: Marketing management (excluding Digital Marketing)** Location: Lupata Chair: Prof Frikkie Herbst (North-West University)
11:40 - 12:00			
*Willingness to collaborate between local and immigrant entrepreneurs in Soshanguve, South Africa Mtsweni, Moses; Mutoko, Rewai Wilbert Tshwane University of Technology, South Africa	**Exploring the role of gamification in influencer marketing strategies: A South African perspective van Heerden, Magdalena Sophia; Reeler, Rachelle Tanith University of South Africa, South Africa	*Profiling the impact of driver fatigue on driver road accident involvement and freight performance: Gauteng province of South Africa Mashiya, Tshidi; Chinomona, Elizabeth; Govuzela, Sithembiso Vaal University, South Africa	**The influence of creativity of a satirical ad on ad effectiveness Maree, Tania; Kitching, Duané University of Pretoria, South Africa
12:00 - 12:20			
**The social architecture of entrepreneurship: Exploring entrepreneurs as catalysts for community development, talent cultivation, and institutional renewal Klinck, Kezell ; Peter, Kedron ; Pelser, Anna-Marie; Pelser, Faan North-West University, South Africa	*The impact of AI-driven consumer behaviour on online purchase decisions: A structural equation modelling approach Nzita, Mayemba Karel University of Johannesburg, South Africa	*The role of informal institutions in enhancing industrial value chain capabilities in sub-Saharan Africa Mapanga, Arthur Walter Sisulu University, South Africa	*The shopping orientation effect on loyalty programme quality and customer satisfaction in South African supermarkets De Meyer-Heydenrych, Christine; Cunningham, Nicole University of Johannesburg, South Africa **Nominated for best paper award**
12:20 - 12:40			
**Investigating the impact of technology acceptance on mobile commerce (m-commerce) adoption Klinck, Kezell; More, Matlakala North-West University, South Africa	*Solving the social media puzzle for South African wine brands: Uncovering brand engagement opportunities Bondesio, Lisa; Theron, Edwin; Kühn, Stefanie W. Stellenbosch University, South Africa	**Antecedents of management systems in State-Owned Enterprises in Gauteng province, South Africa Nematatani, Pfanelo; Chinomona, Elizabeth Vaal University of Technology, South Africa	*Consumer expectations, satisfaction and purchase intention in the South African short-term insurance industry De Meyer-Heydenrych, Christine University of Johannesburg, South Africa **Nominated for best paper award**
13:10 - 14:00	**Lunch**		

* **COMPETITIVE PAPER**
** **WORK-IN-PROGRESS**