

Advertising and Brand Loyalty in the South African Solar Industry

by

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DECLARATION

I, Zané Dippenaar, declare that the thesis that I herewith submit for the doctoral degree *Doctor of Philosophy (Business Management)* at the University of the Free State is my independent work, and that I have not previously submitted it for a qualification at another institution of higher education.



ZANÉ DIPPENAAR

Date: 25 October 2024

DEDICATION

I dedicate this thesis to my family, whose unwavering support has been my anchor throughout this journey.

- To my parents, Carlo and Loami Dippenaar, words cannot fully express how grateful I am for the way you nurtured my dreams from the very start. Your unwavering love, endless support, and constant encouragement have been the foundation upon which all my achievements rest. I could not have reached this point without both of you beside me every step of the way.
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ABSTRACT

The South African solar market is expanding rapidly, and it is expected to grow from 5.44 GW in 2023 to 9.24 GW by 2028, driven by decreasing costs of photovoltaic modules, supportive government policies, and high electricity demand. This growth has attracted an influx of both domestic and international business-to-business solar distributors in the market leading to intense competition. It is becoming more necessary for distributors in the solar industry to develop customer brand loyalty while taking into consideration the significance of advertising, competitive advantage, commitment, trust and brand awareness. It is upon this background that the current study aimed to develop a model based on the moderated mediation effect of brand awareness on the relationship between below-the-line advertising and brand loyalty through competitive advantage, commitment, and trust in the South African business-to-business solar industry. This study adopted a positivist research paradigm, employing a quantitative research methodology to achieve its objectives. Data collection was through a questionnaire distributed to a convenience sample of 427 solar installation companies subscribed to IBC SOLAR's platforms in South Africa. SmartPLS 4 was utilised to perform data analysis, including descriptive analysis, structural equation modelling, as well as mediation and moderation analysis. The structural equation modelling results indicated that below-the-line advertising did not affect brand loyalty directly. However, competitive advantage and commitment positively influenced brand loyalty, demonstrating that companies with a stronger competitive edge and higher levels of commitment enjoy greater brand loyalty. Trust, on the other hand, was not a significant predictor of brand loyalty. Furthermore, brand awareness moderated the mediation effects of competitive advantage and commitment to the advertising-brand loyalty relationship. At higher levels of brand awareness, these mediations were statistically significant, while at lower levels, they were not. Trust did not demonstrate significant mediation at any level of brand awareness. This study has major implications for theory and practice leading to the improvement of customer brand loyalty within the business-to-business solar distributors, which is essential for achieving competitive advantage.

Keywords: Solar industry, Business-to-business, Below-the-line advertising, Brand loyalty, Commitment, Trust, Competitive advantage, and Brand awareness.

LIST OF ABBREVIATIONS

AVE	Average variance extracted
B2B	Business-to-business
BTL	Below-the-line
CFA	Confirmatory factor analysis
CMV	Common method variance
CTT	Commitment-trust theory
HTMT	Heterotrait-monotrait ratio
IRENA	International Renewable Energy Agency
PLS	Partial least squares
PLS-SEM	Partial least squares structural equation modelling
PV	Photovoltaic
RBT	Resource-based theory
SEM	Structural equation modelling
VIF	Variance inflation factor
VRIN	Valuable, rare, inimitable and non-substitutable

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CHAPTER 1

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Chapter overview

Chapter 1 provides a comprehensive foundation for the research study. It begins by establishing the background of the study, followed by a preliminary literature review that covers key concepts such as advertising, brand loyalty, brand awareness, commitment, trust, and competitive advantage. Previous empirical studies in these areas are also examined. Furthermore, the chapter presents the problem statement, research questions, and research objectives, both theoretical and empirical for the study. The theoretical framework is introduced, drawing upon theories including the brand equity theory, business-to-business (B2B) advertising effects model, resource-based theory (RBT), and commitment-trust theory (CTT). The conceptual framework is also provided to visually represent the relationships between the variables. Additionally, the chapter discusses the contribution of the study to the field and outlines the methodology that was employed. This includes an overview of the research philosophy, approach, strategy, target population, sampling, data collection methods (both secondary and primary), questionnaire design, and data analysis techniques that were used. Lastly, the ethical considerations in conducting this research are addressed, while an outline of the subsequent chapters is presented.

1.2 Introduction

It is becoming imperative for B2B distributors in the solar industry to develop and maintain mutually satisfying long-term relationships. They further have to establish brand loyalty with their customers who are, in the context of this study, solar installation companies systems (Guerola-Navarro, Gil-Gomez, Oltra-Badenes and Soto-Acosta 2022). Building and nurturing brand loyalty is of particular significance in the B2B solar sector. This significance is not only for enhancing customer retention but also for mitigating the risk of customers switching to alternative brands (Sadamoro, Ajayi, Ayodel and Areola 2023). As per a report by Misbrener (2023), the proportion of sales related to solar inverters saw a declining trend, falling from 66% in 2021 to 58% in 2022. This decline suggests a notable shift in customer preferences and brand choices. This situation is worrisome for B2B players in the solar industry as it might result in a loss of competitive advantage if they do not pursue strategic marketing moves. The loss of competitive advantage will be regrettable in the South African B2B solar industry considering the positive growth prospects within the South African solar industry. South Africa is a leader within the African renewable

energy area (Galal 2023a). It is projected that South Africa will expand its solar industry from 5.44 gigawatts in 2023 to 9.24 gigawatts by 2028 with an estimated compound annual growth rate of 11.17% (Mordor Intelligence Research and Advisory 2023a).

The growth of the solar industry in South Africa is propelled by decreasing solar photovoltaic (PV) module costs, favourable government policies, and the need for reliable electricity (Matthews 2023). Furthermore, South Africa's abundant sunshine and radiation potential, with over 2 500 hours of annual sunshine and solar radiation between 4.5 and 6.5 kWh/m² per day has made the solar industry lucrative (Mordor Intelligence Research and Advisory 2023a). This positive outlook in the South African solar industry has attracted both local and global B2B distributors to benefit from the growing demand (ECODIT LLC 2022). This influx of distributors in the South African B2B solar industry is a cause for concern since it has led to enormous competition. Well-known B2B solar distributors fighting for survival in the South African solar industry include IBC SOLAR, SolarAfrica, Rubicon, SunPower, Hohm Energy, and Warpower (Caine 2023; My Broadband 2023).

To effectively tackle the challenge of rising competition, B2B solar distributors should understand the importance of fostering brand loyalty. According to Hasan and Sohail (2021), strong advertising programmes can lead to brand loyalty. Well-known advertising programmes involve the use of direct mail, social media, and display advertising (Katz 2022). Despite the importance of advertising in fostering brand loyalty, important factors that bring a comprehensive marketing programme such as competitive advantage, trust, commitment and brand awareness should not be overlooked (Rane, Achari and Choudhary 2023). In the context of this study, brand loyalty refers to consistent and repeated preference by a solar installation company for a specific B2B solar distributor (Hasan and Sohail 2021). Advertising involves a series of strategic messages through various media to engage and drive specific B2B customer actions (Chaffey 2019). Commitment is defined as the extent of dedication and emotional attachment individuals or entities exhibit toward the ongoing development and persistence of a relationship (Goutam 2020; Abid, Siddique, Gulzar, Shamim, Dar and Zafar 2023). Trust, on the other hand, denotes the conviction or assurance that one party places in the dependability, honesty, and ethical conduct of another party within the context of a relationship (Palací, Salcedo and Topa 2019; Ngah, Abdul Rashid, Ariffin, Ibrahim, Abu Osman, Kamalrulzaman, Mohamad and Harun 2022). Competitive advantage is a unique position allowing a company to surpass rivals (Correia, Dias and Teixeira 2021). Brand awareness is customers' recognition and recall of a brand (Hasan and Sohail 2021).

The body of knowledge shows extensive linear research focusing on advertising, brand loyalty, competitive advantage, commitment, trust and brand awareness (Correia et al. 2021; Hanaysha 2022; Mei and Wei 2022; Thomran, Alshallaqi, Al-Mamary and Abdulrab 2022; Ma, Wu and Li 2023). Research on the aforementioned factors has remained fragmented, involving advertising and brand loyalty (Voorveld, van Noort, Muntinga and Bronner 2018); commitment and brand loyalty (Shin, Amenuvor, Basilisco and Owusu-Antwi 2019); trust and brand loyalty (Samarah, Bayram, Aljuhmani and Elrehail 2022); and, advertising and competitive advantage (Adama, Popoola, Okeke and Akinoso 2024). Also, despite substantial research that shows the importance of competitive advantage, commitment, and trust, there is a gap in the literature involving the mediating role of these factors in the advertising-brand loyalty relationship, especially within the B2B setting (Voorveld et al. 2018; Correia et al. 2021; Hanaysha 2022; Thomran et al. 2022). Existing fragmented literature suggests that existing research on advertising's impact on brand loyalty through commitment, trust, and competitive advantage lacks a cohesive framework (Goutam 2020; Palací, Salcedo and Topa 2019; Correia et al. 2021; Hasan and Sohail 2021; Ngah et al. 2022; Abid et al. 2023). Also, ignored is the moderation effect of brand awareness on the relationship between advertising and brand loyalty. Diverse perspectives, methodologies, and limited interdisciplinary integration are evident, hindering a more inclusive understanding. To close this gap, the current study sought to build a comprehensive marketing programme for B2B solar distributors in South Africa by investigating the moderated mediation effect of brand awareness on the relationship between advertising and brand loyalty through competitive advantage, commitment, and trust.

1.3 Background to the study

Regional trends and economic dynamics heavily influence the global B2B solar industry. Asian countries lead the solar industry, while Europe has seen a decline (Kesari, Atulkar and Pandey 2021). As B2B distributors navigate these trends, they must consider the varied opportunities and challenges in different regions. Developing countries, in particular, are shifting towards solar utility projects, with an expected 85% of global energy generation coming from renewables by 2050 (Eseosa and Ejiroro 2020). Notably, these nations are building more clean energy infrastructure compared to fossil fuel-based power, driven by government initiatives promoting solar rooftop adoption. This presents significant opportunities for B2B distributors to enter and expand in these markets. Environmentally conscious consumers increasingly prefer products that align with sustainability goals (Kesari et al. 2021). B2B distributors can capitalise on this trend by positioning themselves as providers of eco-friendly products and services. Effective advertising that emphasises clean energy, reduced carbon footprints, and cost savings can strongly

resonate with target audiences (Kesari et al. 2021; Sadamoro et al. 2023). In Asia, brand loyalty is a significant factor influencing corporate responsibility and sustainable development (Min and Leong 2024). In North America, solar energy adoption is driven by environmental awareness, government incentives, cost reduction, and technological progress (Mordor Intelligence Research and Advisory 2023a). The United States is expected to maintain a dominant market position due to its high electricity consumption. B2B solar distributors align their products with these priorities, emphasising efficiency, energy independence, and reduced reliance on fossil fuels (Asif, Zhongfu, Ahmad, Irfan, Razzaq and Ameer 2022). Europe remains a leader in renewable energy, with over 20% of the European Union's energy consumption in 2021 derived from renewables (Limb 2023). B2B enterprises can seize this opportunity by aligning their offerings with the region's climate goals and emission reduction objectives. European customers value sustainability, and informative campaigns that empower environmentally conscious choices are effective (Khandai, Mathew, Yadav, Kataria and Kohli 2023). B2B solar distributors can position themselves as partners in sustainability, providing solutions and education to their customers (Sadamoro et al. 2023). South America presents a varied landscape due to economic disparities, but growth in solar energy is driven by government policies, increasing demand, and the falling cost of solar PV systems (Mordor Intelligence Research and Advisory 2023b). B2B distributors must tailor their advertising strategies to highlight affordability, energy independence, and social progress, thereby fostering brand loyalty (Asif et al. 2022; Ukoba, Yoro, Eterigho-Ikelegbe, Ibegbulam and Jen 2024). Africa's solar sector is growing, with installed solar power capacity projected to increase significantly by 2040 (Awose 2023). B2B distributors must tailor their messaging to Africa's diverse markets, emphasising local benefits such as job creation and stakeholder engagement (Creamer 2022; ECODIT LLC 2022). Public awareness campaigns that educate about solar energy's benefits are essential for building trust and fostering adoption (REGlobal 2021).

In South Africa, a leader in Africa's renewable energy sector, B2B distributors face unique challenges and opportunities. The country's ambitious solar energy goals, coupled with government policies and the need for reliable electricity, drive market growth (Galal 2023a; Matthews 2023). Advertising in South Africa focuses on energy security, cost savings, and environmental responsibility, resonating with customers facing electricity shortages (Ferragamo 2023). Brand loyalty is critical in South Africa, where energy demand and supply shortages are prevalent (Omarjee 2023). Effective communication of reduced reliance on conventional energy sources and partnerships in the renewable energy sector is crucial (Kumar 2020). B2B distributors must address these challenges transparently to foster trust and loyalty in a competitive

market (Poblete and Halldórsson 2023). Given the importance of brand loyalty in the solar industry, particularly in South Africa, this study explores the integration of multiple theoretical frameworks to understand brand loyalty in a B2B context. It combines insights from the B2B advertising effects model, brand equity theory, resource-based theory, and the commitment-trust theory to examine cognitive, emotional, and competitive dynamics in the industry (Shan, Luo, Zhou and Wei 2019; Bernarto, Berlianto, Meilani, Masman and Suryawan 2020; Cortez, Gilliland and Johnston 2020; Pascual-Ferrá 2021; Nayak, Bhattacharyya and Krishnamoorthy 2023; Alcántara-Pilar, Rodríguez-López, Kalinić and Liébana-Cabanillas 2024).

1.4 Preliminary literature review

This section discusses the preliminary literature on advertising, brand loyalty, brand awareness, commitment, trust, and competitive advantage. This is important in providing an early understanding of the key constructs of the study. Advertising is discussed next.

1.4.1 Advertising

Different forms of advertising are commonly classified as “above-the-line” and “below-the-line” (BTL) advertising (Alina, Jahangir and Malik 2023). This study opted to concentrate solely on BTL advertising to assess its influence on brand loyalty. Above-the-line advertising primarily centres around using mass media platforms to connect with a broad and varied audience. In contrast, BTL advertising is based on engaging with specific, targeted segments of the audience. This typically involves employing personalised and direct communication methods to connect with a particular group of customers (Prete 2015). While various advertising types have been explored, this study concentrates more on BTL advertising. This includes social media advertising, direct mail advertising, and display advertising, such as display banners in the online shop (Swani, Brown and Mudambi 2020; Qader, Hamza, Othman, Anwer, Hamad, Gardi and Ibrahim 2022; Indeed Editorial Team 2023).

1.4.2 Brand loyalty

Brand loyalty is a critical outcome of effective marketing efforts, reflecting the depth of the emotional and psychological bond between customers and a brand (Ghorbanzadeh 2021). Measuring brand loyalty involves a combination of both attitudinal and behavioural aspects. Traditional measures include repeat purchase rates, purchase frequency, and customer retention rates, which indicate the extent to which

customers consistently choose a particular brand (Dick and Basu 1994). Customer satisfaction and net promoter score are indicators that evaluate consumer perceptions and the likelihood of recommending the brand to others (Barath 2022). Moreover, modern approaches to measuring brand loyalty incorporate social media sentiment analysis to gauge online conversations and sentiment toward the brand (Bastug, Calisir, Gülmez and Ateş 2020).

1.4.3 Competitive advantage

Competitive advantage is a pivotal aspect of strategic management, signifying the distinct strengths and capabilities that empower a company to surpass its competitors. A thorough assessment combining market, financial, and resource-based measures furnishes a grasp of a firm's competitive advantage, informing strategic decision-making. Market-oriented measures, such as market share, growth rate, and customer retention, shed light on the firm's comparative standing (Gleißner, Helm and Kreiter 2013; Mehta 2023). Financial indicators, including return on assets and return on equity, reflect the firm's ability to generate profits from its resources (Grant 2016; Wijayanto, Suhadak, Dzulkirom and Nuzula 2019). Resource-based measures, rooted in the resource-based view of the firm, assess the firm's unique resources, capabilities, and core competencies that drive its competitive advantage (Shan, Luo, Zhou and Wei 2019). Moreover, dynamic capabilities, which encompass the firm's adaptability and innovation, play a role in measuring competitive advantage in swiftly changing markets (Ferreira, Coelho and Moutinho 2020).

1.4.4 Commitment

Evaluating commitment is a complex and context-dependent process, characterised by variations in its definitions and dimensions. Marketing research has consistently utilised a three-component commitment model, including affective, normative, and calculative commitment (Muda and Fook 2020). First, limited alternatives and the costs associated with switching are recognised constraints on switching decisions, suggesting that higher calculative commitment reduces the likelihood of defection. Second, normative considerations, influenced by social pressures, can either hinder or facilitate switching behaviours, with greater normative pressure increasing the likelihood of customer retention. Lastly, increased satisfaction and positive emotions derived from a relationship make alternative options less appealing, reinforcing customer loyalty intentions and indicating affective commitment.

1.4.5 Trust

Trust is a fundamental concept spanning various domains, and its evaluation holds significance for comprehending relationships and decision-making processes. Furthermore, trust is subject to influences such as perceived competence and benevolence. Its assessment should be context-specific, whether within interpersonal relationships, business dealings, or online interactions (Di Battista, Pivetti and Berti 2020). Acknowledging trust's diverse roles in various settings and employing suitable assessment approaches is vital for both research endeavours and practical applications.

1.4.6 Brand awareness

Brand awareness is vital in consumer decision-making processes, exerting a crucial influence on the efficacy of marketing strategies. Increasing brand awareness involves assessing the degree to which a brand is recognised and recalled by customers through aided and unaided recall (Khurram, Qadeer and Sheeraz 2018). Brand recognition and recall indicate customers' capacity to identify a brand within a set of alternatives. Furthermore, metrics such as brand exposure and reach, often quantified through impressions and advertising campaign reach, offer numerical indicators of brand visibility (Chierici, Del Bosco, Mazzucchelli and Chiacchierini 2019). Modern technology has introduced digital analytics tools that track online interactions, click-through rates, and social media mentions, providing a more inclusive perspective on digital brand awareness (Azizan, Chik, Zulaika, Fadzli and Ishar 2023). By integrating cognitive and behavioural measurements, marketers can broadly understand how brand awareness influences consumer perceptions and preferences.

1.4.7 Previous empirical studies on advertising, brand loyalty, commitment, trust, competitive advantage, and brand awareness

The role of advertising in promoting brand loyalty extends far beyond basic communication (Ha, John, Janda and Muthaly 2011; Rather, Tehseen and Parrey 2018). Voorveld et al. (2018) previously found that there is a positive and significant link between using multi-channel advertising strategies and boosting brand loyalty, especially when integrating online and traditional media. Similarly, Ma et al. (2023) concluded that such an investment reflects a brand's confidence in its products, which in turn strengthens consumer trust and loyalty. Jain, Basu, and Dwivedi (2024) also highlighted that product advertising is the strongest predictor of customer loyalty in the consumer goods industry, underlining the role of targeted advertising efforts in fostering long-term brand relationships. In the restaurant sector, Rahi, Ammara and

Qazi (2021) found that advertising plays a pivotal role in building loyalty, demonstrating the cross-industry relevance of these strategies. Furthermore, Kulawardena and Kalpana (2024) discovered that entertainment value from social media advertising significantly impacted consumer brand loyalty in Sri Lanka's apparel retail industry, revealing the growing importance of engagement, and creative advertisement content in maintaining customer loyalty.

Recent research highlights the critical role of competitive advantage as a mediator in various business contexts, including its influence on the relationship between environmental, social, and governance practices, brand reputation, and customer loyalty (Singh, Verma, Fatima and Kumar 2024). Studies also show that competitive advantage mediates the relationship between financial standards, innovation adoption, market orientation, and small and medium-sized enterprise performance (Correia et al. 2021; Inrawan, Silitonga, Halim, Lie and Sudirman 2021). Additionally, the direct impact of competitive advantage on brand loyalty is supported by findings from Adama et al. (2024), emphasising its importance in B2B sectors like solar installation, and Arslan (2020), who examined its influence on customer loyalty through perceived value and trust.

Brand commitment has been found to mediate various relationships in different contexts, and its impact on brand loyalty is well-documented. Alkhalwaldeh, Al-Salaymeh, Alshare and Eneizan (2017) identified that brand commitment mediates the link between brand awareness and brand loyalty in the economic sectors of Jordan, emphasising its role in maintaining customer loyalty. Similarly, Amani (2015) found that commitment mediates the relationship between trust and relationship loyalty in the retail sector, underscoring the importance of trust in building loyal customer bases. Additionally, Van Tonder (2016) highlighted that commitment mediates the relationship between quality advice and customer loyalty towards insurance agents, pointing to the influence of both trust and commitment on customer retention. In addition to these findings, the direct impact of commitment on brand loyalty will also be tested in this research. Studies have shown a strong direct relationship between commitment and loyalty. For instance, Shin et al. (2019) revealed that smartphone users in South Korea with strong brand commitment are more likely to develop lasting loyalty, reinforcing commitment as a key factor in cultivating long-term customer relationships. Similarly, Malik (2020) found that brand awareness and brand commitment positively influence brand loyalty, with customer satisfaction acting as a mediator in the restaurant sector. These studies illustrate the significant role of brand commitment both as a mediator and a direct driver of brand loyalty, which justifies its inclusion in this study.

Trust has been empirically confirmed as a critical mediator in various contexts across numerous studies conducted over the past decade (Trivedi and Yadav 2020; Barden, Wang, Sternberg, Poole and Balderrama-Durbin 2021; Hanaysha 2022). Arslan (2020) examined the impact of customer-perceived value and competitive advantage on customer loyalty, demonstrating that trust significantly mediates this relationship, reinforcing the role of competitive dynamics in fostering loyalty. Similarly, Trivedi and Yadav (2020) showed how trust amplifies the effect of consumer satisfaction by significantly enhancing the relationship between e-satisfaction and repurchase intentions among Generation Y customers, suggesting that trust not only affects immediate consumer behaviour but also strengthens long-term customer loyalty and engagement. Additionally, the direct impact of trust on brand loyalty will be tested, supported by studies such as Samarah et al. (2022), which highlighted brand trust's critical role in shaping loyalty in the consumer electronics market, and Chen, Prentice, Weaven and Hisao (2022), who found a strong correlation between customer trust, engagement, and loyalty in the home-sharing sector. These studies collectively affirm trust's pivotal role as both a mediator and a direct influencer of customer loyalty across diverse domains.

Brand awareness significantly influences outcomes related to firm performance, competitive advantage, and consumer behaviour across various contexts. Tiwari, Bryde, Stavropoulou and Malhotra (2024) found that brand awareness moderates the relationship between supply chain flexibility and business performance, while Kozlenkova, Samaha and Palmatier (2014) showed that it enhances the effectiveness of marketing capabilities in driving firm success. Similarly, Thomran et al. (2022) discovered that brand awareness positively affects small and medium-sized enterprises' competitive advantage. Expanding this, several studies highlight the moderating role of brand awareness in shaping consumer behaviour. Yigit and Tigli (2018) demonstrated that brand awareness and brand loyalty moderate the effects of browsing behaviour, perceived low prices, and time pressure on online impulse buying, while Adiwijaya, McGuinness, Cary and Herjanto (2021) found it moderates the relationship between product innovation, brand trust, and brand loyalty. In the mobile banking sector, Mekebbaty, Saleh and Al Badaly (2020) showed that brand awareness strengthens the link between brand experience and trust, and Fatah (2024) found that awareness levels moderate the relationship between content types and purchase intention. These studies collectively suggest that brand awareness, while indirectly boosting brand loyalty, plays a crucial role in reinforcing factors such as trust, purchase intention, and impulse buying, thus enhancing overall brand performance (Imran, Durrani, Ishfaq and Ashraf 2020). The problem statement will be outlined in the next section.

1.5 Problem statement

The South African solar energy market is steadily expanding, driven by supportive government policies and increasing consumer awareness of renewable energy benefits (Matthews 2023; Mordor Intelligence Research and Advisory 2023a). This resulted in a compelling incentive for B2B distributors to enter the South African solar industry. The growing demand for clean energy solutions coupled with the country's abundant solar resources makes it an attractive investment opportunity for B2B solar distributors seeking to capitalise on the shift towards sustainability. This helps reduce reliance on traditional energy sources. As a result, an influx of B2B solar distributors is entering the South African market, intensifying competition and fostering innovation in the industry (ECODIT LLC 2022; My Broadband 2023). Therefore, distributors in the solar industry operating in a B2B setting are increasingly compelled to establish brand loyalty with solar installation companies (Guerola-Navarro et al. 2022). This loyalty is crucial in solar energy to retain customers and reduce brand switching (Sadamoro et al. 2023).

The solar energy industry has shown significant promise in terms of growth and sustainability (Mordor Intelligence Research and Advisory 2023a). However, various obstacles accompany this promising growth, particularly due to increased competition. Among the notable hurdles, the industry grapples with brand-switching and the issue of limited awareness among potential customers (Misbrener 2023). B2B solar distributors, who play a pivotal role in the industry's distribution chain, face a unique set of difficulties. They are tasked with the dual challenge of maintaining brand loyalty among existing customers while establishing brand awareness to attract new customers (Alkhawaldeh et al. 2017). This is particularly problematic in an environment marked by a prevailing trend of brand-switching (Misbrener 2023). This complex landscape necessitates innovative solutions and strategies to overcome these obstacles and continue the industry's promising trajectory. Therefore, to prevent shifting between brands, effective advertising and maintaining competitive advantage are key (Rua and Santos 2022). Nurturing higher commitment and trust also plays a pivotal role in sustaining brand loyalty (Bricci, Fragata and Antunes 2016; Melewar, Foroudi, Gupta, Kitchen and Foroudi 2017; Rane et al. 2023).

Existing literature on advertising, brand loyalty, brand awareness, commitment, trust, and competitive advantage is fragmented. While some studies have focused on factors influencing the relationship between different types of advertising and brand loyalty (Hasan and Sohail 2021), others have focused on the mediation effect of commitment (Ribeiro, Duarte, Filipe and David 2022), trust (Trivedi and Yadav 2020), competitive advantage (Correia et al. 2021), and the moderation effect of brand awareness (Yigit

and Tigli 2018). However, there is a lack of studies investigating the moderation-mediation factors in the relationship between BTL advertising and brand loyalty. The fragmentation of existing literature emphasises the need for a moderated mediation model that elucidates the interplay between BTL advertising, competitive advantage, commitment, trust, brand awareness, and brand loyalty.

1.6 Research questions

Based on the research problem identified in the previous section, the following research questions are formulated:

- i. To what extent does BTL advertising influence brand loyalty in the South African B2B solar industry?
- ii. To what extent does competitive advantage influence brand loyalty in the South African B2B solar industry?
- iii. To what extent does commitment influence brand loyalty in the South African B2B solar industry?
- iv. To what extent does trust influence brand loyalty in the South African B2B solar industry?
- v. Is there a moderated mediation effect of brand awareness on the relationship between BTL advertising and brand loyalty through competitive advantage, commitment, and trust in the South African B2B solar industry?

1.7 Research objectives

1.7.1 Primary research objectives

To develop a model based on the moderated mediation effect of brand awareness on the relationship between BTL advertising and brand loyalty through competitive advantage, commitment, and trust in the South African B2B solar industry.

1.7.1.1 *Theoretical research objectives*

- i. To review the literature on the B2B advertising effects model, resource-based theory, brand equity theory, and commitment-trust theory.
- ii. To review the literature on BTL advertising, brand loyalty, competitive advantage, commitment, trust, and brand awareness.

1.7.1.2 *Empirical research objectives*

- i. To measure the impact of BTL advertising on brand loyalty in the South African solar industry.
- ii. To evaluate the effect of competitive advantage on brand loyalty in the South African B2B solar industry.
- iii. To investigate the effect of commitment on brand loyalty in the South African B2B solar industry.
- iv. To measure the effect of trust on brand loyalty in the South African B2B solar industry.
- v. To examine the moderated mediation effect of brand awareness on the relationship between BTL advertising and brand loyalty through competitive advantage, commitment and trust in the South African B2B solar industry.

1.8 Theoretical framework

This study adopts an inclusive approach by grounding itself in four essential theories: brand equity theory, B2B advertising effects model, RBT, and CTT. These theories were instrumental in identifying key factors contributing directly or indirectly to brand loyalty in the context of the South African B2B solar industry. Each theory is further discussed next.

1.8.1 Brand equity theory

The brand equity theory, as initially proposed by Keller (1993) and who subsequently revised the theory in 2008, has been a cornerstone in understanding the dynamics of advertising and its influence on consumer responses (Keller 2008; Khamitov, Grégoire and Suri 2020). The theory emphasises the pivotal role of brand awareness and image in shaping consumer perceptions and includes factors such as perceived quality, brand awareness, brand associations, and brand loyalty (Foroudi, Jin, Gupta, Foroudi and Kitchen 2018). In the B2B context, where distributors sell solar solutions to solar installation companies, the brand equity framework offers insights into building strong and enduring relationships between B2B solar distributors and installation companies. This highlights the importance of cultivating a positive brand image and awareness within this professional network. However, the prevalence of the theory in the literature may be more focused on business-to-consumer contexts, and its application in B2B settings may be relatively limited.

The brand equity theory lacks explicit consideration for the rational cognitive process underlying brand loyalty (Syed Alwi, Nguyen, Melewar, Loh and Liu 2016). Brand loyalty, particularly in B2B scenarios, often involves a rational decision-making process influenced by factors beyond mere awareness and

associations. The theory falls short in elucidating how brand awareness directly relates to rational brand loyalty, neglecting the cognitive intricacies involved in B2B relationships. Moreover, the theory does not incorporate the B2B advertising effects model, especially concerning the role of advertising in shaping rational brand loyalty. The dynamic nature of customers' cognitive processes, especially in response to advertising stimuli, remains underexplored within the brand equity framework. This hindrance impacts the understanding of the interplay between advertising, brand awareness, and loyalty in B2B contexts.

1.8.2 Business-to-business advertising effects model

The B2B advertising effects model comprehensively outlines how advertising stimuli are processed and responded to within B2B environments. Developed from foundational research by Cortez et al. (2020), the model is structured around three core stages: antecedent conditions, information processing, and consequent conditions. The antecedent conditions involve personal relevance (buy task involvement) and situational specifics. These include factors such as the role within the buying centre and the importance of the purchase, which influence the initial engagement with the advertisement. Information processing can follow two paths: the central route, where the content is critically analysed, or the peripheral route, where the focus is on superficial elements (Zha, Yang, Yan, Liu and Huang 2018). The consequent conditions describe the outcomes of this processing, which can be cognitive (thoughts and judgments about the advertisement content) or emotional (feelings elicited by the advertisement). This model underscores the complexity of B2B buying decisions, which are influenced not just by the content of communications but also by the interplay of individual buyer characteristics and broader situational factors. By accounting for these varied factors, the model provides a nuanced framework for understanding and predicting organisational buying behaviours. This understanding is essential for effectively targeting and influencing B2B customers (Cortez et al. 2020).

Despite the strengths of the B2B advertising effects model in explaining the sequential processing of advertising stimuli and the impact of personal and situational factors on such processes, it is often critiqued. The criticism stems from its narrow focus on media-specific influences. This narrow focus somewhat neglects the broader contextual factors that affect decision-making in a B2B context. While Cortez et al. (2020) recognise competing messages as part of the environmental factors that influence the effectiveness of B2B advertising, this recognition does not extend deeply. It fails to cover strategic response mechanisms or differentiation techniques in the face of such competition. Integrating insights from other theories, particularly those that address social and psychological aspects of organisational

behaviour, could offer a more comprehensive understanding of customer behaviour. This is especially relevant in relation to brand loyalty (Yoshida, Gordon, Nakazawa, Shibuya and Fujiwara 2018). Additionally, the recognition of the dynamic nature of market conditions and competitor activities suggests that longitudinal or dynamic models could provide deeper insights into how the effects of advertising evolve.

In B2B relationships, such as those between solar distributors and installation companies, the B2B advertising effects model can help reveal how advertising affects brand awareness and loyalty (Bilgin 2018). To gain a better understanding of brand loyalty in these B2B settings, it can be beneficial to incorporate insights from the RBT. The RBT, with its focus on competitive advantage, offers a perspective that recognises brand loyalty as stemming from both cognitive outcomes. It also considers the strategic resources and competitive advantages a brand provides in B2B relationships (Shan et al. 2019). This integrated approach would provide a holistic view of brand loyalty, encompassing both cognitive and emotional processes and the strategic value brought by the brand to the B2B relationship.

1.8.3 Resource-based theory

Aligned with both the brand equity theory and the B2B advertising effects model, the RBT introduces a unique perspective. It emphasises the crucial role of a firm's internal resources and capabilities in shaping its success and competitive advantage. The RBT is particularly relevant in B2B contexts, where firms often have unique resources, capabilities, and competitive advantages that they leverage to gain a competitive edge (Utami and Alamanos 2022). Business-to-business solar distributors may differentiate themselves based on their resources and capabilities. Furthermore, the theory explicitly links competitive advantage to entrepreneurial success, broadening the study's scope beyond brand loyalty and awareness to include the overall prosperity and longevity of the firm (Alvarez and Barney 2002; Shan et al. 2019). In the context of the solar industry, the RBT could shed light on how a distributor's internal resources contribute to its competitive advantage in the market (Zhang, Hou, Yang, Yang and Wang 2021). These resources include advertising communication and supply chain management.

However, the model provides a potentially static view of resources, which can be addressed by adopting a dynamic perspective that recognises the evolution of resources over time (Barney, Ketchen and Wright 2021). Integrating insights from other theories, particularly the CTT, into the RBT can further enrich the study by considering the interpersonal and relational aspects that contribute to brand loyalty in B2B relationships. Empirical validation within the specific context of advertising, brand loyalty, and other

variables under investigation would enhance the study. It would confirm the relevance of RBT in the examined scenarios, ultimately providing an understanding of how a firm's internal resources contribute to competitive advantage and entrepreneurial success.

1.8.4 Commitment-trust theory

Connected to both the B2B advertising effects model and the RBT previously discussed, the CTT offers a socio-relational perspective on business interactions (Scarpi, Raggiotto and Visentin 2022). Unlike the B2B advertising effects model's emphasis on cognitive processes and the RBT's focus on internal resources and competition, the CTT delves into the interpersonal dynamics that shape commitment and trust between parties. The theory posits that commitment and trust are reciprocal and mutually reinforcing, creating a foundation for long-term relationships (Agarwal and Narayana 2020). It was initially developed in the e-commerce B2B context (Wang, Wang and Liu 2016). Therefore, in the sphere of B2B transactions where distributors sell to installation companies in the solar industry, the CTT is highly relevant in B2B contexts, where long-term business relationships are crucial. Especially since the CTT takes on special significance by underscoring the importance of relational elements in nurturing loyalty and collaboration. Building trust and commitment between business partners is essential for successful collaborations and ongoing transactions. A relevant model for this study, grounded in the CTT, is the one presented by Suhan, Nayak, Nayak, Spulbar, Bai, Birau, Anghel and Stanciu (2022). This model focuses on the connection between self-expressive tendencies and brand love, with brand commitment and trust acting as mediators, ultimately leading to the outcome of brand loyalty. The next section presents the conceptual framework.

1.9 Conceptual framework and hypothesis development

This conceptual framework integrates the brand equity theory (Keller 1993; Bernarto, Berlianto, Meilani, Masman and Suryawan 2020), the B2B advertising effects model (Gilliland and Johnston 1997; Cortez et al. 2020), the RBT (Petty, Cacioppo and Schumann 1983; Shan et al. 2019; Nayak et al. 2023), and the CTT (Morgan and Hunt 1994; Pascual-Ferrá 2021; Alcántara-Pilar, Rodríguez-López, Kalinić and Liébana-Cabanillas 2024). Through the evaluation of the above theories, seven primary constructs have been identified: (i) BTL advertising, (ii) brand loyalty, (iii) competitive advantage, (iv) commitment, (v) trust, and (vi) brand awareness.

The conceptual framework in Figure 1.1 suggests that competitive advantage, commitment, and trust amplify the impact of BTL advertising on brand loyalty in the solar industry, with the degree of enhancement contingent upon the level of brand awareness. In other words, the model examines whether the level of brand awareness regulates the mediating role of competitive advantage, commitment, and trust on the link between BTL advertising and brand. These relationships are specifically examined within the context of B2B interactions between distributors and installation companies in the solar industry.

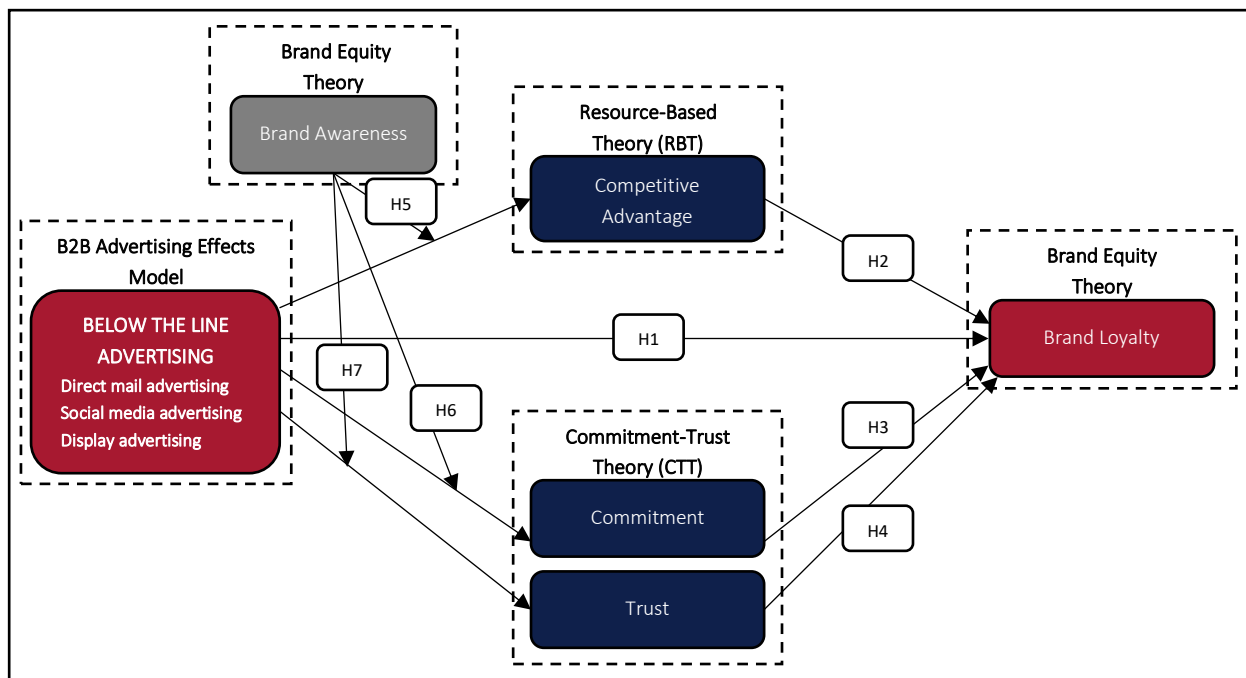


Figure 1.1: Conceptual framework

The hypotheses depicted in Figure 1.1, and the conceptual framework, are formulated as follows:

- H1: BTL advertising has a positive statistically significant effect on brand loyalty.
- H2: Competitive advantage has a statistically significant effect on brand loyalty.
- H3: Commitment has a statistically significant effect on brand loyalty.
- H4: Trust has a statistically significant effect on brand loyalty.
- H5: Brand awareness moderates the mediated role of competitive advantage on the relationship between BTL advertising and brand loyalty.
- H6: Brand awareness moderates the mediated role of commitment in the relationship between BTL advertising and brand loyalty.

- H7: Brand awareness moderates the mediated role of trust in the relationship between BTL advertising and brand loyalty.

1.10 Methodology

This section provides an overview of the research methodology for the study. Research methodology, as defined by Saunders, Lewis and Thornhill (2019), refers to the “steps researchers take to collect and analyse data”. It includes the research philosophy, approach, strategy, time horizons, target population, participant sampling method, data collection methods, questionnaire design, and data analysis methods.

1.10.1 Research philosophy

Research philosophy pertains to the researcher's viewpoint on the nature of reality and the researcher-researched relationship (Saunders et al. 2019). It constitutes a foundational aspect of research, including ontology and epistemology considerations, as outlined by Melnikovas (2018). Research philosophy encompasses the scholar's perspective on reality and the dynamic between the investigator and the subject of study. The main paradigms in the literature include realism, positivism, interpretivism, and pragmatism (Melnikovas 2018; Saunders et al. 2019). Positivism, as emphasised by Park, Konge and Artino (2020), aligns with the research objectives, emphasising empirical observation and quantitative techniques to reveal systematic patterns, associations, and trends. It was chosen for this study to explore the BTL advertising-brand loyalty dynamics within the South African B2B solar industry, aiming to generate findings that are both objective and applicable.

1.10.2 Research approach

A research approach serves as the foundational framework guiding the systematic design and execution of a research study, and it can be deductive, abductive, or inductive (Saunders et al. 2019). Considering this study's intent to examine theories and test hypotheses based on existing literature, a deductive approach was adopted as the guiding orientation (Zefeiti and Mohamad 2015; Casula, Rangarajan and Shields 2021). This approach tests hypotheses derived from theories to confirm or refute relationships between constructs.

1.10.3 Research method

Within research methodology, various approaches guide the collection and analysis of data including qualitative, quantitative, and mixed methods (Creswell and Clark 2017). Given the deductive approach chosen to examine theories and hypotheses testing, along with the need for statistical analysis (Babbie 2016; Casula et al. 2021), the researcher employed a quantitative research method. This choice aligns with the research objectives, allows precise measurement, enhances data reliability, and efficiently manages the study's scale. Therefore, making it suitable for systematic investigation and hypothesis testing in the context of BTL advertising-brand loyalty dynamics.

1.10.4 Research strategy and time horizons

The research strategy serves as a plan outlining how researchers intend to conduct their study, providing a structured framework to address research questions or hypotheses. Several research strategies exist, including but not limited to a survey, experiment, action research, case study, ethnography, grounded theory, archival research, and narrative inquiry (Saunders et al. 2019). Survey research, specifically, involves the collection of data from a sample through standardised questionnaires to uncover patterns and trends (Babbie 2016). Therefore, for this study, the survey research strategy was employed. Surveys are valuable for collecting quantitative data from a wide range of respondents, facilitating the examination of trends and relationships among variables (Babbie 2016). In the context of the South African solar energy industry, utilising surveys will enable the researcher to efficiently obtain insights from a significant number of customers. The quantitative nature of surveys aligns with the deductive approach to theory development chosen for this study, enhancing the capacity to test hypotheses and draw objective conclusions.

There are two time horizon modes: cross-sectional studies and longitudinal studies (Saunders et al. 2019). This study adopted a cross-sectional approach. This allowed the capture of data at a specific point in time, offering a snapshot of a particular phenomenon. This approach is appropriate because it allows for efficient data collection from the identified customers. Given the focus on exploring the factors influencing brand loyalty in the South African B2B solar industry, a cross-sectional study provided a timely and inclusive understanding of these dynamics.

1.10.5 Target population

A population encompasses individuals, objects, or elements with common attributes investigated within a research context (Rashid, Rasheed, Amirah, Yusof, Khan and Agha 2021). In research, it is the larger group from a drawn sample and represents the entities sharing specific traits that researchers aim to understand and analyse. The target population in this study is solar installation companies that purchase products from distributors in South Africa. More specifically, solar installation companies subscribed to IBC SOLAR South Africa (Pty) Ltd.'s newsletter via Mailchimp by a double opt-in process. According to the Protection of Personal Information Act, they shop via their online portal and/or follow their social media pages, including Facebook and LinkedIn. Table 1.1 provides a summary of the size of the target population based on the mentioned platforms. The average reach across the platforms and the size of the target population for this study is 2 307.

Concentrating on this population, the study sought insights, opinions, and emotions from individuals genuinely interested in the company's products and who have consented to communication. This approach ensured data relevance and ethical data collection. The chosen target population was vital for addressing research questions and objectives, as these customers possess prior interactions, providing valuable insights into brand loyalty.

Table 1.1: Target population

Platform	Subscribers	Organic reach
Mailchimp	1642	353
Online shop	1850	558
Facebook	4199	1910
LinkedIn	3548	6408
	Total reach	9229
	Average reach	2307

The sampling size was determined by using the historical evidence approach through a comparison of the sample sizes used in previous studies related to this study in combination with a sample size calculator (Khoza, Mafini and Okoumba 2022). The sample size is 330 based on the sample size calculator. This implies that to establish a 95% level of confidence that the actual value falls within a range of $\pm 5\%$ of the

measured or surveyed value, 330 or more measurements or surveys would be required (Calculator.net n.d.).

Furthermore, based on the data provided in Table 1.2 through the historical evidence approach, the anticipated sample size for this study is 390. This estimate is based on the sample sizes commonly used in similar previous research studies focused on BTL advertising and brand loyalty. Combining these two techniques, the average sample size for this study was determined to be 360 solar installation companies in South Africa.

Table 1.2: Sample size

Source	Sample size
Oh and Park (2020)	292
Akoglu and Özbek (2022)	385
Kwon, Jung, Choi and Kim (2021)	376
Rachmawati, Suliyanto and Suroso (2022)	500
Average	390

1.10.6 Sampling

Since this study did not have a sampling frame, it employed non-probability sampling, which relies on the researcher's judgment rather than equal chance (Zagheni and Weber 2015). This research specifically made use of convenience sampling. This technique involved selecting respondents from a population without ensuring equal chances for each individual to be included (Rashid et al. 2021). Furthermore, convenience sampling was chosen due to its efficiency in collecting data from readily available respondents, and its cost-effectiveness (Saunders et al. 2019; Obilor 2023). It was particularly suitable for this study due to the homogeneous nature of the target respondents, subscribers of IBC SOLAR's various platforms.

1.10.7 Data collection

1.10.7.1 Secondary research data

Secondary research data involves utilising existing information gathered and documented by other researchers or sources for purposes other than the current study. It entailed using data from sources such as high-impact published literature, reports, databases, and more to address research questions or gain

insights without collecting primary data (Hair, Risher, Sarstedt and Ringle 2019). To gather secondary data for this research, various sources such as research articles, books, and online platforms were employed. This information was utilised to perform a literature review, establish a theoretical framework and study background, and inform the design of the survey used for primary data collection.

1.10.7.2 Primary research data

Primary research data involved collecting original data from the target respondents (Taguchi 2018). To achieve this, a self-administered questionnaire based on existing literature was utilised. The survey was conducted among a minimum of 420 subscribers to IBC SOLAR's communication platforms from June to September 2024. This approach allowed for the direct capture of insights and viewpoints from respondents (Bryman 2016). The questionnaire was digitally distributed using Mailchimp Software, the same platform IBC SOLAR currently employs for sending newsletters, banners in the online shop, and Facebook and LinkedIn posts. It was also digitally completed at events such as technical product training. To ensure participant relevance, a thorough cross-referencing process between the newsletter database and the company's business central software was conducted. Additionally, an official data collection authorisation was secured from the IBC SOLAR managing director to ensure compliance.

1.10.7.3 Questionnaire design

The first page of the survey clearly outlined the research objectives and emphasised respondents' confidentiality and their right to withdraw at any point. This section also included informed consent information and screening questions to ensure the inclusion of customers who previously ordered from IBC SOLAR. Section A collected demographic information such as age, gender, years of experience in the solar industry, job title, geographic region, company size, the common brand installed, and frequency of purchasing from the brand. Section B assessed the impact of BTL advertising, competitive advantage, commitment, trust, and brand awareness on brand loyalty. A five and seven-point, strongly disagree/strongly agree, Likert scale was chosen for measurement in the survey due to its ability to provide nuanced and balanced responses. It allows respondents to express a wide range of opinions and attitudes, including neutral or ambivalent positions. This scale also aligns with psychometric principles and facilitates statistical analysis, making it a suitable choice for collecting data on various constructs and attitudes in survey research. Furthermore, to ensure robustness, multi-item measurement scales were used for each construct, addressing potential limitations associated with single-item measures (Hair,

Risher et al. 2019). All questionnaire items were adapted from existing literature to ensure content validity.

Furthermore, a pilot study was conducted on a sample of 30–40 solar installation companies. They participated in the pilot study to validate and refine the research questionnaire. This preliminary phase was essential for testing the survey's clarity, assessing the time required for completion, and confirming the ethical considerations in obtaining informed consent and ensuring participant confidentiality (In 2017). The pilot study addressed any potential issues or ambiguities in the survey instrument. This ensures that the final questionnaire was well-structured and effective in gathering data for the main study, ultimately enhancing the quality and reliability of the research findings.

1.10.8 Data analysis

The data analysis for this study involved multiple statistical techniques to ensure robust and accurate results. Descriptive statistics provided a concise summary of the data, illustrating the distribution and central tendencies of variables within the sample (Hapsari 2016). Frequencies, measures of central tendency, and variability assessments were employed to describe categorical variables and Likert scale data, offering insight into participant characteristics (Malhotra, Nunan and Birks 2017). To address potential bias, common method variance (CMV), which can distort relationships between variables, was performed using Harman's single-factor test. This widely accepted method checks whether a single factor explains more than 50% of the variance, which could indicate common method bias (Bozionelos and Simmering 2022). By mitigating CMV, the validity of findings, particularly in self-reported data from solar installation companies in South Africa, was preserved (Williams and McGonagle 2016).

Additionally, structural equation modelling (SEM), a second-generation statistical technique, was employed to examine the complex relationships among multiple variables. Structural equation modelling combines confirmatory factor analysis (CFA) with structural model analysis, allowing for the simultaneous estimation of multiple dependent and independent relationships, making it particularly suitable for research involving intricate constructs (Hair, Risher et al. 2019). The study used both reflective and formative measurement models. In reflective models, observed variables are seen as manifestations of underlying latent constructs, where changes in the latent variable cause changes in the observed variables (Hair, Risher et al. 2019). In contrast, formative models assume that the observed indicators collectively form the latent construct, as seen in the BTL advertising construct, which includes sub-dimensions like

direct mail, social media, and display advertising, each contributing uniquely to the overall construct (Baumgartner and Weijters 2017).

Given the use of two different Likert scales for data collection, standardisation of scores was necessary before conducting SEM analysis. This ensured that variables from different scales were comparable, enhancing the clarity of relationships by removing scale unit influences and centring the data around the mean (Malhotra, Nunan et al. 2017). The SEM process also included assessments of reliability and validity for both reflective and formative constructs. Reliability in reflective constructs was measured through Cronbach's alpha and composite reliability, while convergent and discriminant validity were established through the average variance extracted (AVE) and the heterotrait-monotrait ratio (HTMT) respectively (Hair, Risher et al. 2019). For formative constructs, validity was assessed through redundancy analysis, the significance of the outer loadings and the variance inflation factor (VIF) to confirm acceptable levels of multicollinearity (Marcoulides and Raykov 2019).

Lastly, a structural model analysis was performed to test the research hypotheses. The strength and significance of various paths were evaluated, along with the model's explanatory power, using the coefficient of determination. The study utilised both *R*-squared (R^2) and *f*-squared (f^2) metrics. The R^2 values close to 0.50 indicate moderate to substantial explanatory power (Gao, Siddik, Khawar Abbas, Hamayun, Masukujjaman and Alam 2023). Additionally, the predictive accuracy of the conceptual framework was assessed using *Q*-squared (Q^2). The Q^2 values above zero indicate that the model's predictions can be generalised to similar populations (Akbari, Bahrami, Bidgoli, Karamali and Hosseini 2023). These metrics confirmed the robustness of the model in predicting brand loyalty among solar installation companies.

1.11 Contribution of the study

This study provides both theoretical and practical contributions to the fields of BTL advertising and brand loyalty within the solar industry. The theoretical contributions are outlined as follows:

- The first theoretical contribution is the creation of an integrative theoretical framework addressing the fragmentation in the existing literature. Current research often treats competitive advantage (Correia et al. 2021), commitment (Ribeiro et al. 2022), trust (Hanaysha 2022), and brand awareness as separate elements, leading to a fragmented understanding of the relationship between BTL advertising and brand loyalty. This study proposes a comprehensive

framework that integrates these elements, considering their mediating and moderating roles. This framework bridges the gap in the existing literature by providing a holistic view of how BTL advertising influences brand loyalty. It integrates competitive advantage (Shan et al. 2019; Nayak et al. 2023), and relational dynamics (commitment and trust) (Pascual-Ferrá 2021; Alcántara-Pilar et al. 2024), with brand awareness (Bernarto et al. 2020) moderating these relationships. This offers a more nuanced understanding of the interplay between these factors.

- The second theoretical contribution lies in the novel conceptualisation and empirical assessment of BTL advertising including direct mail (Bly 2019), social media advertising (Dwivedi, Ismagilova, Hughes, Carlson, Filieri et al. 2021), and display advertising (Filiopoulou, Rigou and Faliagka 2019) as second-order formative subdimensions of advertising. While previous studies have identified these as distinct advertising forms, this study is the first to theoretically group them and test their formative explanation advertising within the B2B solar industry (Swani et al. 2020; Qader et al. 2022; Indeed Editorial Team 2023). The formative assessment enables a clearer identification of which advertising forms have the most significant influence in this context, offering valuable insights for both academics and practitioners in targeted B2B marketing strategies.
- The third major contribution of this research is its examination of the complexities of brand loyalty as a consumer behaviour. While traditional models typically regard brand awareness as a simple predictor of brand loyalty, this study identifies a more complex role (Malik 2020). It reveals that brand awareness acts as a moderator in the relationships between BTL advertising and brand loyalty through competitive advantage, trust, and commitment. More specifically, the research highlights the moderated mediation effect of brand awareness, illustrating how it influences the strength of these relationships. This challenges the simplistic notion that brand awareness solely drives loyalty.
- This study contributes to the literature on brand loyalty by providing a unique conceptual model, which holistically delineates the factors impacting brand loyalty in a B2B context within the solar industry. Many existing brand loyalty models lack a foundation in well-established theories. This study proposes a brand loyalty framework integrated with multiple theoretical perspectives to form a robust theoretical foundation for understanding brand loyalty. Specifically, it combines insights from the B2B advertising effects model, brand equity theory, RBT, and CTT. The integration of these theories is essential to comprehensively understand and improve brand

loyalty, as it addresses the cognitive and emotional processes associated with advertising (B2B advertising effects model) (Cortez et al. 2020), brand awareness and loyalty (brand equity theory) (Bernarto et al. 2020), internal resource dynamics influencing competitive advantage (RBT) (Shan et al. 2019; Nayak et al. 2023), and the interpersonal dynamics that shape commitment and trust between parties (CTT) (Pascual-Ferrá 2021; Alcántara-Pilar et al. 2024). By incorporating cognitive and emotional processes, internal resources and capabilities, and interpersonal dynamics, this integrated approach offers a comprehensive understanding of brand loyalty. This dynamic interplay is crucial for enhancing brand loyalty within the solar industry, where these dynamics are particularly valuable for B2B distributors.

- The brand equity theory faces a constraint in its portrayal of brand equity as static, prompting a suggestion for a more dynamic grasp of advertising effects on brand loyalty. The narrow focus on media-specific influences constrains the B2B advertising effects model. This somewhat disregards the broader contextual factors that affect decision-making in a B2B context, such as competitive advantage (Swani et al. 2020). To address this, the recommendation is to incorporate insights from theories such as RBT for a more inclusive understanding. The RBT is limited by its static resource view, and it is advised to integrate perspectives considering the interplay between a firm's internal resources and the external environment (Acar and Polin 2015). The CTT faces a limitation in evaluating the impact of competitive advantage on brand loyalty, prompting the integration of additional perspectives such as the RBT (Lewicka and Krot 2015). This multi-theory approach offers a more detailed perspective on the impact of BTL advertising on brand loyalty. It underlines the need to include competitive advantage, commitment, trust, and brand awareness for effective brand loyalty through BTL advertising.

Regarding practical contributions, this study aims to achieve the following:

- The first practical contribution lies in the creation of a comprehensive BTL advertising strategy framework tailored for B2B distributors in the solar industry. This framework integrates insights from the B2B advertising effects model, the RBT, the CTT, and the brand equity theory. It provides a structured approach for companies to design BTL advertising campaigns that not only enhance brand awareness but also foster competitive advantage, commitment, and trust. By doing so, companies can effectively improve brand loyalty, leading to sustained business growth. This

framework can serve as a valuable guide for marketing practitioners in the solar industry, helping them navigate the complexities of B2B advertising and achieve better outcomes.

- This study provides valuable insights into the key factors driving brand loyalty among B2B customers in the solar industry. Solar industry firms can use this information to develop targeted marketing campaigns and strategies that leverage the most influential factors. By focusing on these key drivers, companies can create BTL advertising initiatives that effectively enhance customer commitment, trust, and competitive advantage, ultimately reinforcing brand loyalty in their respective markets. This contribution offers a practical approach for marketers to understand and address the specific needs and preferences of their B2B customers, leading to more effective brand loyalty initiatives.
- The study's assessment of the moderating effect of brand awareness on the relationship between BTL advertising and brand loyalty provides critical insights for B2B distributors in the solar industry. By understanding how brand awareness influences the effectiveness of BTL advertising efforts, companies can reevaluate their branding strategies to optimise outcomes. If high brand awareness strengthens the relationship between BTL advertising and brand loyalty, firms with low brand awareness may need to invest more in brand-building activities. Conversely, if lower brand awareness proves more effective in certain contexts, companies with strong brand presence might need to adjust their BTL advertising focus to better leverage this dynamic. This contribution offers a practical tool for marketers to fine-tune their strategies based on the nuanced role of brand awareness in enhancing brand loyalty.
- Managers in the solar industry can expect significant benefits from this research through the integration of multiple theoretical perspectives, offering a well-rounded understanding of the factors influencing brand loyalty. The comprehensive framework developed in this study equips managers with actionable insights into the interconnected roles of competitive advantage, commitment, trust, and brand awareness in driving brand loyalty. This integrated perspective enables managers to make informed decisions regarding resource allocation, advertising strategies, and relationship management. By applying these insights, managers can develop better marketing plans that not only enhance brand loyalty but also improve overall business performance. This practical contribution empowers managers with the knowledge to create

targeted, data-driven strategies, ultimately leading to stronger customer relationships and sustained competitive advantage.

1.12 Ethical considerations

This study adhered to the ethical requirements stipulated by the University of the Free State's Research Ethics Committee and diligently followed ethical considerations to safeguard the well-being of the research respondents, the researcher, the researcher's institution, and the broader environment. The study maintained a set of standards that included:

1.12.1 Permission to conduct the study

IBC SOLAR South Africa (Pty) Ltd, which possessed a customer database with individuals who had completed a two-factor opt-in process for communication, gave permission for this study. This authorisation allowed the researcher to gather data through various online channels including Facebook, LinkedIn, online shop, and Mailchimp. Ensuring permission from IBC SOLAR facilitated collaboration with the relevant organisations.

1.12.2 Informed consent

The participating respondents, who were solar installation companies, gave their informed consent to the researcher before they participated in the study, following established ethical guidelines (Ørngreen and Levinsen 2017). Informed consent is a fundamental ethical principle to ensure respondents understand their voluntary participation rights.

1.12.3 Right to withdraw

The research respondents had the option to withdraw from participating in the study without facing any inquiries or jeopardising their affiliation with IBC SOLAR. However, it was communicated to the solar installation companies that once they had completed and submitted the questionnaire, they would not have the opportunity to withdraw their responses. This approach offered respondents the flexibility to opt-out if they chose to do so while also ensuring that data already submitted was retained for analysis.

1.12.4 Right to anonymity and confidentiality

To safeguard the privacy and confidentiality of respondents, all data collected was anonymised and kept strictly confidential. The researcher ensured the creation of an online format for the research data, without any link to solar installation companies. The identities of respondents and their affiliated institutions were not disclosed in any reports or publications (Creswell and Clark 2017). This approach maintained the privacy and confidentiality of the respondents.

1.12.5 Data storage

The collected data was securely stored in a locked cabinet with controlled access, while electronic data was safeguarded on a password-protected computer for five years. The researcher will dispose of the data after these five years, ensuring long-term confidentiality.

1.12.6 Researcher's contact details

The researcher shared their contact information, including email and phone number, with the research respondents to provide them with a means of reaching out to the researcher if they had any questions or concerns related to the research.

1.12.7 Psychological risk

The research respondents were not exposed to any psychological risks during the study, except for the potential time loss required to complete the questionnaire. To mitigate this risk, respondents were encouraged to fill out the questionnaire at their convenience during their free time.

1.12.8 Data collection instrument

The data collection instrument used in this study underwent an ethics clearance process for approval. This step ensures that the research adheres to ethical guidelines and safeguards the rights and well-being of the respondents.

Lastly, this study adhered to the ethical guidelines and procedures established by the University of the Free State Ethics Committee, which ensures the ethical conduct of research involving human subjects. Adherence to such guidelines is crucial to maintain the integrity of the study (Bryman 2016). The next section will provide a summary of this chapter.

1.13 Thesis outline

The proposed study will comprise seven chapters, each addressing specific objectives crucial to the research's overall aim. These chapters collectively provide a structured approach to exploring the link between BTL advertising and brand loyalty in the solar industry. Table 1.3 provides a detailed outline of the study, summarising each chapter's title and objective.

Table 1.3: Outline of the thesis

Chapter	Title	Objective
1	Introduction to the study	To provide an introduction and background to the study.
2	Context on advertising and brand loyalty in the solar industry	To stipulate a global and regional perspective on BTL advertising and brand loyalty in the solar industry.
3	Theoretical framework	To provide a theoretical framework on B2B marketing and brand loyalty theories applied in the study.
4	Development of the conceptual model and hypotheses development	To create a conceptual framework to achieve the primary objective of the research.
5	Research methodology and design	To present a summary of the methodology that was employed to achieve the primary objective of the study.
6	Data analysis	To provide the results of the data analysis and discuss the research findings.
7	Overview, recommendations, limitations and conclusions	To derive conclusions and insights from the outcomes of data analysis and establish both theoretical and practical implications based on the findings.

1.14 Chapter summary

This chapter provided an overview of the study as displayed in Table 1.3. The discussion included the background to the study followed by an overview of how the literature on BTL advertising, brand loyalty, brand awareness, commitment, trust, and competitive advantage have developed. This was followed by the formation of a problem statement and the identification of the research questions and objectives of the study. The theories supporting these constructs, model and hypotheses development, contribution of the study and the methodology of the study have also been discussed.

CHAPTER 2

CONTEXT ON ADVERTISING AND BRAND LOYALTY IN THE SOLAR INDUSTRY

2.1 Chapter overview

Chapter 1 laid the groundwork by outlining the overarching background, establishing a solid foundation for the necessity of this research. This chapter aims to delve deeper into the context of the study, exploring the dynamics of the solar industry across various global regions, with a particular emphasis on South Africa, which is the central point of interest for this investigation. Additionally, this chapter will discuss the state of competition encountered in the South African B2B solar industry and the need to foster brand loyalty to guarantee survival.

2.2 Introduction

The evolution of the solar industry signifies a crucial intersection of innovation, policy incentives, and a collective environmental ethos. Hence, catalysing its emergence as a cornerstone in the renewable energy domain globally (Zohuri 2023). As the world pivots towards sustainable energy sources, South Africa's solar sector has experienced exponential growth. This is indicative of its pivotal role within the African continent and its substantial contribution to global energy outputs (TechCentral 2024). This growth is underpinned by historical advancements in PV technology dating back to the nineteenth century, which laid the foundational principles for utilising solar energy (Richardson 2023). These principles have since been enhanced through technological and efficiency improvements, steering solar power to the vanguard of sustainable energy solutions (Chariot Energy 2024).

In B2B marketing, brand loyalty emerges as a critical differentiator due to the complex and extended decision-making processes characteristic of this sector (Hutt and Speh 2010). It contributes to market stability, enabling firms to weather price sensitivities and enhance client retention through effective cross-selling and upselling strategies (Wang et al. 2016; Rane et al. 2023). Furthermore, success relies heavily on integrating technological innovations with strong relationship-building initiatives. Presently, the focus on brand loyalty within the solar industry, particularly in the B2B sector, is intensifying. This emphasis is primarily due to its potential to ensure consistent quality and reliability in products, which are critical for maintaining trust and satisfaction among customers (Khadka and Maharjan 2017; Rane

et al. 2023). Additionally, strong brand loyalty facilitates effective collaborations between solar distributors and installation companies, helping them navigate market challenges and capitalise on emerging opportunities efficiently. Moreover, it contributes to operational efficiencies through favourable trade terms, enhanced support services, and cost optimisations, which are vital for sustaining competitive advantages in the market (Jerab and Mabrouk 2023).

This chapter provides a comprehensive examination of the B2B solar industry, with a particular focus on South Africa. It seeks to elucidate the diverse BTL advertising strategies employed across different continents, emphasising the distinct challenges and opportunities within the African context. By analysing global approaches to brand loyalty and BTL advertising efficacy, the chapter aims to unveil how these factors shape B2B relationships and market dynamics in the solar sector. The investigation extends to the unique setting of South Africa, offering insights into the local industry's adaptation to global trends and its impact on competitive strategies. This approach not only enriches our understanding of the solar industry's global landscape but also highlights the strategic adaptations necessary for thriving within the South African market. Through detailed analysis, this chapter aims to provide a contextual framework that supports B2B distributors in the solar industry as they navigate the complexities of a competitive and evolving global marketplace.

2.3 Definition of business-to-business marketing

This study is presented in the context of B2B marketing within the solar industry. It is, therefore, for this reason that this section dwells in the evaluation of the B2B marketing concept. Business-to-business marketing focuses on transactions between businesses, such as between manufacturers and wholesalers. It involves complex decision-making processes and longer sales cycles. Various studies provide different perspectives on B2B marketing, highlighting its transactional, procedural, and strategic elements (Steward, Narus, Roehm and Ritz 2019; Kingshott, Sharma and Nair 2020; Pedersen, Ellegaard and Kragh 2020). This section will explore these definitions, providing a foundation for understanding the intricate processes and strategies that drive B2B marketing.

The definitions of B2B marketing from various studies present several perspectives. Kotler and Keller (2016) describe it as involving transactions between businesses, such as between a manufacturer and a wholesaler. Fill and Turnbull (2016) define B2B marketing as the process of one business marketing products or services to another business. Webster and Lusch (2013) focus on the exchange of goods and services between businesses rather than between a business and individual consumer. Anderson, Narus

and Van Rossum (2006) highlight B2B marketing strategies that involve the creation and delivery of value propositions between businesses. Brennan (2016) characterises B2B marketing as complex decision-making processes and longer sales cycles. These definitions collectively underscore the transactional, procedural, strategic, and complex nature of B2B marketing.

When examining Kotler and Keller (2016), one can identify several key concepts integral to B2B marketing: transactions between businesses, and the involvement of manufacturers and wholesalers. This notion of transactions is echoed by Anderson et al. (2006), who also underscore the importance of transactions between businesses. Furthermore, Hutt and Speh (2010) align with this perspective, highlighting the roles of manufacturers and wholesalers in B2B transactions. These consistencies among the studies underline a shared understanding of the fundamental transactional nature of B2B marketing.

However, divergences also exist. For instance, Fill and Turnbull (2016) focus more on the process of marketing products and services between businesses, which is a perspective shared by Brennan (2016). This emphasis on the procedural aspect contrasts with Kotler and Keller's (2016), who have a more static view of transactions. Additionally, while Webster and Lusch (2013) and Quero, Díaz-Méndez and Gummesson (2020) highlight the exchange of goods and services as central to B2B marketing, Kotler and Keller (2016) do not explicitly delve into the concept of exchange in their definition.

Strategic elements and value propositions are well-articulated by Anderson et al. (2006) and Kotler and Keller (2016), but Hutt and Speh (2010) extend this by focusing on the strategic importance of value propositions in B2B relationships. Conversely, this strategic nuance is less evident in Fill and Turnbull's (2016) definition, which centres more on the marketing process itself. Moreover, Brennan (2016) and Sheth and Sharma (2005) bring attention to the complexity of the decision-making processes and the extended nature of sales cycles in B2B marketing. This aspect of complexity and duration is notably absent in Kotler and Keller's (2016) definition, suggesting a gap in addressing the intricate and prolonged nature of B2B transactions.

In summary, while Kotler and Keller (2016) provide a foundational perspective on B2B marketing transactions, their definition lacks the procedural and strategic depth found in other studies. This indicates a need for a more comprehensive understanding that incorporates the dynamic processes and strategic considerations inherent in B2B marketing. Therefore, a new definition for this study on advertising in B2B marketing can be formulated as follows:

B2B marketing encompasses the strategic processes and transactions between businesses, particularly involving the marketing of products and services from manufacturers to wholesalers.

This field is characterised by complex decision-making processes, extended sales cycles, and the creation and delivery of value propositions. The exchange of goods and services, rather than transactions with individual customers, is central to B2B marketing, highlighting the importance of strategic planning and relationship management in fostering effective B2B interactions. To enhance further understanding of B2B marketing, its characteristics are presented next.

2.3.1 Business-to-business marketing characteristics

Business-to-business marketing is distinguished by its focus on direct relationships between businesses, where products or services are sold not to individual customers but to other companies (Grewal, Lilien, Petersen and Wuyts 2022). This marketing domain is characterised by several distinctive features that influence how marketing strategies are developed and executed. These features include: complex decision-making processes (Shankar, Kumar, Behl, Pereira and Budhwar 2024), a strong emphasis on relationship building (Glinska-Newes, Escher, Brzustewicz, Szostek and Petrykowska 2018), the critical role of educational content (Highby 2024), and the need for customised solutions (Madhavaram and Hunt 2017). Understanding these characteristics is essential for marketers aiming to navigate the B2B landscape effectively.

In B2B marketing, complex decision-making processes involve multifaceted procedures guiding purchasing choices (Shankar et al. 2024). Unlike consumer decisions, B2B purchases are structured and involve various stakeholders, impacting organisational operations (Boyd and Koles 2019). These decisions significantly influence competitiveness, efficiency, and financial outcomes. The process includes need recognition, solution exploration, evaluation, and final decision stages. Businesses scrutinise solutions against strategic, operational, and financial objectives (Edunjobi 2024a). Decision-making units, comprising individuals from different functional areas, add complexity (Pérez Vergara, Sánchez, Poveda-Bautista and Diego-Mas 2020). Marketers must tailor communications to address diverse stakeholder concerns effectively.

The relationship-focused approach distinguishes B2B marketing from consumer marketing, emphasising the cultivation of enduring partnerships (Glinska-Newes et al. 2018). These partnerships extend beyond mere transactions, yielding mutual benefits such as enhanced business performance and profitability. Effective B2B marketing hinges on consistent communication, understanding customers' challenges, and

delivering value beyond the product (Wirtz and Kowalkowski 2023). Notably, B2B marketing prioritises customer service, personalised solutions, and support to enrich the value proposition. The significance of relationships in B2B marketing stems from the intertwined nature of businesses, complex products or services, and substantial transaction values (Soltani 2022). Trust emerges as pivotal, underpinning successful business relationships by fostering reliability and integrity (Connelly, Crook, Combs, Ketchen and Aguinis 2018). Trust enables transparent communication, mitigates transaction risks, and aids in conflict resolution, culminating in sustained business success through enduring partnerships.

Educational content is pivotal in B2B marketing, shifting focus from mere promotion to providing value-added information aiding decision-making (Highby 2024). Unlike business-to-consumer marketing, B2B marketing emphasises logical, information-driven decisions (Rėklaitis and Pilelienė 2019). This is crucial due to the complexity of B2B products, demanding deeper purchaser understanding. Content such as whitepapers, webinars, and blogs address stakeholders' needs, positioning businesses as industry leaders (Mero, Vanninen and Keränen 2023). It aids customers in recognising needs and effective solutions, fostering ongoing engagement (Kotler and Keller 2016). As decision-makers consume content, they incline towards credible providers, enhancing trust and competitive advantage (Gupta, Gupta and Dhir 2020). Educational content integrates into the product offering, adding unmatched value.

Customised solutions are fundamental in B2B marketing, addressing individual business client needs (Madhavaram and Hunt 2017). Unlike mass-market products, B2B offerings are tailored to client specifics, impacting operational efficiency and competitiveness. Business-to-business marketers understand customers' industry challenges, proposing solutions through consultative relationships (Kaski, Niemi and Pullins 2018). This approach requires partnership and collaboration, focusing on client success. Customisation extends to the entire customer experience, enhancing satisfaction and loyalty (Kotler and Keller 2016). In crowded markets, tailored solutions differentiate businesses and build trust (Edunjobi 2024b). The consultative approach fosters credibility, driving retention and referrals.

Business-to-business marketing stands out for its emphasis on customer relationships and the sale of products or services to other businesses, underpinned by a set of distinctive characteristics influencing marketing strategies (Grewal et al. 2022). Understanding the complexity of decision-making processes, the importance of relationship building, the role of educational content, and the necessity for customised solutions are essential for navigating the B2B landscape effectively (Madhavaram and Hunt 2017; Glinska-Newes et al. 2018; Highby 2024; Shankar et al. 2024). By embracing these unique features and tailoring

strategies accordingly, marketers can foster enduring partnerships, drive business growth, and achieve sustained success in the B2B realm. To narrow the focus to the specific study context, the next section discusses the evolution of the solar industry.

2.4 Evolution of the solar industry

The emergence of the solar industry as a cornerstone of the global renewable energy sector represents a significant convergence of technological innovation, environmental consciousness, and policy-driven incentives (Zohuri 2023). This evolution is rooted deeply in the nineteenth century, with the foundational discoveries in PV technology, which established the scientific principles necessary for harnessing solar energy (Richardson 2023). Over the years, advances in materials science, efficiency enhancements, and integration techniques have refined and augmented these principles, propelling solar power to the forefront of sustainable energy solutions.

The theoretical underpinnings of the solar industry began with the discovery of the PV effect by French physicist Edmond Becquerel in 1839 (Fraas 2014). Becquerel observed that certain materials could produce an electric current when exposed to sunlight, a phenomenon that constituted the first known instance of solar energy conversion into electricity (Sudhakar, Selvakumar and Khrishna Bhat 2018). This discovery, although groundbreaking, remained a scientific curiosity for decades, largely due to the inefficiency of early materials and the dominance of fossil fuels. The development of the solar industry took a significant leap forward in 1954, when scientists at Bell Laboratories in the United States created the first practical silicon solar cell (Gross, Hanna, Gambhir, Heptonstall and Speirs 2018). The advent of silicon solar cells marked the transition of solar technology from laboratory curiosity to a potential energy source, prompting further research and development efforts.

The oil crisis of the 1970s acted as a catalyst for the solar industry (Suckert and Ergen 2022). Skyrocketing oil prices and growing concerns about energy security prompted governments around the world to explore alternative energy sources, including solar power (Magazzino and Giolli 2024). This period saw significant policy and investment initiatives aimed at reducing dependency on fossil fuels and fostering the growth of renewable energy technologies. In the United States, for example, the Solar Energy Research, Development, and Demonstration Act of 1974 provided federal support for solar energy research and development, signalling a commitment to the industry's growth (United States, House of Representatives 1974; Carey 2021).

Throughout the 1980s and 1990s, advances in material science and manufacturing processes led to significant improvements in solar cell efficiency and reductions in production costs (Saga 2010; Machín and Márquez 2024). These developments, coupled with increasing environmental awareness and policy support, facilitated the gradual commercialisation of solar technology. Government incentives in countries such as Japan, Germany, and the United States played a crucial role in this process, offering subsidies, tax credits, and feed-in tariffs to encourage the adoption of solar energy (Yamamoto 2017; Jaeger-Waldau 2019).

The early twenty-first century witnessed exponential growth in the solar industry, driven by further technological advancements, economies of scale, and a global push towards sustainability. The cost of solar PV installations dropped dramatically, making solar energy increasingly competitive with conventional energy sources. According to the International Renewable Energy Agency ([IRENA] 2021), the cost of solar PV power declined by 82% between 2010 and 2019. A trend that has significantly influenced the industry's expansion. Furthermore, the Paris Agreement of 2015, an international treaty on climate change, emphasised the global commitment to reducing greenhouse gas emissions. It also highlighted the importance of renewable energy, such as solar power, in achieving these objectives (United Nations Framework Convention on Climate Change 2016). This agreement, ratified by 196 parties, has been instrumental in accelerating investments in renewable energy technologies and fostering a favourable policy environment for the solar industry's growth.

Today, the solar industry stands at the forefront of the renewable energy revolution, contributing significantly to global energy production and playing a pivotal role in mitigating climate change (Chariot Energy 2024). The industry's journey from simple nineteenth-century experiments to becoming a primary source of clean energy highlights the impact of several key factors. These include technological innovation, robust policy support, and a strong societal commitment to sustainable development. The next section discusses the solar industry globally.

2.5 Solar industry across the world

This section seeks to offer a global perspective on the solar industry. Accordingly, attention is given to exploring the solar sector across Europe, North America, Asia, Oceania, South America, and Africa. The following discussion will centre on Europe.

2.5.1 Solar industry in Europe

The solar industry in Europe's remarkable journey through 2023, showcasing a significant 40% market growth, reflects not just the sector's dynamism but also Europe's broader commitment to renewable energy and sustainability. This growth, as outlined by Hemetsberger, Acke and Schmela (2023), underscores the continent's ambitious stride towards a net-zero future by 2050, as well as emphasises the critical role of renewable sources in reshaping Europe's energy landscape. The strategic elevation of solar targets by the European Union to 320 GWAC (400 GWDC) by 2025 is a testament to the sector's alignment with market expectations and its vast potential (Hemetsberger et al. 2023). This narrative is further enriched by the broader European context, where over 40% of the European Union's energy consumption in 2021 emanated from renewable sources, showcasing the region's leadership in green energy adoption (Limb 2023).

Moreover, the solar sector's legislative progress, highlighted by Hemetsberger et al. (2023), through initiatives such as the Renewable Energy Directive, showcases efforts to enhance the regulatory framework supporting solar energy. These advancements, aimed at addressing the challenges of solar energy integration into Europe's energy system, mirror a broader commitment to ensuring clean, affordable, and secure energy (Maka and Alabid 2022). Such legislative support, coupled with the solar industry's growth and strategic marketing efforts, underscores the synergistic push towards realising Europe's green energy ambitions. In essence, the flourishing solar industry in Europe, buoyed by strategic growth, legislative support, and nuanced advertising strategies, encapsulates the continent's drive towards sustainability. The intersection of market growth, consumer consciousness, and regulatory advancements paints a promising future for the solar industry and renewable energy adoption in Europe. This heralds a sustainable path towards the continent's ambitious energy and environmental goals.

Germany has been a trailblazer in Europe's renewable energy transition, with a significant emphasis on solar power. The country's *Energiewende* (energy transition) policy has set ambitious targets for renewable energy, aiming to increase its renewable energy share (Borden and Stonington 2014; World Economic Forum 2023). Germany's solar industry benefits from robust government support, leading to the installation of substantial solar PV capacity. The country accounted for a significant share of Europe's solar market growth, demonstrating its commitment to achieving a sustainable energy future (Hemetsberger et al. 2023). This commitment is reflected in the widespread adoption of solar

technologies across residential, commercial, and industrial sectors, making Germany a model for solar energy adoption in Europe (Wehrmann 2024).

Southeastern Europe, a region historically reliant on fossil fuels, has recently seen a surge in solar energy investments (Alkholidi and Hamam 2019). The geographical area, blessed with high solar irradiance, presents an untapped potential for solar power generation. Countries such as Greece, Bulgaria, and Romania have begun to harness this potential, driven by European Union renewable energy directives and the allure of decreasing solar technology costs (IRENA 2018; Solar Power Europe 2024). This shift is critical for the region's energy security and alignment with European Union-wide goals for carbon neutrality. The European Bank for Reconstruction and Development has played a significant role in financing solar projects in southeastern Europe. This underscores the region's growing significance in Europe's solar energy landscape (Cahill and Dawes 2022; Pyrkalo 2023).

Spain's solar energy sector has witnessed a renaissance following the removal of the so-called "sun tax" and the introduction of more favourable policies for solar PV installations (Leal-Arcas, Akondo and Rios 2019). The country's vast plains and high solar insolation rates make it an ideal location for both PV and concentrated solar power plants. Spain's National Energy and Climate Plan aims for a considerable increase in renewable energy capacity by 2030, with solar energy playing a pivotal role in this expansion (Santos 2024). The Spanish government's support for solar energy, coupled with significant investments in solar technology, positions Spain as a leading contributor to Europe's solar energy goals (Shirazi and Syed 2012; REGlobal 2024).

Scandinavia, despite its northerly latitude, has made significant strides in solar energy adoption. Countries such as Sweden and Denmark have effectively integrated solar power into their renewable energy portfolios, complementing their already strong wind energy sector (Huber, Dimkova and Hamacher 2014). The Scandinavian approach emphasises energy efficiency and the diversification of energy sources. Government incentives, such as tax breaks and subsidies for solar panel installations, alongside innovative community solar projects, have spurred solar energy growth in the region (Mundaca and Samahita 2020). This adoption demonstrates the viability of solar energy even in less sunny climates, contributing to the broader European renewable energy targets.

Russia, with its vast territory and significant energy resources, has been slow in adopting renewable energy, including solar power (Lanshina, Laitner, Potashnikov and Barinova 2018). The country's vast oil and gas reserves have historically overshadowed the development of renewable energy sources.

However, recent initiatives have indicated a shift towards exploring the potential of solar energy, particularly in remote and off-grid areas where traditional energy infrastructure is costly. The Russian government has launched several pilot projects to harness solar energy in Siberia and the Russian Far East, areas with significant solar potential during the summer months (Smith 2021). While Russia's contribution to Europe's solar energy market is still modest, these developments signal a growing recognition of renewable energy's importance in diversifying the energy mix and reducing carbon emissions.

2.5.2 Solar industry in North America

In North America, a significant evolution over the past decade marks the solar industry, primarily fuelled by technological advancements, cost reductions, increasing environmental awareness, and supportive governmental policies. These factors collectively contribute to the substantial growth and widespread adoption of solar energy across the region. Mordor Intelligence Research and Advisory (2023b) highlights the importance of these drivers, particularly for B2B distributors that are navigating the expanding solar market. The United States, in particular, is poised to maintain its leading position due to its higher electricity consumption rates, offering fertile ground for solar energy adoption.

As of 2021, the United States reached a milestone of 100 GW of installed solar capacity, highlighting its fast-growing solar sector (Solar Energy Industries Association 2021). The solar industry in the United States stands out as a beacon of innovation and growth, significantly contributing to the nation's energy mix (O'Rourke 2023). The United States stands out due to its substantial electricity consumption and the aggressive adoption of solar energy solutions. This rapid expansion is supported by a combination of federal incentives, technological advancements, and increasing public demand for sustainable energy sources (Tabassum, Rahman, Islam, Rahman, Dipte, Roy, Mohammad, Nawar and Hossain 2021). The Solar Energy Industries Association (2021) reports that the United States has achieved an impressive milestone of 100 GW of installed solar capacity as of 2021. This underscores the country's rapid adoption and support for solar energy. The emphasis on solar energy not only reflects an effort to reduce dependence on fossil fuels but also aligns with the nation's broader environmental goals, offering a template for sustainable development.

Canada's solar industry has seen considerable growth, particularly in Ontario and Alberta, as reported by the Canadian Renewable Energy Association (2024). Despite being smaller in comparison, Canada's solar sector has experienced significant growth, characterised by its focus on sustainability and the integration

of solar energy into the national energy portfolio, especially in provinces such as Ontario and Alberta (Canadian Renewable Energy Association 2024). The Canadian Renewable Energy Association (2024) further reports a steady increase in solar installations, highlighting the country's commitment to expanding its renewable energy footprint. This growth is supported by provincial incentives, public-private partnerships, and a societal push towards greener energy sources (Generation Energy 2018; Lu, Khan, Alvarez-Alvarado, Zhang, Huang and Imran 2020). The Canadian approach to solar energy underscores the importance of localised strategies and the potential for solar power to contribute significantly to the country's energy diversity and security.

Across North America, the solar industry is experiencing a transformative period marked by rapid growth, technological innovation, and a shift towards sustainability. This region's commitment to renewable energy is evident in the substantial investments in solar technology, the implementation of supportive policies, and the active engagement of both the public and private sectors in promoting solar adoption. The Solar Energy Industries Association (2021) and the Canadian Renewable Energy Association (2024) both highlight the dynamic nature of the solar market in North America, emphasising the industry's potential to not only meet but exceed future energy demands. The collaboration between the United States and Canada in the renewable energy sector signifies a strong regional alliance. This alliance champions environmental stewardship, economic growth, and energy independence, setting a global benchmark for renewable energy adoption and integration.

2.5.3 Solar industry in Asia

The solar industry in Asia is undergoing a remarkable period of growth, bolstered by heightened awareness of renewable energy benefits and a global urgency to combat climate change (Sucahyo 2022). Nations such as China, India, and Japan are spearheading this movement, capitalising on their advanced technologies and significant investments in solar infrastructure (Fruman and Gupta 2023; Hassan, Algburi, Sameen, Al-Musawi, Al-Jiboory, Salman, Mahmood Ali and Jaszczur 2024). This growth mirrors the global trend towards sustainable energy, positioning Asia as a leader in solar technology innovation and implementation (Minazhova, Akhambayev, Shalabayev, Bekbayev, Kozhageldi and Tvaronavičienė 2023). As Asian countries lead the charge, European nations are seeing a decline in their solar industry rankings. This highlights the importance for B2B distributors to stay attuned to market trends across different regions (Kesari et al. 2021).

China stands at the forefront of the global solar industry, leading in both the manufacturing and deployment of solar panels (Mamchii 2023; Bradsher 2024). The nation's commitment to renewable energy is underscored by its ambitious targets for solar power generation, aiming to significantly increase its solar capacity in the coming years. This drive is part of China's broader strategy to achieve carbon neutrality by 2060, with solar energy playing a key role in this transition (Hepburn, Qi, Stern, Ward, Xie and Zenghelis 2021). The Chinese government's supportive policies and subsidies have been instrumental in this rapid development, positioning China as a global leader in solar technology and innovation (Fan, Wang, Wei and Zhang 2018).

Malaysia is emerging as a significant player in the solar industry within Southeast Asia, thanks to its favourable geographic location and government incentives (Lau, Choong, Ching, Wei, Senadjki, Choong and Seow 2022; IRENA 2023). The Malaysian government has implemented various policies to encourage solar energy adoption, including feed-in tariffs and net metering programmes (Lau et al. 2022). These initiatives aim to increase the share of renewable energy in the national energy mix, with a particular focus on solar power. Malaysia's solar industry is also benefiting from investments in solar manufacturing and research, contributing to the country's economic growth and sustainability objectives (Vaka, Walvekar, Rasheed and Khalid 2020).

Vietnam has witnessed a remarkable surge in solar power capacity, becoming one of the leading solar markets in Southeast Asia. This growth has been fuelled by attractive feed-in tariffs introduced by the government, which have incentivised both domestic and foreign investments in the solar sector (Do, Burke, Nguyen, Overland, Suryadi, Swandaru and Yurnaidi 2021; Govindarajan, Bin Mohideen Batcha and Abdullah 2023). Vietnam's solar boom is part of its broader strategy to meet increasing energy demand while reducing dependence on fossil fuels. The country's ambitious renewable energy targets reflect its commitment to sustainable development and climate change mitigation (Hirsch and Vezprémi 2021).

Jakarta, the capital city of Indonesia, is making strides in solar energy adoption amidst the nation's growing focus on renewable energy (Lackovic and Frisandi 2024). The city's government has launched initiatives to install solar panels on public buildings and encourage private sector participation through incentives. These efforts are in line with Indonesia's national energy policy, which aims to increase the renewable energy share in the energy mix (Zahari and McLellan 2023). Jakarta's push for solar energy reflects the city's response to urban environmental challenges and its role in Indonesia's transition to a greener economy.

India's solar industry is booming, driven by the government's ambitious targets to expand solar energy capacity as part of its National Solar Mission (Blumenthal and Hauzinger 2019). India aims to enhance its solar capacity to meet the growing energy demand while addressing climate change concerns. The country's vast solar potential, coupled with policy support and decreasing costs of solar technology, has attracted significant domestic and international investments (Raina and Sinha 2019; Dwivedi et al. 2021; Goyal 2024). India's focus on solar energy is not only about enhancing energy security but also about creating job opportunities and promoting sustainable development.

Pakistan's solar market is in a nascent stage but shows considerable promise due to the country's high solar irradiance levels. The government of Pakistan has introduced various incentives to stimulate solar energy adoption, including tax exemptions and subsidies for solar equipment (Shah, Valasai, Memon, Laghari, Jalbani and Strait 2018; Ali, Poulouva, Akbar, Javed and Danish 2020). These measures aim to reduce the country's reliance on imported fossil fuels and to overcome energy shortages. Despite challenges, Pakistan's solar sector has the potential to significantly contribute to the country's energy mix and economic development (Irfan, Zhao, Ahmad and Mukeshimana 2019; Xin, Bin Dost, Akram and Watto 2022). The next section presents Oceania.

2.5.4 Solar industry in Oceania

The solar industry in Oceania, particularly in Australia and New Zealand, has witnessed a significant growth trajectory. This growth has been driven by abundant solar resources, supportive government policies, and increasing awareness of renewable energy's environmental benefits (Holechek, Geli, Sawalhah and Valdez 2022; Nan, Huang, Wu and Li 2022). Australia leads the region in solar installations, facilitated by the country's commitment to renewable energy targets and incentives. These incentives include the Small-scale Renewable Energy Scheme and the Large-scale Renewable Energy Target (Clean Energy Council 2023; Australian Government, Clean Energy Regulator 2024).

New Zealand, while having a smaller market compared to Australia, has seen steady growth in solar adoption, supported by initiatives such as the New Zealand Energy Efficiency and Conservation Strategy aimed at increasing renewable energy usage and decreasing carbon emissions (Verma, Patel, Nair and Brent 2018). Solar companies in New Zealand prioritise community engagement and trust-building through local sponsorships, educational initiatives, and partnerships with local governments and non-government organisations (Hoppe, Graf, Warbroek, Lammers and Lepping 2015; Cooperative Business New Zealand 2019). The next section presents the South American region.

2.5.5 Solar industry in South America

The solar industry in South America is experiencing a robust expansion, fuelled by a combination of favourable factors. These factors include rich solar resources, supportive governmental policies, increasing renewable energy demand, reducing greenhouse gas emissions initiatives, and the declining costs of solar PV systems (Obaideen, AlMallahi, Alami, Ramadan, Abdelkareem, Shehata and Olabi 2021; Qadir, Al-Motairi, Tahir and Al-Fagih 2021). Countries such as Chile, Brazil, and Argentina are at the forefront, capitalising on their substantial solar power generation potential (IRENA 2016). This growth is indicative of South America's dedication to sustainable energy solutions, aiming to diminish dependency on fossil fuels and address climate change concerns.

In Argentina, the burgeoning solar industry has seen substantial growth due to proactive government initiatives. One of the initiatives is the RenovAr programme, which supports the incorporation of renewable energy into the national electricity grid to reach 20% renewable energy by 2025 (World Bank 2018; Bragagnolo, Taretto and Navntoft 2022). The region's expansive, sparsely populated territories, especially in the northwest, provide perfect conditions for solar power installations, benefitting from high levels of solar irradiation.

Brazil is a leading player in the South American solar industry, characterised by its optimal climate conditions and robust government backing through programmes such as ProGD and REIDI. These programmes foster the development of distributed electricity generation (Gersely 2019; Horvath 2023). With over 3 GW of installed solar capacity, Brazil's solar firms leverage digital marketing to highlight the personal and ecological benefits of solar energy. Particularly, emphasising cost savings on electricity and enhanced environmental sustainability (Neves 2023; Silva, Cardoso, Basquerotto, Pereira, Turra and Feldhaus 2023).

Chile boasts a highly active solar market, propelled by its unparalleled solar resources, especially in the Atacama Desert, one of the planet's sunniest regions. The Chilean government's pledge to achieve carbon neutrality by 2050 prominently features solar energy as a key component (Arriet, Flores, Matamala and Feijoo 2022; Conley 2023). The country focuses on sustainability and innovation, with campaigns highlighting how solar solutions not only foster Chile's energy independence but also contribute to the global effort against climate change (Conley 2023). Overall, the solar industry in South America thrives on favourable geographic conditions, strong government support, and an increasing awareness of the need for renewable energy sources. The next section presents the solar industry in Africa.

2.5.6 Solar industry in Africa

The African solar industry has experienced significant growth, fuelled by the continent's vast solar resources, decreasing technology costs, and escalating energy demands. With South Africa at the forefront, boasting over 6 GW of solar energy capacity as of 2022, followed by Egypt and Morocco, the continent is making considerable strides towards embracing renewable energy (Galal 2023a). This progress is underpinned by ambitious national renewable energy goals, such as Cabo Verde's and Uganda's targets for 2030, aiming for a substantial shift towards renewable resources (Sasu 2023).

However, Africa faces hurdles, including increased numbers of people without electricity access, financial strains on utilities, and rising extreme poverty levels, highlighting the pressing need for a more resilient energy system (International Energy Agency 2023). Despite these challenges, the potential for solar energy in Africa is immense, given the continent's possession of 60% of the world's prime solar resources. It should be noted that to date there has been only 1% of installed solar PV capacity in the region. The International Energy Agency anticipates that by 2030, renewables, spearheaded by solar PV, will account for over 80% of new power generation capacity (United Nations, Economic and Social Council 2023).

The expansion of the industry is further highlighted by the Africa Solar Industry Association's report, which noted that the total installed PV capacity across the continent reached 16 GW by the end of 2023 (Beyer 2024). This includes 3.7 GW of new installations added over the course of the year. This showcases a sustained expansion driven by supportive policies, renewable energy infrastructure investments, and the essential goal of expanding electricity access (IRENA 2023).

In Egypt, the solar energy sector has experienced significant growth, underscored by a reported capacity of 1 724 MW in 2022, marking a 3.67% increase from the previous year (Galal 2023b). This growth represents a notable surge since 2017, after a period of relative stability between 2010 and 2016. By 2022, solar energy's contribution had reached 27.27% of Egypt's total renewable energy capacity. This upward trajectory can be attributed to various government initiatives aimed at fostering renewable energy adoption, as underscored by Martens (2022). The nation's abundant solar resources, coupled with an escalating demand for electricity, have paved the way for Egypt to set ambitious objectives to augment its solar power capabilities. This includes spearheading large-scale projects such as the Benban Solar Park in Aswan, highlighted by Power Engineering International (2022). Efforts to entice foreign investment and simplify regulatory frameworks have been pivotal in expanding the solar sector, positioning Egypt as a crucial market for solar enterprises looking to penetrate the North African region.

Morocco has made significant strides in renewable energy development, positioning itself as a leader in the African solar power sector. The country's solar energy capacity saw a remarkable increase from 35 MW in 2012 to an estimated 858 MW by 2022, according to Galal (2023c). This growth not only reflects Morocco's commitment to expanding its solar energy capacity but also its ranking among the top African countries in this domain, trailing only behind South Africa and Egypt. Central to this achievement is the Noor Solar Complex, highlighted by the World Bank (2016) as one of the world's largest concentrated solar power facilities. This flagship project embodies Morocco's drive towards sustainable energy solutions and underscores the Moroccan government's proactive stance on renewable energy policy. Through significant investments in renewable energy infrastructure, Morocco has created an environment that encourages the growth of the solar industry. Thereby, attracting both domestic and international stakeholders and cementing its place as a key player in renewable energy development in Africa (Net-Zero Circle 2024).

In Kenya, the solar industry is driven by a combination of factors, including government support, technological advancements, and increasing energy demand (Coffey 2023). The Kenyan government has implemented initiatives such as the Scaling Solar programme to facilitate private sector investment in solar projects and improve access to electricity in rural areas (McDaid 2016). Additionally, the growing popularity of off-grid solar solutions has fuelled innovation and entrepreneurship in the sector, with B2B distributors offering products and services tailored to the needs of Kenyan customers.

Algeria possesses significant solar potential, particularly in its southern regions, where solar irradiance levels are among the highest in the world (Achab 2023). The Algerian government has prioritised solar energy development as part of its broader strategy to diversify the country's energy mix and reduce dependency on fossil fuels (Abada and Bouharkat 2018). Policy frameworks such as the Algeria National Renewable Energy Program aim to attract investment in solar projects and stimulate economic growth while addressing energy security concerns.

Nigeria's solar industry is poised for growth, driven by a combination of factors including population growth, urbanisation, and increasing energy demand (Chanchangi, Adu, Ghosh, Sundaram and Mallick 2023). Despite facing challenges such as inadequate infrastructure and regulatory barriers, Nigeria has seen a rise in solar installations, particularly in off-grid and rural areas (Nyarko, Whale and Urmeem 2023). The Nigerian government endeavours to promote renewable energy through initiatives such as the Rural

Electrification Agency and the National Renewable Energy and Energy Efficiency Policy. These initiatives provide opportunities for B2B distributors to expand their presence in the country.

In Ghana, the solar industry is experiencing rapid growth supported by favourable government policies and increasing investor interest (Kipkoech, Takase and Afrifa 2022). The Ghanaian government has implemented initiatives such as the Ghana Renewable Energy Master Plan and the Ghana Scaling-Up Renewable Energy Programme. This aids in promoting solar energy deployment and attracting investment in the sector (Sarkodie, Ajmi, Adedoyin and Owusu 2021). Additionally, the emergence of innovative financing models and partnerships between public and private stakeholders has contributed to the expansion of solar projects across Ghana. Thereby, driving economic development and enhancing energy access for communities. The next section narrows to the South African solar industry, which is the primary interest of this study.

2.6 Solar industry in South Africa

In 2023, the solar industry in South Africa experienced unprecedented growth, marking it as a landmark year for solar energy. According to TechCentral (2024), South Africa led Africa in new solar installations, with an estimated 7.8 GW of solar capacity added by the end of 2023, this figure does not account for residential installations. This significant achievement meant that South Africa was responsible for almost 50% of all solar capacity installed on the continent, firmly establishing the country as the leader in solar energy within Africa. The year 2023 saw 79% of all new solar capacity installed in Africa being attributed to South Africa, with nearly 3 GWp of the total 3.75 GWp installed across the continent (TechCentral 2024). This period also marked a historical moment as South Africa experienced the largest increase in solar installations ever recorded in Africa for two consecutive years in 2022 and 2023. This surge in solar energy adoption underscores South Africa's critical role in the renewable energy sector and highlights the nation's capacity for substantial energy transformation.

This remarkable expansion in solar energy is projected to continue. This is evident with the South African solar energy market size forecasted to grow by USD 3 742.04 million at a compound annual growth rate of 32.03% between 2023 and 2028 (Technavio 2024). Such growth is not only a testament to the industry's current success but also to its future potential. The underlying factors contributing to this boom in the solar industry are multifaceted. South Africa is one of the most solar-rich countries globally, offering vast potential for both PV and concentrated solar power projects. The government's commitment to renewable energy lays out a vision for a diversified and sustainable energy future, further fuelling the

sector's growth, as demonstrated by the Integrated Resource Plan of 2019 (South Africa, Department of Mineral Resources and Energy 2024).

The urgency to resolve the country's energy supply issues, characterised by frequent electricity shortages and the resultant economic impacts, positions solar energy as a pivotal solution. Solar's promise extends beyond merely augmenting the national grid (Ukoba et al. 2024). It is seen as a vehicle for economic development, job creation, and carbon emissions reduction, aligning with both national development objectives and global environmental commitments. The future of South Africa's solar industry is thus marked by optimism. Substantial investments, government support through incentives such as feed-in tariffs and tax benefits, and a growing demand for renewable energy solutions among both companies and households drive this optimism. Despite the anticipated challenges, the trajectory of the solar sector is inclined towards growth, bolstered by technological advancements, policy support, and a global shift towards greener energy solutions.

2.6.1 Solar industry support in South Africa

In South Africa, the advancement and integration of solar energy into the national grid are influenced significantly by a framework of institutions and regulatory mechanisms. The Department of Mineral Resources and Energy is at the forefront, setting the strategic direction and policies for the sector. One of the key initiatives spearheaded by the Department of Mineral Resources and Energy is the Integrated Resource Plan. The Integrated Resource Plan, updated periodically, outlines the country's energy mix for the upcoming years and emphasises the role of renewable energy sources, including solar energy (South Africa, Department of Mineral Resources and Energy 2024).

Another pivotal institution in this landscape is the National Energy Regulator of South Africa. The National Energy Regulator of South Africa regulates electricity prices and standards, thereby influencing the economic feasibility of solar projects. Furthermore, these regulations and tariff structures for feed-in tariffs play a crucial role in encouraging private investment in solar energy (Odeku, Meyer, Mireku and Letsoalo 2011; National Energy Regulator of South Africa 2024). The Renewable Energy Independent Power Producer Procurement Programme is a critical regulatory mechanism designed to facilitate and expedite the development of renewable energy projects, including solar. Since its inception, this programme has successfully attracted significant private-sector investment. Therefore, contributing to the substantial growth of solar energy in the country's energy portfolio (Eberhard and Naude 2016).

In addition to these, local governments and municipalities have started to implement their own regulations and initiatives to support the adoption of solar energy. This includes allowing for net metering, whereby individuals and companies can feed surplus solar energy back into the grid, receiving a credit on their electricity bills (City of Cape Town 2023; TechCentral 2024). Furthermore, the South African Photovoltaic Industry Association plays a crucial advocacy and advisory role, representing solar PV professionals and promoting best practices within the industry. The South African Photovoltaic Industry Association's involvement in policy formulation and standard-setting efforts highlights the collaborative approach between the public sector, industry stakeholders, and regulatory bodies in fostering the solar energy sector (Khan 2018). These institutions and regulatory frameworks collectively create a supportive environment for the development and adoption of solar energy in South Africa. Thereby, reflecting the country's commitment to transitioning towards a more sustainable energy future.

2.6.2 Opportunities for business-to-business solar distributors in South Africa

In the context of South Africa's growing solar industry, B2B distributors stand at the cusp of significant growth opportunities. The country's abundant solar resources and the government's supportive stance on renewable energy development bolster these opportunities. South Africa's geographical positioning gifts it with one of the highest solar radiations globally, making it a prime location for solar energy projects (Boateng and Mhangara 2023). This natural advantage, coupled with the increasing need for sustainable and clean energy sources due to environmental concerns, lays a fertile ground for B2B solar distributors.

The South African government's commitment to renewable energy, as outlined in its Integrated Resource Plan, underscores the strategic importance of transitioning to a more sustainable energy mix. This transition notably emphasises solar power (South Africa, Department of Mineral Resources and Energy 2024). This policy direction not only amplifies the demand for solar energy solutions but also encourages investment in the sector, thereby expanding the market for B2B solar distributors. Additionally, the introduction of incentives for solar energy adoption, such as feed-in tariffs and tax benefits, further sweetens the pot for potential customers. These incentives indirectly benefit distributors by bolstering the attractiveness of solar solutions (Odeku et al 2011; National Energy Regulator of South Africa 2024).

The frequent load shedding and rising electricity prices have driven both residential and commercial sectors to seek alternative energy solutions (Green Recruitment Company 2023). Solar power offers a means of achieving energy independence, reducing reliance on the national grid, and lowering energy costs in the long term. Companies are particularly interested in solar energy to ensure uninterrupted

operations and enhance their sustainability credentials (Poorun and Radmore 2021). This growing demand from various sectors presents a significant opportunity for B2B solar distributors to expand their market presence and offer tailored solutions that meet the specific needs of different customer segments.

Technological advancements in solar panels and energy storage systems have led to increased efficiency and reduced costs. Innovations such as bifacial solar panels and improved battery storage solutions have enhanced the viability of solar power, even during non-peak sunlight hours (IRENA 2022). The reduction in the cost of solar technology over the past decade has made it more accessible to a broader range of customers and companies. This trend is expected to continue, further driving the adoption of solar energy in South Africa. Moreover, technological advancements in solar solutions are expanding the application spectrum of solar energy, thus broadening the market scope for B2B solar distributors. These advancements include battery storage and solar PV technologies. The advent of smart solar solutions, which offer enhanced efficiency and integration capabilities, aligns well with the digital transformation trends across industries (Yaqub and Alsabban 2023). Therefore, presenting an opportunity for B2B solar distributors to differentiate their offerings and cater to a tech-savvy market segment.

The South African solar market is not limited to PV panels alone. There is a growing demand for a variety of solar products, including solar water heaters, solar lighting systems, and solar-powered appliances. These products offer additional revenue streams for solar distributors and cater to the diverse needs of the South African market. The expansion of product offerings allows distributors to tap into different segments and increase their market share (Song 2023). The promising prospects in South Africa's solar industry have naturally attracted competition. The next section discusses the state of competition in the South African B2B solar industry.

2.7 Competition in the business-to-business solar industry in South Africa

The South African solar industry is currently at a pivotal juncture of rapid expansion and significant potential. However, the industry faces numerous challenges, including increasing competition from the entrance of global and local solar firms in the past 5 to 10 years. Major B2B solar distributors such as IBC SOLAR, Hohm Energy, and Warpowerr intensify this competition (My Broadband 2023). Reports by ECODIT LLC (2022), My Broadband (2023), and Misbrener (2023) suggest that the competitive landscape is made even more complex by factors such as brand-switching and limited consumer awareness. These dynamics collectively hinder the broader acceptance and implementation of solar solutions, challenging B2B distributors to navigate a market fraught with unique difficulties. Effectively addressing these issues

is crucial for leveraging the industry's potential and steering South Africa toward a sustainable energy future.

Numerous local and international B2B distributors are entering the market to capitalise on the opportunities presented by the country's energy landscape. This influx of competitors highlights the lucrative potential of the solar industry but also intensifies the competitive environment for existing players (Creamer 2022; ECODIT LLC 2022; MarketLine 2023). This situation has naturally attracted competition in the B2B industry, making it crucial for companies to maintain a strong market presence. Faced with increased competition, B2B solar distributors are at risk of closing shop. An increase in competition may result in a decrease in sales for B2B solar distributors who lack a competitive edge. Thus, a decrease in sales translates to a decline in profit margins while costs continue to rise. Such a situation may threaten the existence of some B2B solar distributors. As competition rises, B2B distributors need to develop a brand loyalty programme influenced by BTL advertising based on leveraging competitive advantage, commitment, trust and brand awareness.

Advertising plays a crucial role in building brand awareness and attracting customers in a competitive market. Effective BTL advertising can help solar distributors communicate their unique value propositions and establish a strong market presence. Moreover, fostering brand loyalty through consistent quality and reliable service is essential for long-term success. Understanding the relationship between advertising and brand loyalty can provide valuable insights for solar distributors to refine their marketing strategies and enhance customer retention. The rise of competition makes it important to evaluate the significance of BTL advertising and its impact on brand loyalty. Hence, the existence of the current study.

The growing competition in the South African solar industry underscores the importance of the current study, which aims to evaluate the significance of BTL advertising and its impact on brand loyalty. As the market becomes increasingly saturated, solar distributors must leverage BTL advertising to distinguish their brands and build lasting relationships with customers. This study will provide essential insights into how BTL advertising can effectively strengthen brand loyalty in the dynamic and rapidly evolving solar industry.

2.8 Chapter summary

This Chapter has presented the context of the study. Naturally, this has played a pivotal role in presenting a broader view of the study. As part of the context, this study presented an evaluation of the definition

of B2B marketing. To enrich the study context, this chapter also presented the solar industry across different parts of the world. This presentation has led to a discussion of the solar industry in South Africa. This evaluation found that the attractiveness of the South African B2B solar industry attracted competition that threatens the survival of distributors with a deficit in competitive advantage. Based on this background, this study argued that an effective brand loyalty programme influenced by BTL advertising based on competitive advantage, commitment, trust and brand awareness is essential. This is important to ensure the survival of B2B solar distributors in South Africa. The next chapter provides a theoretical grounding of the current study.

CHAPTER 3

THEORETICAL FRAMEWORK

3.1 Chapter overview

The previous chapter provided a literature review within the context of the current study. This section is dedicated to developing the theoretical framework. Here, the focus will be on discussing theories that informed the study. Key theories of this study include the B2B advertising effects model, the RBT, the brand equity theory, and the CTT. As already indicated in Chapter 1, these theories were carefully chosen to ground the constructs of the study. The strengths and weaknesses of each theory will be discussed to proffer a balanced perspective.

3.2 Introduction

This chapter was instrumental in operationalising the first theoretical research objective that aimed to review the literature on the B2B advertising effects model, the RBT, the brand equity theory, and the CTT. The evaluation of the aforementioned theories served to provide evidence of the theoretical grounding of key constructs (that is, BTL advertising, brand loyalty, competitive advantage, commitment, trust, and brand awareness) of the study. The next section presents the B2B advertising effects model.

3.3 Business-to-business advertising effects model

The B2B advertising effects model grounds the advertising construct in this study to emphasise the shift from linear, one-dimensional communication strategies to complex, multi-faceted interactions (Andrew 2014; Cortez et al. 2020). This shift is exemplified in the extended models by Cortez et al. (2020). These models incorporate elements such as social media influence and emotional appeals. This direction highlights the need for a nuanced understanding of how organisational buying centres process advertising stimuli. This paradigm shift also underlines the importance of adapting B2B advertising strategies to be more customer-participative, culturally aware, and digitally adept to effectively influence organisational buying behaviours. The next sub-section explains the origin and evolution of the B2B advertising effects model to achieve its comprehensive understanding.

3.3.1 Origin and evolution of the business-to-business advertising effects model

The origins of the B2B advertising effects model can be traced back to seminal campaigns and evolving market conditions that significantly shaped its theoretical framework. One of the earliest and most influential cases was the “Man in the Chair” advertisement campaign created in 1958 by an account executive at the Fuller Smith & Ross advertising agency for McGraw-Hill. This campaign aimed to promote their magazine advertisements (Andrew 2014; Cortez et al. 2020). This campaign starkly highlighted the importance of recognising and addressing the informed customer. This concept is deeply embedded in contemporary B2B advertising strategies. Over time, as depicted by the Business Marketing Association’s parody involving the “New Man” not seated but actively engaging via mobile technology, it becomes evident that the dynamic between buyer and seller has evolved with technology. This change is underpinned by research from Andrew (2014). His research suggests that modern organisational buyers often progress significantly through the buying process before interacting with sales representatives. This emphasises the shifted role of advertising from initial contact to continuous engagement.

These evolving buyer-seller interactions necessitate a re-evaluation of traditional communication models. Batra and Keller (2016) and Belch and Belch (2018) provide a foundation by defining advertising as controlled, paid communication from an identified sponsor. Despite its controlled nature, the effectiveness of B2B advertising now relies more on interaction than ever before, marking a shift from solely company-authored messages to those co-created with customers (Dwivedi et al. 2021). The implication here is that traditional, linear communication models are less applicable in today’s complex, customer-participative environment. Gilliland and Johnston (1997) initially explored these dynamics through their model that incorporated both media-specific and non-media-specific communication factors. They highlighted the distinct situational differences between B2B and business-to-consumer markets. Their research argued that the effectiveness of B2B communications could no longer be solely media-driven but needed to account for the situational and social contexts within which these communications occur. This model considered the impacts of social networks and professional pressures that uniquely influence B2B decision-makers. The notion is supported by Bellizzi, Minas and Norvell (1994), and later by Brown, Zablah, Bellenger and Johnston (2011), who discussed how perceived risks and brand sensitivity affect organisational buying behaviours.

In light of these complexities, a study such as Cortez et al. (2020) has furthered this framework by integrating modern digital tools and social contexts into the B2B advertising model. Cortez et al. (2020)

specifically extended Gilliland and Johnston's (1997) model by incorporating factors such as social media influence, and creative and emotional appeals in advertising. They also considered the moderating effects of national culture and brand equity on decision-making processes. These extensions reflect a broader, more nuanced understanding of how firms process these advertising stimuli, for example, the B2B solar distributors in the context of this study. They stress the significance of both cognitive and emotional responses as dictated by the elaboration likelihood model (Petty and Cacioppo, 1986). Furthermore, the extended model by Cortez et al. (2020) proposes a three-stage information processing pathway. The first stage, antecedent conditions, focuses on the personal relevance and situational specifics of the buying centre. The second stage, the processing stage, can either take a central or peripheral route as per the elaboration likelihood model. Finally, the consequent conditions detail the cognitive and emotional outcomes of the advertising exposure. This pathway emphasises that the impact of advertising on B2B buyers is not merely transactional but deeply psychological, affecting attitudes and behaviours based on the level of personal and professional investment in the decisions at hand.

Thus, the evolution of B2B advertising models reflects a shift from straightforward message delivery to a complex interplay of media channels, personalised content, cultural influences, and situational awareness. This progression underscores the need for adaptive strategies that recognise the empowered roles of customers and diversified platforms for engagement. It also highlights the relevance of psychological models in understanding and predicting buyer responses in B2B settings, a critical area for ongoing research and practice (Grewal, Lilien, Bharadwaj, Jindal, Kayande et al. 2015).

3.3.2 Components of the business-to-business advertising effects model

The B2B advertising effects model delves into the complexities of how professional buyers process advertising messages mapping the journey from exposure to decision-making outcomes (Cortez et al. 2020; Wilson and Baack 2023). *Antecedent conditions*, the first stage of the model, lay the foundation for how advertising messages are perceived and processed within buying centres (Swani et al. 2020). Personal relevance hinges on the perceived importance of the message based on the recipient's role within the organisation such as a B2B solar distributor (Geng, Yang, Gao, Tan and Yang 2021). Situational specifics consider contextual factors such as economic conditions and the competitive landscape (Kotler and Keller 2016). For example, during economic downturns, messages emphasising cost efficiency may garner increased attention. Following antecedent conditions is the *processing stage*, which delineates how messages are elaborated, either through central or peripheral routes (Liao and Huang 2021). Central

processing involves a deep cognitive analysis of the message content, triggered by high involvement and motivation (Yu 2021). Peripheral processing relies on external cues such as source credibility, typically under conditions of low personal relevance (Teng and Khong 2015). *Consequent conditions*, the final stage, encompass cognitive and emotional responses to advertising. Cognitive outcomes include brand attitudes and beliefs formed as a result of the advertisement, directly influencing purchase decisions (Henehan, Joannes, Greaney, Knoll, Wong and Ross 2020). Emotional responses, such as trust and respect for the brand, are particularly crucial in complex buying situations where relationships and vendor confidence are paramount (Kemp, Briggs and Anaza 2020).

The B2B advertising effects model by Cortez et al. (2020) effectively captures the nuanced process of how advertising messages are processed within business environments. By detailing the antecedent conditions that affect the receptiveness to a message, the model outlines the dual pathways of the processing stage. It also addresses the cognitive and emotional consequences of advertising, offering a robust framework for marketers to craft impactful B2B advertising strategies. This model not only facilitates a better understanding of the mechanisms at play in B2B advertising but also aids marketers in designing persuasive campaigns. These campaigns resonate with the target audience within professional settings (Cortez et al. 2020). The integration of the elaboration likelihood model provides a deeper insight into the cognitive processes involved, making it a vital tool for academic and practical applications in B2B marketing (Petty and Cacioppo 1986; Cortez et al. 2020).

3.3.3 Arguments in favour of the business-to-business advertising effects model

The B2B advertising effects model has gained traction due to its efficacy in illustrating the impact of advertising on B2B transactions. This model underscores the importance of advertising in shaping purchasing decisions and fostering long-term business relationships. One of the primary arguments in favour of the B2B advertising effects model is its role in enhancing brand awareness among potential customers. Studies indicate that consistent advertising efforts significantly improve brand recall and recognition in B2B markets (Guo, Hwang and Wang 2020). Increased brand awareness is crucial for companies as it influences the decision-making process, making B2B distributors more likely to choose well-known brands over lesser-known competitors (Stankevich 2017). Furthermore, a study by Taiminen and Ranaweera (2019) highlighted that effective B2B advertising strategies can lead to higher levels of brand engagement and loyalty, reinforcing the model's significance.

The B2B advertising effects model also positively impacts purchase intentions. Research by Yuan, Moon, Kim, Wang and Yu (2020) found that B2B advertising directly affects the perceived value and trustworthiness of a brand, which in turn influences purchasing decisions. Additionally, the model demonstrates that advertising can alter perceptions of product quality and reliability, thereby increasing the likelihood of purchase (Zhao, Butt, Murad, Mirza and Al-Faryan 2022). A study by Swani et al. (2020) supports this claim, suggesting that B2B advertising provides critical information that helps companies make informed purchasing decisions, further validating the effectiveness of the advertising effects model. Moreover, this model is instrumental in fostering long-term business relationships (Voss, Tanner, Mohan, Lee and Kim 2019). Advertising in the B2B context often focuses on demonstrating expertise, reliability, and value propositions, which are essential for building trust and long-term partnerships (Ozdemir, Gupta, Foroudi, Wright and Eng 2020). A study by Akrouf and Nagy (2018) found that sustained advertising efforts contribute to relationship-building by regularly communicating a brand's values and commitment to quality. This continuous engagement is critical in B2B markets where decision-making processes are more complex and involve multiple stakeholders (Lievens and Blažević 2021).

3.3.4 Limitations of the business-to-business advertising effects model

While the B2B advertising effects model proposed by Cortez et al. (2020) offers a robust framework for understanding the complexities involved in processing advertising stimuli within B2B markets, it does exhibit certain limitations. These limitations warrant further discussion. This model adeptly integrates the elaboration likelihood model to differentiate between central and peripheral routes of information processing, yet its application remains somewhat constricted by several factors.

The model's heavy reliance on the elaboration likelihood model might oversimplify the rich tapestry of decision-making in B2B contexts. Business-to-business purchasing decisions often involve multiple influencers and require alignment across various organisational layers (Cartwright, Liu and Davies 2022). The dual-route information processing model may not fully capture the cognitive and social dynamics involved. This complexity suggests that additional factors beyond central and peripheral routes should be considered to fully understand B2B decision-making processes. These decisions are influenced by a complex mix of rational and emotional considerations that extend beyond the scope of the elaboration likelihood model, which primarily focuses on individual psychological processes (Griffith, Nolder and Petty 2018). Furthermore, the B2B advertising effects model is critiqued for its narrow focus on processing advertising stimuli without adequately considering the broader market and competitive context in which

these companies operate. Although Cortez et al. (2020) acknowledge environmental factors such as competing messages, their model largely overlooks the strategic responses to such competition. The model does not sufficiently delve into differentiation techniques or strategies companies might employ when faced with intense market competition (Tojiri 2023).

Another limitation is the model's emphasis on individual and situational factors in message processing which neglects broader contextual influences that significantly affect B2B decision-making (Kemp et al. 2020). Integrating insights from theories that explore social and psychological aspects of organisational behaviour could enhance understanding (Pirraglia, Giuliani, De Cicco, Di Bernardino and Palumbo 2023). This is particularly relevant concerning brand loyalty and customer relationship dynamics. These insights could help explain how organisational culture and interpersonal relationships influence the collective decision-making typical of B2B scenarios. Further, the static nature of the model does not account for the dynamic market conditions companies frequently navigate. The recognition of fluctuating market conditions and competitor activities by Cortez et al. (2020) suggests the need for incorporating longitudinal or dynamic models. These models could provide deeper insights into how advertising impacts evolve. This evolution is crucial for developing advertising strategies that are not only effective at a single point but also adapt to changes in market dynamics and customer perceptions (Kumar and Gupta 2016).

Lastly, the model's applicability across different industries and market scales is another area of concern. Business-to-business markets are highly heterogeneous; strategies effective in one sector or for large multinationals may not be as effective for small and medium-sized enterprises or in niche markets (Rudawska 2019). Testing and adapting the model within the solar industry can enhance its scalability and generalisability, providing valuable insights for B2B marketers in a rapidly growing and competitive sector. This research can help marketers better understand customer needs, improve brand positioning, and drive market penetration in the solar industry (Sivarajah, Irani, Gupta and Mahroof 2020). Despite these limitations, the B2B advertising effects model provides foundational insights that are invaluable for understanding B2B advertising dynamics. The next section will delve deeper into the RBT.

3.4 Resource-based theory

The RBT has been a transformative force in strategic management (Utami and Alamanos 2022). It emphasises the critical role of internal capabilities and resources as the primary drivers of competitive advantage and firm performance. This theory pivots from the traditional focus on external market forces. It suggests that the unique, firm-specific resources a company holds, whether physical, human, or

organisational, can establish a sustainable competitive edge if they are valuable, rare, inimitable, and non-substitutable (Kabue and Kilika 2016). Competitive advantage as a construct in this study is, therefore, grounded in the RBT since it exhibits a unique resource. As the RBT has evolved, it has not only enhanced our understanding of competitive advantage but also encouraged a rich tapestry of theoretical and empirical research that continues to refine and expand its initial premises (Chen, Liu, Roushan and Nguyen 2024). This section will explore the core components of the RBT, its applications, and the critical reflections it has inspired. This provides strategic insights that are particularly relevant as firms navigate the complexities of modern dynamic markets.

3.4.1 Development of the resource-based theory

The RBT was pioneered by Barney (1991) and stands as a seminal framework in the field of strategic management. This theory posits that the resources possessed by a firm are the primary determinants of its competitive advantage and performance (Barney 1991). The origin and evolution of the RBT can be traced through several scholarly contributions that emphasise the internal capabilities of the firm in securing a sustainable competitive position in the marketplace. The conceptual roots of the RBT extend back to the work of Penrose (1959), who suggested that the firm itself is a collection of productive resources the utilisation of which can lead to the firm's growth. Penrose's (1959) work marked a significant shift from the traditional industry structure focus, championed by Porter's (1985) five forces model, towards looking internally at firm-specific capabilities (Penrose 1959; Porter 1985).

Also, worth noting is that Barney (1991) built on these foundational ideas and argued that for resources to provide a firm with a competitive advantage, they must be valuable, rare, inimitable, and non-substitutable (VRIN criteria). These criteria helped in distinguishing resources that can provide sustainable competitive advantage from those that cannot. The concept of "valuable" resources implies that the resource must be able to exploit opportunities or mitigate threats in the firm's environment. "Rare" resources are those not widely possessed by competitors, while "inimitable" resources cannot be easily replicated. Lastly, "non-substitutable" means there are no equivalent resources that can replace them and provide a competitive advantage (Barney 1991).

Following Barney's (1991) initial conceptualisation, the resource-based view has been expanded by numerous scholars. Wernerfelt (1984) described the firm as a bundle of resources, highlighting the role of resource diversity in achieving competitive advantage. This view was further elaborated by Peteraf (1993), who introduced market heterogeneity and ex post limits to competition. These concepts integrate

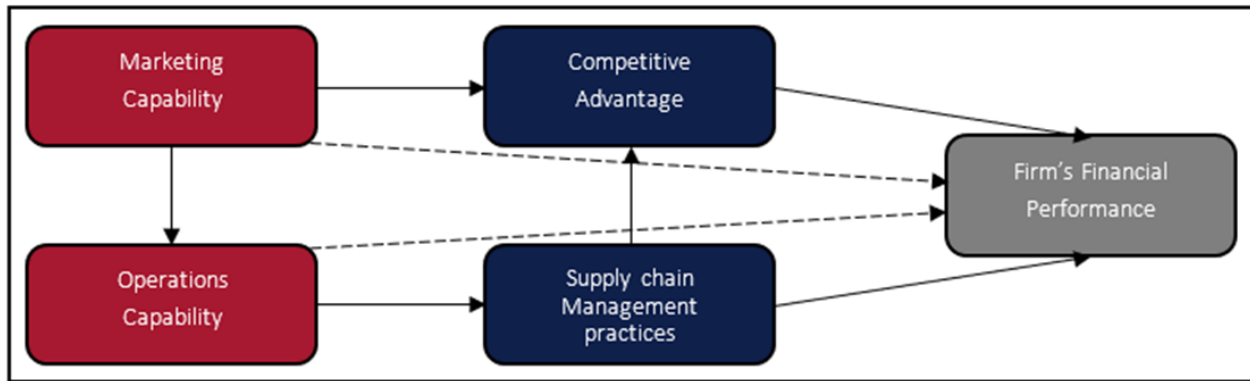
both the resource-based view and industry structure view to explain sustained competitive advantage (Wernerfelt 1984; Peteraf 1993). The implications of the RBT have been profound across strategic management research. It has provided a robust framework to study how firms achieve and maintain competitive advantage, particularly focusing on the role of firm-specific capabilities and resources. The RBT has been applied across a wide range of contexts, demonstrating its versatility in various business scenarios (Kozlenkova et al. 2014). Furthermore, the theory has been used to analyse how firms leverage their resources and capabilities during mergers and acquisitions to achieve superior performance (Bloom, Garicano, Sadun and Van Reenen 2014). This theory has also been applied to understand how firms utilise their unique resources to gain competitive advantage in international markets (Paeleman, Fuss and Vanacker 2017). It is also employed to assess how firms' internal resources contribute to their sustainability practices and corporate social responsibility initiatives (Hart and Dowell 2011). Furthermore, the RBT has been applied to understand how firms' resource endowments drive innovation and technological advancements (Tkachenko, Quast, Song and Jang 2020).

3.4.2 Fundamental aspects of the resource-based theory

The RBT, as shown in Figure 3.1, is a strategic management framework that focuses on the utilisation of a firm's internal resources and capabilities to achieve and sustain competitive advantage and superior performance. The key components of the RBT, as highlighted in the study by Kamboj, Goyal and Rahman (2015), include resources, capabilities, and competitive advantage. *Resources* are defined as the assets that a firm possesses, which can be classified as tangible or intangible (Jancenelle 2021). Tangible resources include physical assets such as machinery, buildings, and financial resources, while intangible resources consist of intellectual property, brand reputation, and company culture (Jawed and Siddiqui 2019). These resources are crucial as they form the foundation upon which a firm's capabilities are built.

Capabilities are the firm's ability to effectively utilise its resources to achieve its strategic objectives (Ferreira et al. 2020). They are often described as complex bundles of skills and accumulated knowledge that enable firms to coordinate activities and make use of their assets. Two primary types of capabilities are included in the model: marketing capabilities and operations capabilities (Kamboj et al. 2015). Marketing capabilities refer to the integrative processes used to utilise a firm's resources to meet customer needs, achieve competitive product differentiation, and realise superior brand equity (Zhang, Jiang, Shabbir and Du 2015). Marketing capabilities are critical in creating a competitive advantage and enhancing financial performance. Operations capabilities involve the efficient management of production

processes, material flow, and technology to improve productivity (Yu, Ramanathan, Wang and Yang 2018). These capabilities help achieve operational goals such as superior product quality, flexibility, speedy delivery, and cost reduction. Operations capabilities are essential for sustaining competitive advantage and improving financial performance.



Source: Kamboj et al. (2015)

Figure 3.1: Resource-based theory

Competitive advantage arises when a firm successfully leverages its unique resources and capabilities to outperform its competitors (Ferreira et al. 2020). The study emphasises that competitive advantage serves as a mediator between the firm's capabilities and its financial performance. Firms that develop and sustain competitive advantages through effective utilisation of their marketing and operations capabilities are likely to achieve superior financial outcomes (Khan, Yang and Waheed 2019).

3.4.3 Supporting perspectives on the resource-based theory

The RBT posits that a firm's sustainable competitive advantage stems from its internal resources and capabilities, which are VRIN (Nason and Wiklund 2018). This theoretical framework offers several compelling arguments for its application in strategic management. By focusing on the firm's internal resources, the RBT shifts the emphasis from external market conditions to unique capabilities that can provide a lasting competitive edge.

The RBT emphasises the unique attributes of a firm that competitors cannot easily replicate. This uniqueness is central to creating a sustainable competitive advantage (Miller 2019). Unlike external market conditions, which are accessible to all players, the internal resources and capabilities of a firm are often complex and difficult to imitate. The theory also highlights the importance of intangible assets such

as brand reputation, organisational culture, and employee expertise (Ogutu, Adol, Bujdosó, Andrea, Fekete-Farkas and Dávid 2023). These intangible assets are particularly difficult for competitors to copy or substitute, making them critical to maintaining a competitive advantage. Moreover, the RBT provides a framework for firms to identify and leverage their core competencies (Grigoriou, Davcik and Sharma 2016). By focusing on what they do best, firms can allocate resources more efficiently and effectively, thereby enhancing their competitive positioning.

Additionally, the RBT underscores the role of resource heterogeneity in creating competitive advantage. Firms possess unique bundles of resources and capabilities that differentiate them from competitors (Davis and Simpson 2017). This heterogeneity is crucial because it means that no two firms are alike, and each firm's unique resource endowment can lead to different competitive outcomes. This perspective encourages firms to develop and nurture their distinct resources rather than merely imitate competitors (Sun, Maksimov, Wang and Luo 2021). Furthermore, the RBT supports strategic resource allocation and development. By understanding which resources and capabilities are most valuable, firms can make informed decisions about where to invest and how to develop their strategic assets (Utami and Alamanos 2022). This strategic focus helps firms build and maintain their competitive advantage over the long term. Lastly, empirical evidence supports the effectiveness of the RBT in explaining firm performance. Studies have shown that firms with unique, inimitable resources and capabilities tend to outperform those that rely solely on external market factors (Kauppila 2015). This evidence underscores the validity of the RBT as a framework for theoretically grounding competitive advantage as a mediating construct in this study.

3.4.4 Drawbacks of the resource-based theory

The RBT offers a compelling framework for analysing the sources of competitive advantage that are internal to a firm. However, despite its widespread acceptance and application within the field of strategic management, the RBT is not without its drawbacks and limitations (Kaufman 2015). Understanding these shortcomings is crucial for applying the theory in a balanced manner and addressing the complexities of business strategy effectively. Here the research outlines several key limitations of the RBT as identified by scholars and critics since its inception. One of the primary criticisms of the RBT is its strong focus on internal resources and capabilities, often neglecting the external environment of the firm (Acar and Polin 2015). The RBT suggests that firm-specific resources are the main determinants of competitive advantage. This focus may lead managers to overlook important external factors such as customer commitment and

trust. Such an inward-looking approach can limit a firm's ability to adapt to external changes, potentially rendering its resources less valuable over time.

3.5 Brand equity theory

The brand equity model revolutionised the concept of brand management by defining five key components of brand equity (Aaker 1991). These components are brand loyalty, brand awareness, perceived quality, brand associations, and other proprietary assets (Wijaksono and Ali 2019). It is based on this structure that brand loyalty and brand awareness are grounded in Aaker's (1991) brand equity model, which suggests that strong brand equity enhances marketing effectiveness. Additionally, it reduces business risks and increases customer loyalty, which are crucial in a B2B context. Particularly in the B2B milieu, brand loyalty is critical and often influenced by a customer's repeated positive experiences and the perceived value of the brand's offerings (Susanti, Sumarwan, Simanjuntak and Yusuf 2020). Brand equity, a pivotal concept in understanding a brand's market value and strength as perceived by customers, originated from late twentieth-century marketing practices. It has evolved significantly through extensive research and practical applications, with contributions from pioneers such as Aaker (1991) and Keller (1993). These theorists laid the groundwork for understanding consumer perceptions and the intrinsic value of a brand.

3.5.1 Evolution of the brand equity theory

Originating from the marketing practices of the late twentieth century, the brand equity theory has evolved through extensive research and practical applications. This evolution is mainly attributed to the seminal works of Aaker (1991) and Keller (1993), who are widely regarded as pioneers in this field. Aaker first introduced the formal concept of brand equity in his 1991 publication. He defined it as a set of brand assets and liabilities linked to a brand, its name, and symbol that add to or subtract from the value provided by a product or service to a firm and/or to that firm's customers. His model of brand equity included five categories: brand loyalty, brand awareness, perceived quality, and brand associations alongside proprietary assets, which include patents, trademarks, and channel relationships. Aaker's (1991) framework emphasised how a company can effectively manage these assets, which create value through their ability to influence customer behaviour, to increase financial performance.

Simultaneously, Keller (1993) introduced a more customer-centric approach to brand equity in 1993, which he termed customer-based brand equity. Keller's (1993) model focuses on the customer's

perspective and defines brand equity as the effect of brand knowledge on consumer response to the marketing of the brand. This knowledge is characterised as a brand node in memory to which a variety of associations are linked. Keller (1993) posited that the customer's direct experiences with the brand, information from various marketing communications, and word-of-mouth, form these memories. These factors, in turn, influence brand perceptions in terms of two key dimensions: brand awareness and brand image.

Various academics and practitioners who have expanded on these foundational models have supported the development of the brand equity theory. For example, consumer perceptions of price, quality, and value also contributed significantly by linking perceived quality and value to consumer willingness to pay a premium price (Konuk 2019). This study thereby directly connects to the concept of brand equity. Moreover, researchers such as Zhao et al. (2022) further refined the concept by exploring the role of brand names in consumer decision-making and how it affect perceptions of product quality. These studies highlighted how brand names can serve as heuristics or shortcuts that customers use to make purchase decisions, thereby underscoring the importance of brand names in the brand equity equation.

3.5.2 Core elements of the brand equity theory

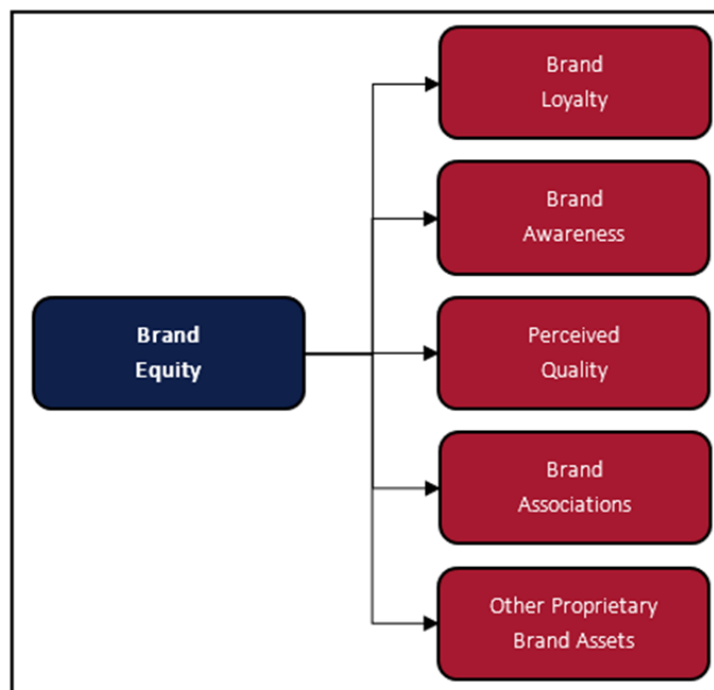
Brand awareness is the foundational layer of brand equity, which reflects the extent to which customers are familiar with the brand and can recall or recognise it (Foroudi et al. 2018). It is the initial step that enables a brand to enter the consideration set of the consumer, setting the stage for further engagement. Also, important are the brand associations representing the mental links that customers forge with the brand, encompassing a wide range of thoughts, feelings, perceptions, and attitudes (Keller 1993; Pourazad, Stocchi and Pare 2019). These associations form a significant part of the brand's identity and image, with positive and strong associations acting as levers to enhance brand equity.

Perceived quality is also another important component of the brand equity theory that refers to a consumer's assessment of a brand's overall excellence or superiority (Akoglu and Özbek 2022). This perception plays a critical role in purchase decisions and can justify a higher price point, directly impacting the brand's profitability and equity. It is noteworthy that perceived quality is not solely about the actual quality of the product or service but predominantly about the consumer's perception of this quality.

Brand loyalty, which is also part of the brand equity theory, encompasses the degree of consumer commitment towards a brand. It is manifested through repeat purchases and a reluctance to switch to

competitor brands (Pradhan and Misra 2015). Brand loyalty is a vital component of brand equity, reducing marketing costs and ensuring a steady revenue stream by fostering a loyal consumer base. This construct is of fundamental significance in this study since it represents the outcome of the conceptual framework. The other proprietary brand assets, such as trademarks, patents, and channel relationships, form an integral part of the brand equity theory (Mogaji 2021). These intangible assets offer competitive advantages and create barriers to entry for competitors, further bolstering the brand's market position.

Together, these components, as illustrated in Figure 3.2, orchestrate a robust brand equity framework, underpinning the strategic advantage that well-managed brands hold in the marketplace (Zeithaml 1988; Aaker 1991; Keller 1993; Oliver 1999; Foroudi et al. 2018). The interrelation and management of these elements are essential for sustaining competitive advantage, enabling premium pricing, enhancing customer loyalty, and eliciting a favourable customer response to marketing efforts.



Source: Aaker (1991)

Figure 3.2: Brand equity theory

3.5.3 Value of the brand equity theory

The brand equity theory provides a robust foundation for understanding the constructs of brand awareness and brand loyalty, both of which are central to the dynamics of consumer behaviour and brand

management (Foroudi et al. 2018). This theoretical framework offers compelling insights into how these constructs operate and interact within the broader context of marketing and brand strategy. Brand awareness, as conceptualised within the brand equity theory, serves as a pivotal element in the formation and reinforcement of consumer perceptions (Ali 2019). The theory posits that brand awareness is not merely the recognition of a brand's name or logo, but a deeper cognitive process where consumers associate the brand with specific attributes and values (Foroudi et al. 2018). This cognitive association is crucial because it forms the basis for consumers' brand choices and purchase decisions. By fostering strong brand awareness, firms can enhance the salience of their brand in the minds of consumers, leading to higher levels of engagement and preference. The theory also underscores the role of brand awareness as a mediator, facilitating the translation of marketing efforts into tangible brand equity (Foroudi et al. 2018). This mediation effect is significant because it explains how marketing activities, such as advertising and promotions, can lead to stronger consumer-brand connections.

Brand loyalty, on the other hand, is positioned within the brand equity theory as the outcome of sustained brand equity (Foroudi et al. 2018; Ahmadian, Sahraei and Khosro 2023). The theory suggests that brand loyalty emerges from consistent positive brand experiences, which reinforce consumers' emotional and psychological commitment to the brand. This commitment is not only reflected in repeat purchases but also in consumers' willingness to advocate for the brand and resist competitive offers (Popp and Woratschek 2017a). The theory highlights the importance of building brand loyalty as a strategic objective, as it directly influences the long-term profitability and market position of the brand. Furthermore, brand loyalty serves as a key indicator of the brand's strength and resilience in the marketplace, offering a buffer against market fluctuations and competitive pressures (Foroudi et al. 2018). In essence, the brand equity theory provides a comprehensive framework for understanding the critical role of brand awareness and brand loyalty in shaping consumer behaviour and driving brand performance. By grounding these constructs within the theory, firms can develop more effective strategies to build and sustain their brand equity, ultimately enhancing their competitive advantage in the market.

3.5.4 Challenges associated with the brand equity theory

Originally, the brand equity theory was developed with consumer markets in mind, where purchase decisions are frequently influenced by emotional and psychological factors (Aaker 1991; Keller 1993; Datta, Ailawadi and van Heerde 2017). This focus tends to overshadow the unique challenges and

dynamics of B2B relationships, such as the importance of personal relationships and organisational buying behaviours. These are more complex and less susceptible to the emotional appeals that brands typically use in business-to-consumer contexts (Zhang and Du 2020).

The theory also underemphasises personal relationships. In B2B settings, personal relationships and networks play a crucial role in purchase decisions (Pandey and Mookerjee 2018). The theory's emphasis on brand awareness and associations may not fully capture the significance of these personal connections and the trust built through prolonged interactions between companies. The theory also neglects the aspect of service customisation. Business-to-business transactions often require high levels of customisation to meet specific company needs, which is not a central concern in traditional brand equity models. These models typically focus on mass-market strategies and standardised products that are more common in consumer markets (Paul 2019).

The theory does not capture the essence of complex decision-making processes. The decision-making process in B2B markets involves multiple stakeholders and is more rational and structured compared to consumer markets (Foroudi et al. 2018). The brand equity theory often falls short in addressing these intricate processes where factors such as financial viability and operational benefits outweigh brand-based emotional appeals.

These issues suggest that while Aaker's (1991) model is insightful for consumer markets, its application in B2B settings requires adaptation. This adaptation should address the economic and functional focus of B2B transactions by incorporating the impact of BTL advertising, competitive advantage, commitment, and trust. Such a tailored approach is essential to embrace the nuances of business market dynamics, thereby enhancing the model's relevance and effectiveness in B2B contexts.

3.6 Commitment-trust theory

The CTT is foundational in grounding commitment and trust in this study. This theory suggests that high levels of trust and commitment lead to increased cooperation, reduced conflict, and enhanced longevity of business relationships (Mahmoud, Hinson and Adika 2018). It emphasises the importance of a relational synergy that supports mutual growth and stability, offering valuable insights into how B2B solar distributors can nurture long-lasting mutually beneficial partnerships (Morgan and Hunt 1994; Malik and Singh 2024).

3.6.1 Formation of the commitment-trust theory

The CTT was introduced by Morgan and Hunt (1994) to mark a significant milestone in the evolution of marketing thought, particularly in the context of B2B relationships. This theory shifted the focus from transactional to relational marketing, positing that trust and commitment are the foundational elements required to foster long-term business relationships and, by extension, brand loyalty. The origins of the CTT are deeply rooted in the broader transition towards relationship marketing in the early 1990s. This shift reflected a growing recognition of the limitations inherent in traditional marketing theories that emphasised discrete transactions over the development of durable relationships (Morgan and Hunt 1994).

Prior to the introduction of the CTT, the dominant marketing paradigms largely centred on the exchange process. They focused on the conditions and strategies for facilitating transactions between buyers and sellers (Wang et al. 2016). However, as markets became more saturated and competitive, the services component in business offerings became increasingly significant. Scholars and practitioners alike began to recognise the importance of maintaining long-term relationships with customers (Alshurideh 2016). This shift was particularly pronounced in the B2B domain, where the complexity of products and services was significant. Coupled with the intricacies of organisational buying processes, this necessitated a deeper, more nuanced approach to marketing (Sheth and Parvatiyar 1995).

In this evolving landscape, Morgan and Hunt's (1994) introduction of the CTT represented a response to the need for a more relationship-centric view of marketing. Drawing on a wide array of research across disciplines such as sociology, psychology, and organisational theory, Morgan and Hunt (1994) made significant findings. They identified trust and commitment as the critical components underpinning successful marketing relationships. The originality of the CTT lay not only in its identification of these core elements but also in its empirical validation of their centrality to relationship marketing. Morgan and Hunt (1994) developed and tested a model that demonstrated how trust and commitment contribute to key relationship marketing outcomes, including relationship termination costs, relationship benefits, and cooperation. This model established a theoretical and empirical framework for understanding how relationships are formed, maintained, and enhanced in a B2B context (Arthur, Agbemabiese, Amoako and Anim 2024).

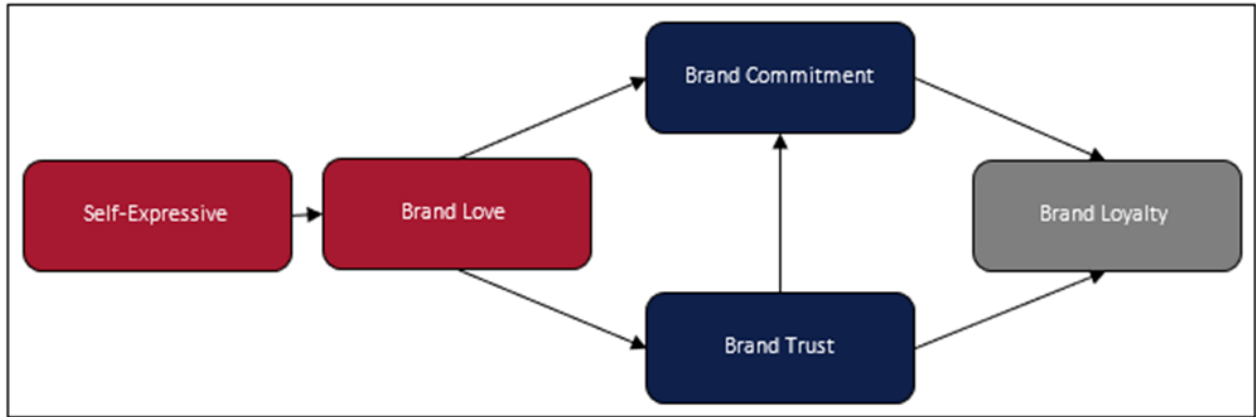
The significance of the CTT in the domain of B2B marketing cannot be overstated. By highlighting the importance of trust and commitment, Morgan and Hunt (1994) provided a foundation for subsequent

research and practice aimed at building and sustaining strong B2B relationships. This focus on relational elements, rather than mere transactional exchanges, offered a new lens through which to view the development of brand loyalty (Arlı, Bauer and Palmatier 2018). In B2B markets, where decisions are often complex and involve multiple stakeholders, the ability to foster trust and demonstrate commitment, can differentiate a brand. This differentiation encourages repeat business and fosters a loyal customer base (Palmatier 2008; Sahi, Devi, Gupta and Cheng 2022). By shifting the focus from transactions to relationships and identifying trust and commitment as the central pillars of successful marketing relationships, Morgan and Hunt (1994) made significant contributions. They laid the groundwork for a deeper understanding of commitment and trust in B2B markets. This theory not only provided a new theoretical framework for investigating marketing relationships but also offered practical insights for companies seeking to cultivate enduring partnerships with their customers.

3.6.2 Principal components of the commitment-trust theory

As displayed in Figure 3.3, the CTT by Goutam (2020) illustrates how self-expression impacts brand love, which in turn influences brand loyalty, mediated by brand commitment and trust. *Self-expression* allows consumers to connect with a brand on a personal level, fostering a deeper emotional bond (Goutam 2020). This bond, often referred to as *brand love*, reflects the emotional attachment and affection a consumer feels towards a brand, driving a strong connection that goes beyond mere satisfaction. *Trust* fosters open communication, the sharing of sensitive information, and joint problem-solving, reducing perceived risks and transaction costs (Shin et al. 2019). In the study of marketing dynamics, trust emerges as a pivotal construct, particularly in the realm of brand loyalty. This underscores trust's significance as a core component of successful and sustainable business relationships.

Commitment, on the other hand, signals dedication beyond individual transactions, stabilising relationships and encouraging mutual investment (Gimeno-Arias, Santos-Jaén, Martínez and Sánchez-Pérez 2023). Commitment, within the context of marketing and consumer behaviour, represents an enduring desire to maintain a valued relationship (Mercurio 2015). Together, trust and commitment play crucial roles in forming *brand loyalty*, which is ultimately the consumer's consistent preference and dedication to a brand, often leading to long-term engagement and advocacy (Goutam 2020). Self-expression, brand love, and brand loyalty thus interplay with commitment and trust to create a robust and enduring brand-consumer relationship.



Source: Suhan et al. (2022)

Figure 3.3: Association of self-expressive with brand love

3.6.3 Justifications for the commitment-trust theory

The CTT has significant implications for marketing, particularly in fostering long-term relationships between companies and their customers. Applying this theory in a new model offers numerous advantages, which can enhance the effectiveness of marketing strategies and improve client retention.

First, the CTT emphasises the importance of building trust and commitment in business relationships. Trust is a crucial factor in reducing uncertainty and fostering a sense of security among customers, which is essential for long-term engagement (Morgan and Hunt 1994). By integrating this theory into a new model, companies can prioritise trust-building activities, such as transparent communication and consistent delivery of promises, leading to stronger and more resilient client relationships (Guo, Straub, Zhang and Cai 2021). Moreover, the theory highlights that commitment is a key driver of loyalty. When customers feel a sense of commitment from a company, they are more likely to reciprocate with loyalty, reducing the likelihood of switching to competitors (Abid et al. 2023). This aspect of the CTT can be particularly beneficial for companies in highly competitive markets, as it provides a framework for developing strategies that enhance client commitment, such as personalised services and tailored marketing campaigns (Abid et al. 2023). Another argument in favour of applying the CTT is its focus on relationship marketing, which is increasingly recognised as a critical aspect of modern marketing practices (Brown, Crosno and Tong 2019). Relationship marketing, as opposed to transactional marketing, prioritises long-term relationships over short-term gains. This approach aligns with the principles of the CTT, making it a valuable addition to new marketing models aiming to cultivate enduring client relationships and sustainable business growth (Abid et al. 2023).

Additionally, applying the CTT can lead to more effective resource allocation. Companies can focus their efforts and resources on activities that are proven to build trust and commitment, such as quality assurance, customer service, and relationship management (Nyadzayo and Khajehzadeh 2016). This targeted approach not only improves efficiency but also maximises the return on investment in marketing activities. Finally, the CTT aligns well with contemporary trends in digital marketing, where building and maintaining client relationships is paramount. In the digital age, where customers have access to vast amounts of information and numerous alternatives, trust and commitment are more important than ever (Hanna 2018). By applying this theory in a new model, companies can leverage digital tools and platforms to enhance trust and commitment, thereby staying competitive in an increasingly digital marketplace (Guo et al. 2021).

3.6.4 Critiques and limitations of the commitment-trust theory

While the CTT proposed by Morgan and Hunt (1994) has significantly influenced the understanding of relationship marketing, especially within the B2B domain, it is not without its limitations. These limitations need to be addressed to further enhance its applicability. The theory's pioneering approach to highlighting the roles of trust and commitment in fostering strong business relationships and brand loyalty has been widely acknowledged (Suhan et al. 2022).

One of the primary limitations of the CTT is its potential over-generalisation across diverse business contexts. The theory was developed based on the assumption that the mechanisms of trust and commitment work similarly across various industries, cultures, and organisational sizes (Lewicka and Krot 2015). However, subsequent research has indicated that the impact of trust and commitment on relationship outcomes can vary significantly across different contexts. For instance, the cultural backdrop of a business relationship can dramatically influence the interpretation and importance of trust and commitment (Dowell, Morrison and Heffernan 2015). Some cultures may give trust more readily or it may be based on different criteria than in others, affecting the universality of the theory's application.

The CTT is foundational in elucidating the dynamics of trust and commitment in B2B marketing and brand loyalty (Gomes, Schmidt and Eberle 2024). However, it does not fully capture the complexities of modern B2B relationships, particularly in the context of rapid digital transformation and evolving digital marketing landscapes. While highlighting the importance of trust and commitment, the theory may oversimplify the intricate dynamics of contemporary B2B ecosystems. It overlooks the significant role that digital platforms play in mediating business relationships (Palmatier, Dant and Grewal 2007; Hashim and Tan 2015). The

advent of online reviews, social media, and digital content marketing has revolutionised the way companies communicate, collaborate, and foster trust with partners and customers. This has introduced challenges and opportunities not accounted for in the original framework (Lemon and Verhoef 2016). This evolving digital landscape necessitates an expanded theoretical model that integrates the core principles of commitment and trust with a nuanced understanding of competitive advantage and the role of BTL advertising in establishing brand loyalty. This ensures relevance in the rapidly changing B2B marketing domain.

Furthermore, the CTT highlights the importance of trust and commitment in fostering successful marketing relationships (Badrinarayanan and Ramachandran 2024). However, it falls short of directly connecting these relational aspects to competitive advantage in the market. It emphasises cooperative relationships and mutual benefits but lacks a clear framework for translating these into strategic positioning or market outperformance. This limitation has prompted scholars to extend relationship marketing theories to include competitive context considerations (Hunt and Morgan 1995; Agarwal and Narayana 2020). The resource-advantage theory is one such extension, positing that the unique resources and capabilities derived from trust-based relationships can underpin competitive advantage. Despite these advancements, the direct link between the CTTs relational constructs and a firm's competitive advantage remains an area less explored within the original framework by Morgan and Hunt (1994). This indicates a gap in the literature and suggests avenues for further theoretical development.

3.7 Chapter summary

This chapter outlined the theoretical framework tailored for this study. It pinpointed the B2B advertising effects model, the RBT, the brand equity theory, and the CTT as essential theoretical lenses through which the study's subject matter was examined. The study thoroughly justified the selection and application of these theories, with each theory's relevance to the research objectives clearly articulated. In pursuit of a balanced academic inquiry, the chapter also delved into critiques of each identified theory, ensuring a comprehensive and critical examination of the theoretical underpinnings of the study. The next chapter provides the conceptual model and states the hypotheses of this study based on empirical investigation.

CHAPTER 4

CONCEPTUAL RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

4.1 Chapter overview

Chapter 3 has provided the theoretical framework aimed at grounding this study. The theoretical framework included theories that include the B2B advertising effects model, the RBT, the brand equity theory, and the CTT. As already indicated in Chapters 1 and 3, these theories provided theoretical grounding for the current study's constructs (that is, BTL advertising, brand loyalty, competitive advantage, commitment, trust and brand awareness). This chapter focuses on discussing the aforementioned constructs and their significance to this study, as well as the hypotheses development. Finally, the hypothetical relationships between the constructs employed in the conceptual research model will be discussed.

4.2 Introduction

This study had, as its second theoretical research objective, to review the literature on advertising, brand loyalty, competitive advantage, commitment, trust, and brand awareness. The current chapter is instrumental in achieving the second theoretical research objective. The next section discusses the concept of advertising.

4.3 Advertising

Chapters 1 and 3 have shown advertising as one of the key constructs in this study, while grounded in the B2B advertising effects model. Advertising is positioned as a predictor within the conceptual framework (Figure 1.1 in Chapter 1). Based on this significance, this section will explore the definition of advertising and its different types that are key to this study. Also, this section will explain the importance of advertising to justify why it is included in the current study. The definition of advertising is presented next.

4.3.1 Definition of advertising

Advertising is a multifaceted concept that has been defined and interpreted in various ways by scholars across the fields of marketing and business management (Järvinen and Taiminen 2016; Kotler and Keller

2016; Chaffey and Ellis-Chadwick 2019; Swani et al. 2020) By examining a collection of definitions provided by eminent authors and comparing them based on key terminology, this study provides a nuanced understanding of the depth and breadth of advertising as a discipline. This section will explore the recurring themes and unique elements within these definitions, highlighting the critical keywords and their implications in both general and specific (B2B) contexts.

Advertising is defined as any paid form of non-personal presentation and promotion of ideas, goods, or services by an identified sponsor (Rabindranath and Singh 2024). Keller (2016) expands on this by describing advertising as the process of making a product and service known to an audience, involving the development and delivery of messages. Fill and Turnbull (2016) define advertising as a means of communication with the users of a product or service, where advertisements are messages paid for by those who send them and are intended to inform or influence. Belch and Belch (2018) view advertising as a form of marketing communication used to influence individuals to purchase products or services from a particular brand. Chaffey and Ellis-Chadwick (2019) offer a different perspective, defining it as a communication technique that employs an openly sponsored, non-personal message to promote a product, service, or idea. Similarly, Smith and Zook (2020) describe it as the act or practice of calling public attention to one's product, service, need, and more, especially by paid announcements in print, broadcast, or online media. Advertising is described as an attempt to influence the buying behaviour of consumers or customers with a persuasive selling message about products and/or services by Hoyer, MacInnis and Pieters (2023).

In the B2B context, Lilien (2016) defines it as targeted communication to inform potential business customers about the existence and benefits of specific products or services. Järvinen and Taiminen (2016) describe it as a strategic tool for building brand awareness and generating leads through focused, relevant messaging. Lastly, Swani et al. (2020) state that B2B advertising focuses on relationship-building and conveying complex technical information tailored to the industry and buyer's needs.

This research critically examines the advertising definitions provided by Kotler and Keller (2016) across both the general consumer and B2B markets, and it becomes clear how foundational concepts are shared and differentiated. Kotler and Keller's (2016) definition emphasises advertising as a "paid, non-personal" form of communication facilitated by an "identified sponsor". This foundation is a cornerstone in traditional marketing theory, aligning with Chaffey and Ellis-Chadwick (2019), who also underscore the paid and non-personal attributes of advertising. However, when juxtaposed with B2B-specific definitions,

such as those by Lilien (2016) and Järvinen and Taiminen (2016), the nuances begin to surface more distinctly.

“Targeted communication” and a specific orientation towards “business customers” are introduced by Lilien (2016) as defining traits of B2B advertising, contrasting with the broader, less targeted approach highlighted by Kotler and Keller (2016). Similarly, Järvinen and Taiminen (2016) describe B2B advertising as a “strategic tool” aimed at “brand awareness and generating leads”, aspects that are not explicitly detailed in Kotler and Keller's (2016) definition. This suggests a more nuanced and strategic approach in B2B settings, emphasising long-term relationship-building and lead-generation over the more transactional nature seen in general consumer advertising.

Moreover, the element of an “identified sponsor”, which Kotler and Keller (2016) note, finds an echo in Swani et al. (2020), who discuss the importance of “relationship building” and “conveying complex technical information” in B2B contexts. This indicates a shared recognition of the sponsor's role, but Swani et al. (2020) extend it to involve deeper, more complex interactions that are characteristic of B2B engagements. These interactions do not just involve identification but also the establishment of credibility and trust, factors less emphasised in the broader definitions by Kotler and Keller (2016).

Differences are also evident when comparing the psychological impact emphasised by authors including Keller (2016) and Hoyer et al. (2023), who stress informing, persuading, and reminding tactics. In contrast, the B2B focus is on tailored, strategic communications aimed at a narrow, informed audience. The general advertising definitions treat the audience more homogeneously and focus on wide-reaching impact rather than the personalised and often technically detailed communications needed in B2B markets.

Based on the comprehensive analysis of existing definitions and their adaptations to the B2B context, a new definition of advertising specifically tailored to B2B marketing has been formulated. This definition aims to encapsulate the strategic nuances and relational dynamics that are pivotal in this sector:

Advertising in B2B marketing is a strategic, relationship-oriented communication process, characterised by targeted, technically detailed messaging aimed at informed business audiences. It is designed to build brand awareness and foster long-term business relationships through the delivery of persuasive and credible information, underpinned by an identified and trustworthy sponsor.

This definition integrates the core elements observed in B2B-specific studies, emphasising the strategic use of advertising as a tool, not just for immediate sales impact, but for cultivating deeper, more

sustainable business interactions. It acknowledges the need for targeted communication that addresses the specific knowledge and needs of business customers, while also stressing the importance of trust and credibility, reflecting the complexity and depth of B2B engagements. The next section will define brand loyalty for this study.

4.3.2 Types of advertising

This study primarily focuses on BTL advertising, which is crucial in reaching specific consumer groups through non-traditional methods, ensuring a more personalised approach. This section explores three prominent types of BTL advertising: direct mail advertising, social media advertising, and display advertising (Swani et al. 2020; Qader et al. 2022; Indeed Editorial Team 2023). These types are selected for their precision in targeting, measurable outcomes, and adaptability in the digital era.

4.3.2.1 *Direct mail advertising*

Direct mail advertising is included due to its ability to deliver personalised and tangible messages directly to the target audience (Bly 2019). It allows companies to reach specific demographics and geographic locations with tailored content, increasing the likelihood of engagement and response. Direct mail advertising involves sending promotional materials, such as brochures, catalogues, postcards, and letters, directly to potential or existing customers via postal mail (Case 2015). By leveraging databases to segment and target audiences, direct mail ensures that the content is relevant and personalised (Deligiannis, Argyriou and Kourtesis 2020). The materials can include special offers, product information, and calls-to-action, encouraging recipients to take immediate steps.

As emphasised by Sahni, Wheeler and Chintagunta (2018), the effectiveness of direct mail advertising can be measured through various metrics. The response rate, which is the percentage of recipients who respond to the call-to-action, is a key indicator (Sammut, Griscti and Norman 2021). Additionally, the conversion rate, which is the percentage of respondents who complete the desired action, such as making a purchase or signing up for a service, provides insights into the campaign's success (Cross 2019). Financial metrics such as return on investment (Kotler and Keller 2016) and customer acquisition cost (Savinov, Taranovskaya and Gavryushin 2021) also help evaluate the overall impact and efficiency of direct mail campaigns.

4.3.2.2 Social media advertising

Social media advertising is a vital inclusion due to its vast reach, targeting precision, and interactive nature (Dwivedi et al. 2021). Social media platforms host a significant portion of the global population, offering companies the opportunity to connect with a broad yet targeted audience. This form of advertising involves creating and sharing promotional content on platforms such as Facebook, Instagram, Twitter, LinkedIn, and TikTok (Pricopoaia and Susanu 2021). Advertisers utilise various formats, including images, videos, stories, and sponsored posts, to convey their messages (Voorveld et al. 2018). Advanced targeting options based on user demographics, interests, behaviours, and location ensure that advertisements reach the most relevant audience.

As posited by Kaplan and Haenlein (2010), measuring the effectiveness of social media advertising involves several metrics. Engagement metrics, such as likes, shares, comments, and interactions, indicate how well the content resonates with the audience (Tafesse 2015). Reach and impressions measure the number of unique users who see the advertisement and the total number of times the advertisement is displayed (Moran, Muzellec and Johnson 2020). The click-through rate provides insight into how many users click on the advertisement after seeing it, while the conversion rate shows the percentage of users who complete a desired action (Barbieri, Silvestri and Lalmas 2016). Financial metrics such as cost per click and return on investment help assess the campaign's financial performance (Almestarihi, Ahmad, Frangieh, Abu-ALSondos, Nser and Ziani 2024). Incorporating these metrics into a comprehensive social media measurement framework allows advertisers to track the immediate impact of their campaigns. It also enables them to understand long-term trends and shifts in consumer behaviour.

4.3.2.3 Display advertising

Display advertising is included due to its ability to visually capture attention and reach a wide audience across various websites and platforms (Filiopoulou et al. 2019). This type of advertising is crucial for brand awareness and recall, offering visually appealing formats that can convey complex messages quickly (Auschaitrakul and Mukherjee 2017). Display advertising involves placing banner advertisements, video advertisements, and rich media advertisements on websites, apps, and social media platforms. These advertisements can appear in various formats, such as static images, animated graphics, or interactive media, and are typically displayed alongside web content (Bruce 2017). Programmatic advertising technology allows for automated buying and placement of these advertisements, enhancing targeting precision and efficiency.

Several key metrics measure the effectiveness of display advertising. Impressions indicate the number of times an advertisement is displayed, while the click-through rate shows the percentage of viewers who click on the advertisement. The conversion rate measures the percentage of users who take a desired action after clicking the advertisement, providing insights into the campaign's effectiveness (Li and Kannan 2014). The viewability rate, which is the percentage of advertisements that are seen by users, helps assess the advertisement's visibility (Windscheid, Bowes-Sperry, Jonsen and Morner 2018). Financial metrics such as cost per thousand impressions and return on investment provide a comprehensive view of the campaign's cost-effectiveness and financial impact (Almestarihi et al. 2024). The measurement of display advertising effectiveness encompasses a multifaceted set of metrics that provide insights into visibility, engagement, conversion, and financial efficiency (Kumar and Gupta 2016). They also assess the long-term impact on brand perception. Through careful analysis of these metrics, marketers can optimise their display advertising strategies to achieve maximum return on investment and contribute to the overall success of their digital marketing initiatives.

4.3.3 Importance of advertising in the study

In the evolving landscape of the South African solar energy industry, the significance of advertising as a critical predictor of brand loyalty cannot be overstated (Iqbal and Siddiqui 2019). The unique dynamics of the industry and the broader theoretical underpinnings of marketing and consumer behaviour justify this approach. First, the solar energy sector in South Africa is experiencing significant growth, with increased competition among both global solar firms and local enterprises (Mordor Intelligence Research and Advisory 2023a). This intensified competitive environment necessitates a re-evaluation of the strategies firms employ to differentiate themselves and retain customer loyalty. Advertising emerges as a pivotal tool for shaping perceptions, and ultimately influencing brand loyalty (Kotler and Keller 2016). By leveraging advertising, solar installation companies can effectively communicate their value proposition, showcase their commitment to sustainability, and build a lasting emotional connection with their audience.

Moreover, the influx of global solar firms and local enterprises into the market poses a significant challenge. It leads to a crowded marketplace where customers are bombarded with numerous options (ECODIT LLC 2022; My Broadband 2023). For instance, B2B solar distributors such as Canadian Solar and local players such as Rubicon have significantly increased their marketing efforts, saturating the market with varied messages and offers (Rubicon 2023; Canadian Solar 2024). In such an environment,

advertising's role transcends mere information dissemination to become a critical determinant of brand loyalty. Well-crafted advertising campaigns can help firms articulate their unique selling propositions, making it easier for customers to navigate their choices and fostering a sense of loyalty towards specific brands (Belch and Belch 2018). An example is Rubicon's advertising strategy that focuses on their unique selling points, such as their extensive local knowledge and superior after-sales service, which has helped them build a loyal customer base amid stiff competition (Rubicon 2023).

Furthermore, the theoretical lens of the AIDA (attention, interest, desire, action) model reinforces the importance of advertising in cultivating brand loyalty (Banerjee 2022). The model suggests that advertising first captures the consumer's attention, and then generates interest and desire for the product or service, ultimately leading to action (purchase) and the potential for loyalty formation (Pramita and Manafe 2022). In the context of the solar energy industry, where the decision-making process is often complex and influenced by factors such as sustainability and long-term cost savings, advertising plays a crucial role. It guides customers through this journey, from initial awareness to a loyal customer relationship (Rishi and Popli 2021). Finally, empirical studies support the notion that advertising significantly impacts brand loyalty. Research indicates that consistent and persuasive advertising not only enhances brand recognition but also contributes to a positive brand image and loyalty (Ansari and Riasi 2016). For the South African solar energy sector, where the market is rapidly expanding and evolving, incorporating advertising as a predictor in studies on brand loyalty is essential for capturing the nuances of consumer behaviour in this context.

Advertising's role within marketing is profound, bridging the connection between brands and their audiences through an evolutionary journey from ancient times to the digital era (Kumar and Gupta 2016; Ayada and Abuelela 2023). This evolution from rudimentary signs in ancient civilisations to sophisticated multi-platform strategies today demonstrates advertising's adaptability and its growing importance in society (Arbia 2022). The introduction of the printing press marked a pivotal era of enhanced reach and influence, indicating a multimedia landscape that has since revolutionised brand communication. This progression has not only diversified the tools available for engaging with customers but also refined the impact of advertising on consumer perceptions and behaviours.

The intricate relationship between advertising and brand loyalty has its roots in this historical progression. As advertising mediums have evolved, they have facilitated the delivery of more targeted and resonant brand messages, essential for cultivating brand loyalty (Kumar and Singh 2020). The sophistication of

these strategies has underscored the importance of effective advertising in building and maintaining loyalty among customers. Jun and Yi (2020) note the crucial role of advertising in reinforcing brand values and meeting audience needs, which is key to developing a loyal customer base.

In the landscape of advertising strategies, the distinction between above-the-line and BTL advertising represents a strategic pivot towards more personalised brand communication (Mishra 2023). While above-the-line advertising utilises mass media for a broad audience reach, BTL advertising focuses on engaging specific consumer segments through personalised channels such as social media, direct mail, and online display advertisements (Kotler and Keller 2016). Although direct mail (Bly 2019), social media advertising (Dwivedi et al. 2021), and display advertising (Filiopoulou et al. 2019) have been independently studied in the advertising literature, these investigations do not assess how their combined impact contributes to overall advertising effectiveness, especially in specific industries. Thus, there is a need to formatively evaluate how these three forms of BTL advertising, when integrated, contribute to the success of advertising strategies in the solar energy sector. This shift towards BTL advertising underscores a deeper understanding of consumer behaviour and the necessity for interactive experiences. By emphasising direct communication and tailored strategies, BTL advertising bolsters the efficacy of brand messages and plays a pivotal role in fostering brand loyalty (Barik and Mukherjee 2023). This study's focus on BTL advertising, including social media, direct mail, and online display banners, reflects a strategic choice. It aims to explore the impact of personalised and direct marketing strategies on brand loyalty (Prete 2015; Swani et al. 2020; Qader et al. 2022; Indeed Editorial Team 2023).

Assessing the success of advertising campaigns in the solar industry, particularly within the BTL domain, necessitates a comprehensive framework tailored to the sector's unique challenges and opportunities. Metrics such as reach, frequency, and impressions offer insights into advertisement exposure, while contemporary measures delve into consumer responses and behaviours (Kotler and Keller 2016). For example, B2B solar distributors such as Rubicon and Canadian Solar might track click-through rates on their digital advertisements and conversion rates from their email marketing campaigns to assess immediate consumer actions (Rubicon 2023; Canadian Solar 2024). Ultimately, the assessment of long-term metrics such as brand loyalty, customer lifetime value, and market share reveals the enduring impact of targeted BTL advertising strategies on brand success in the solar energy sector (Kumar and Rajan 2021).

4.4 Brand loyalty

This section introduces the concept of brand loyalty, which is grounded in the brand equity theory as discussed in Chapter 3. Brand loyalty is identified as a crucial construct within the study's conceptual framework (Figure 1.1) and is positioned as the outcome of the study. This section will define brand loyalty, outline its significance, and justify its inclusion in the study. The definition of brand loyalty will be addressed in detail in the subsequent subsections.

4.4.1 Definition of brand loyalty

Brand loyalty is a crucial concept in marketing that refers to a customer's consistent preference for a particular brand over its competitors (Hasan and Sohail 2021). This preference often results from positive experiences and perceived value, leading to repeat purchases and a strong customer-brand relationship. Definitions of brand loyalty vary widely in academic literature, reflecting its multifaceted nature (Islam, Rahman and Hollebeek 2018; Rather 2020; Sheerin, Dewey, Ratajczak, Katerman and Rice 2021). Several definitions of brand loyalty from both consumer (business-to-consumer) and B2B contexts within the past 10 years, will be discussed next.

Brand loyalty is defined by Kressmann, Sirgy, Herrmann, Huber, Huber and Lee (2006) as driven by self-image congruence, mediated by emotional brand attachment and product involvement. Popp and Woratschek (2017a or b?) define brand loyalty as influenced by trust within online brand communities, through enhanced repurchase intentions and positive electronic word-of-mouth. Harrigan, Evers, Miles and Daly (2018) define brand loyalty in B2B settings as arising from customer-brand engagement, particularly emphasising the impact of engagement on loyalty. Brand loyalty is defined by Islam et al. (2018) as arising from customer-brand engagement, with a strong emphasis on the impact of engagement on loyalty. Puzakova and Aggarwal (2018) state that brand anthropomorphism can decrease brand loyalty when distinctiveness motives are salient. Moretta Tartaglione, Cavacece, Russo and Granata (2019) define brand loyalty through a bibliometric analysis, highlighting satisfaction, trust, and commitment. Rather (2020) states that brand loyalty is influenced by affective commitment developed through personal involvement or reciprocity with the brand. Sheerin et al. (2021) define B2B brand loyalty as resulting from strong brand marketing capabilities that enhance performance marketing and overall engagement. Cartwright, Liu and Raddats (2021) state that word-of-mouth marketing and the establishment of trust within business communities often enhance loyalty in the B2B setting.

When looking at the definition provided by Islam et al. (2018), one can identify the concept of customer-brand engagement as central to brand loyalty. This emphasis on engagement is similarly noted by Harrigan et al. (2018), who also highlight the impact of customer-brand engagement on loyalty within B2B markets. Both studies underscore the importance of active involvement and interaction between customers and brands, suggesting that engagement is a critical determinant of brand loyalty. Hollebeek (2011) and Vivek, Beatty and Morgan (2012) further support this view by exploring engagement in their works, reinforcing the notion that engagement drives loyalty.

However, the approach taken by Islam et al. (2018) diverges significantly from that of Kressmann et al. (2006), who focus on self-image congruence and emotional brand attachment as the primary drivers of brand loyalty. While Islam et al. (2018) emphasise the interactive and participatory aspects of engagement, Kressmann et al. (2006) consider the psychological alignment between a consumer's self-image and the brand's image as pivotal. This distinction highlights a fundamental difference in how these scholars conceptualise the mechanisms underlying brand loyalty.

Moreover, the definition by Islam et al. (2018) does not align with the views of Puzakova and Aggarwal (2018), who discuss the negative impact of brand anthropomorphism on brand loyalty when distinctiveness motives are salient. Islam et al. (2018) do not address the potential negative effects of brand anthropomorphism or the importance of distinctiveness, thereby presenting a more uniformly positive view of engagement's role in fostering loyalty. Similarly, Popp and Woratschek (2017a) and Moretta Tartaglione et al. (2019) place significant emphasis on trust and satisfaction as crucial to brand loyalty, particularly within B2B contexts. While Islam et al. (2018) acknowledge the role of engagement, they do not specifically highlight trust and satisfaction to the same extent, indicating a narrower focus on engagement as the key driver.

Based on the comprehensive analysis of brand loyalty definitions in the context of B2B marketing, a new definition can be formulated. This new definition integrates key concepts such as customer-brand engagement, affective commitment, trust, satisfaction, and the impact of word-of-mouth within business communities:

Brand loyalty in B2B marketing can be defined as a customer's consistent preference and commitment to a brand, driven by active customer-brand engagement, strong emotional and affective commitment, and high levels of trust and satisfaction.

This definition draws upon the importance of engagement as highlighted by Islam et al. (2018) and Harrigan et al. (2018), the role of affective commitment as discussed by Rather (2020), and the significance of trust and satisfaction as emphasised by Moretta Tartaglione et al. (2019) and Popp and Woratschek (2017a). Additionally, it incorporates the impact of word-of-mouth marketing within business communities, as explored by Cartwright et al. (2021). The next section will discuss the importance of brand loyalty.

4.4.2 Importance of brand loyalty

Brand loyalty is a crucial element in modern marketing strategies, providing numerous benefits to B2B distributors that can successfully cultivate it. As summarised in Table 4.1, recent studies highlight several key aspects of brand loyalty's importance. First, brand loyalty contributes significantly to sustainable competitive advantages and financial outcomes. Moretta Tartaglione et al. (2019) emphasise that customer loyalty leads to repeated purchasing behaviours and lowers customers' sensitivity to competitors' price changes. This stability in the customer base is essential for companies aiming for long-term profitability. Loyal customers are more likely to engage in word-of-mouth promotion, further enhancing the brand's market position. Additionally, these customers typically have higher lifetime value, meaning they generate more revenue over time while incurring lower servicing costs compared to acquiring new customers (Yagüe Guillén and Rubio 2019).

Moreover, the role of customer engagement and emotional attachment in fostering brand loyalty cannot be overstated. Rather (2020) demonstrates that customer-brand identification, how closely customers associate themselves with a brand, greatly influences their level of engagement and affective brand commitment. This engagement manifests in positive behaviours such as frequent purchases and strong advocacy, reinforcing the overall loyalty to the brand. Engaged customers often form emotional bonds with the brand, making them less likely to switch to competitors, thus ensuring a stable revenue stream for the company (Dapi and Phiri 2015).

Affective commitment further reinforces emotional attachment, where customers develop a deep emotional connection to the brand. This connection encourages consistent repurchasing and enhances customer retention rates. As Dapi and Phiri (2015) explain, such emotional bonds lead to a form of loyalty that is resistant to competitive pressures. Customers with a high level of affective commitment are more likely to overlook minor negative experiences and remain loyal to the brand. The profitability of loyal customers is another critical factor. Yagüe Guillén and Rubio (2019) highlight that loyal customers are

more profitable because they tend to spend more during their relationship with the brand. Additionally, the cost of serving these customers is lower since they require less marketing expenditure to maintain. This economic efficiency makes brand loyalty a strategic imperative for firms seeking to maximise their return on investment in customer relationship management.

Table 4.1: Importance of brand loyalty

Author (Year)	Importance	Description
Moretta Tartaglione et al. (2019)	Sustainable competitive advantage and financial outcomes	Customer loyalty contributes to sustainable competitive advantages and enhances financial outcomes by fostering repeated purchasing behaviours and reducing sensitivity to price changes. Loyal customers also tend to spend more and cost less to serve.
Rather (2020)	Enhanced customer engagement and commitment	Customer-brand identification significantly impacts brand loyalty through increased customer engagement and affective brand commitment. Engaged customers are more likely to remain loyal, influencing overall brand loyalty positively.
Dapi and Phiri (2015)	Emotional attachment and affective commitment	Emotional attachment to a brand encourages affective commitment, leading to repeated purchases and positive word-of-mouth. This behaviour reduces the likelihood of customers switching to competitors, thereby maintaining loyalty.
Yagüe Guillén and Rubio (2019)	Profitability and reduced servicing costs	Loyal customers are more profitable as they spend more over time and have lower servicing costs compared to new customers. This profitability aspect makes brand loyalty a strategic imperative for firms.

4.4.3 Role of brand loyalty in the study

Justifying the inclusion of brand loyalty as an outcome in studies examining the impact of advertising is pivotal, especially within the rapidly evolving solar energy sector in South Africa. This industry, characterised by significant growth and heightened competition, presents an intriguing context for such an investigation. The solar energy market in South Africa is undergoing considerable expansion. This fosters an environment where understanding the dynamics of brand loyalty can offer crucial insights for companies striving for market dominance (Mordor Intelligence Research and Advisory 2023a). The influx of global solar firms alongside burgeoning local enterprises has catalysed a competitive upheaval within the industry. This underscores the need for strategies that not only attract but also retain customers (ECODIT LLC 2022; My Broadband 2023). In this context, advertising emerges as a critical tool for shaping consumer perceptions and fostering a sense of loyalty toward a brand (Ahmadian et al. 2023).

In the solar energy sector, where a myriad of factors influences the decision-making process, including product quality, environmental impact, and cost efficiency, advertising plays a crucial role. It effectively communicates a brand's unique value proposition, which can significantly enhance brand loyalty (Yang, Zheng, Zhao and Gupta 2017). This loyalty, in turn, acts as a buffer against the competitive forces unleashed by the entry of new players into the market. Furthermore, brand loyalty is instrumental in fostering positive word-of-mouth, reducing the costs associated with acquiring new customers, and enhancing the overall stability of a brand's market share (Popp and Woratschek 2017b). In a market as competitive as South Africa's solar energy sector, these benefits underscore the strategic importance of investigating the link between BTL advertising and brand loyalty. The justification for focusing on brand loyalty within this study is bolstered by the current market dynamics in South Africa (Mordor Intelligence Research and Advisory 2023a). The proliferation of B2B solar distributors necessitates an understanding of how to effectively leverage BTL advertising to cultivate a loyal customer base. By examining this relationship, the study aims to provide actionable insights that can guide solar energy firms in deploying BTL advertising strategies, that not only attract, but also retain customers in a market teeming with alternatives.

Furthermore, brand loyalty, as a construct, is deeply rooted in the broader realm of brand equity theory and is defined as a consumer's consistent preference for one brand over all others (Keller 1993; Beig and Nika 2019). This preference may arise due to satisfaction with the product or service, the value it offers, or the emotional connection the brand has established with the consumer (Popp and Woratschek 2017b). This loyalty manifests not only in repeat purchases but also in the consumer's willingness to recommend the brand to others, demonstrating their resistance to switching to a competitor based on price or convenience alone. Moreover, as markets have become more saturated and competitive, and as customers have become more sophisticated, the understanding of brand loyalty has deepened. Researchers and practitioners alike now recognise the importance of emotional and psychological factors in driving loyalty. The rise of social media and digital marketing has further expanded the avenues through which brands can engage with their customers and foster loyalty among them, highlighting the importance of authentic, value-driven relationships between brands and customers (Wijaksono and Ali 2019). The next section discusses competitive advantage.

4.5 Competitive advantage

As already indicated in Chapter 3, competitive advantage is theoretically grounded in the RBT. Incorporating competitive advantage as a mediator in the conceptual model that examines the impact of BTL advertising on brand loyalty offers a robust framework for surviving a competitive market (Kumar and Pansari 2016). This is particularly true within the rapidly evolving solar energy industry in South Africa, elucidating the nuanced dynamics of market competition and consumer allegiance. The solar energy sector, characterised by significant growth and the entrance of numerous global and local firms, has witnessed heightened competition. This underscores the pertinence of competitive advantage in this context (ECODIT LLC 2022; Mordor Intelligence Research and Advisory 2023a; My Broadband 2023).

Competitive advantage, in this framework, acts as a critical bridge that connects advertising efforts with the eventual development of brand loyalty. Advertising, by its nature, not only seeks to inform and persuade but also to differentiate a brand from its competitors (Kumar and Gupta 2016). This differentiation is at the heart of establishing a competitive edge. In the context of the solar energy industry in South Africa, where the market is flooded with alternatives and choices for customers, the ability of a firm to stand out through unique value propositions, communicated effectively through advertising, becomes pivotal (Payne, Frow and Eggert 2017). This process, in turn, can foster deeper commitment and trust among customers, serving as foundational elements of brand loyalty (Hollebeek and Macky 2019).

Moreover, competitive advantage as a mediator allows for more granular analysis of the pathways through which advertising impacts brand loyalty (Anisimova, Weiss and Mavondo 2019). It posits that the effectiveness of advertising in engendering loyalty is contingent upon its capacity to enhance perceived value and superiority over competitors. This perspective aligns with the resource-based view of the firm, which advocates for leveraging unique resources and capabilities as a means of achieving and sustaining competitive advantage (Donnellan and Rutledge 2019). In the solar energy sector, such resources could include technological innovation, customer service excellence, or sustainability practices, all of which can be highlighted through targeted BTL advertising strategies. Given the solar energy sector's trajectory in South Africa, characterised by an influx of competitors and escalating market saturation, understanding the mediating role of competitive advantage becomes even more critical. It allows firms to navigate the complexities of the market more effectively by focusing on strategic BTL advertising that not only reaches but resonates with the target audience. This cultivates a loyal customer base that can withstand the

pressures of an increasingly competitive landscape (ECODIT LLC 2022; Mordor Intelligence Research and Advisory 2023a; My Broadband 2023).

Competitive advantage, as a construct is pivotal to the understanding of strategic management and marketing. It remains central to companies' efforts to achieve superior performance and sustainability in the market. In the context of B2B marketing, competitive advantage takes on specific dimensions that reflect the distinct nature of B2B transactions. These transactions are characterised by longer sales cycles, complex decision-making processes, and the importance of relationships (Steward et al. 2019). Business-to-business distributors often leverage competitive advantage by developing deep expertise in their industry, offering customised solutions, and establishing strong brand reputations for reliability and quality. The emphasis on relationship marketing, understanding customer needs, and delivering value through service excellence becomes crucial in achieving a competitive edge in B2B markets (Kumar and Pansari 2016). Competitive advantage also acts as a mediator in various contexts, bridging the gap between organisational resources and market outcomes. It mediates the relationship between a firm's strategic initiatives, such as innovation, customer relationship management, and operational efficiency (Hussain, Mu, Mohiuddin, Danish and Sair 2020). This mediation influences its performance outcomes, including market share, profitability, and brand loyalty. This mediating role underscores the importance of aligning internal resources and capabilities with market needs and opportunities to achieve desired outcomes. For instance, in the realm of BTL advertising's impact on brand loyalty, competitive advantage mediates by enhancing brand differentiation and customer value, thereby strengthening brand loyalty (Rasouli, Shirazian and Rasuli 2021).

4.6 Commitment

As indicated in Chapter 3, commitment is theoretically grounded in the CTT. In the realm of B2B marketing, commitment takes on a nuanced dimension. The relationships between companies are characterised by higher levels of complexity and interdependence than those typically found in B2C contexts. Business-to-business commitment encompasses not only the emotional and psychological attachment to a partner but also the strategic and operational alignments. These are deemed necessary for achieving long-term company goals (Gansser, Boßow-Thies and Krol 2021). Commitment in B2B relationships is important to ensure cooperation, reduce conflicts, and enhance the overall stability and longevity of the partnership (Gimeno-Arias et al. 2023). This is particularly crucial in B2B contexts where

switching costs are high, and the success of the company often depends on the reliability and performance of its partners.

Furthermore, commitment fosters a desire to maintain a valued relationship, which, in turn, enhances loyalty (Akrouf and Nagy 2018). In the context of the solar energy sector in South Africa, commitment can be understood as the customer's psychological attachment to a brand. This is propelled by effective advertising that resonates with the audience's values and needs. Dwyer, Schurr and Oh (1987) highlighted the progression from attraction to commitment and then to loyalty within the framework of relationship development (Giovanis 2016). Advertising, when executed strategically, can cultivate a sense of commitment by emphasising the brand's unique propositions and quality of service. Additionally, it highlights its contributions to sustainability efforts, which are particularly relevant in the solar industry. Moreover, commitment as a mediator is justified by its ability to encapsulate the emotional and cognitive aspects of consumer-brand relationships (Ferreira, Rodrigues and Rodrigues 2019). In a sector experiencing an influx of competitors, the emotional bond cultivated through commitment can act as a differentiator, encouraging customers to remain loyal even when presented with alternatives. This is supported by research indicating that emotional connections can significantly influence consumer loyalty and preference (Cachero-Martínez and Vázquez-Casielles 2021).

Additionally, the inclusion of commitment acknowledges the complexity of consumer decision-making processes through consistent and meaningful advertising messages that resonate with customers on a personal level, thereby fostering a stronger commitment (Ramaseshan and Stein 2014). Furthermore, considering the solar energy industry's growth and the importance of differentiating oneself amid intense competition, commitment can serve as a strategic tool in reinforcing brand loyalty (Jusuf 2023). The next section presents trust as a mediator construct.

4.7 Trust

The concept of trust is grounded in the CTT as highlighted in Chapters 1 and 3. In B2B marketing, trust assumes a more nuanced dimension due to the complexity and long-term nature of relationships between companies. Companies engage in transactions that are not merely transactional but are built over time, predicated on the belief in the partner's reliability and integrity. The development of trust in B2B relationships is influenced by past experiences, perceived competence, and the mutual benefits derived from the relationship (Lussier and Hall 2018). This underscores the role of trust in reducing the perceived risks associated with company transactions and in fostering long-term relationships that are conducive to

loyalty. Furthermore, trust acts as a mediator in the relationship between various marketing activities and the development of brand loyalty (Veloutsou 2015; Trivedi and Yadav 2020; Barden et al. 2021). This mediating role of trust is pivotal, as it encapsulates the mechanism through which marketing efforts translate into positive outcomes such as brand loyalty. For instance, customer perceptions of quality and value are filtered through their trust in the brand, which in turn influences their loyalty (Sulivyo and Ekasari 2021). In this way, trust mediates the impact of marketing strategies on brand loyalty by reinforcing or attenuating the perceived value of the brand and its offerings.

Moreover, the mediating role of trust extends beyond the direct interactions between a company and its customers (Paparoidamis, Katsikeas and Chumpitaz 2019). In the digital age, where information asymmetry and market uncertainties are prevalent, trust in a brand can significantly mitigate concerns and foster a sense of security among customers, thereby enhancing brand loyalty (Zhou and Whitla 2013; Boukis 2020). This is particularly relevant in the context of online transactions and digital marketing, where the physical distance between parties accentuates the importance of trust.

Furthermore, trust facilitates the development of consumer-brand relationships, serving as a foundation for commitment and competitive advantage. In the context of intense market competition and the entry of numerous players, a brand that successfully builds trust with its customers can achieve a competitive edge. This is by cultivating loyal customer bases less susceptible to the appeals of competitors (Frías-Jamilena, Sabiote-Ortiz, Martín-Santana and Beerli-Palacio 2018). This competitive advantage, rooted in trust, can lead to increased consumer retention and loyalty, crucial outcomes in a highly competitive market. The next section discusses brand awareness as a moderator construct within this study.

4.8 Brand awareness

It has been highlighted already that brand awareness is grounded in the brand equity theory. The justification for incorporating brand awareness as a moderator in this study emerges from the premise that awareness of a brand increases the likelihood of its selection among alternatives in purchasing decisions (Keller 1993; Stankevich 2017). This is particularly relevant in the context of the solar energy industry in South Africa. This industry is characterised by significant growth and intensified competition due to the influx of both global solar firms and local enterprises (ECODIT LLC 2022; Mordor Intelligence Research and Advisory 2023a; My Broadband 2023). As customers become more aware of a brand, their familiarity with the brand's attributes, benefits, and values increases, thereby enhancing the brand's competitive advantage and fostering trust and commitment (Akrout and Nagy 2018).

In a highly competitive environment such as the solar energy sector in South Africa, BTL advertising plays a crucial role in enhancing brand awareness. However, the effectiveness of advertising in fostering brand loyalty is not just a direct consequence of exposure but also depends on the level of brand awareness that exists among the target audience (Aaker 1991; Zhao et al. 2022). High levels of brand awareness can serve as a magnifier of the positive impacts of BTL advertising. It reinforces the brand's image and values in the minds of customers, thereby strengthening trust and commitment (Baldauf, Cravens and Binder 2003; Syed Alwi et al. 2016). This, in turn, enhances the competitive advantage of the brand, making it more likely for customers to remain loyal.

Moreover, the specific context of the solar energy industry in South Africa, with its rapidly growing market and increasing competition, underscores the importance of brand awareness. The entry of numerous global and local firms has made the market more dynamic and more challenging for brands to distinguish themselves (ECODIT LLC 2022; My Broadband 2023). In this context, brand awareness not only helps in differentiating a brand from its competitors. It also ensures that advertising efforts are more effective in building and maintaining brand loyalty through the mediating roles of trust, commitment, and competitive advantage.

Therefore, considering brand awareness as a moderator in the study acknowledges its central role in enhancing the efficacy of BTL advertising in a competitive market. This approach is supported by literature indicating that brand awareness can significantly influence consumer perception and behaviour, making it a key determinant of brand loyalty (Aaker 1991; Keller 1993; Saleem, Rahman and Umar 2015). In the highly competitive and growing solar energy market of South Africa, understanding the moderating role of brand awareness is essential (ECODIT LLC 2022; Mordor Intelligence Research and Advisory 2023a; My Broadband 2023). It is crucial for devising effective BTL advertising strategies that can foster brand loyalty through enhanced trust, commitment, and competitive advantage.

4.9 Conceptual framework and hypotheses development

This section seeks to analyse empirical literature on the constructs included in the proposed conceptual model (Figure 1.1 in Chapter 1). Constructs within this conceptual framework include BTL advertising, brand loyalty, commitment, trust, competitive advantage and brand awareness. As already indicated in previous sections, these constructs are grounded in different theories. There is evidence pointing to the numerous studies that have investigated the relationship between BTL advertising and brand loyalty (Voorveld et al. 2018; Lou and Yuan 2019). Moreover, there are also previous studies that have

investigated the mediating roles of competitive advantage (Correia et al. 2021; Inrawan et al. 2021), commitment (Ribeiro et al. 2022; Mei and Wei 2022), and trust (Trivedi and Yadav 2020; Hanaysha 2022). Also, there is evidence pointing to the existence of studies that have evaluated the moderating role of brand awareness (Thomran et al. 2022; Tiwari et al. 2024;). The following sections will provide an in-depth review of these empirical studies leading to research hypotheses development.

4.9.1 Relationship between below-the-line advertising and brand loyalty

As already highlighted, empirical studies have consistently highlighted the profound impact of advertising on brand loyalty (Voorveld et al. 2018; Lou and Yuan 2019). A significant portion of corporate investment is channelled into advertising initiatives, a strategy that not only promotes brand awareness but also signals a brand's commitment to quality and reliability (Jain et al. 2024). Customers often perceive this investment in advertising as an indicator of a brand's dedication to its products or services, thereby bolstering brand loyalty. For instance, Ma et al. (2023) explored the direct impact of advertising on consumer perceptions of brand credibility. The research of Voorveld et al. (2018) posited that multi-channel advertising strategies contribute to higher brand loyalty, especially when combining online and traditional media. Ma et al. (2023) further elaborated on this by suggesting that such investment signals a brand's confidence in its offerings, enhancing consumer trust and, consequently, loyalty.

While the scope of advertising is broad, contemporary research has shown a growing focus on BTL advertising. This includes platforms such as social media, direct mail, and online display advertising, which have become increasingly significant in reaching and engaging customers. Prete (2015), Swani et al. (2020), and Qader et al. (2022) have all highlighted the increasing significance of social media, direct mail, and online display advertising in engaging customers as more effective and personal. The Indeed Editorial Team (2023) has also contributed to this discourse, emphasising the versatility and targeted nature of BTL advertising in building direct connections with customers.

The effectiveness of advertising in fostering brand loyalty extends beyond mere communication (Ha et al. 2011; Rather et al. 2018). It serves as an informative tool that enhances customers' perceptions of a brand's performance and experience (Zhao et al. 2022). This retention is crucial for encouraging repeat purchases and building enduring brand loyalty. The B2B advertising effects model supports this notion, suggesting that advertising helps in retaining and recalling essential information about a brand, which in turn, influences customers' purchasing decisions, referrals, and their long-term commitment to the brand (Cortez et al. 2020). This hypothesis underscores the integral role of BTL advertising in reinforcing brand

loyalty, suggesting a direct correlation between targeted BTL advertising efforts and the strength of customer-brand relationships.

The studies and theories reviewed affirm the pivotal role of strategic BTL advertising efforts in shaping customer perceptions, enhancing perceived quality, and fostering deep-rooted brand loyalty. As such, corporations' investment in BTL advertising, especially in innovative and customer-centric platforms, remains a critical factor in maintaining and enhancing brand loyalty in a competitive marketplace. Hence, the hypothesis:

H1: BTL advertising has a positive statistically significant effect on brand loyalty.

4.9.2 Relationship between competitive advantage and brand loyalty

The interconnection between competitive advantage and brand loyalty represents a pivotal area of inquiry in the domain of strategic management and marketing. This nexus is critical for understanding how firms can leverage unique resources and capabilities to maintain superior market positions and foster enduring customer relationships. To unpack the complexity of this relationship, it is essential to delve deeper into the foundational theories and empirical studies that have shaped the understanding of competitive advantage, particularly the RBT (Kozlenkova et al. 2014).

A fundamental understanding of competitive advantage is offered by Thomran et al. (2022), who characterise it as a firm's capability to create more economic value than its rivals. This concept is pivotal for grasping the strategic significance of distinctive resources and capabilities in achieving and maintaining superior market performance. Holdford (2018) extends upon this notion of competitive advantage, positing that it emanates from a firm's unique resources and capabilities. According to the RBT, these distinct assets, which are VRIN, equip firms with the means to surpass their competitors (Tiwari et al. 2024).

The effectiveness of competitive advantage in fostering brand loyalty extends beyond mere differentiation from competitors. A firm's unique and valuable resources, such as brand equity, proprietary technology, or specialised expertise, play a critical role in enhancing customers' perceptions of a brand's superiority and reliability (Rane et al. 2023). These resources contribute to sustained competitive advantage, which is crucial for encouraging repeat purchases and building enduring brand loyalty (Jones, Harrison and Felps 2018). The RBT suggests that when firms successfully utilise their VRIN

resources to create a strong competitive advantage, they can significantly influence customers' purchasing decisions and long-term commitment to the brand (Kozlenkova et al. 2014). This theory underscores the integral role of a firm's distinctive resources and capabilities in reinforcing brand loyalty, highlighting a direct correlation between a firm's competitive advantage and the strength of customer-brand relationships.

Empirical evidence further supports the relationship between competitive advantage and brand loyalty. For instance, Adama et al. (2024) emphasise that leveraging data-driven insights within the information technology sector enables B2B distributors to anticipate competitor strategies, thereby capitalising on market opportunities and achieving sustainable growth. This has been shown to be a significant factor for solar installation companies, where competitive advantage predicts brand loyalty. In a similar context, Chesnokova, Radina and Serdyuk (2014) explore how competitive advantages such as product quality, service quality, and pricing directly impact consumer loyalty, reinforcing the critical role of differentiation in customer retention. Arslan (2020) also found that customer-perceived value and competitive advantage impact loyalty, mediated by trust, demonstrating the interplay of intangible factors in fostering brand loyalty.

Additionally, studies in diverse sectors highlight the universality of this relationship. For instance, Chen (2015) examined the hairdressing sector and found asymmetry in views on competition and loyalty drivers between service providers and customers. These findings reinforce the idea that competitive advantages, perceived differently by businesses and consumers, can profoundly influence loyalty, particularly when framed around customer value. The studies and theories reviewed affirm the pivotal role of strategic competitive advantages, as informed by the RBT, in shaping customer perceptions, enhancing perceived quality, and fostering deep-rooted brand loyalty. As such, corporations' investment in developing and maintaining VRIN resources remains a critical factor in sustaining and enhancing brand loyalty in a competitive marketplace. Hence, it hypothesised that:

H2: Competitive advantage has a statistically significant effect on brand loyalty.

4.9.3 Relationship between commitment and brand loyalty

The relationship between commitment and brand loyalty forms a complex matrix (Foroudi et al. 2018). This matrix has garnered significant academic attention. This intricate relationship is critical for understanding how brands can cultivate enduring connections with their customers (Batat 2019). It

reveals that building lasting relationships requires deeper, more meaningful interaction that resonates with the core values and expectations of the consumer, thereby fostering loyalty and trust over time.

Several studies reinforce the role of commitment in fostering brand loyalty. For instance, Shin et al. (2019) revealed that smartphone users in South Korea with strong brand commitment are more likely to develop lasting loyalty, suggesting that commitment serves as a foundational element in cultivating long-term customer relationships. Similarly, Hidayanti, Nuryakin and Farida (2018) found that brand commitment significantly impacts customer loyalty across various industries in Indonesia, such as hospitality and branded laptops. Their findings demonstrate that commitment is a critical driver of customer loyalty, regardless of the sector. Malik (2020) further corroborated these findings by showing that brand awareness and commitment positively influence brand loyalty, with customer satisfaction mediating this relationship, particularly in the restaurant industry.

Geyskens, Steenkamp, Scheer and Kumar (1996) and Goutam (2020) have made essential contributions to our understanding of commitment within the loyalty framework. Their research delineates commitment into affective and calculative dimensions. Affective commitment embodies an emotional bond and a genuine desire to maintain a relationship, underscoring a sense of attachment and a forward-looking readiness between partners (Van Tonder, Saunders, Lisita and De Beer 2018; Goutam 2020). Positive feelings and satisfaction derived from the relationship drive this form of commitment, transcending mere transactional interactions. On the other hand, calculative commitment adopts a pragmatic stance, where the continuation of a relationship is predicated on financial considerations or the absence of better alternatives (Shukla, Banerjee and Singh 2016; Khan, Hollebeek, Fatma, Islam and Riiivits-Arkonsuo 2020). This utilitarian perspective views commitment through the lens of cost-benefit analyses, where loyalty is contingent upon the tangible benefits received.

The inclusion of ethical values within the CTT further enriches the research on commitment. Elbeltagi and Agag's (2016) findings underscore a significant correlation between a company's adherence to ethical standards and customer commitment in marketing. The CTT theorises that a steadfast commitment from customers necessitates the integration of ethical principles within a company's operations, fostering trust and, consequently, enhancing commitment. This correlation suggests that ethical business practices are not just moral imperatives but strategic assets that can amplify customer loyalty through heightened trust and commitment (Goutam 2020). Therefore, the hypothesis:

H3: Commitment has a statistically significant effect on brand loyalty.

4.9.4 Relationship between trust and brand loyalty

Trust is a foundational element in the development of brand loyalty, serving as a pivotal factor in sustaining long-term customer relationships (Trivedi and Yadav 2020; Barden et al. 2021; Hanaysha 2022). It is widely acknowledged that trust forms the bedrock upon which brand loyalty is built, as it reduces perceived risks and fosters a sense of security in the consumer (Goutam 2020). Trust in a brand is often cultivated through consistent and reliable interactions, which reinforce a brand's reputation and credibility over time (Rane et al. 2023). When customers trust a brand, they are more likely to develop an emotional connection, which, in turn, translates into loyalty.

Ahmed et al. (2014) found that among Hewlett-Packard product consumers, brand trust significantly contributes to brand loyalty, alongside factors such as service quality and perceived value. This aligns with the findings of Samarah et al. (2022), who revealed that brand trust plays a critical role in shaping loyalty in the consumer electronics market, demonstrating a robust link between trust and customer retention. Additionally, Chen, Prentice et al. (2022) discovered a strong positive correlation between customer trust and both customer engagement and loyalty in the home-sharing sector, further emphasising the importance of trust in driving loyalty across diverse industries.

The integration of transparency and accountability within the CTT further deepens the research on trust (Rickert 2016). According to Dowell et al. (2015), trust encompasses both cognitive and affective dimensions. Cognitive trust arises from a rational assessment of a brand's competence, reliability, and predictability, while affective trust is rooted in emotional bonds and shared values. Brands that consistently meet or exceed customer expectations in these areas are more likely to engender a loyal customer base (Rane et al. 2023). This is particularly crucial in today's competitive market, where trust can be a significant differentiator.

Furthermore, the relationship between trust and brand loyalty is often mediated by other factors such as customer satisfaction and perceived value (Ikramuddin and Mariyudi 2021). Satisfied customers, who perceive high value in a brand, are more likely to trust that brand, which reinforces their loyalty (Cardoso, Gabriel, Figueiredo, Oliveira, Rêgo, Silva, Oliveira, Meirinhos 2022; Yum and Kim 2024). This indicates that trust does not operate in isolation but is intricately linked with other elements of the customer-brand relationship. Moreover, brands that aim to cultivate loyalty must focus not only on building trust but also on delivering consistent satisfaction and value to their customers. Therefore, it hypothesised that:

H4: Trust has a statistically significant effect on brand loyalty.

4.9.5 Moderated mediation effect of brand awareness

4.9.5.1 *Mediating role of competitive advantage*

Empirical research has increasingly focused on the mediating role of competitive advantage in various business contexts, particularly in relation to brand loyalty. Singh et al. (2024) examined the complex relationship between environmental, social, and governance practices and their influence on brand reputation and customer loyalty. Their findings highlighted that competitive advantage acts as a significant mediator, demonstrating the importance of aligning environmental, social, and governance practices with competitive strategies to foster long-term brand loyalty. Similarly, Inrawan et al. (2021) identified the mediating role of competitive advantage in the relationship between the adoption of financial standards, innovations, and small and medium-sized enterprise performance. Furthermore, Correia et al. (2021) explored how competitive advantage mediates the link between market orientation and company performance, emphasising that strategic marketing efforts can enhance competitive advantage and, in turn, strengthen customer loyalty.

Conversely, some studies question the mediating role of competitive advantage, suggesting that its effect may vary depending on the context. For example, Murtiningsih, Sartana and Napitupulu (2019) found that competitive advantage does not mediate the relationship between social media marketing and student loyalty, indicating that its mediating role can differ across sectors. Similarly, Usino and Murtiningsih (2019) found that competitive advantage did not mediate the influence of social media marketing on student loyalty. Additionally, Wahyuni, Melani and Candrawati (2019) discovered that in the real estate sector, cost leadership is not a critical success factor, as intangible assets like location, brand image, and building aesthetics outweigh the price in determining customer value. Such assets, including human capital and intellectual property, are difficult to replicate and are key to achieving sustainable competitive advantage. Tomahuw, Jafar and Kristaung (2023) also found that competitive advantage did not mediate the relationship between product innovation and sustainable growth in Indonesian micro, small and medium enterprises, suggesting that the role of competitive advantage as a mediator may vary depending on industry dynamics. This diverse body of research indicates that while competitive advantage can mediate the link between strategic business efforts and brand loyalty, other variables may moderate its effectiveness as a mediator.

4.9.5.2 Mediating role of commitment

Research by Alkhaldeh et al. (2017) demonstrated that brand commitment mediates the relationship between brand awareness and brand loyalty, particularly within Jordan's economic sectors. This finding shows how brand awareness can foster customer loyalty by promoting commitment. Similarly, Amani (2015) revealed that commitment mediates the link between trust and relationship loyalty in the retail sector, highlighting trust's essential role in cultivating long-term customer loyalty. Van Tonder (2016) also found that commitment mediates the relationship between quality advice and customer loyalty in the insurance sector, emphasising how trust and commitment work together to drive client retention. These studies collectively underscore that commitment, whether developed through brand awareness, trust, or service quality, plays a crucial role in fostering and maintaining customer loyalty.

However, other studies dispute the mediating role of commitment. Kaur and Soch (2018) concluded that attitudinal commitment does not mediate the relationship between customer satisfaction, trust, and attitudinal loyalty among Indian consumers of mobile phone services. Likewise, Bakhshi and Dubey (2020) found that neither affective nor continuance commitment towards retail outlets mediated the relationship between retail service quality and word-of-mouth communication. Similarly, Kurniawan, Ali and Hendrian (2022) demonstrated that organisational commitment did not mediate the relationship between compensation and employee performance in a competitive work environment at Bukit Duabelas National Park. These findings suggest that the mediating role of commitment is context-specific and that other factors may moderate it, highlighting the need for further research.

4.9.5.3 Mediating role of trust

Many studies have empirically established trust as a mediator, particularly in its relationship with brand loyalty. Trivedi and Yadav (2020) found that trust amplifies the impact of consumer satisfaction by significantly enhancing the connection between e-satisfaction and repurchase intentions among Generation Y customers. This illustrates trust's vital role in driving both immediate consumer behaviour and long-term loyalty. Similarly, Arslan (2020) explored how customer-perceived value and competitive advantage impact customer loyalty, with trust acting as a mediator in this relationship. These findings suggest that trust plays a fundamental role in maintaining brand loyalty, influencing both transactional and relational outcomes.

However, not all studies support the mediating role of trust in building brand loyalty. Hendrawan and Agustini (2021) found that trust does not significantly affect e-loyalty and does not mediate the relationship between brand image and e-loyalty in the e-marketplace. Likewise, Murtiningsih et al. (2019) discovered that while social media marketing positively influences student loyalty and institutional image, trust does not mediate these effects. Instead, institutional image and competitive advantage were more influential in driving student loyalty. Doe (2020) also found that trust did not mediate the relationship between customer or brand relations and brand loyalty in online brand communities. These findings challenge the assumption that trust is a universal mediator, suggesting that its role may vary depending on the context and industry. Overall, while trust remains a key element in certain relationships, factors like institutional image and competitive advantage may take precedence in specific contexts.

The mixed findings on the mediating roles of competitive advantage, commitment, and trust suggest that other contextual variables, such as brand awareness and industry type, may influence these mediating effects. Thus, examining the moderating role of brand awareness could provide deeper insights into the contradictions noted above.

4.9.5.4 Moderating role of brand awareness

The moderating role of brand awareness is well-established in the literature. Yigit and Tigli (2018) found that brand awareness and brand loyalty moderate online impulse buying behaviour under conditions such as time pressure and perceived low prices. Similarly, Mekebbaty et al. (2020) demonstrated that brand awareness moderates the relationship between brand experience and brand trust, particularly in mobile banking services, further highlighting its impact on brand loyalty. Adiwijaya, McGuinness, Cary and Herjanto (2021) extended this view by revealing that brand awareness moderates the relationships between product innovation, brand trust, and brand loyalty. Although these studies emphasise the importance of brand awareness in fostering trust and loyalty, they primarily focus on direct relationships. Given the contradictory findings regarding the mediating roles of competitive advantage, commitment, and trust, there is a need to explore whether the moderating role of brand awareness extends beyond direct relationships to affect indirect relationships as well.

Building on these discussions, the following hypotheses were developed:

H5: Brand awareness moderates the mediated role of competitive advantage on the relationship between BTL advertising and brand loyalty.

H6: Brand awareness moderates the mediated role of commitment in the relationship between BTL advertising and brand loyalty.

H7: Brand awareness moderates the mediated role of trust in the relationship between BTL advertising and brand loyalty.

4.10 Chapter summary

This chapter has evaluated the key constructs of the study while justifying inclusion. Throughout this chapter, the intricate interplay between key constructs within the conceptual research model is explored while illuminating the nuanced relationships that underpin effective BTL advertising efforts. By elucidating these hypothetical relationships, marketers gain valuable insights into the dynamics at play when crafting BTL advertising campaigns designed to engender brand loyalty. Following this, the succeeding chapter delves into the research methodology employed to test the identified hypotheses.

CHAPTER 5

RESEARCH METHODOLOGY

5.1 Chapter overview

The previous chapter primarily focused on assessing the body of literature that informs this research. As a result, the evaluation of the literature in the preceding chapter focused on presenting the theoretical and conceptual framework of the study. In the current chapter, the research methodology utilised for this study will be discussed. This chapter articulates the methods used for data collection and data analysis. It covers aspects such as sampling design, data collection tools, validity and reliability considerations, methodological limitations, and ethical concerns. Each technique applied in this study is explained and justified.

5.2 Introduction

The research methodology forms the foundation for ensuring the accuracy and trustworthiness of any scientific investigation. It serves as a systematic roadmap, detailing the process for collecting, operationalising, measuring, and analysing data (Sekaran and Bougie 2016; Smith, Braithwaite, O'Brien, Smith, Tyrrell, Mould, Long and Rapport 2022). In this study, the methodology has been chosen based on carefully formulated research questions and hypotheses to address the intricate relationships between BTL advertising and brand loyalty within the South African B2B solar industry. The model explores various influential factors, including competitive advantage, commitment, and trust, while considering the moderating role of brand awareness. Figure 5.1 illustrates the core methodological elements covered in this chapter.

This gap underscores the need for a comprehensive conceptual framework that can be empirically tested with robust data collected through sound methodologies. The proposed conceptual framework aims to help solar companies better understand the predictors of brand loyalty, enabling them to devise effective strategies for building and sustaining customer loyalty in an increasingly competitive market.

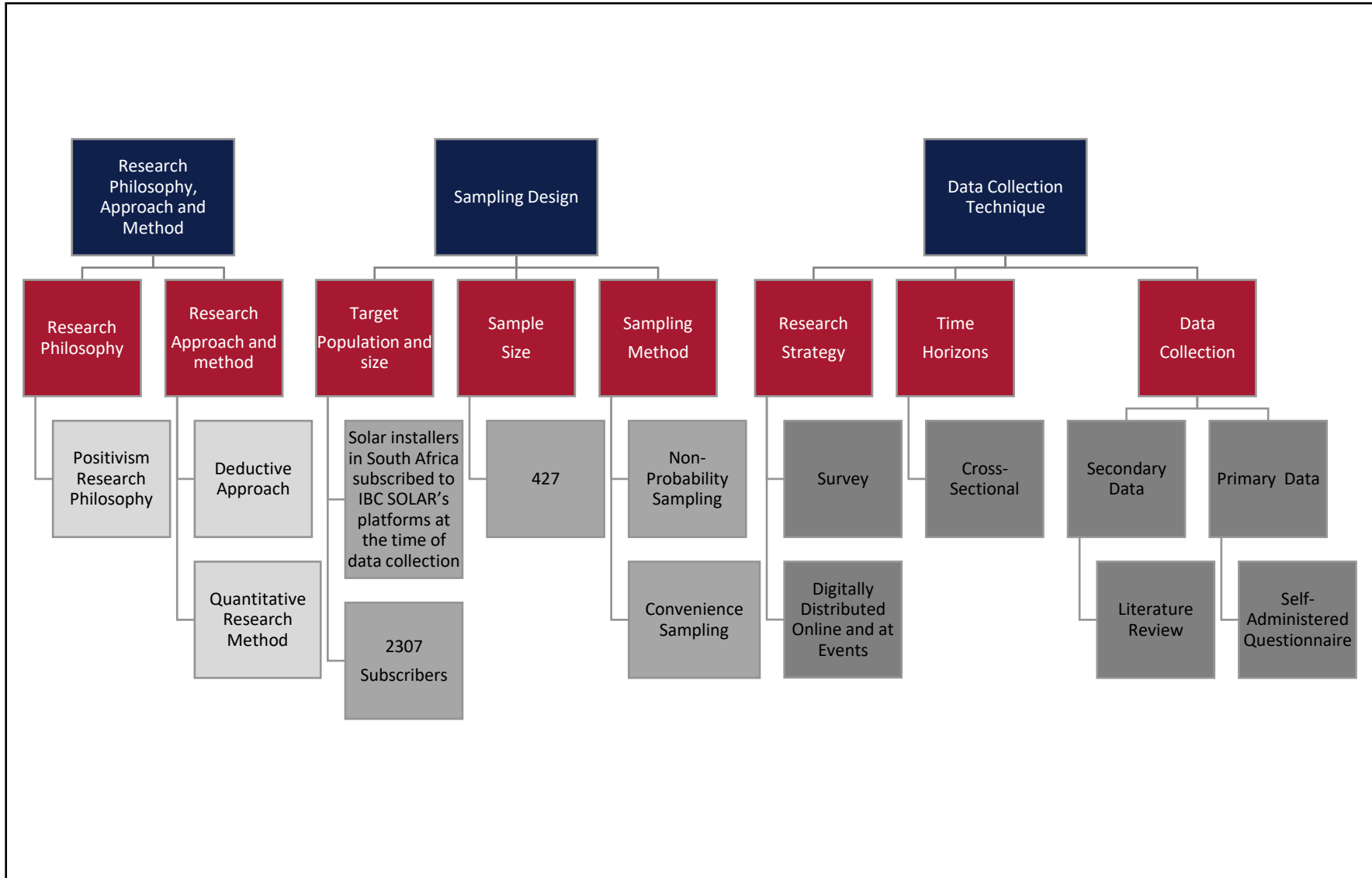


Figure 5.1: Research methodology overview

Given the need to explore these factors systematically, a descriptive research design is appropriate for this study (Saunders et al. 2019). The research onion serves as an ideal methodological framework for this study, as it encompasses various elements such as research philosophy, approach to theory development, strategies, and techniques for data collection and analysis (Saunders et al. 2019). Given the need to explore these factors systematically, a descriptive research design is appropriate for this study. Before delving into the research onion, the research design is discussed next.

5.3 Research design

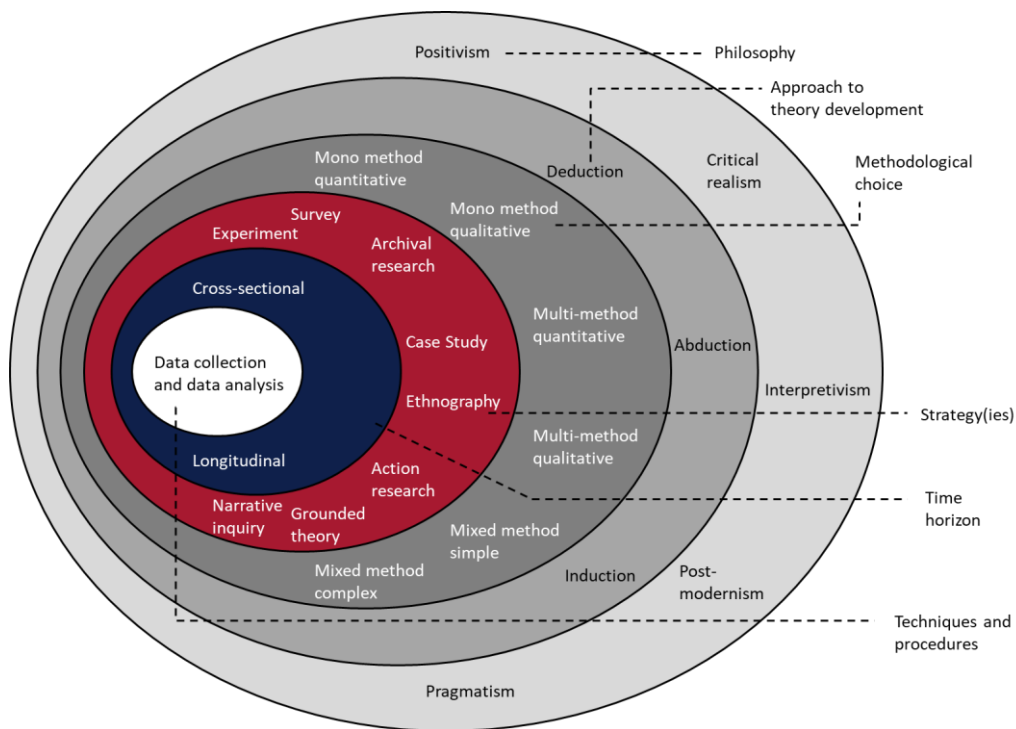
A research design serves as the blueprint for the collection, measurement, and analysis of data in a study (Sekaran and Bougie 2016). It guides the researcher in systematically addressing the research problem by specifying the procedures for obtaining the necessary information. Scholars typically categorise research designs into exploratory, descriptive, and explanatory types, each with distinct objectives and methodological approaches (Manners, Lynggaard and Löfgren 2015; Wohlin and Aarum 2015). Selecting an appropriate research design is crucial as it significantly impacts the validity and reliability of the research findings (Johnson, Adkins and Chauvin 2020).

Exploratory research is utilised when the objective is to gain insights and a deeper understanding of a problem or topic that is not yet well-defined (Van Dun, Hicks and Wilderom 2017). This approach is interpretive and qualitative, often employing methods such as interviews, focus groups, and literature reviews to explore new phenomena. Exploratory research is best applied in contexts where the researcher seeks to uncover patterns, ideas, or hypotheses that require further investigation (Van Dun et al. 2017). This methodology is not suitable for the current study because it contrasts with the predominantly positivist and quantitative nature of the research (Sekaran and Bougie 2016).

Explanatory research aims to establish causal relationships between variables by using experimental designs and rigorous control of variables (Park et al. 2020). It involves manipulating one or more independent variables to observe their effect on a dependent variable, often through controlled experiments or longitudinal studies (Correa, Ariel, Menzie and Brandon 2017). This type of research is most appropriate when the primary goal is to explain why a particular phenomenon occurs and to identify the underlying causal mechanisms. However, experimental designs and causality do not align with the research objectives, as they do not involve testing causal hypotheses through experimental manipulation

(Correa et al. 2017). Therefore, the explanatory research design is deemed inappropriate for the current study.

Descriptive research aims to provide an accurate representation of characteristics, events, or phenomena (Saunders et al. 2019). It answers specific questions about the who, what, when, where, and how of the subject matter, offering a structured approach to profiling phenomena at a specific point in time (McNaughton and Light 2015). This research design is particularly suitable when the objective is to describe the characteristics of a population or a specific phenomenon without influencing it in any way. By offering quantitative insights, descriptive studies can systematically and accurately capture the current state of affairs, making it an ideal choice for studies that seek to understand rather than explain or explore (King, Keohane and Verba 2021). Therefore, given its ability to provide structured, quantitative insights, descriptive research is the most appropriate choice for this study. It allows for an accurate representation of the subject matter, aligning perfectly with the research objectives (Abutabenjeh and Jaradat 2018). The research onion (discussed next) provides more details on the other elements associated with the descriptive design.



Source: Saunders et al. (2019)

Figure 5.2: Research onion

5.4 Research onion framework

One particularly notable framework in this realm is the research onion model, introduced by Saunders et al. (2019) and illustrated in Figure 5.2. This model stands out for its systematic and coherent approach to organising the essential components of research methodology (Leatemala, van Merriënboer and Susilo 2022). However, it is crucial to recognise that the choice of research methodology is not a one-size-fits-all affair; it is heavily dependent on the objectives of the study (Malhotra, Nunan et al. 2017).

5.4.1 Research philosophy

The research philosophy is the foundation of any research study, guiding how knowledge is gathered, interpreted, and understood. It encompasses a system of beliefs and interconnected assumptions aimed at generating knowledge (Dubey, Gunasekaran and Chakrabarty 2015). This philosophical framework is crucial as it aligns the core elements of methodology, including research design, strategy, data collection, and analysis, ensuring a coherent and logical approach to the research process (Niemand and Chauke 2017; Saunders et al. 2019). Three key philosophical concepts underpin research philosophy: ontology, epistemology, and axiology (Saunders et al. 2019). These elements shape the research process by influencing how researchers perceive reality, define knowledge, and integrate ethical considerations into their work.

Ontology delves into the essence of existence, parsing it into two divergent viewpoints: external realism and internal realism. The former posits an objective reality, detached from human perception, while the latter suggests a reality moulded by human interpretation (Kim, Kim, Lee and Chung 2014; Hughes and Sharrock 2016). These considerations shape researchers' understanding and conceptualisation of the phenomena they investigate. Epistemology, on the other hand, concerns the nature and acquisition of knowledge, ranging from positivism to constructivism, and is crucial for researchers to justify methods and interpret findings accurately (Edson, Buckle Henning and Sankaran 2016). Axiology addresses the ethical dimensions of research, including the researcher's role, ethical considerations in data collection, and societal impacts, ensuring research integrity and reflecting on broader implications (West and Schill 2022). Furthermore, research philosophy comprises five main research paradigms: positivism, critical realism, interpretivism, post-modernism, and pragmatism (Saunders et al. 2019). Each paradigm offers a unique perspective on how to approach and generate knowledge, providing different methodological

approaches and influencing the selection of research methods. These research philosophies are summarised in Table 5.1.

Table 5.1: Research philosophies with their respective assumptions

Paradigm	Ontology	Epistemology	Axiology	Typical methods
Critical realism	Differentiate the empirical from the actual reality	Facts are social constructions	Value-laden research	Retroductive, in-depth historical analysis of pre-existing structures and emerging agency
Interpretivism	Socially constructed through culture and language	Multiple meanings, interpretations, and realities	Value-bound research	Inductive, small sample, in-depth investigation, qualitative methods of data collection and analyses
Postmodernism	Socially constructed through power relations	Some meanings, interpretations, realities	Value-constituted	In-depth investigation of anomalies, silences, absences, qualitative methods of data collection and analyses
Pragmatism	Reality is the practical consequences of the ideas	True theories and knowledge enable actions	Value-driven research	Qualitative, quantitative, mixed methods, action research
Positivism	Real and external independence	Observable and measurable facts	Value-free research	Deductive, highly structured, large sample, measurement, predominant quantitative analysis

Source: Saunders et al. (2019)

Critical realism offers a different perspective by suggesting that reality is multifaceted and extends beyond direct observation (Saunders et al. 2019). The philosophy encourages the exploration of underlying structures and mechanisms that shape observable phenomena. Critical realism is particularly useful for in-depth analyses of historical events and changes over time (Shoolman 2017). However, it may not be suitable for studies that do not explore the historical or background causes of phenomena, such as this study, which is centred on assessing predefined predictors of brand loyalty without delving into respondents' historical backgrounds (Bogna, Raineri and Dell 2020).

Interpretivism contrasts with positivism by emphasising the subjective nature of human experiences and the significance of individual interpretations (Saunders et al. 2019). It focuses on understanding the meanings that individuals attach to their experiences, often using qualitative methods to capture these perspectives (Medcalf and Mackintosh 2018). Interpretivism is best suited for research that seeks to

explore complex social phenomena in depth, where multiple realities and subjective interpretations are essential (Packard 2017). However, it is not appropriate for studies like this one, which aim to quantitatively test a theory using predefined research instruments and scales, limiting respondents' ability to fully express their views.

Postmodernism offers a radical critique of established knowledge, focusing on the role of language and power relations in shaping reality (Trim 2017). It challenges dominant discourses and seeks to amplify marginalised voices, rejecting the notion of a universal truth. Postmodernism is suitable for research that interrogates power dynamics and seeks to deconstruct established realities (Silverman 2017). However, it may not align with studies that aim to understand the majority viewpoint or objectively measure phenomena, as it emphasises minority perspectives and the construction of knowledge through language and power relations (Baldwin 2018).

Pragmatists prioritise practical outcomes over abstract philosophical distinctions, defining reality as anything that can address a problem and enhance current and future practices (Pedwell 2017). They reject the notion of a single, universal reality, asserting instead that reality shifts based on time and context, with knowledge valued for its capacity to solve problems.. Pragmatists remain open to any method of knowledge development that aids problem-solving, without adhering to a specific methodology (Standal and Aggerholm 2016). Pragmatism is suitable for research that requires flexibility and a focus on practical implications, often incorporating methods from various philosophies (Saunders et al. 2019). However, this study benefits from a more structured approach to theory validation and empirical measurement, making pragmatism less appropriate for its objectives.

Positivism is characterised by its emphasis on observable, measurable phenomena and the use of scientific methodologies to generate precise, factual knowledge (Saunders et al. 2019). Positivism seeks to identify causal relationships and establish generalisations through empirical observation and quantification (Biedenbach and Jacobsson 2016). It is particularly suitable for studies aiming to objectively measure and analyse data to validate theories. The current research is firmly situated within the positivist philosophical paradigm, a stance chosen for its compatibility with the study's objectives and methodological approach. Positivism, as defined by Ward, Hoare and Gott (2015), emphasises the formulation of research objectives in measurable and quantifiable terms, a principle that aligns seamlessly with the aims of this study. By adopting a positivist lens, the research objectives are structured to facilitate precise measurement and analysis (Ward, Hoare and Gott 2015). Furthermore, the positivist paradigm is

conducive to theory validation, a critical aspect of this study's methodology. As highlighted by Park et al. (2019), positivism advocates for the validation of theories through empirical evidence. In line with this perspective, the research undertook an exhaustive literature review to identify relevant theories and subsequently developed an integrated conceptual model to guide the investigation.

Central to the positivist approach is the assumption of structural relationships between variables, providing a framework for explaining phenomena (Park et al. 2020). This notion is fundamental to the present study, which seeks to explore the factors influencing brand loyalty within a specified context. By embracing the positivist philosophy, the research tests the relationship between various factors and brand loyalty, as delineated in the conceptual research model. Moreover, the positivist perspective emphasises objectivity and detachment from external influences, essential considerations for this study's examination of brand loyalty as an external observer (Saunders et al. 2019). By maintaining objectivity, the research aims to minimise biases and ensure the integrity of its findings.

In essence, the positivistic orientation of this research influences its ontological, epistemological, and axiological foundations (Biedenbach and Jacobsson 2016). This shapes both its theoretical framework and its methodological approach. Through a positivist lens, the subsequent sections of this study will delve into the research process employed, elucidating the systematic steps undertaken to investigate brand loyalty and its determinants.

5.4.2 Approach to theory development

The approach to theory development outlines the process through which researchers construct and refine theories within a study (Manning and Stage 2016). According to Saunders et al. (2019), there are three principal approaches to theory development: deductive, inductive, and abductive. Each approach offers a distinct method for developing and validating theories, with varying implications for how to conduct and interpret research.

The *inductive approach* to research methodology involves starting with specific observations or data and moving towards the development of broader theories or hypotheses (Saunders et al. 2019). This approach prioritises depth of understanding over breadth and is often associated with qualitative methods such as interviews and focus groups (Tjora 2018). While inductive research allows for a rich, nuanced understanding of phenomena and accommodates diverse interpretations, it has limitations such as smaller sample sizes and challenges in generalising findings on a larger scale (Chambers, Kantaris, Guise

and Välimäki 2015). Given that this study aims to test hypotheses derived from existing theories, the inductive approach is not suitable for this context.

In contrast, the *deductive approach* starts with established theories or hypotheses, which are then tested through empirical data collection (Graneheim, Lindgren and Lundman 2017). The primary goal of this approach is to test the validity of these theories or hypotheses by collecting empirical data through observations or experiments (Sik 2015). This approach is typically associated with quantitative research methods and involves systematically gathering data to confirm or refute initial theories. Deductive research is advantageous for studies that aim to verify established theories or principles, allowing for precise control over the research process and facilitating the generalisation of findings beyond the study's specific context (Woiceshyn and Daellenbach 2018). This approach aligns with the study's objective to verify relationships proposed in a conceptual model derived from established theories (Zefeiti and Mohamad 2015). By focusing on quantitative measurement and hypothesis testing, this approach ensures rigorous, reliable findings and provides a robust framework for empirical validation and theory development (Sik 2015).

Finally, the *abductive approach* synthesises elements of both deductive and inductive reasoning (Saunders et al. 2019). Researchers using this approach start with observations or data and propose hypotheses or theories that best explain the observed phenomena, integrating insights from both existing theoretical frameworks and empirical data (Saunders et al. 2019). Abduction allows for flexibility in theory development, combining the strengths of both deductive and inductive methods. However, because it incorporates inductive reasoning, which has been deemed unsuitable for this study, the abductive approach is also not ideal (Awuzie and McDermott 2017).

5.4.3 Methodological choice

Methodological choice refers to the framework or strategy chosen by researchers to guide the inquiry process and data collection (Abutabenjeh and Jaradat 2018). This choice determines how researchers approach the study, collect data, and analyse results. The three primary methodological approaches are qualitative, quantitative, and mixed methods, each offering unique perspectives and tools for understanding and interpreting phenomena (Saunders et al. 2019).

Qualitative research is an approach designed to explore and understand human experiences, perceptions, and behaviours in depth (Taheriyoun and Moradinejad 2015). It focuses on the nuances of opinions,

attitudes, and contextual factors rather than reducing them to numerical values. Techniques such as interviews and focus groups are employed to gather rich, descriptive data (Aveling, Gillespie and Cornish 2015). This methodology is particularly useful for exploring complex, context-specific phenomena and obtaining a deep understanding of respondents' viewpoints. However, while qualitative research provides valuable insights into the subtleties of human experiences, it may not offer the generalisability or statistical precision required for large-scale studies or hypothesis testing (Lim 2024). Thus, it may not be the most suitable choice for studies aiming to measure and compare specific variables systematically.

Quantitative research involves the collection and analysis of numerical data to explore relationships between variables and make precise measurements (Emmanuel, Quinn, Niu, Guermazi, Roemer, Wirth, Eckstein and Felson 2016; Yang, Cao and Li 2016). This approach relies on statistical analysis and graphical representations to facilitate comparisons and identify patterns across different data sets (Nan and Sansavini 2017). Quantitative research is best suited for studies that require statistical validation, generalisability of findings, and precise measurement of variables. It supports large-scale studies and hypothesis testing, making it ideal for research that seeks to test theories or explore relationships systematically (Sovacool, Axsen and Sorrell 2018). The benefits of quantitative research, including its ability to provide robust statistical evidence and support hypothesis testing, make it the most suitable methodological choice for this investigation. In this study, a quantitative research approach has been selected to examine the factors influencing brand loyalty in the South African solar industry. This choice aligns with the deductive approach of testing theories and hypotheses, providing precise measurements and supporting generalisability. Quantitative methods facilitate comparative analysis and enhance data reliability, making them suitable for systematic investigation within the context of BTL advertising-brand loyalty dynamics. Saunders et al. (2019) advocate for quantitative methodologies when dealing with large datasets, as they enhance the effectiveness of inferential data analysis techniques such as SEM, mediation, and moderation. The selection of quantitative research is further reinforced by previous studies, highlighting its appropriateness for this study (Exner 2021; Siamanjuntak and Cuandra 2023).

Mixed methods research combines both qualitative and quantitative approaches within a single study, offering a comprehensive understanding of the research topic (Ramlo 2016). This approach can be concurrent or sequential, depending on the study's design and objectives. In concurrent mixed methods, both qualitative and quantitative data are collected and analysed simultaneously to address research questions from multiple angles (Bray, Carter, Sanders, Blake and Keegan 2017). Sequential mixed methods involve the use of one method to inform the design of the other, enabling iterative exploration and deeper

insights (Saunders et al. 2019). While mixed methods provide a holistic view by integrating various data types, they can be complex and resource-intensive, requiring careful planning and coordination. This approach would not be suitable for studies that focus on specific hypotheses or require large-scale statistical analysis.

5.4.4 Research strategy

A research strategy delineates the overall approach for conducting research, including the methods for data collection and analysis (Saunders et al. 2019). It provides a blueprint for addressing research questions and achieving study objectives. The research onion framework identifies eight primary research strategies: experiment, survey, case study, action research, grounded theory, ethnography, archival research, and narrative inquiry (Bryman 2016; Creswell and Plano Clark 2017). Each strategy offers distinct advantages and is best suited to specific types of research inquiries.

Experiments involve the manipulation of independent variables to observe their effects on dependent variables, allowing researchers to establish cause-and-effect relationships (Viglia and Dolnicar 2020). This method provides a high degree of control over variables, which is essential for testing hypotheses under controlled conditions. Experiments are well-suited for research that aims to identify causal relationships and test theoretical propositions (Armstrong and Kepler 2018). They are particularly effective in settings where researchers can control and isolate variables. However, experiments may be less appropriate for studies focused on understanding complex social phenomena or individual experiences in natural settings (Sovacool et al. 2018). In the context of studying the solar energy industry, experiments are not ideal for exploring customer perceptions and industry trends, as they may not capture the broader context of real-world interactions.

Case studies involve an in-depth exploration of a specific phenomenon or case to gain detailed insights into complex social phenomena (Yin 2018). This method is ideal for studying unique or intricate issues within their real-life context. Case studies are useful for providing a comprehensive understanding of individual instances or contexts but may lack generalisability to broader populations (Smith 2018). They are well-suited for exploratory research or when detailed contextual analysis is required. While case studies could offer valuable insights into specific aspects of the solar energy industry, such as individual consumer experiences or particular market segments, they may not be the best approach for capturing broader industry trends and patterns (Kranzbühler, Kleijnen, Morgan and Teerling 2018).

Action research involves a cyclical process of planning, acting, observing, and reflecting, aimed at solving practical problems while simultaneously contributing to scientific knowledge (Coghlan 2019). This method is suitable for research that seeks to address real-world issues and improve practices through iterative interventions. Action research is particularly effective in organisational settings or community projects where collaboration with the respondents is essential (Bradbury 2015). It may not be the best fit for studies requiring a more detached, objective analysis of data. For the solar energy industry, action research could be valuable for implementing and assessing new practices or interventions but again like case studies, it is not ideal for understanding broad consumer trends or industry-wide factors (Palacin, Golightly, Ramdas and Dadashi 2016).

Grounded theory involves the development of theories through the systematic collection and analysis of qualitative data (Charmaz 2017). This method is suitable for generating new theories or conceptual frameworks based on empirical data. Grounded theory is effective in exploring complex phenomena where existing theories may not apply or where new insights are needed (Cullen and Brennan 2021). It is particularly valuable for studies focused on understanding processes, interactions, and social dynamics. Although grounded theory could offer in-depth insights into customer behaviour in the solar energy industry, it does not apply to quantitative data and hypothesis testing (Unuigbo, Zulu and Johnston 2022).

Ethnography involves the immersive study of people and cultures through direct observation and participation (Jackson 2015). This method is useful for understanding the cultural and social practices of a specific group in their natural setting. Ethnography provides rich, detailed insights into the lived experiences and social interactions of respondents (Hockey and Forsey 2020). It is ideal for research that seeks to explore cultural meanings and practices. However, ethnography may not be suitable for studies requiring large-scale data collection or those focused on quantitative analysis (Berthod, Grothe-Hammer and Sydow 2017). In the context of the solar energy industry, ethnography could provide valuable insights into customer attitudes and behaviours within specific communities but cannot address broader industry-wide trends.

Archival research involves the analysis of existing records and documents to uncover historical or contextual information (Ventresca and Mohr 2002). This method is effective for studying past events, trends, or practices using available data sources. Archival research is suitable for historical analysis or when primary data collection is not feasible (Bloomfield, Nelson and Soltes 2016). While archival research

typically relies on secondary data, the descriptive nature of this study necessitates the collection of primary data (Das, Jain and Mishra 2018).

Narrative inquiry focuses on collecting and analysing personal stories and experiences to understand how individuals make sense of their lives (Kim 2015). This method is useful for exploring how people interpret and communicate their experiences. Narrative inquiry provides deep insights into personal and subjective aspects of research topics (Barkhuizen and Consoli 2021). It is particularly suited for studies that aim to understand individual perspectives and life stories. While narrative inquiry could offer rich insights into personal experiences related to the solar energy industry, it does not enable hypothesis testing based on concepts measured quantitatively (Lim 2024).

Survey research involves the systematic collection of data through standardised questionnaires to examine relationships among variables and identify trends within a population (Babbie 2016). Surveys are effective for gathering quantitative data from large samples, which enhances statistical power and generalisability. This method is particularly suited for descriptive research designs that aim to describe, compare, or explain variables of interest (Sekaran and Bougie 2016). Surveys provide a structured approach to data collection, allowing researchers to test hypotheses and draw objective conclusions. Given the study's focus on understanding customer perceptions and behaviour in the solar energy industry, survey research is a suitable choice (Feldmann and Hamm 2015). It enables the efficient collection of data from a large number of respondents, facilitating the analysis of trends and relationships within the industry.

In alignment with a positivist and descriptive approach, the survey method was chosen as it is well-suited for descriptive research, particularly for gathering quantitative data from large samples. Surveys allow the examination of relationships between variables and the identification of trends (Babbie 2016), making them ideal for understanding customer perceptions and behaviours in the solar energy industry. Their structured and standardised nature ensures consistent and reliable data collection, essential for generalisable results (Cohen, Manion and Morrison 2017). Surveys are effective for gathering insights from many respondents, necessary for identifying industry trends and factors such as brand loyalty. Additionally, they offer flexibility in administration, with options for self-administered or interviewer-led formats (Robertson, Tran, Lewark and Epstein 2018). This approach has been successfully implemented in similar studies, leveraging established frameworks to measure constructs such as brand loyalty and competitive advantage (Exner 2021; Siamanjuntak and Cuandra 2023; Radebe, Verkijika and Neneh 2024).

5.4.5 Time horizon

The decision regarding the time horizon of a research study is a crucial aspect that significantly influences the data collection process and ultimately shapes the study's outcomes. Time horizons in research typically encompass two primary approaches: cross-sectional studies and longitudinal studies. Cross-sectional studies involve capturing data at a specific point in time, providing a snapshot of a particular phenomenon (Pesaran 2015). This approach is characterised by a single phase of data collection and offers insights into the current state of the variables under investigation. On the other hand, longitudinal studies entail collecting data over an extended period, allowing researchers to track changes or developments in the phenomenon over time (Magnusson 2015). Longitudinal studies involve multiple data collection phases, often utilising the same instruments to maintain consistency and control for extraneous variables.

While longitudinal designs offer the advantage of examining changes over time and capturing dynamic processes, they come with significant challenges. Longitudinal studies are often costly and time-consuming, requiring resources for data collection, management, and analysis over an extended period (Schaller, Patil and Malhotra 2015). Therefore, they may not be practical for studies with limited time and financial resources, particularly when the focus is on understanding current factors rather than tracking changes over time.

Given the constraints of limited resources and the focus on understanding the factors influencing brand loyalty in the South African solar energy industry, a cross-sectional design is deemed more appropriate (Saunders et al. 2019). A cross-sectional approach allows for efficient data collection from identified customers at a specific moment in time, providing timely insights into the factors influencing brand loyalty. By opting for a cross-sectional design, researchers can gather comprehensive insights into the phenomenon under investigation without the extensive time and resources required for longitudinal studies (Cohen et al. 2017). This approach aligns with the research objectives and enables researchers to address the research questions effectively within the available resources (Maier, Thatcher, Grover and Dwivedi 2023).

5.4.6 Data collection and procedure

The precision of the findings hinges on the quality of the data amassed. As outlined by Sekaran and Bougie (2016), the data collection process encompasses several stages, including operationalising constructs and

measurements, piloting the questionnaire for pretesting purposes, and outlining the sampling design and procedures. Each of these stages will be elaborated next.

5.4.7 Operationalisation of constructs and measurements

Operationalisation serves as a pivotal stage in research methodology, particularly in social sciences and empirical studies, where abstract constructs form the foundation of investigations. Constructs, by their very nature, are abstract concepts that require translation into measurable variables to be studied empirically (Dessart, Veloutsou and Morgan-Thomas 2016). However, this translation process is not straightforward due to the inherent complexity and subjectivity associated with constructs. Thus, operationalising constructs involves the translation of abstract concepts from conceptual models into quantifiable entities (Sekaran and Bougie 2016). This process involves defining the key dimensions or attributes of a construct and identifying observable manifestations that can be quantitatively assessed.

In this study, the constructs include BTL advertising (social media, direct mail and display advertising), brand loyalty, brand awareness, trust, commitment and competitive advantage. Through operationalisation, researchers aim to ensure the reliability and validity of their measurements, allowing for meaningful analysis and interpretation of data. The operational definitions of the constructs used in this study are presented in Table 5.2, along with their corresponding measurement items and sources.

5.4.7.1 *Data collection instrument and measurement*

The data collection method used in this research involved a self-administered questionnaire. A thorough review of existing literature informed the development of this questionnaire. This literature review yielded a set of established measures related to BTL advertising, brand loyalty, brand awareness, commitment, trust, and competitive advantage. The measurement scale employed in this study had previously been utilised in similar research efforts (Bilgin 2018; Singh, Chen, DelGiudice and El-Kassare 2019; Correia et al. 2021; Chen, Zhao and Wang 2022). These references demonstrate that prior research has rigorously tested and validated these measures. The inclusion of validated measures was imperative for this study to ensure the robustness of its findings.

The questionnaire was carefully structured to enhance its clarity and logical flow, following best practices outlined by Malhotra, Nunan et al. (2017). The final questionnaire was segmented into five distinct

sections: the cover letter, screening questions, and Sections A, B, C, D and E, each serving a specific purpose.

- Cover letter: This section introduced the study's objectives and informed respondents of their right to withdraw at any time. Given the sensitive nature of the survey, the cover letter included a commitment to safeguarding the anonymity and confidentiality of the respondents' information. Respondents were also asked to sign a consent form to affirm their voluntary participation.
- Screening questions: These questions were designed to ensure that respondents met the criteria specified in the sampling design. As the study focused on industry professionals, the screening questions included: job title or position, company size and years of experience in the solar industry.
- Section A (biographic variables): This section gathered detailed information about the respondents' biographic profile, including age, gender, geographic region, common brands installed, and frequency of purchasing from the brand. The questions in this section were developed based on the work of Hanna, Leach and Torriti (2018) and Cousse (2021). This section aimed to uncover biographic patterns and evaluate how these patterns might influence perceptions and differences within the study.
- Section B (independent variable): This section focused on BTL advertising as an independent variable, drawing on insights from Bilgin (2018) and Budiman (2021). The aim was to assess the impact of BTL advertising on the measurement model and determine its role as a predictor.
- Section C (dependent variable): Here, the focus was on brand loyalty, which was treated as the dependent variable in the model. The questions were based on frameworks from Quester and Lin Lim (2003), Tarkiainen and Ellonen (2015), Bilgin (2018), and Swaminathan et al. (2018). This section sought to measure the outcomes related to brand loyalty.

Table 5.2: Operationalisation of the constructs

Construct	Operational definition	Adapted item	Adapted source
<p>BTL advertising</p>	<p>Assesses the effectiveness of BTL advertising, including social media, direct mail, and display advertisements. Measures include ease of information finding, impact on attention, content consistency, engagement, and recommendation willingness.</p>	<p>Direct mail advertising</p> <ul style="list-style-type: none"> - My main distributor’s direct mail advertisements are informative. - The content in my main distributor's direct mail advertisements is consistently up-to-date. - The materials and messages in my main distributor’s direct mail advertisements are engaging. - I pay close attention to direct mail advertisements from my main distributor when they arrive in my mailbox. - I often act based on the information provided in direct mail advertisements from my main distributor. <p>Social media advertising</p> <ul style="list-style-type: none"> - Social media advertisements from my main distributor influence my perception of the brand. - The posts and updates by my main distributor on social media are interesting. - I can readily locate the information I need on my main distributor's social media profiles. - Social media advertisements from my main distributor grab my attention. - I engage with my main distributor’s social media advertisements. <p>Display advertising</p> <ul style="list-style-type: none"> - I consider making a purchase when I see my main distributor’s advertisements online. - The content displayed in the distributor’s online shop is relevant to my shopping needs. - The banners and display advertisements in the distributors’ online shop are engaging. - I pay close attention to the distributor’s online shop advertisements when they appear while I am browsing. - I frequently click on my main distributor's online shop advertisements for more information. 	<p>Swani et al. (2020); Qader et al. (2022); Bilgin (2018); Budiman (2021)</p>

Brand loyalty	Evaluates the frequency of choosing the brand, recommending it, and the strength of preference, including emotional attachment.	<ul style="list-style-type: none"> - I consistently choose my main distributor over other options in the market. - I actively recommend my main distributor to others in the industry. - My preference strongly leans toward my main distributor compared to other alternatives. - I would be disappointed buying from a different distributor due to product unavailability at my main distributor. - I rarely consider switching to another distributor. - When I need to make a purchase, my main distributor is my first choice. - I am willing to pay higher prices for products from this distributor compared to other brands. 	Tarkiainen and Ellonen (2015); Bilgin (2018); Swaminathan, Anderson and Song (2018)
Commitment	Measures the strength of connection, relationship duration, importance, and willingness to invest effort in maintaining the relationship.	<ul style="list-style-type: none"> - I feel a strong sense of connection with my main distributor. - I have maintained a long-term relationship with my main distributor. - The relationship I have with my main distributor is of great importance to me. - I am committed to maintaining a strong and lasting relationship with my main distributor. - I genuinely care about the relationship with my main distributor. - I am willing to put in maximum effort to maintain my relationship with my main distributor. 	Mukherjee and Nath (2007); Vatanasombut, Igbaria, Stylianou and Rodgers (2008)
Trust	Assesses trust in the distributor, including product/service trust, confidence in capabilities, honesty, customer care, and integrity.	<ul style="list-style-type: none"> - I have a strong sense of trust in my main distributor. - I completely trust the products and services provided by my main distributor. - I have great confidence in my main distributor. - Based on my experience with my main distributor, I know it cares about its customers. - I can count on my main distributor to do what is right. - My main distributor has high integrity. 	Chen, Zhao et al. (2022); Morgan and Hunt (1994); Vatanasombut et al. (2008)

Competitive advantage	Measures perceived competitive edge, superiority of offerings, innovation, and effectiveness in promotional and pricing strategies.	<ul style="list-style-type: none"> - My main distributor maintains strong relationships with reputable solar product manufacturers and suppliers. - My main distributor offers a diverse range of solar products and solutions. - My main distributor provides valuable product knowledge and guidance. - My main distributor is known for its efficient supply chain management for on-time product deliveries. - My main distributor is competitive in terms of pricing. - My main distributor is reputed for delivering exceptional customer service and support. 	Singh et al. (2019); Correia et al. (2021)
Brand awareness	Evaluates familiarity, recognisability, top-of-mind recall, understanding of values, and unique characteristics of the brand.	<ul style="list-style-type: none"> - I am familiar with the offerings of my main distributor. - I easily recognise my main distributor's name when I come across it. - When I think about products or services in the solar industry, my main distributor quickly comes to mind. - I have a clear understanding of my main distributor's market positioning. - I have a clear understanding of my main distributor's brand values. - I have a distinct opinion about my main distributor based on my awareness of it. - I am aware of the unique characteristics of my main distributor. 	Bilgin (2018); Chen, Zhao et al. (2022)

- Section D (mediating variable): This section examined mediators such as commitment, trust, and competitive advantage. The development of these variables was informed by Morgan and Hunt (1994), Mukherjee and Nath (2007), Vatanasombut et al. (2008), Chen, Zhao et al. (2022), Gefen, Karahanna and Straub (2003), Vatanasombut et al. (2008), Singh et al. (2019) and Correia et al. (2021). The goal was to evaluate the mediation effects within the measurement model.
- Section E (moderating variable): This section evaluated brand awareness as a moderator, based on the work of Bilgin (2018) and Chen, Zhao et al. (2022). The objective was to assess how brand awareness moderates the relationships within the measurement model.

By adhering to these structured sections and employing validated scales and frameworks, the study ensured a comprehensive and methodologically sound approach to data collection and analysis.

5.4.7.2 Pilot study and pretesting of the questionnaire

The pilot study conducted on a sample of 43 solar installation companies who purchased products from distributors in South Africa, played a crucial role in refining and validating the research questionnaire. This preliminary phase aimed to address several key aspects essential for the success of the main study. First, it focused on testing the clarity of the survey instrument. Clarity is paramount in ensuring that respondents understand the questions as intended, thereby minimising the risk of misinterpretation and ensuring the accuracy of the data collected (Hilton 2017).

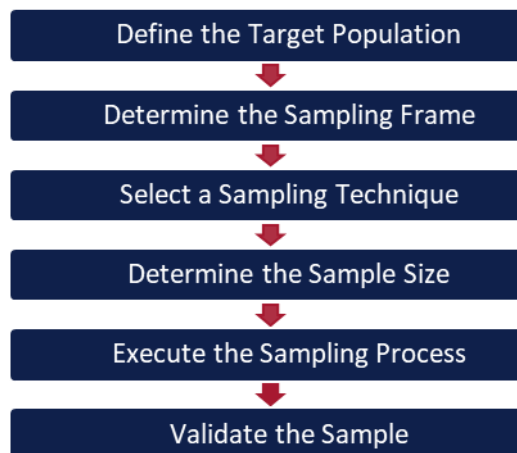
Additionally, the pilot study served to assess the time required for completion of the questionnaire. Time efficiency is vital in research, as lengthy or cumbersome surveys may deter participation or lead to incomplete responses, compromising the quality of the data gathered (Brower 2018). By evaluating the average completion time among respondents, researchers can make the necessary adjustments to streamline the questionnaire and enhance its efficiency (In 2017). Moreover, the pilot study addressed ethical considerations pertaining to informed consent and participant confidentiality. Informed consent is a fundamental principle in research ethics, ensuring that respondents are fully aware of the study's purpose, procedures, and potential risks before agreeing to participate (Tam, Huy, Thoa, Long, Trang, Hirayama and Karbwang 2015; In 2017).

Furthermore, ensuring the robustness of the questionnaire was a key objective of the pilot study. The robustness of a measurement instrument is vital for ensuring its effectiveness and reliability in gathering

data (Kingsley and Patel 2017). To achieve this, the questionnaire underwent thorough scrutiny by two marketing experts and some members of the target population. Feedback from the pilot respondents was carefully considered, particularly regarding the clarity and redundancy of questions. Any ambiguities or redundancies identified were addressed through rephrasing or removal of questions, thereby enhancing the questionnaire's precision and relevance to the research objectives. By addressing issues related to clarity, time efficiency, ethical considerations, and robustness, the pilot phase ensured that the final questionnaire was well-structured, effective, and ethically sound.

5.4.8 Sampling design and procedures

The consideration of the sampling design is a crucial aspect of ensuring that an appropriate and representative sample for the study is obtained. The researcher needs to take into account various criteria to determine the right sampling design (Blumberg, Cooper and Schindler 2014; Malhotra et al. 2017). In the determination of the sampling design, this study considered at least six important factors, as proposed by Malhotra, Nunan et al. (2017). These factors, as displayed in Figure 5.3, collectively contribute to the development of a sound sampling design that aligns with the research goals and constraints (Malhotra, Nunan et al. 2017).



Source: Malhotra, Nunan et al. (2017)

Figure 5.3: Sampling design process

5.4.8.1 Definition of the target population

The sampling design begins by specifying the target population. An imprecise definition of the target population will result in ineffective research and misleading findings (Wolf, Joye, Smith and Fu 2016). The

definition of the target population consists of specifying the elements that possess the characteristics sought by the researcher and which inferences are to be made (Malhotra, Nunan et al. 2017). Therefore, the target population defined for this study comprised solar installation companies in South Africa. These companies were specifically selected based on their subscription to IBC SOLAR's newsletter via a double opt-in process, compliance with the Protection of Personal Information Act, and their interaction with the company's online portal and social media pages, including Facebook and LinkedIn.

As indicated in Chapter 1, Section 1.11.5, the average reach across these platforms and the size of the target population for this study is 2 307, based on the number of subscribers and followers on the platforms used to reach the solar installation companies. Their familiarity with BTL advertising, brand awareness, commitment, trust, and competitive advantage in the solar industry guided the choice of the target population. Their involvement with IBC SOLAR's various communication channels was crucial for understanding the factors influencing brand loyalty among solar installation companies in South Africa.

5.4.8.2 Selection of a sampling frame

A sampling frame is the list of all the elements in the target population (Lohr 2021). At the time of this study, there was no formal list of solar installation companies in South Africa that purchase products from distributors and subscribe to IBC SOLAR's platforms. Consequently, this research did not have a sampling frame. The availability or non-availability of a sampling frame plays a crucial role in determining the selection of the appropriate sampling technique for the study (Malhotra, Nunan et al. 2017).

5.4.8.3 Selection of a sampling technique

In marketing research, two main sampling techniques are frequently used: probability sampling and non-probability sampling (Rahman 2023). Probability sampling provides each element in the population with a known and equal chance of selection, ensuring the sample is representative of the population (Sarstedt, Bengart, Shaltoni and Lehmann 2018). This method includes simple random sampling, systematic sampling, stratified sampling, and cluster sampling (Rahman, Tabash, Salamzadeh, Abduli and Rahaman 2022). However, a sampling frame is required to implement probability sampling (Malhotra, Nunan et al. 2017). Since this study did not have access to a pre-defined sampling frame of solar installation companies that purchase products from distributors in South Africa, probability sampling was not a feasible option.

In the absence of a sampling frame, non-probability sampling techniques become relevant. Non-probability sampling relies on the researcher's judgment rather than random selection (Zagheni and

Weber 2015). Techniques under this category include judgmental sampling, quota sampling, snowball sampling, and convenience sampling (Etikan, Musa and Alkassim 2016). Judgmental sampling involves the selection of respondents based on the researcher's expertise, which can introduce bias and was unsuitable for this study as it might overlook other relevant companies (Khan et al. 2020). Quota sampling aims to represent various segments of the population but requires detailed demographic information, which was not available for solar installation companies in South Africa (Zhang, Mildemberger, Howe, Marlon, Rosenthal and Leiserowitz 2020). Snowball sampling relies on participant referrals, which can lead to a non-representative sample and is thus not appropriate (Enticott, Shawyer, Vasi, Buck, Cheng, Russell, Kakuma, Minas and Meadows 2017).

Given these limitations, convenience sampling was chosen for its practicality and efficiency (Rashid et al. 2021). This method involved selecting solar installation companies already accessible through IBC SOLAR's platforms, such as Mailchimp, the online portal, and social media pages, ensuring the respondents were relevant to the study (Saunders et al. 2019). Furthermore, convenience sampling was appropriate because it enabled cost-effective and timely data collection (Obilor 2023). The homogeneity of the sample, with companies sharing a common understanding of the research phenomenon, further justified this approach (Golzar, Noor and Tajik 2022).

5.4.8.4 Determine the sample size

The sample size is the number of elements that are investigated by the study (Schoemann, Boulton and Short 2017). Before deciding on the sample size, the researcher should consider the nature of the research, the number of variables used by the study, the nature of the analysis, and the resource constraints (Malhotra, Nunan et al. 2017). In relation to the nature of the research, exploratory studies often have small sample sizes because their purpose is to understand a problem or a topic (Peric, Weiss, Vulliemoz, Baud and Stojanov 2019). Descriptive research, on the contrary, requires a large sample size for generalisation purposes (Sarstedt et al. 2018).

In relation to the number of variables, Hair, Risher et al. (2019) suggest maintaining a ratio of one item to five or ten respondents in quantitative studies. In this study, there were 79 items in the questionnaire. Following the 1:5 criteria (Hair, Gabriel, Da Silva and Braga Junior 2019), the study required a minimum of 395 respondents (79×5) for adequate power of the analysis. Some analyses cannot be done without the required sample size. For example, multivariate analyses such as factor analysis or SEM require large sample sizes to be executed (Jobst, Bader and Moshagen 2023). Lastly, money and time resources also

inform the decision regarding the sample size. In total, 427 responses were gathered, exceeding the minimum required sample size. This method allowed for the direct capture of insights on BTL advertising, brand awareness, commitment, trust, and competitive advantage in relation to brand loyalty, providing a robust data set for analysis.

In postgraduate research, especially at the doctoral level, time management is paramount due to the strict timelines set by universities (Igwenagu 2016). For instance, at the University of the Free State, where this research was conducted, doctoral students typically have a maximum of five years to complete all academic requirements, including proposal development, approval from departmental and faculty research committees, ethics approval, data collection, and thesis writing (Young, Vanwye, Schafer, Robertson and Poore 2019). To adhere to these time constraints, researchers often opt for sampling strategies that enable efficient data collection.

As discussed in the previous section, the convenience sampling approach was employed in this study. By selecting solar installation companies that purchase products from distributors in South Africa as the study population, the researcher ensured timely data collection (Igwenagu 2016). Since the selected population was already familiar with the research topic, it facilitated prompt completion of the questionnaire, streamlining the research process within the allotted timeframe (Saunders et al. 2019). This strategic sampling approach not only ensured timely data collection but also allowed the researcher to meet the academic requirements within the designated timeframe, contributing to the successful completion of the doctoral programme.

5.4.8.5 Execute the sampling process

The study focused on solar installation companies in South Africa that were actively engaged with IBC SOLAR. Recruitment was conducted from March to July 2024 using IBC SOLAR's communication platforms, including a double opt-in Mailchimp newsletter, the company's online shopping portal, and their social media pages on Facebook and LinkedIn. These channels helped build brand awareness, communicate competitive advantages, and foster commitment and trust with the respondents. To ensure relevance, measures were taken to include only solar installation companies purchasing products from South African distributors, confirmed through a screening question. The recruitment process adhered to the Protection of Personal Information Act regulations, with the questionnaire distributed digitally via IBC SOLAR's Mailchimp platform and supported through banners in the online shop and social media posts. Additionally, the survey was available for digital completion at events such as technical product training,

enhancing participant engagement. An online questionnaire created with Google Forms was used to collect data. The average reach across all platforms for the target population was 2 307, and the study surveyed a minimum of 420 subscribers.

5.4.9 Data integrity and data analysis

Data integrity refers to ensuring that the data collected accurately reflects the reality communicated by survey respondents (Pallant 2020). It typically precedes data analysis as the accuracy of the former influences the quality of the latter (Garza, Del Fiol, Tenenbaum, Walden, and Zozus 2016). In this study, data analysis primarily involved descriptive statistics and SEM analysis. The data integrity phase encompassed tasks such as managing missing data, data cleaning, and screening, each of which will be elaborated on further.

5.4.9.1 *Missing data*

Missing data poses a common challenge in research, often arising when respondents fail to provide answers during questionnaire completion (Malhotra, Nunan et al. 2017). While modern SEM software such as SmartPLS offers sophisticated methods for managing missing data, scholars, including Hair, Sarstedt, Hopkins and Kuppelwieser (2014), and Emmanuel, Maupong, Mpoeleng, Semong, Mphago and Tabona (2021), emphasise the importance of minimising missing values. Especially in covariance-based SEM analyses, software such as Amos or LISREL tends to perform optimally in their absence.

Various approaches exist to address missing values in SEM analyses, including substitution by a neutral value, imputed response substitution, listwise deletion, and pairwise deletion (Mirzaei, Carter, Patanwala and Schneider 2022). Substituting missing values with a neutral value involves replacing them with the mean or another central tendency measure, but potentially introducing bias (Malhotra, Nunan et al. 2017). Imputation replaces missing data with values calculated based on variable correlations, preserving sample size and statistical power but relying on underlying assumptions and model quality. Listwise deletion excludes cases with any missing data, potentially biasing results if missing data are prevalent (Chhabra, Vashisht and Ranjan 2017). In contrast, pairwise deletion retains available data for affected respondents, removing missing values only from specific analyses (Enders 2022).

In this research, over 420 questionnaires were collected, with only three being incomplete. The remaining sample size was large enough for SEM analysis. Therefore, the listwise method was used to handle the missing data deletion (Mirzaei et al. 2022).

5.4.9.2 Data cleaning and screening

The importance of data integrity in research and analytics cannot be overstated, with data cleaning and screening serving as crucial steps in ensuring the accuracy of data before analysis. Typing and screening errors are common pitfalls, where the former refers to incorrect data entries and the latter to the inclusion of ineligible respondents in the dataset. These errors can significantly distort research findings and undermine the study's validity (Flake and Fried 2020). For instance, typing errors might result from mistakenly inputting wrong figures during data collection. Screening errors could involve the retention of respondents who do not meet the study's specified criteria, such as job title or position, company size and years of experience in the solar industry (Malhotra, Nunan et al. 2017).

In addition to typing and screening errors, unengaged responses represent a significant challenge, indicating a lack of genuine engagement from respondents (Issock 2016). This is often observed when respondents consistently choose the same responses, such as the highest rating on a Likert scale, without due consideration (Pallant 2020). Unengaged responses can skew data and lead to non-representative outcomes, affecting the overall integrity of the research. To address these issues, the Mahalanobis distance test was used to identify and eliminate multivariate outliers, thereby ensuring the data's integrity. This technique was preferred due to its effectiveness in detecting outliers across multiple variables, which is crucial for maintaining the quality of multivariate analyses (Issock 2016).

5.4.9.3 Descriptive statistics

Descriptive statistics are crucial in research for summarising data characteristics and providing an understanding of the distribution of variables within a sample (Hapsari 2016). In this study, descriptive statistics were employed to analyse the distribution of characteristics across variables, offering a detailed view of the data. Frequencies were applied to detail categorical variables such as gender, marital status, and education level, providing insight into the composition of the sample (Hapsari 2016; Malhotra, Nunan et al. 2017).

Central tendency measures, including the mean, median, and mode, were utilised to identify central values in interval or ratio scales, particularly for Likert scale data, to determine the average responses and pinpoint common tendencies (Malhotra, Nunan et al. 2017). Additionally, measures of dispersion such as standard deviation and variance were generated to assess the data's variability, thus highlighting the reliability and consistency of responses (Malhotra, Nunan et al. 2017). These analyses facilitated an in-

depth understanding of the data, enabling informed hypothesis testing and supporting the study's conclusions.

5.4.9.4 Common method variance

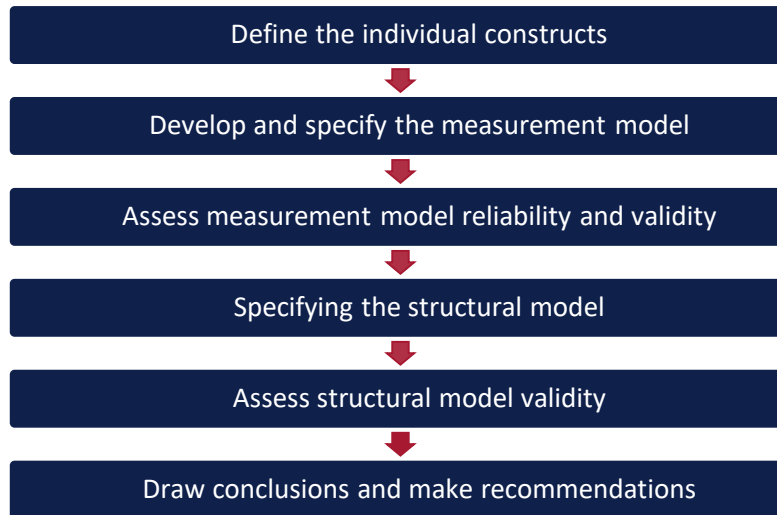
CMV refers to the variance that is attributable to the measurement method rather than to the constructs the measures represent (Malhotra, Nunan et al. 2017). It occurs when the measurement method itself introduces bias into the data, potentially inflating or deflating the observed relationships between variables. This can result from factors such as the type of survey instrument, the respondent's mood, or the context in which the survey is administered (Cooper, Eva, Zarea Fazlelahi, Newman, Lee, and Obschonka 2020). In the context of this study, where data is self-reported by solar installation companies in South Africa, CMV could be a concern. If left unchecked, CMV can compromise the validity of the findings, making it appear that there are stronger or weaker relationships between variables than actually exists (Williams and McGonagle 2016).

In this study, CMV was assessed using Harman's single-factor test, a commonly used method to detect CMV (Bozionelos and Simmering 2022). The test involves conducting an exploratory factor analysis on all the variables in the study. If a single factor emerges or one general factor accounts for more than 50% of the total variance, it indicates that CMV may be a problem (Malhotra, Schaller and Patil 2017). Its simplicity and effectiveness in identifying whether the data collection method introduced systematic error in the results guided the choice of the test.

5.4.9.5 Structural equation modelling

Structural equation modelling is a comprehensive set of statistical techniques used to explain the structure and relationships among multiple variables. These models are represented through mathematical equations similar to those used in multiple linear regression (Hair, Risher et al. 2019). Structural equation modelling allows for the simultaneous estimation of multiple dependency relationships, which is particularly valuable in research involving complex constructs (Malhotra, Nunan et al. 2017). It is a powerful tool enabling researchers to establish the validity of models in specific contexts. Structural equation modelling includes two main phases: 1) the CFA, also known as the measurement model, and 2) the structural model analysis (Hair, Hult, Ringle and Sarstedt 2017). Since two different Likert scales were used in this study, it was necessary to standardise the scores before conducting the SEM analysis. This standardisation ensures comparability by removing the influence of

different scales, making the variables unit-free, and centring the data around the mean (Malhotra, Nunan et al. 2017). It also adjusts for variability, making patterns in the relationships between variables more noticeable.



Source: Malhotra, Nunan et al. (2017)

Figure 5.4: SEM process

The analytical process outlined by Malhotra, Nunan et al. (2017), and illustrated in Figure 5.4, was followed in conjunction with additional criteria estimates recommended by Hair, Risher et al. (2019), as detailed below:

i. Stage 1: Define the individual constructs

The SEM analysis must be theory-driven (Malhotra, Nunan et al. 2017). This implies that the chosen constructs and their relationships should be established based on one or more theories. In this instance, four theories informed the selection of the six constructs in the conceptual research model. Of these six constructs, advertising was derived from the decomposed B2B advertising effects model (Gilliland and Johnston 1997; Cortez et al. 2020), brand loyalty and brand awareness from the brand equity theory (Keller 1993; Bernarto et al. 2020), commitment and trust from the CTT (Morgan and Hunt 1994; Pascual-Ferrá 2021; Alcántara-Pilar et al. 2024), and competitive advantage from the RBT (Petty et al. 1983; Shan et al. 2019; Nayak et al. 2023).

ii. Stage 2: Develop and specify the measurement model

The conceptual model in this study incorporates two types of measurements: reflective and formative (Park, Lee and Chae 2017). Reflective measurement assumes that the observed variables are manifestations of their underlying latent constructs, implying that changes in the latent construct will lead to changes in the observed variables (Hair, Risher et al. 2019). All first-order constructs in this model were measured reflectively (Duarte and Amaro 2018). This means that each observed variable is expected to reflect the underlying construct, ensuring consistency across measurements. This approach is suitable when the latent variable is viewed as the cause of the observed measures (Spector, Rosen, Richardson, Williams and Johnson 2019).

On the other hand, the second-order construct, BTL advertising, was measured formatively through three sub-dimensions: direct mail, social media, and display advertising. Formative measurement indicates that the observed variables cause or form the latent construct, meaning the construct is a composite of its indicators rather than being reflected by them (Hanafiah 2020). This approach was selected for the BTL advertising construct because the overall concept of BTL advertising is best understood as a combination of distinct activities. Each sub-dimension uniquely contributes to the overall BTL advertising construct, suggesting that changes in any one of these areas directly affect the overall construct of BTL advertising. Unlike reflective measurement, where indicators are expected to covary, formative indicators do not necessarily have to be correlated with each other, but must collectively provide a comprehensive representation of the construct (Baumgartner and Weijters 2017).

Since this model employs both reflective and formative measurement approaches, it is crucial to establish the validity of the CFA for each approach (Baharum, Ismail, Awang, McKenna, Ibrahim, Mohamed and Hassan 2023). Confirmatory Factor Analysis for reflective constructs ensures that the observed variables accurately reflect their latent constructs, while for formative constructs, it confirms that the indicators adequately form the construct (Hair, Risher et al. 2019). This evaluation consists of assessing the measurement model's reliability and validity, which will be discussed in the next section.

iii. Stage 3: Evaluation of the measurement model reliability and validity

Examination of scale reliability, convergent validity, and discriminant validity guided the assessment of the reliability and validity of the reflective CFA. Cronbach's alpha and composite reliability measured the scale reliability. Cronbach's alpha and composite reliability, both with a threshold of 0.7, ensured satisfactory internal consistency for each construct (Hair, Risher et al. 2019). However, values exceeding 0.95 indicated potential redundancy among items, thereby reducing construct validity (Ab Hamid, Sami and Mohmad Sidek 2017; Schubert 2021). Factor loadings and the AVE evaluated the convergent validity of the reflective measurement. A factor loading threshold of 0.708 ensures that the construct explains more than 50% of the indicator's variance, establishing acceptable item reliability (Hair, Risher et al. 2019). The AVE threshold was set at 0.5, indicating that the construct accounts for at least half of the variance of its items. Discriminant validity was assessed using the Fornell and Larcker (1981) and the HTMT ratio, with HTMT values not exceeding 0.9 to confirm the distinctiveness of constructs (Franke and Sarstedt 2019).

For the formative CFA, validity was established through redundancy analysis to confirm convergent validity, ensuring that formative indicators accurately represent the second-order construct (brand advertising). Collinearity among indicators was assessed using the VIF, with values below 5 indicating acceptable levels of multicollinearity (Marcoulides and Raykov 2019). The significance and relevance of outer weights were also tested to determine each subconstruct's contribution to the main construct. The CFA was conducted using the partial least squares structural equation modelling (PLS-SEM) algorithm in SmartPLS 4, enabling accurate factor loading calculations and validation of the measurement model.

iv. Stage 4: Specify the structural model

The next step involved specifying the structural model by transforming it into a path diagram (Pakpahan, Hoffmann and Kröger 2017). This model specifies dependency relationships or regressions among latent variables, as opposed to simple correlations when evaluating the measurement model with a covariance-based SEM (Byrne 2014). In other words, the specification process includes defining the structural model (relationships among latent variables) and the measurement model (relationships between latent variables and their indicators or subconstructs) (Hair, Risher, Sarstedt and Ringle 2019; Malhotra, Nunan et al. 2017). It involves

specifying reflective or formative measurement models and choosing the model estimation methods such as partial least square or maximum likelihood. The partial least squares (PLS) estimation method was preferred because it handles complex models with formative constructs while maximising the explained variance (R^2) of dependent variables (Chua 2024).

v. *Stage 5: Assess structural model validity*

After validating the measurement model, the structural model was examined. This involved assessing collinearity among constructs using the VIF, with values below five suggesting an acceptable level of multicollinearity (Marcoulides and Raykov 2019). The significance and relevance of the structural paths were analysed to understand the relationships among constructs and to determine the strength and direction of the hypothesised relationships. The process algorithm was utilised to evaluate the structural model, given that both mediators and moderators were continuous variables (Hayes 2018). This approach is particularly advantageous for moderated mediation analyses as it allows for a detailed examination of how mediating variables interact with moderators. It captures the conditional indirect effects of the mediator at different levels of the moderator, providing deeper insights into complex interactions within the model (Cheung and Lau 2017).

The model's explanatory power was evaluated using the R^2 value, indicating the variance in the dependent variable explained by the model (Hair, Howard and Nitzl 2020). Higher R^2 values suggest stronger explanatory power. Predictive power was further tested using the Q^2 statistic, assessing the model's predictive relevance. Additionally, the f^2 statistic was employed to evaluate the effect size of each predictor construct on the dependent construct. Bootstrapping, a resampling technique, assesses the significance of the tests (Dwivedi, Mallawaarachchi and Alvarado 2017). All tests were conducted at a 95% confidence interval, using 5 000 subsamples bootstrapping (Michelucci and Venturini 2021). Notably, the model fit assessment was unnecessary with SmartPLS 4. The method for deriving PLS-SEM solutions does not revolve around minimising the gap between observed and estimated covariance matrices. The utilisation of Chi-square-based model fit measures, and their extensions as commonly employed in covariance-based structural equation modelling, was not relevant in this context (Hair, Risher et al. 2019).

vi. Stage 6: Conclude and make recommendations

With both measurement and structural models validated, conclusions and recommendations were derived from the key findings. These are detailed in Chapter 7. The use of SmartPLS 4 for PLS-SEM highlights the adaptability of SEM in handling complex models (Hair, Risher et al. 2019). It integrates moderation and mediation analyses with a focus on maximising explained variance. This approach facilitated the identification of significant relationships and the derivation of actionable insights, reinforcing the theoretical and practical implications of the study (Akter, Fosso Wamba and Dewan 2017). The application of the process algorithm allowed for a nuanced understanding of the moderated mediation effects, thereby enriching the study's contribution to the literature.

5.5 Chapter summary

This chapter has provided a comprehensive overview of the research methodology employed in this study. The researcher selected the positivist research paradigm due to its compatibility with the quantitative research methodology. The study also utilised the descriptive research design. Furthermore, the target population and sampling technique were described, with the study involving a convenience sample of solar installation companies who purchase products from distributors in South Africa. The chapter also delved into the data collection procedures and data analysis methods. Specifically, a survey technique was utilised, and statistical analysis methods were applied to operationalise the research objectives. The subsequent chapter will focus on data analysis and a discussion of the research findings.

CHAPTER 6

DATA ANALYSIS AND DISCUSSION

6.1 Chapter overview

Chapter 5 outlined the study's positivist, quantitative, and descriptive research methodology. This chapter aims to present and discuss the results of the data analysis. It begins with descriptive statistics of the sample, using frequency tables, percentages, and measures of central tendency, followed by a discussion in the context of existing literature. Next, a SEM analysis validates the research instruments and tests the hypotheses from Chapter 4. The findings are compared with previous studies, and the chapter concludes by examining the moderating effects of brand awareness on the relationship between BTL advertising and brand loyalty through competitive advantage, trust, and commitment.

6.2 Introduction

The empirical data collected from 427 respondents provided a solid foundation for understanding the complex relationships among the study variables. Descriptive statistics revealed patterns and trends using measures of central tendency, dispersion, and frequencies (Hapsari 2016; Malhotra, Nunan et al. 2017). This initial step was crucial for setting the stage for more advanced statistical analysis. A critical aspect of this research involved evaluating the reliability and validity of the measurements, which required rigorous testing of key criteria such as factor loadings and composite reliability to confirm the robustness of the theoretical constructs (Hair, Risher et al. 2019).

Structural equation modelling is a powerful tool for analysing complex relationships between latent variables (Hair, Risher et al. 2019). This technique allows for a detailed examination of the mechanisms through which predictors, such as BTL advertising, influence brand loyalty (Hayes and Montoya 2017; Yzerbyt, Muller, Batailler and Judd 2018; Mokhtar, Yusof and Sapiri 2023). Before presenting the descriptive statistics and SEM results, it is important to revisit the empirical objectives and hypotheses addressed by the analysis.

6.3 Primary research objectives and hypotheses

As outlined in Chapter 1 (Section 1.7), the primary objective of the study is:

To develop a model based on the moderation effect of brand awareness on the relationship between BTL advertising and brand loyalty, while accounting for the intermediary role of competitive advantage, commitment, and trust in the South African Solar industry.

6.3.1 Empirical research objectives

- i. To measure the impact of BTL advertising on brand loyalty in the South African solar industry.
- ii. To evaluate the effect of competitive advantage on brand loyalty in the South African B2B solar industry.
- iii. To investigate the effect of commitment on brand loyalty in the South African B2B solar industry.
- iv. To measure the effect of trust on brand loyalty in the South African B2B solar industry
- v. To examine the moderated mediation effect of brand awareness on the relationship between BTL advertising and brand loyalty through competitive advantage, commitment and trust in the South African B2B solar industry.

6.3.2 Hypotheses

Based on the given objectives and an extensive literature review, the hypotheses in Table 6.1 have been proposed, as indicated in Chapter 1 (Section 1.5).

Table 6.1: Hypotheses formulated for the study

Number	Hypotheses
H1	BTL advertising has a positive statistically significant effect on brand loyalty.
H2	Competitive advantage has a positive statistically significant effect on brand loyalty.
H3	Commitment has a positive statistically significant effect on brand loyalty.
H4	Trust has a positive statistically significant effect on brand loyalty.
H5	Brand awareness moderates the mediating role of competitive advantage in the relationship between BTL advertising and brand loyalty.
H6	Brand awareness moderates the mediating role of competitive advantage in the relationship between BTL advertising and brand loyalty.
H7	Brand awareness moderates the mediating role of commitment in the relationship between BTL advertising and brand loyalty.

6.4 Descriptive statistics

Descriptive statistics is a crucial step in the analysis, as it provides insight into the distribution of the research variables (Field 2013). Depending on the nature of the variable, descriptive statistics can be represented as frequencies for nominal variables (Pallant 2020). For ordinal or ratio variables, they can be expressed as measures of central tendency (Malhotra, Nunan et al. 2017). This section starts by describing the demographic of the respondents, followed by a detailed discussion of the results and their implications.

6.4.1 Screening questions and realisation rate

A screening question in research is used to identify and select respondents who meet the specific eligibility criteria for a study (Migliavaca, Stein, Colpani, Munn and Falavigna 2020). Given that the study aimed to evaluate the relationship between solar installation companies and their distributors, three screening questions were posed. The first and most critical question sought to ascertain whether the participant works at a solar installation company by identifying their position within the organisation. Respondents who indicated roles such as “training” under the “other” category were excluded from the study to maintain the relevance of the sample. The second question addressed the size of the company, which is essential for understanding the scale of operations and potential variances in distributor relationships. According to Yang, Zheng, Xie and Tian (2022), company size can significantly influence business strategies and interactions with external partners. The third question focused on the participant's years of experience in the solar industry. This is crucial as, according to Healy (2023), two to three years of industry experience is necessary for providing informed and reliable insights into industry dynamics. This ensures that a substantial depth of knowledge and practical experience informs the responses. Table 6.2 shows the sample distribution concerning the screening questions.

Results presented in Table 6.2 indicate that most respondents are solar installers, constituting 32.55% (139 respondents), while managers account for 24.82% (106 respondents). Sales representatives represent 19.44% (83 respondents), and technical support personnel comprise 10.07% (43 respondents). The “other” category, which includes roles such as intern, marketing, owner, and sales administrator, made up 13.11% (56 respondents). Given that the solar industry relies on a range of expertise, categorising respondents by job titles helped to better understand the distribution of roles and responsibilities within the sector (Kalogirou 2023). Of the 427 respondents regarding company size, 44.73% (191 respondents) work in small companies (1–10 employees). Additionally, 39.11% (167

respondents) represent medium-sized companies (11–50 employees), 13.35% (57 respondents) represent large companies (51 + employees), and 2.81% (12 respondents) are sole proprietors. This categorisation helped in understanding the distribution of the workforce across different company sizes.

Table 6.2: Descriptive statistics on brand loyalty among solar installation companies

Profile of the respondents	Frequency	Valid per cent
Job title/position		
Solar installer	139	32.55
Sales representative	83	19.44
Technical support	43	10.07
Manager	106	24.82
Other	56	13.11
Total	427	100.00
Company size		
Sole proprietor	12	2.81
Small (1–10 employees)	191	44.73
Medium (11–50 employees)	167	39.11
Large (51+ employees)	57	13.35
Total	427	100.00
	Mean	Standard deviation
Years of experience in the solar industry	8.85	7.52

The mean years of experience in the solar industry among respondents is 8.85 years, with a standard deviation of 7.52 years, indicating a diverse range of experience levels. These results suggest that a significant portion of the workforce is experienced, which is essential for the industry's growth and development. The diversity in job titles and company sizes corroborated the findings of recent studies,

which highlighted the importance of varied experience and company structure in the solar industry's success (Kapoor and Furr 2015; Scott 2017).

6.4.2 Demographic profile of the respondents

This section primarily examined demographic variables such as gender, geographic area, and age. The descriptive statistics for these variables are presented in Table 6.3. In terms of gender, the results presented in Table 6.3 indicate that 240 (56.21%) males and 187 (43.79%) females participated in the survey. The slightly higher male response rate may reflect demographic trends or varying levels of engagement in behavioural research between genders. With regard to the geographic regions surveyed, the table indicates that 57.61% of the respondents were from coastal regions (Western Cape, Northern Cape, Eastern Cape, and KwaZulu-Natal), while 42.39% were from inland regions (Gauteng, Northwest, Mpumalanga, Limpopo, and Free State).

Table 6.3: Descriptive statistics of the demographics

Profile of the respondents	Frequency	Valid per cent
Gender		
Female	187	43.79
Male	240	56.21
Total	427	100.00
Geographic region in South Africa		
Coastal: Western Cape, Northern Cape, Eastern Cape, and KwaZulu-Natal	246	57.61
Inland: Gauteng, North West, Mpumalanga, Limpopo, and Free State	181	42.39
Total	427	100.00
	Mean	Standard deviation
Age	37.19	10.78

The average age of the respondents was 37.19 years, with a standard deviation of 10.78, indicating a diverse age range among the respondents. This age distribution highlights a broad representation of adult respondents, contributing to a comprehensive understanding of the behavioural patterns across different age groups. Such variability in age is significant for capturing a wide array of perspectives and experiences in the survey data.

Table 6.4: Most common solar brands installed

Most common brands installed	Frequency	Valid per cent
Apollo	7	0.92
Atess	34	4.48
BSL	3	0.40
Canadian Solar	19	2.50
Deye	56	7.38
Dyness	3	0.40
FreedomWon	16	2.11
Fronius	14	1.84
GoodWe	9	1.19
Growatt	17	2.24
Grundfos	2	0.26
Hubble	4	0.53
IBC SOLAR	21	2.77
JA Solar	7	0.92
Jinko	16	2.11
Kaco	4	0.53
Kehua Tec	18	2.37
Kodak	15	1.98
Longi	27	3.56
Luxpower	32	4.22
Must	5	0.66
Oliter	6	0.79
Phocos	8	1.05
Pylontech	12	1.58
Revov	11	1.45
Schneider	6	0.79
Shoto	7	0.92
SMA	40	5.27
Solar MD	64	8.43
Solaredge	8	1.05
Solis	16	2.11
SRNE Solar	9	1.19
Sungrow	11	1.45
Sunsynk	112	14.76
Trina	16	2.11
Victron	96	12.65
Volta	8	1.05
Total	759	100.00

6.4.3 Patronage habits

Most online literature regarding the most common solar brands installed focused primarily on solar panel brands such as Jinko Solar, JA Solar, Canadian Solar, and Sinetech (Leta 2024). Literature covering brands related to inverters and storage is sparse. Nevertheless, the current study shows that Sunsynk is the most installed brand, with 14.76% of installations. The high variance in brand frequencies, as evidenced by the range of percentages, suggests significant differences in market penetration and customer loyalty among brands. The median indicates that at least 50% of installations come from the top seven brands, which likely include those with the largest market shares and widest distribution networks (Table 6.4). While Sunsynk holds a substantial lead, Victron (12.65%) and Solar MD (8.43%) also have significant shares. This concentration suggests that a few key players dominate the market, although there is still notable competition from other brands.

Even though Gitonga (2024) reported One Energy Group, Sunworx Solar, and SolarAfrica as the most common distributors in SA, this study revealed different results. This could be due to using IBC SOLAR's platforms to distribute the survey. Nevertheless, the current study shows that IBC SOLAR is the most used distributor, with 28.67% of respondents indicating this preference. The high variance in distributor frequencies, as evidenced by the range of percentages, suggests significant differences in market penetration and customer loyalty among distributors.

The median, as indicated in Table 6.5, indicates that at least 50% of respondents purchase from the top six distributors, which likely includes those with the largest market shares and widest distribution networks. While IBC SOLAR holds a substantial lead, Herholdt's (17.02%) and Krannich (11.89%) also have significant shares. This concentration suggests that a few key players dominate the market, although there is still notable competition from other distributors.

Table 6.5: Most common solar distributors

Most common solar distributors	Frequency	Valid per cent
ANH	2	0.47
ARB	37	8.62
Axiz	6	1.40
CNBM	3	0.70
Get Off Grid	7	1.63
Greenhouse Energy Consulting	12	2.80
Herholdt's	73	17.02
IBC SOLAR	123	28.67
Krannich	51	11.89
Menlo	13	3.03
Rubicon	23	5.36
SegenSolar	32	7.46
SMA	2	0.47
Solar Warehouse	6	1.40
Solartech	5	1.17
Solarvest	7	1.63
SolarWay	3	0.70
SolarWorld	16	3.73
Victron	8	1.86
Total	429	100.00

Limited information regarding the average frequency of purchasing solar brands in South Africa is available in the literature. However, as indicated in Table 6.6, the current study reveals that, on average, solar products are most frequently purchased weekly, with 27.34% of respondents indicating this frequency. The high variance in purchasing frequencies suggests significant differences in how often users acquire solar products. The median frequency of purchase shows that at least 50% of respondents purchase solar products biweekly or less often. This segment likely includes those who make bulk purchases or have less frequent needs for solar products. Conversely, 5.52% reported purchasing solar products almost daily, showing a high frequency of need, perhaps for large-scale or commercial use.

After analysing the demographics and descriptive statistics concerning brand loyalty among solar installation companies in South Africa, the subsequent section explores the central tendency measures of the constructs included in the conceptual model.

Table 6.6: Frequency of purchasing

Frequency of purchasing	Frequency	Valid per cent
2 times a month	9	2.16
2 times per week	41	9.83
2–3 times a month	1	0.24
3 times	7	1.68
3 times per week	14	3.36
3–4 times per week	17	4.08
3–5 times a month	1	0.24
4 times	11	2.64
4 times a month	3	0.72
5 times	9	2.16
5 times a month	2	0.48
Almost daily	23	5.52
Biweekly	54	12.95
Every 3 months	7	1.68
Monthly	91	21.82
Once	13	3.12
Weekly	114	27.34
Total	417	100.00

6.4.4 Central tendency measure of the constructs

The three subdimensions of BTL advertising (social media, direct mail, and display advertising) and brand loyalty were measured on a 5-point Likert scale. This scale ranged from *strongly disagree*, assigned a value of 1, to *strongly agree*, assigned a value of 5. The midpoint of this 5-point scale is 2.5, so values below 2.5 indicate disagreement with the respective statements (Field 2013; Malhotra, Nunan et al. 2017). Values between 2.5 and 3.5 suggest neutrality, as they are closer to the middle options of the scale. Mean values of 3.5 and above indicate agreement with the statements, encompassing options 4 and 5, which reflect agreement on the Likert scale.

Commitment, trust, competitive advantage, and brand awareness were appraised on a seven-point Likert scale. This scale ranged from *strongly disagree* (value of 1) to *strongly agree* (value of 7). The midpoint of the seven-point scale is 3.5. Values below 3.5 indicate disagreement with the statements, including options 1 and 2, which fall on the disagreement side of the scale (Field 2013; Malhotra, Nunan et al. 2017). Values between 3.5 and 4.5 suggest neutrality, while mean values of 4.5 and above indicate agreement, encompassing options 5, 6, and 7 on the Likert scale. According to Hair, Risher et al. (2019), alternating between different scale levels, such as 5-point and 7-point Likert scales, can help reduce common variance bias. This approach will guide the interpretation of the central tendency analysis that follows.

6.4.4.1 *Below-the-line advertising*

For this construct, 18 measurement items were used, divided equally among the three sub-constructs: social media, direct mail, and display advertising. The purpose was to measure the effectiveness of these BTL advertising forms in influencing customer perceptions and actions. The overall construct had a mean of 3.61 and a standard deviation of 0.79, according to Table 6.7. This suggests that, on average, respondents have a moderately positive view of the BTL advertising strategies employed by their main distributor. The data includes the mean and standard deviation for various statements related to these BTL advertising methods, as well as the distribution of responses on a 5-point Likert scale.

The sub-constructs revealed varied levels of respondent agreement regarding direct mail advertising, with mean scores ranging from 3.35 to 3.89. For example, 74.71% of respondents agreed or strongly agreed with the statement, “The content in my main distributor's direct mail advertisements is consistently up-to-date”, reflecting a high level of satisfaction with the content. However, the statement, “I often take action based on the information provided in direct mail advertisements from my main distributor”, received a lower mean score of 3.35, with only 45.43% agreeing or strongly agreeing. This suggests that, while direct mail advertising is seen as informative, it may not significantly drive customer action.

Social media advertising showed mean scores between 3.50 and 3.77. The statement, “The posts and updates by my main distributor on social media are interesting”, scored the highest mean (3.77), with 69.32% of respondents indicating a positive response. Conversely, the lowest mean (3.50) was for the statement, “I engage with my main distributor’s social media advertisements”, with only 48.48% agreeing or strongly agreeing. This indicates that although social media content is generally well-received, it may be less effective in fostering customer engagement.

Display advertising had mean scores ranging from 3.31 to 3.77, indicating moderate effectiveness in addressing shopping needs and encouraging purchases. The highest mean (3.77) was for the statement, “The content displayed in the distributor’s online shop is relevant to my shopping needs”, with 65.11% agreeing or strongly agreeing. In contrast, the lowest mean (3.31) was for, “I pay close attention to the distributor's online shop advertisements when they appear while I'm browsing”, with only 46.37% showing a favourable response.

Table 6.7: Below-the-line advertising

	Statements	Mean	SD	1	2	3	4	5	Total
Direct mail advertising	My main distributor's direct mail advertisements are informative.	3.81	0.86	7	32	67	248	73	427
				1.64%	7.49%	15.69%	58.08%	17.10%	100
	The content in my main distributor's direct mail advertisements is consistently up-to-date.	3.89	0.67	7	10	48	319	43	427
				1.64%	2.34%	11.24%	74.71%	10.07%	100
	The materials and messages in my main distributor's direct mail advertisements are engaging.	3.83	0.72	7	9	82	280	49	427
				1.64%	2.11%	19.20%	65.57%	11.48%	100
Direct mail advertising	I pay close attention to direct mail advertisements from my main distributor when they arrive in my mailbox.	3.48	0.88	9	44	151	181	42	427
				2.11%	10.30%	35.36%	42.39%	9.84%	100
	I often act based on the information provided in direct mail advertisements from my main distributor.	3.35	0.94	17	61	129	194	26	427
				3.98%	14.29%	30.21%	45.43%	6.09%	100
	Social media advertisements from my main distributor have an influence on my perception of the brand.	3.76	0.92	0	34	142	145	106	427
				0.00%	7.96%	33.26%	33.96%	24.82%	100
Social media advertising	The posts and updates by my main distributor on social media are interesting.	3.77	0.85	7	25	99	225	71	427
				1.64%	5.85%	23.19%	52.69%	16.63%	100
	I can readily locate the information I need on my main distributor's social media profiles.	3.57	0.83	8	28	148	199	44	427
				1.87%	6.56%	34.66%	46.60%	10.30%	100
	Social media advertisements from my main distributor grab my attention.	3.63	0.83	0	44	120	211	52	427
				0.00%	10.30%	28.10%	49.41%	12.18%	100
Social media advertising	I engage with my main distributor's social media advertisements.	3.50	0.80	0	52	138	207	30	427
				0.00%	12.18%	32.32%	48.48%	7.03%	100
	I consider making a purchase when I see my main distributor's advertisements online.	3.32	0.77	0	71	158	188	10	427
				0.00%	16.63%	37.00%	44.03%	2.34%	100
	The content displayed in the distributor's online shop is relevant to my shopping needs.	3.77	0.80	0	24	125	202	76	427
				0.00%	5.62%	29.27%	47.31%	17.80%	100
Display advertising	The banners and display advertisements in the distributors' online shop are engaging.	3.63	0.65	0	15	152	236	24	427
				0.00%	3.51%	35.60%	55.27%	5.62%	100
	I pay close attention to the distributor's online shop advertisements when they appear while I am browsing.	3.31	0.91	8	79	141	171	28	427
				1.87%	18.50%	33.02%	40.05%	6.56%	100
	I frequently click on my main distributor's online shop advertisements for more information.	3.52	0.75	0	46	133	226	22	427
				0.00%	10.77%	31.15%	52.93%	5.15%	100
	Overall	3.61	0.79						

Please note that the 5-point Likert scale means: 1-strongly disagree; 2-disagree; 3-neutral; 4-agree; 5-strongly agree.

Overall, these findings suggest that while the BTL advertising strategies used are generally well-received, their effectiveness varies across different BTL advertising mediums. Direct mail and social media advertising appear to have higher perceived value in terms of content quality, while display advertising is more effective in relevance to shopping needs. However, all three forms of BTL advertising show room for improvement in converting perception into actual engagement and purchase actions. This aligns with the literature indicating the importance of not just content quality but also engagement and action in advertising effectiveness (Kaur and Soch 2018; Arslan 2020; Bernarto et al. 2020). Therefore, while the overall construct score points to a positive perception, the varying degrees of engagement and action suggest that more targeted strategies may be needed to enhance the effectiveness of these BTL advertising forms. This nuanced understanding can guide future BTL advertising strategies to better align with solar installation companies' behaviours and preferences.

6.4.4.2 Brand loyalty

For this construct, seven measurement items were used to evaluate brand loyalty, focusing on customers' emotional and psychological connection to their preferred solar brand distributors. Table 6.8 presents the descriptive statistics of each statement considered for this construct. The goal was to measure aspects such as consistent brand choice, active recommendations, and preference strength. The overall construct had a mean score of 3.63 with a standard deviation of 0.83, indicating a generally positive attitude towards brand loyalty among respondents.

Delving into the specific measurement items, the statement "I consistently choose my main solar brand distributor" received a relatively high mean score of 3.8, with most respondents indicating agreement or strong agreement. This suggests that many customers tend to show consistency in their brand choices, demonstrating a degree of loyalty. Additionally, the statement "I actively recommend my main distributor to others in the industry", scored a mean of 3.7, as detailed in Table 6.8, indicating that customers are generally inclined to promote their preferred distributor through word-of-mouth, a key indicator of brand loyalty. However, there was a noticeable variation in responses concerning the statement "I am willing to pay higher prices for products from this distributor compared to other brands", with a mean score of 3.06 as shown in Table 6.8. This result highlights some cost sensitivity among customers, suggesting that while they are loyal to the brand, this loyalty has limits when it comes to premium pricing. This aligns with existing literature, which suggests that brand loyalty can be strong but is often moderated by factors such as perceived value and pricing strategies (Ghorbanzadeh 2021; Tarkiainen and Ellonen 2015).

Table 6.8: Brand loyalty

Statements	Mean	SD	1	2	3	4	5	Total
I consistently choose my main distributor over other options in the market.	3.80	0.73	0	17	113	236	61	427
			0.00%	3.98%	26.46%	55.27%	14.29%	100
I actively recommend my main distributor to others in the industry.	3.70	0.87	16	16	101	240	54	427
			3.75%	3.75%	23.65%	56.21%	12.65%	100
My preference strongly leans toward my main distributor compared to other alternatives.	3.80	0.70	0	8	132	224	63	427
			0.00%	1.87%	30.91%	52.46%	14.75%	100
I would be disappointed to buy from a different distributor due to product unavailability at my main distributor.	3.62	0.83	1	24	180	154	68	427
			0.23%	5.62%	42.15%	36.07%	15.93%	100
I rarely consider switching to another distributor.	3.56	0.89	9	18	196	134	70	427
			2.11%	4.22%	45.90%	31.38%	16.39%	100
When I need to make a purchase, my main distributor is my first choice.	3.91	0.71	0	0	128	208	91	427
			0.00%	0.00%	29.98%	48.71%	21.31%	100
I am willing to pay higher prices for products from this distributor compared to other brands.	3.06	1.21	42	103	140	71	71	427
			9.84%	24.12%	32.79%	16.63%	16.63%	100
Overall	3.63	0.83						

Please note that the 5-point Likert scale means: 1-strongly disagree; 2-disagree; 3-neutral; 4-agree; 5-strongly agree.

Overall, these findings indicate a generally robust level of brand loyalty, characterised by consistent brand preference and active recommendation. However, the relatively lower score for price sensitivity suggests that while customers have a favourable view of their main distributors, their loyalty might waver in the face of higher costs. This nuanced understanding of brand loyalty can inform marketing strategies, emphasising the need to balance customer retention efforts with competitive pricing. Leveraging this strong brand loyalty could be beneficial for enhancing marketing initiatives and strengthening customer relationships further (Bilgin 2018; Swaminathan et al. 2018). Therefore, while the overall construct score reflects a positive attitude towards brand loyalty, the insights into cost sensitivity provide a more detailed narrative. This emphasises the importance of maintaining value-based strategies to support and enhance brand loyalty in the long term.

6.4.4.3 Commitment

For this construct, six measurement items were utilised to evaluate the level of commitment customers have towards their main distributor. The construct aimed to measure the dimensions of commitment, specifically affective, normative, and calculative, within the distributor-customer relationship (Muda and Fook 2020). The results, as shown in Table 6.9, indicate an overall mean of 5.42 with a standard deviation of 1.07, suggesting that respondents generally exhibit a strong commitment to their distributor relationships.

Examining the specific measurement items in Table 6.9, the statement, “I feel a strong sense of connection to my main distributor”, shows that 46.84% of respondents agreed, 15.46% moderately agreed and 15.93% strongly agreed. This high level of agreement indicates that a significant portion of the sample feels an emotional bond with their distributor, reflecting affective commitment. Positive feelings and satisfaction derived from the relationship drive affective commitment, going beyond mere transactional interactions. Additionally, 38.17% agreed, 20.37% moderately agreed, and 24.36% strongly agreed with “I have maintained a long-term relationship with my main distributor”, indicating a level of calculative commitment where the continuation of the relationship is evaluated through a cost-benefit analysis.

Table 6.9: Commitment

Statements	Mean	SD	1	2	3	4	5	6	7	Total
I feel a strong sense of connection to my main distributor.	5.20	1.07	0	0	24	69	200	66	68	427
			0.00%	0.00%	5.62%	16.16%	46.84%	15.46%	15.93%	100
I have maintained a long-term relationship with my main distributor.	5.46	1.16	0	8	9	56	163	87	104	427
			0.00%	1.87%	2.11%	13.11%	38.17%	20.37%	24.36%	100
The relationship I have with my main distributor is of great importance to me.	5.51	1.02	0	1	0	58	193	70	105	427
			0.00%	0.23%	0.00%	13.58%	45.20%	16.39%	24.59%	100
I am committed to maintaining a strong and lasting relationship with my main distributor.	5.48	1.18	0	8	1	66	181	45	126	427
			0.00%	1.87%	0.23%	15.46%	42.39%	10.54%	29.51%	100
I genuinely care about the relationship with my main distributor.	5.54	1.04	0	0	1	63	176	77	110	427
			0.00%	0.00%	0.23%	14.75%	41.22%	18.03%	25.76%	100
I am willing to put in maximum effort to maintain my relationship with my main distributor.	5.33	0.94	0	0	1	78	186	102	60	427
			0.00%	0.00%	0.23%	18.27%	43.56%	23.89%	14.05%	100
Overall	5.42	1.07								

Please note that the 5-point Likert scale means: 1-strongly disagree; 2-moderately disagree; 3-disagree; 4-neutral; 5-agree; 6-moderately agree, 7-strongly agree.

The results from Table 6.9 suggest a consistent and strong commitment across the sample, highlighting that respondents value their relationship with their distributor and are willing to invest in maintaining it. This aligns with previous literature, where Geyskens et al. (1996) and Goutam (2020) describe commitment as comprising affective and calculative dimensions. Affective commitment embodies an emotional bond and a genuine desire to maintain the relationship, underpinned by a sense of attachment and forward-looking readiness between partners (Van Tonder et al. 2018; Goutam 2020). In contrast, calculative commitment is more pragmatic, with the relationship's continuation based on financial considerations or the lack of better alternative analysis (Shukla et al. 2016; Khan et al. 2020).

The findings in this study align with these perspectives, showing strong affective commitment among respondents, as they demonstrated a willingness to maintain their distributor relationships based on emotional attachment and satisfaction. The relatively lower levels of agreement on calculative commitment suggest that while emotional and normative aspects are strong, the relationship is not solely maintained for economic reasons (Cownie 2019). The overall high level of commitment detailed in Table 6.9 indicates that respondents genuinely value their relationship with their main distributors and are willing to put in the effort to maintain it. This provides strategic opportunities for distributors to build deeper customer relationships and improve retention by enhancing both the emotional and economic value they offer. The study supports the view that affective commitment, which fosters long-term loyalty, is crucial in sustaining strong distributor-customer relationships (Goutam 2020; Muda and Fook 2020).

6.4.4.4 Trust

For this construct, six measurement items were used to evaluate the level of trust customers have in their main distributor. Trust is a fundamental element in customer relationships, influencing decision-making and fostering long-term loyalty (Keiningham, Frennea, Aksoy, Buoye and Mittal 2015; Robbins 2022). In this study, the focus was on measuring the extent to which respondents trust their main distributor using various statements. The measures of central tendency presented in Table 6.10 indicate an overall mean of 5.37 and a standard deviation of 1.08, suggesting that respondents generally exhibit a high level of trust in their distributor.

Examining the specific measurement items in Table 6.10, the statement “I completely trust the products and services provided by my main distributor” received a high mean score of 5.50 with a standard deviation of 1.01. Notably, 85.47% of respondents moderately agreed or strongly agreed with this

statement, indicating a strong sense of reliability and confidence in the distributor's offerings. Similarly, the statement “I have great confidence in my main distributor” had an even higher mean of 5.59 and a standard deviation of 1.12, with 86.11% of respondents agreeing. These results highlight a significant level of trust among respondents, suggesting that the main distributor has successfully established a trustworthy reputation.

The statement “My main distributor has high integrity” also garnered a high mean of 5.42 and a standard deviation of 1.04, with 80.03% of respondents agreeing or strongly agreeing. This suggests that the perception of integrity plays a crucial role in fostering trust. In contrast, the statement “Based on my past experience with my main distributor, I know it cares about its customers” had a slightly lower mean of 5.30 and a higher standard deviation of 1.18, although 77.51% of respondents still agreed. These findings suggest that while trust is generally high, there may be slight variations in the perceived level of customer care and personal experience (Sparks, So and Bradley 2016).

Overall, the results from Table 6.10 indicate a strong sense of trust and confidence in the main distributor among most respondents. These findings align with previous research, which highlights trust as a foundational element in the development of brand loyalty (Trivedi and Yadav 2020; Barden et al. 2021; Hanaysha 2022). Trust reduces perceived risks and fosters a sense of security in customers, forming the bedrock upon which brand loyalty is built (Goutam 2018).

The high mean scores in this study reflect cognitive trust, where respondents have a rational belief in the distributor’s competence and reliability (Dowell et al. 2015). This cognitive trust is evident in the confidence respondents have in their distributor’s products and services, indicating consistent positive interactions that reinforce the distributor’s reputation over time (Rane et al. 2023).

Furthermore, the high levels of trust observed in this study suggest that respondents not only believe in the reliability of their distributor but also perceive value in their interactions, reinforcing their loyalty (Ikramuddin and Mariyudi 2021). Satisfied customers who perceive high value are more likely to trust the brand, which strengthens their loyalty (Cardoso et al. 2022). The slightly lower score on customer care indicates that while the distributor is generally trusted, there is an opportunity to enhance customer support and personal attention to further strengthen this relationship.

Table 6.10: Trust

Statements	Mean	SD	1	2	3	4	5	6	7	Total
I have a strong sense of trust in my main distributor.	5.18	1.07	0	7	16	55	231	50	68	427
			0.00%	1.64%	3.75%	12.88%	54.10%	11.71%	15.93%	100
I completely trust the products and services provided by my main distributor.	5.50	1.01	0	0	0	62	192	70	103	427
			0.00%	0.00%	0.00%	14.52%	44.96%	16.39%	24.12%	100
I have great confidence in my main distributor.	5.59	1.12	0	0	16	39	177	65	130	427
			0.00%	0.00%	3.75%	9.13%	41.45%	15.22%	30.44%	100
Based on my experience with my main distributor, I know it cares about its customers.	5.30	1.18	0	0	31	65	168	70	93	427
			0.00%	0.00%	7.26%	15.22%	39.34%	16.39%	21.78%	100
I can count on my main distributor to do what is right.	5.26	1.06	0	0	16	76	192	68	75	427
			0.00%	0.00%	3.75%	17.80%	44.96%	15.93%	17.56%	100
My main distributor has high integrity.	5.42	1.04	0	0	8	73	161	102	83	427
			0.00%	0.00%	1.87%	17.10%	37.70%	23.89%	19.44%	100
Overall	5.37	1.08								

Please note that the five-point Likert scale means: 1-strongly disagree; 2-moderately disagree; 3-disagree; 4-neutral; 5-agree; 6-moderately agree, 7-strongly agree.

6.4.4.5 *Competitive advantage*

For this construct, six measurement items were used to evaluate the level of competitive advantage perceived by customers in their main distributor. Competitive advantage is essential in strategic management, representing the strengths that enable a company to outperform its competitors (Gleißner et al. 2013; Mehta 2023). This study aimed to assess various aspects of competitive advantage, including product range, supplier relationships, and customer service. The measures of central tendency presented in Table 6.11 indicate an overall mean of 5.40 with a standard deviation of 1.11, suggesting that respondents generally perceive their main distributor to have a significant competitive edge.

Examining the specific measurement items in Table 6.11, the statement “My main distributor offers a diverse range of solar products and solutions” received a high mean score of 5.53 and a standard deviation of 1.06. Notably, 83.14% of respondents moderately agreed or strongly agreed with this statement, indicating that a diverse product range is perceived as a key strength of the distributor. Similarly, the statement “My main distributor maintains strong relationships with reputable solar product manufacturers and suppliers” had a mean of 5.49 and a standard deviation of 1.11, with 81.04% of respondents agreeing. These findings suggest that supplier relationships are considered a significant contributor to the distributor's competitive advantage.

The statement “My main distributor provides valuable product knowledge and guidance” garnered a mean of 5.40 and a standard deviation of 1.04, with 85.78% of respondents agreeing or strongly agreeing. This indicates that the distributor's ability to offer knowledgeable guidance is viewed as a competitive strength. In contrast, the statement “My main distributor is reputed for delivering exceptional customer service and support” had a slightly lower mean of 5.31 and a standard deviation of 1.11, though 83.37% of respondents still agreed. This suggests that while customer service is generally well-regarded, there might be minor variations in perceived excellence compared to other competitive aspects (Ladhari, Souiden and Dufour 2017).

Table 6.11: Competitive advantage

Statements	Mean	SD	1	2	3	4	5	6	7	Total
My main distributor maintains strong relationships with reputable solar product manufacturers and suppliers.	5.49	1.11	0	0	9	72	159	76	111	427
			0.00%	0.00%	2.11%	16.86%	37.24%	17.80%	26.00%	100
My main distributor offers a diverse range of solar products and solutions.	5.53	1.06	0	1	9	62	138	126	91	427
			0.00%	0.23%	2.11%	14.52%	32.32%	29.51%	21.31%	100
My main distributor provides valuable product knowledge and guidance.	5.40	1.04	0	1	15	47	195	86	83	427
			0.00%	0.23%	3.51%	11.01%	45.67%	20.14%	19.44%	100
My main distributor is known for its efficient supply chain management for on-time product deliveries.	5.32	1.18	8	0	8	63	185	80	83	427
			1.87%	0.00%	1.87%	14.75%	43.33%	18.74%	19.44%	100
My main distributor is competitive in terms of pricing.	5.33	1.16	0	0	24	76	157	77	93	427
			0.00%	0.00%	5.62%	17.80%	36.77%	18.03%	21.78%	100
My main distributor is reputed for delivering exceptional customer service and support.	5.31	1.11	0	7	23	41	179	114	63	427
			0.00%	1.64%	5.39%	9.60%	41.92%	26.70%	14.75%	100
Overall	5.40	1.11								

Please note that the 5-point Likert scale means: 1-strongly disagree; 2-moderately disagree; 3-disagree; 4-neutral; 5-agree; 6-moderately agree, 7-strongly agree.

Overall, the results from Table 6.11 indicate a strong perception of competitive advantage among respondents regarding their main distributor. These findings align with the literature on competitive advantage, which underscores the importance of elements such as product diversity, strong supplier relationships, and exceptional customer service as critical factors for outperforming competitors (Gleißner et al. 2013; Mehta 2023). Additionally, this resonates with the concept of affective and calculative commitment within the loyalty framework. Affective commitment, driven by an emotional bond and satisfaction derived from the relationship, is enhanced when customers perceive a distributor's competitive strengths, such as a diverse product range and valuable guidance (Van Tonder et al. 2018; Goutam 2020).

The study's findings also align with the notion of calculative commitment, where the continuation of a relationship is based on a rational evaluation of tangible benefits (Shukla et al. 2016; Khan et al. 2020). When a distributor demonstrates a competitive advantage through maintaining strong relationships with reputable manufacturers and delivering exceptional customer service, customers are more likely to evaluate their relationship with the distributor positively. This perception of added value supports the utilitarian perspective that loyalty is often contingent upon the perceived benefits received, reinforcing the importance of competitive advantage in customer retention and loyalty (Foroudi et al. 2018; Batat 2019).

6.4.4.6 Brand awareness

For this construct, seven measurement items were used to evaluate the level of brand awareness perceived by respondents regarding their main distributor. Brand awareness is crucial for influencing customer decisions and enhancing the effectiveness of marketing strategies (Khurram et al. 2018). This construct aimed to assess the respondents' familiarity and recognition of their main distributor's brand. The descriptive statistics for these items are presented in Table 6.12.

Table 6.12: Brand awareness

Statements	Mean	SD	1	2	3	4	5	6	7	Total
I am familiar with the offerings of my main distributor.	5.53	1.19	7	0	1	56	166	80	117	427
			1.64%	0.00%	0.23%	13.11%	38.88%	18.74%	27.40%	100
I easily recognise my main distributor's name when I come across it.	5.89	1.12	0	0	9	33	141	59	185	427
			0.00%	0.00%	2.11%	7.73%	33.02%	13.82%	43.33%	100
When I think about products or services in the solar industry, my main distributor quickly comes to mind.	5.44	1.05	0	0	9	59	188	76	95	427
			0.00%	0.00%	2.11%	13.82%	44.03%	17.80%	22.25%	100
I have a clear understanding of my main distributor's market positioning.	5.16	1.19	0	0	33	96	147	73	78	427
			0.00%	0.00%	7.73%	22.48%	34.43%	17.10%	18.27%	100
I have a clear understanding of my main distributor's brand values.	5.24	1.15	0	1	32	58	190	65	81	427
			0.00%	0.23%	7.49%	13.58%	44.50%	15.22%	18.97%	100
I have a distinct opinion about my main distributor based on my awareness of it.	5.09	1.19	0	0	30	91	158	70	78	427
			0.00%	0.00%	7.03%	21.31%	37.00%	16.39%	18.27%	100
I am aware of the unique characteristics of my main distributor.	5.22	1.15	0	1	31	81	157	75	82	427
			0.00%	0.23%	7.26%	18.96%	36.77%	17.56%	19.20%	100
Overall	5.37	1.15								

Please note that the five-point Likert scale means: 1-strongly disagree; 2-moderately disagree; 3-disagree; 4-neutral; 5-agree; 6-moderately agree, 7-strongly agree.

The overall mean of 5.37 and a standard deviation of 1.15 indicate that respondents generally exhibited a high level of brand awareness. For instance, 82.95% of respondents agreed or strongly agreed with the statement “I easily recognise my main distributor's name when I come across it”, which had a mean of 5.89 and a standard deviation of 1.12. This high recognition level suggests that the distributor has effectively established its name in the market, making it easily recognisable to its customers. Additionally, the statement “I am familiar with the offerings of my main distributor” received a mean score of 5.53 with a standard deviation of 1.19, with 84.02% of respondents agreeing. This indicates that respondents have a good understanding of the products and services offered by their distributor.

In contrast, the statement “I have a distinct opinion about my main distributor based on my awareness of it” had a lower mean of 5.09 and a standard deviation of 1.19, with 71.66% of respondents agreeing or strongly agreeing. Although this suggests that most respondents have formed a clear perception of their distributor, the slightly lower mean indicates there may be room to improve the depth of solar installation companies’ opinions. The statement “I have a clear understanding of my main distributor's market positioning” had a mean of 5.16 and a standard deviation of 1.19, with 61.12% of respondents agreeing or strongly agreeing. This reflects that while a majority understand the distributor's market position, there is some variability in awareness levels.

Overall, the results from Table 6.12 suggest that respondents exhibit strong brand awareness, with high levels of familiarity and recognition of their main distributor. These findings align with previous research that emphasises the role of brand awareness in shaping customer behaviour and influencing decision-making processes (Huang and Cai 2015; Ghafari, Ranjbarian and Fathi 2017). The studies indicate that brand awareness goes beyond simple recognition; it involves embedding unique associations in customers’ memories that can significantly influence their behaviours.

This deeper level of awareness can prompt initial product trials and nurture ongoing purchasing behaviour, which is essential for fostering a sustainable relationship with the brand (Gielens, Ma, Sethuraman, Smith, Bachtel and Jervis 2021; Rintamäki and Saarijärvi 2021). Additionally, high brand awareness increases the likelihood of a brand being considered during decision-making, capturing customer attention and contributing to customer value (Kumaresan and Chandramohan 2024). This supports the idea that brand awareness plays a pivotal role in enhancing customer loyalty and repurchase intentions (Chierici et al. 2018; Rane et al. 2023; AIContentfy Team 2024).

The findings in this study, showing strong brand awareness among respondents, reinforce this perspective by highlighting the importance of brand familiarity in driving customer engagement and loyalty. Before presenting the structural equation modelling results, the next section discusses the common method variance.

6.5 Common method variance

A common technique for identifying CMV is Harman’s single-factor test, conducted through exploratory factor analysis (Bozionelos and Simmering 2022). This method entails loading all relevant variables into a factor analysis to determine if a single factor explains a large proportion of the variance. If one factor accounts for more than 50% of the total variance, it may indicate potential CMV, suggesting that the variance could be influenced more by the measurement method than by the actual constructs (Malhotra, Schaller et al. 2017).

Table 6.13: Harman’s single-factor test

Component	Initial Eigenvalues	% of variance	Cumulative %
1	16.973	36.114	36.114

In this study, exploratory factor analysis was utilised to perform Harman’s single-factor test using the principal component extraction method. The analysis identified a single component, and the findings, summarised in Table 6.13, reveal that the largest component extracted accounts for 36.114% of the total variance. Since this is below the critical threshold of 50%, it indicates that common method variance is not a significant issue in this dataset. As a result, we can conclude that the data is free from substantial common method bias, supporting the robustness and accuracy of the results.

6.6 Structural equation modelling

This study aimed to evaluate a theoretical model by testing hypotheses and exploring relationships between constructs using SEM, following the guidelines of Hair, Risher et al. (2019). The analysis followed a two-step approach, beginning with the assessment of the measurement model, followed by the evaluation of the structural model. In the first step, the measurement model was assessed to ensure that the constructs were measured reliably and validly, including tests for reliability, convergent validity, and

discriminant validity. Once the measurement model was deemed satisfactory, the structural model was analysed to test the hypothesised relationships between the constructs. It is important to note that traditional Chi-square-based model fit assessments were not applicable here, as PLS-SEM focuses on maximising the explained variance in the dependent variables rather than reproducing the covariance matrix, as is the case with covariance-based SEM. Consequently, different criteria were used to assess model predictive accuracy (Hair, Risher et al. 2019). Both stages of this SEM process, including the assessment of the measurement model and the evaluation of the structural model, are elaborated upon in the following sections to provide a comprehensive analysis of the relationships within the theoretical framework and to test the proposed hypotheses.

6.6.1 Measurement model assessment

The measurement model assessment was conducted using the PLS-SEM approach. This method is designed to evaluate the validity and reliability of the measurement instruments used in the study (Hair, Risher et al. 2019). The primary research objective was to develop a model examining the moderation effect of brand awareness on the relationship between BTL advertising and brand loyalty, incorporating the intermediary roles of competitive advantage, commitment, and trust within the South African solar industry. Before advancing to mediation and moderation analyses, it was crucial to ensure that the measurement model met the necessary reliability and validity thresholds.

6.6.1.1 *Assessment of reflective measurements*

i. Reliability and convergent validity assessment

To validate the measurement model, several key metrics were evaluated. Cronbach's alpha and composite reliability coefficients were used to assess the reliability of the scale. Factor loadings and AVE were calculated to provide evidence of the items' convergent validity (Hair, Risher et al. 2019). The initial PLS-SEM analysis revealed that items BA5, BL4, BL7, CM6, DM1, DM2, and SM1 did not meet the minimum factor loading threshold of 0.5. Additionally, the display advertising items (DA1, DA2, DA3, DA4, DA5) failed to achieve the required AVE value of 0.5, indicating insufficient convergent validity (Table 6.14). This is not surprising given that most solar companies in South Africa hardly use display advertising to communicate their offers. Solar companies in the renewable energy sector tend to focus more on direct engagement, B2B marketing, and educational content over display advertising (Polzin, Egli, Steffen and Schmidt 2019).

Consequently, these items were removed from the measurement model. After their removal, the PLS-SEM algorithm was rerun, yielding 32 items that met or exceeded the minimum AVE threshold of 0.5, as recommended by Hair, Risher et al. (2019) and shown in Table 6.14.

Table 6.14: Construct reliability and validity

Latent variables	Indicators	Convergent validity		Reliability		
		Factor loadings	AVE	Cronbach alpha	CRa	CRc
		> 0.7	> 0.5	> 0.7		
Brand loyalty	BL3	1.059	0.633	0.895	0.934	0.891
	BL4	0.588				
	BL5	0.715				
	BL6	0.916				
	BL7	0.592				
Direct mail	DM1	0.651	0.519	0.765	0.770	0.763
	DM2	0.699				
	DM3	0.804				
Social media	SM1	0.640	0.631	0.821	0.859	0.834
	SM4	0.938				
	SM5	0.777				
Display advertising	DA1	0.758	0.426	0.651	0.690	0.782
	DA2	0.494				
	DA3	0.559				
	DA4	0.816				
	DA5	0.579				
Competitive advantage	CA2	0.735	0.597	0.815	0.818	0.816
	CA4	0.810				
	CA5	0.771				
Commitment	CM1	0.827	0.663	0.923	0.929	0.921
	CM2	0.880				
	CM3	0.732				
	CM4	0.943				
	CM5	0.798				
	CM6	0.675				
Trust	TR1	0.815	0.673	0.911	0.915	0.911
	TR2	0.887				
	TR4	0.806				
	TR5	0.876				
	TR6	0.706				
Brand awareness	BA1	0.851	0.662	0.921	0.925	0.921
	BA2	0.777				
	BA3	0.862				
	BA4	0.784				
	BA5	0.695				
	BA7	0.895				

Furthermore, the internal consistency and reliability of the constructs, brand awareness, brand loyalty, commitment, competitive advantage, direct mail, social media, and trust, were assessed using Cronbach's alpha and composite reliability, with values ranging from 0.763 to 0.934, surpassing the minimum threshold of 0.7 (Ab Hamid et al. 2017; Schuberth 2021). Specifically, Cronbach's alpha was utilised to evaluate the reliability of various constructs, as summarised in Table 6.14, with values ranging from 0.765 (direct mail) to 0.923 (commitment). According to established criteria, Cronbach's alpha values should exceed 0.7 to confirm reliability (Field 2013; Malhotra, Nunan et al. 2017), and all computed values met this requirement, confirming that the items demonstrated high internal consistency in measuring their respective constructs. Thus, measurement reliability is affirmed for this study. Lastly, the AVE values for these constructs ranged from 0.519 to 0.673, indicating that the constructs had adequate convergent validity (Hair, Risher et al. 2019).

ii. Discriminant validity assessment

Discriminant validity assesses the degree to which constructs are distinct from one another (Hair, Risher et al. 2019). Two prevalent methods for testing discriminant validity are the matrix of correlations and the AVE square root coefficients, as well as the HTMT of correlations analysis. According to Fornell and Larcker (1981), discriminant validity is established if the square root of the AVE for a construct is greater than its correlation coefficients with other constructs.

Table 6.15: Results of discriminant validity of the measurement model using the Fornell and Larcker technique

	Brand awareness	Brand loyalty	Commitment	Competitive advantage	Direct mail	Social media	Trust
Brand awareness	0.848						
Brand loyalty	0.497	0.838					
Commitment	0.646	0.368	0.849				
Competitive advantage	0.564	0.492	0.321	0.855			
Direct mail	0.457	0.149	0.227	0.352	0.826		
Social media	0.226	0.067	0.274	-0.054	0.138	0.859	
Trust	0.818	0.425	0.728	0.531	0.345	0.212	0.860

Diagonal elements (in red) are square roots of the AVEs, and off-diagonal elements are correlation coefficients.

As shown in Table 6.15, the AVE square roots (diagonal elements in red) are indeed higher than the off-diagonal correlation coefficients, thus confirming discriminant validity. The HTMT test evaluates the ratio of shared variance between constructs, with a ratio threshold of 0.9. Ratios exceeding this value indicate potential issues with discriminant validity (Franke and Sarstedt 2019). The results in Table 6.16 indicate that all HTMT ratios are below 0.9, further supporting the discriminant validity of the measurement model.

Table 6.16: Results of the discriminant validity of the measurement model HTMT criterion

	Brand awareness	Brand loyalty	Commitment	Competitive advantage	Direct mail	Social media	Trust
Brand awareness							
Brand loyalty	0.514						
Commitment	0.688	0.402					
Competitive advantage	0.649	0.535	0.375				
Direct mail	0.544	0.257	0.293	0.449			
Social media	0.255	0.155	0.337	0.137	0.238		
Trust	0.887	0.446	0.792	0.617	0.419	0.259	

6.6.1.2 Assessment of formative measurements

After running the reflective measurement model, latent variable scores were generated to power and test the formative measurements model of BTL advertising. Only two dimensions of BTL advertising were considered in the second-order formative model because the third dimension, which is display advertising, was not valid. According to Hair, Risher et al. (2019), evaluating the validity of formative measurements consists of assessing (1) the convergent validity through the assessment of the relationship between the formative measurement and the univariate reflective measurement of BTL advertising, also called redundancy analysis, (2) the level of collinearity through the assessment the VIF values of the formative model significance of the indicator loadings, and lastly (3) the significance of the formative model indicators. Figure 6.1 depicts the second-order formative model of BTL advertising.

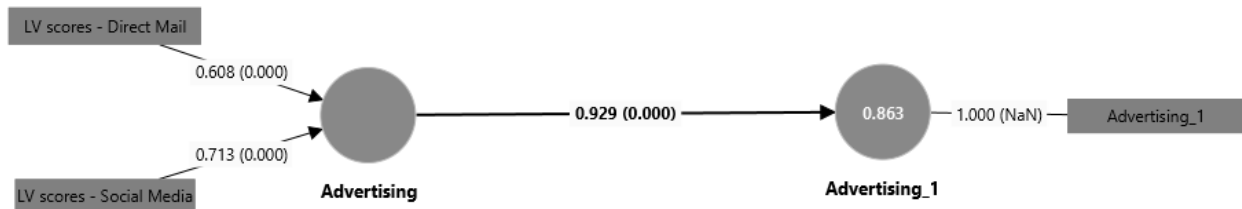


Figure 6.1: Second-order formative measurement model of BTL advertising

According to the results, the convergent validity of the formative model is supported as the relationship between the formative measurement and the univariate reflective measurement is significant and above 0.7 (Beta = 0.929; $p < 0.05$). Second, the weights of the outer model are statistically significant for all the indicators. Lastly, the VIF values of all indicators are below 5 (Table 6.17)

Table 6.17: VIFs of the second-order formative model

	VIF
BTL advertising_1	1.000
LV scores - direct mail	1.020
LV scores - social media	1.020

The results indicate that all instruments used in the final measurement model (reflective and formative) demonstrate reliability and validity. Consequently, these measurements can be confidently employed to test the hypotheses depicted in the structural model. The next section will provide an analysis of the structural model.

6.6.2 Structural model analysis

The previous section presented results on the evaluation of the measurement model, establishing the reliability and validity of the items and constructs in the study. This section proceeds to evaluate the direct relationships, and the moderated mediation interplay hypothesised in the conceptual framework. Before conducting these evaluations, the collinearity of the latent variables in the model must be assessed.

6.6.2.1 Collinearity evaluation

In this case, multicollinearity is essential to ensure that the level of correlations between the independent variables is reasonable (VIF < 5) (Hair, Risher et al. 2019). The results in Table 6.18 indicate that the VIF for all connected constructs were deemed acceptable with VIF values below 5, suggesting that there is no multicollinearity issue in the structural model (Marcoulides and Raykov 2019).

The BTL advertising shows acceptable VIF values between 1.177 and 1.304, while the VIF values of brand awareness range from 1.265 to 1.265, both falling below the threshold of 5. Brand loyalty has no multicollinearity concerns and commitment shows a VIF of 2.169, which is within the acceptable range. Competitive advantage and direct mail both exhibit low VIF values of 1.412 and 1.020, respectively, similarly indicating no multicollinearity. Social media's VIF value of 1.020 and trust's value of 2.779 also fall below the threshold of 5, confirming the absence of multicollinearity issues across constructs.

Table 6.18: VIF outer model

	BTL advertising	Brand awareness	Brand loyalty	Commitment	Competitive advantage	Direct mail	Social media	Trust
BTL advertising			1.177	1.304	1.304			1.304
Brand awareness				1.265	1.265			1.265
Brand loyalty								
Commitment			2.169					
Competitive advantage			1.412					
Direct mail	1.020							
Social media	1.020							
Trust			2.779					

6.6.2.2 Path analysis: relevance and significance of the structural model

The results presented in Table 6.19 provide insights into the direct effects of BTL advertising, competitive advantage, commitment, and trust on brand loyalty. The relationship between BTL advertising and brand loyalty is significantly negative and weak ($\beta = -0.040$; $t = 0.714$ $p > 0.05$). Therefore, H1 is rejected, suggesting that advertising does not directly influence brand loyalty in a significant manner.

In contrast, the direct relationship between competitive advantage and brand loyalty is positive and statistically significant ($\beta = 0.353$; $t = 6.552$; $p < 0.05$). This confirms that competitive advantage plays a crucial role in driving brand loyalty, resulting in the acceptance of H2. Additionally, commitment shows a positive and significant direct effect on brand loyalty ($\beta = 0.209$; $t = 3.031$; $p < 0.05$), leading to the acceptance of H3. However, trust demonstrates an insignificant effect on brand loyalty ($\beta = 0.068$;

$t = 1.025; p > 0.05$), resulting in the rejection of H4, suggesting that trust does not directly influence brand loyalty in this context.

Table 6.19: Direct effects – mean, standard deviation, T values, p values

	Beta values (β)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P-values	Conclusion
BTL advertising -> brand loyalty	-0.040	-0.042	0.056	0.714	0.475	H1 is rejected
Competitive advantage -> brand loyalty	0.353	0.348	0.054	6.552	0.000	H2 is accepted
Commitment -> brand loyalty	0.209	0.210	0.069	3.031	0.002	H3 is accepted
Trust -> brand loyalty	0.068	0.070	0.066	1.025	0.305	H4 is rejected

The results in Table 6.20 examine the moderated mediation effects, focusing on the conditional role of brand awareness. When brand awareness is high (+ 1 SD), BTL advertising's indirect effect on brand loyalty through competitive advantage is negative and significant ($\beta = -0.092; t = 2.559; p < 0.05$), suggesting that the influence of BTL advertising on brand loyalty diminishes when solar installation companies are already familiar with the brand and perceive it as having a strong competitive advantage. Prior knowledge and experience with the brand drive their commitment, making additional BTL advertising less necessary to maintain their loyalty.

However, when brand awareness is low (-1 SD), a competitive advantage does not mediate the effect of BTL advertising on brand loyalty ($\beta = 0.007; t = 0.475; p > 0.05$), suggesting no moderated mediation effect under lower brand awareness conditions. In other words, competitive advantage does not affect the relationship between BTL advertising and brand loyalty among customers with low brand awareness. Since these customers are unfamiliar with the solar panel brand, their perception of its competitive advantage is minimal or non-existent. As a result, this perception neither strengthens nor weakens the impact of BTL advertising on their loyalty, making BTL advertising the primary source of information that informs their decision to become loyal. These findings suggest that brand awareness regulates the mediating role of competitive advantage on the relationship between BTL advertising and brand loyalty; this leads to the acceptance of H5.

Table 6.20: Moderated mediation effects – mean, standard deviation, T values, p values

	Beta values (β)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P-values	Conclusion
BTL advertising -> competitive advantage -> brand loyalty conditional on brand awareness at +1 SD	-0.092	-0.090	0.036	2.559	0.011	H5 is accepted
BTL advertising -> competitive advantage -> brand loyalty conditional on brand awareness at -1 SD	0.007	0.007	0.015	0.475	0.635	
BTL advertising -> commitment -> brand loyalty conditional on brand awareness at +1 SD	0.053	0.054	0.025	2.117	0.034	H6 is accepted
BTL advertising -> commitment -> brand loyalty conditional on brand awareness at -1 SD	-0.012	-0.012	0.013	0.909	0.363	
BTL advertising -> trust -> brand loyalty conditional on brand awareness at +1 SD	0.005	0.005	0.007	0.712	0.477	H7 is rejected
BTL advertising -> trust -> brand loyalty conditional on brand awareness at -1 SD	-0.001	-0.001	0.005	0.141	0.888	

Similarly, the results indicate that when brand awareness is high (+1 SD), BTL advertising’s indirect effect on brand loyalty through commitment is positive and significant ($\beta = 0.053$; $t = 2.117$; $p < 0.05$). Suggesting that BTL advertising positively influences brand loyalty through commitment when solar installation companies are already familiar with the brand or have a higher level of brand awareness. In this scenario, their emotional commitment reinforces their loyalty, which is bolstered by the BTL advertising efforts. However, when brand awareness is low (-1 SD), commitment does not mediate the effect of BTL advertising on brand loyalty ($\beta = -0.012$; $t = 0.909$; $p > 0.05$), suggesting no mediation effect under lower brand awareness conditions. Solar installation companies with a low brand awareness display a lower emotional attachment to the brand due to limited familiarity, and as a result, commitment neither strengthens nor weakens the impact of BTL advertising on their loyalty. These different findings at a high and low level of brand awareness reveal that brand awareness moderates the mediating role of commitment on the relationship between BTL advertising and brand loyalty. Therefore, H6 is accepted.

Lastly, when brand awareness is high (+1 SD), BTL advertising's indirect effect on brand loyalty through trust is insignificant ($\beta = 0.005$; $t = 0.477$; $p > 0.05$). This suggests that trust does not play a significant role in mediating the relationship between BTL advertising and brand loyalty, even when solar installation companies are already familiar with the brand. Their loyalty is not necessarily influenced by trust in this context, indicating that other factors, such as prior knowledge or competitive advantage, might be more impactful for these companies. Similarly, when brand awareness is low (-1 SD), trust does not mediate the effect of BTL advertising on brand loyalty ($\beta = -0.001$; $t = 0.888$; $p > 0.05$). In this case, customers with low brand awareness do not rely on trust to form their loyalty towards the brand. Since they are less familiar with the brand, their trust in its offerings is either minimal or undeveloped. As a result, trust neither strengthens nor weakens the effect of BTL advertising on brand loyalty. Since the findings indicate that brand trust does not mediate the effect of BTL advertising on brand loyalty regardless of the level of brand awareness, we conclude that brand awareness does not moderate the mediating effect of brand trust. Therefore, H7 is rejected.

6.6.2.3 Explanatory power assessment

The R^2 values from Table 6.21 indicate varying levels of explanatory power for different constructs in the model. According to Gao et al. (2023), an R^2 value below 0.50 is considered weak, placing brand loyalty in this range. Brand loyalty has an R^2 of 0.295, suggesting a weak to moderate level of variance explained by the independent variables. Commitment had an R^2 of 0.433, which is closer to the threshold for moderate explanatory power but still falls short, indicating that the model explains a moderate amount of variance in commitment. Competitive advantage, with an R^2 of 0.332, also demonstrates a weak to moderate explanatory power, as it remains under the 0.50 threshold for moderate strength. However, trust shows a substantial R^2 value of 0.670, indicating that the model explains a significant portion of the variance in this construct, making it the strongest among the four.

The f^2 values from Table 6.22 provide further insights into the effect size of the relationships between variables. Below-the-line advertising has negligible effects on brand loyalty ($f^2 = 0.001$), commitment ($f^2 = 0.007$), competitive advantage ($f^2 = 0.008$), and trust ($f^2 = 0.000$), with all values well below the 0.02 threshold for a weak effect. In contrast, brand awareness demonstrates a substantial influence on several constructs (Selya, Rose, Dierker, Hedeker and Mermelstein 2012). It has a large effect on commitment ($f^2 = 0.546$), competitive advantage ($f^2 = 0.412$), and an even larger effect on trust ($f^2 = 1.590$), indicating that brand awareness is a critical factor in shaping these outcomes.

Table 6.21: R^2 values of constructs

	R^2
Brand loyalty	0.295
Commitment	0.433
Competitive advantage	0.332
Trust	0.670

For the relationship between commitment and brand loyalty, the f^2 value of 0.022 signifies a weak effect, as it slightly exceeds the 0.02 threshold for a weak influence. Meanwhile, competitive advantage has a moderate effect on brand loyalty, with an f^2 value of 0.150, suggesting a meaningful but not dominant influence. Lastly, trust has almost no effect on brand loyalty, as indicated by an f^2 value of 0.005, which is far below the weak effect threshold.

Table 6.22: Path coefficients and significance (f^2)

	f^2
BTL advertising -> brand loyalty	0.001
BTL advertising -> commitment	0.007
BTL advertising -> competitive advantage	0.008
BTL advertising -> trust	0.000
Brand awareness -> commitment	0.546
Brand awareness -> competitive advantage	0.412
Brand awareness -> trust	1.590
Commitment -> brand loyalty	0.022
Competitive advantage -> brand loyalty	0.150
Trust -> brand loyalty	0.005

The R^2 values show that the model has the strongest explanatory power for trust, while brand loyalty and competitive advantage are explained to a lesser degree. The f^2 analysis reveals that brand awareness has a large impact on several constructs, while BTL advertising has a minimal effect across the board.

6.6.2.4 Predictive power assessment

The Q^2 values are crucial for assessing the predictive relevance of the model. A Q^2 value greater than 0 indicates that the model has predictive relevance, meaning it can generalise its findings to a population that is homogeneous to the sample (Akbari et al. 2023). As shown in Table 6.23, all constructs display Q^2 values above 0, confirming the model's predictive power.

Table 6.23: Q^2 values of constructs

	Q^2_{predict}
Brand loyalty	0.233
Commitment	0.424
Competitive advantage	0.317
Trust	0.662

The construct trust has the highest Q^2 value (0.662), indicating a strong predictive relevance (Shmueli, Sarstedt, Hair, Cheah, Ting, Vaithilingam and Ringle 2019). Commitment follows with a Q^2 value of 0.424, demonstrating a robust predictive ability. Competitive advantage ($Q^2 = 0.317$) and brand loyalty ($Q^2 = 0.233$) show moderate predictive relevance. These results suggest that the model can effectively predict these outcomes even among the distributors who did not participate in the survey but who are homogenous with those who participated.

6.7 Discussions on testing the hypotheses

This section discusses the results of testing all the hypotheses proposed in this study.

6.7.1 Relationship between below-the-line advertising and brand loyalty

The hypothesised relationship between BTL advertising and brand loyalty is as follows:

H1: BTL advertising has a positive statistically significant effect on brand loyalty.

The results relating to H1 presented in Table 6.19 and Figure 6.2 indicate that BTL advertising does not have a significant predictive effect on brand loyalty ($\beta = -0.040$, $p > 0.05$). This indicates that hypothesis H1, which proposed that BTL advertising has a significant impact on brand loyalty, is not supported by the data. In other words, more BTL advertising does not necessarily translate into higher loyalty among solar distributors. This finding contradicts Jain et al. (2024), who investigated the relationship between advertising and customer loyalty in the consumer goods industry and found that product advertising was the strongest predictor of customer loyalty. Along the same lines, Ma et al. (2023) found a correlation between advertising investment and customer loyalty in the retail industry. Similarly, Voorveld et al. (2018) explored multi-channel advertising strategies, finding a positive relationship between advertising across multiple platforms and increased brand loyalty in the fashion industry.

A plausible explanation for the lack of significant impact of BTL advertising on brand loyalty in this context may be that solar installation companies in South Africa often possess high levels of technical expertise (Shakeel, Juntunen and Rajala 2024). Their decisions about which brands to repurchase are likely driven by product performance, durability, and technological specifications rather than promotional content. Below-the-line advertising may offer little new information or added value to solar installation companies already familiar with the technical aspects of the products. Instead, these professionals might prioritise industry reputation, proven track records, and technical features over promotional messages (Sibomana 2018). As a result, BTL advertising might not significantly influence their loyalty to distributors. Moreover, solar installation companies may conduct their own technical evaluations of solar products or rely heavily on peer feedback, industry reviews, or personal experience when making purchasing decisions (Rigo, Siluk, Lacerda, Rediske, and Rosa 2022). This implies that BTL advertising, which often focuses on broader brand messaging rather than technical specifics, may not align with their decision-making process. In this sense, BTL advertising may be perceived as less relevant or impactful compared to factors such as hands-on product performance testing and expert recommendations within the industry.

In the solar industry, factors such as product quality, service reliability, and strong business relationships are more critical in fostering brand loyalty among distributors than BTL advertising (Ugo 2014; Taoana, Quaye and Abratt 2022). Due to the technical complexity of solar products, ongoing support and reliable after-sales service often take precedence in loyalty decisions (Sibomana 2018; Rigo et al. 2022). Solar installation companies are more likely to remain loyal to distributors that provide superior technical support rather than those heavily investing in BTL advertising. Additionally, government policies, market saturation, and consumer awareness can significantly influence purchasing decisions, often overshadowing traditional advertising efforts (Zou, Du, Ren, Sovacool, Zhang and Mao 2017; Kowalska-Pyzalska 2018). Long-term partnerships and direct engagement between solar companies and installers play a pivotal role in maintaining loyalty, further reducing the importance of advertising in this specialised industry (Voorveld et al. 2018).

6.7.2 Relationship between competitive advantage and brand loyalty

The hypothesis related to competitive advantage and brand loyalty is as follows:

H2: Competitive advantage has a statistically significant effect on brand loyalty.

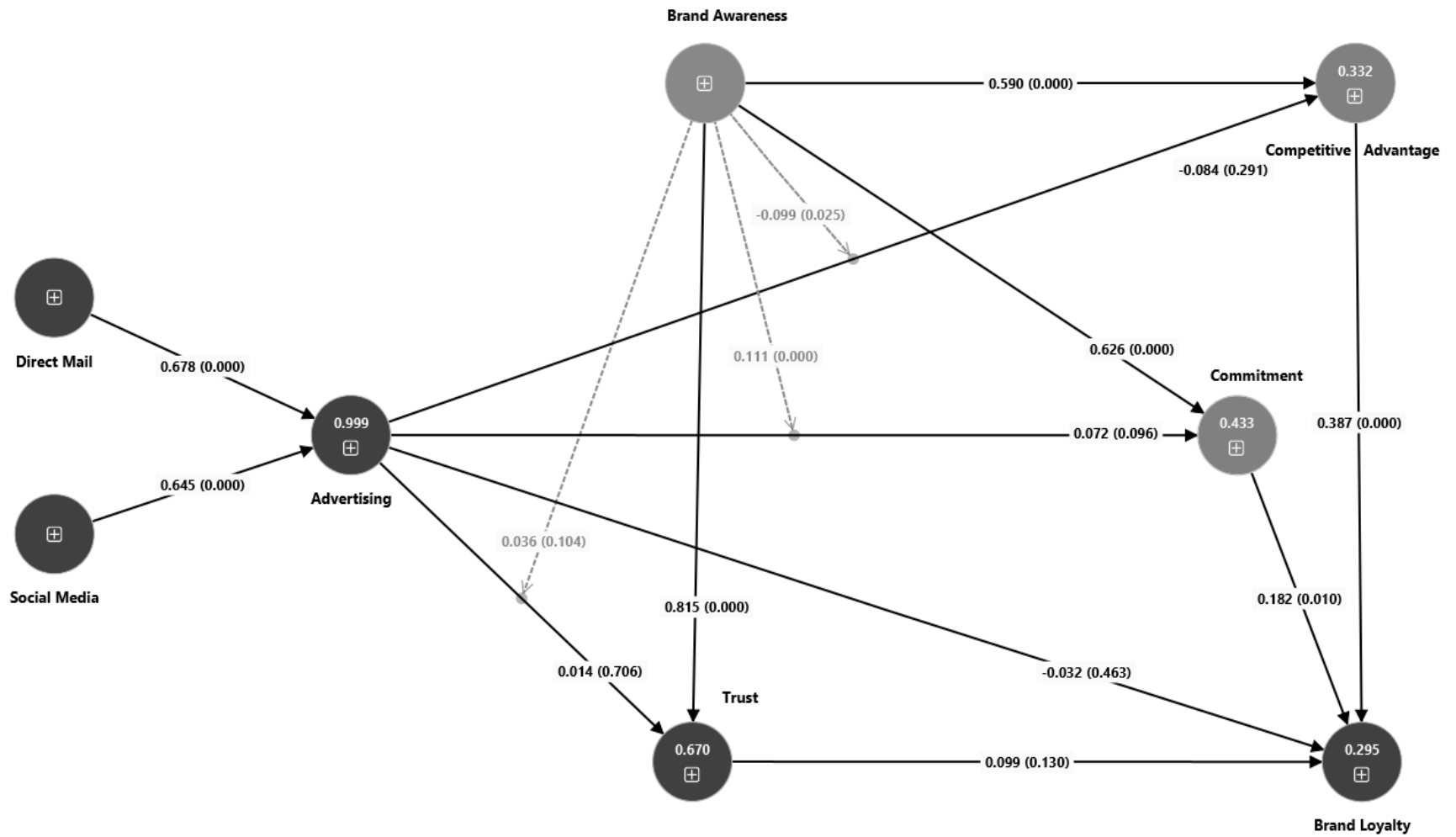


Figure 6.2: Structural model

The results of H2 presented in Table 6.19 and Figure 6.2 indicate that competitive advantage has a positive significant effect on brand loyalty ($\beta = 0.353, p < 0.05$). In other words, the greater the brand's competitive advantage, the higher the level of brand loyalty it will inspire. Therefore, hypothesis H2 is supported.

These findings align with previous research. For example, Chen (2015) found that there is an asymmetry in the views on competition and the driving force of loyalty through customer value between the two sides of the dyad within the hairdressing sector of personal care services. Additionally, Adama et al. (2024) emphasise that leveraging data-driven insights in the information technology sector helps B2B distributors identify competitive advantages. This approach allows them to anticipate competitor strategies and capitalise on market opportunities, thereby achieving sustainable growth and long-term success in emerging markets. Therefore, competitive advantage is an important predictor of brand loyalty among solar installation companies.

A brand's ability to differentiate itself from competitors through unique qualities, superior performance, or distinctive offerings plays a crucial role in fostering loyalty among its customers (Davicik and Sharma 2016). This positive relationship underscores the importance of developing and maintaining a competitive edge in the market. Brands that successfully achieve and sustain a competitive advantage are more likely to build a loyal customer base, which can lead to long-term business success and customer retention. Consequently, the confirmation of hypothesis H2 highlights the strategic value of competitive advantage in enhancing brand loyalty.

6.7.3 Relationship between commitment and brand loyalty

The relationships between commitment and brand loyalty were hypothesised as follows:

H3: Commitment has a statistically significant effect on brand loyalty.

The result for H3 (Table 6.19 and Figure 6.2) shows that commitment has a positive significant effect on brand loyalty. In other words, the stronger people's commitment to a brand, the greater their loyalty to it ($\beta = 0.209, p < 0.05$). Therefore, hypothesis H2 is supported.

These findings suggest that fostering a strong sense of commitment among solar installation companies is crucial for building and maintaining brand loyalty. The significant positive effect observed implies that when these customers feel a deep attachment or commitment to a brand, they are more likely to remain

loyal over time. This aligns with existing literature on the relationship between brand commitment and brand loyalty, demonstrating the pivotal role commitment plays in predicting loyalty. Shin et al. (2019) revealed that smartphone users in South Korea with strong brand commitment are more likely to develop lasting loyalty, reinforcing commitment as a foundational element in cultivating long-term customer relationships. Similarly, Hidayanti et al. (2018) found that brand commitment significantly impacts customer loyalty across various industries, including the hospitality sector and branded laptops in Indonesia. This emphasises that emotional and psychological connection to a brand increases the likelihood of sustained loyalty (Rather, Tehseen, Itoo and Parrey 2019).

6.7.4 Relationship between trust and brand loyalty

The following hypotheses were formulated regarding trust and brand loyalty:

H4: Trust has a statistically significant effect on brand loyalty.

The findings for H4 (Table 6.19 and Figure 6.2) indicate that trust is not a significant predictor of brand loyalty. Therefore, hypothesis H4 is not confirmed. These results indicate that brand loyalty in the solar industry is not a function of distributors' trust ($\beta = 0.068, p > 0.05$). In other words, it is not because a distributor trusts a solar installation company that they will remain loyal to it. According to the findings, the level of brand loyalty (or the consistency of choosing the same brand) does not depend on the degree of trust.

Previous research has highlighted the positive impact of brand trust on brand loyalty in various industries. For instance, Ahmed, Rizwan, Ahmad and Haq (2014) found that among Hewlett Packard product consumers, brand trust significantly contributes to brand loyalty, alongside factors such as service quality and perceived value. Similarly, Samarah et al. (2022) revealed that brand trust plays a critical role in shaping loyalty in the consumer electronics market, demonstrating a robust link between trust and customer retention. Additionally, a study by Chen, Prentice et al. (2022) discovered a strong positive correlation between customer trust, and both customer engagement and loyalty in the home-sharing sector. Thus, brand trust is consistently shown to be a strong predictor of loyalty across both traditional and online retail environments.

While many studies underscore the positive relationship between trust and brand loyalty, others have reported contrary findings, similar to the results of this study. For example, Soliha, Maskur, Widayarsi and

Ariyani (2021) found that trust had no effect on customer loyalty in the tourism industry. Jani and Han (2011) also proved that trust had no significant effect on customer loyalty in the restaurant industry. Likewise, Mubarok, Kurniawan, Hidayat, Hia and Bandawaty (2022) discovered that trust had no significant impact on patient loyalty towards clinics.

The non-significant effect found between trust and brand loyalty could also be due to the nature of the market. Distributors might have access to a variety of brands that offer similar levels of trustworthiness, which can diminish the importance of trust as a deciding factor for loyalty (Frías-Jamilena et al. 2018). Additionally, the nature of the market, where distributors have access to various brands offering similar levels of reliability, can reduce the impact of trust as the deciding factor for loyalty. Consequently, other factors, such as perceived value, customer satisfaction, or emotional connections, might play a more significant role in fostering loyalty within this context (Biesok and Wyród-Wróbel 2022).

These findings present a nuanced view in relation to previous research. While the importance of trust in business transactions cannot be refuted, it may not always be sufficient on its own to ensure brand loyalty in the solar industry. The lack of a direct relationship between trust and loyalty implies that brands cannot rely solely on building trust to retain solar installation companies; they must also focus on other aspects of the customer experience to cultivate lasting loyalty.

6.7.5 Interplay between brand awareness, below-the-line advertising, brand loyalty, and competitive advantage

The hypothesised relationship between brand awareness, BTL advertising, brand loyalty, and competitive advantage are as follows:

H5: Brand awareness moderates the mediated role of competitive advantage on the relationship between BTL advertising and brand loyalty.

Given that the mediation of competitive advantage is significant at a high level of brand awareness (indirect $\beta = -0.092$, $p < 0.05$) and non-significant at a low level of brand awareness (indirect $\beta = 0.007$, $p > 0.05$) as indicated in Table 6.20, we conclude that brand awareness moderates the mediated effect of BTL advertising on brand loyalty through competitive advantage, thereby supporting hypothesis H5.

The literature presents divergent findings on the mediating role of competitive advantage. Some studies affirm its significance. For instance, Inrawan et al. (2021) found that competitive advantage mediates the

relationship between the adoption of financial standards, innovations, and small and medium-sized enterprise performance. Similarly, Correia et al. (2021) demonstrated its mediating effect between market orientation and business performance in the Georgian beverage industry. These studies highlight the strategic importance of competitive advantage in enhancing the effectiveness of core business strategies, including BTL advertising.

Conversely, some research presents opposing viewpoints. Murtiningsih et al. (2019) concluded that competitive advantage does not mediate the influence of social media marketing on student loyalty, reinforcing the idea that its mediating role can vary across different sectors. Similarly, Usino and Murtiningsih (2019) found that competitive advantage does not mediate the effect of social media marketing on student loyalty, further supporting the variability of this mediating role. Wahyuni et al. (2019) found no significant mediating effect of competitive advantage in the real estate sector, where factors such as location and aesthetics are prioritised over cost leadership. Similarly, Tomahuw et al. (2023) observed that competitive advantage had a negligible effect on the relationship between product innovation and sustainable growth in Indonesian micro, small and medium enterprises, illustrating that the role of competitive advantage can vary depending on the context.

Investigating the conditional role of brand awareness in regulating the mediating effect of competitive advantage on brand loyalty may help explain some of these discrepancies found in the literature. The study results suggest that the mediating role of competitive advantage is significant when brand awareness is high, but negligible when it is low. In other words, brand awareness influences how competitive advantage affects the relationship between BTL advertising and brand loyalty for solar installation companies. When brand awareness is high, BTL advertising efforts are more effective in building brand loyalty because these companies are already familiar with the brand. In this case, a competitive advantage, such as product innovation and operational efficiency, further strengthens customer loyalty (Mappangara and Kartini 2019). However, when brand awareness is low, even with strong BTL advertising and a competitive advantage, it is harder to build loyalty because potential customers do not recognise the brand.

6.7.6 Interplay between brand awareness, below-the-line advertising, brand loyalty, and commitment

The hypothesised relationship between brand awareness, BTL advertising, brand loyalty, and commitment are as follows:

H6: Brand awareness moderates the mediated role of commitment in the relationship between BTL advertising and brand loyalty.

Given that the mediation of commitment is significant at the high level of brand awareness ($\beta = 0.053$, $p < 0.05$) and non-significant at a low level of brand awareness ($\beta = -0.012$, $p > 0.05$) as indicated in Table 6.20, we conclude that brand awareness moderates the mediated effect of BTL advertising on brand loyalty through commitment, thus supporting hypothesis H6. In other words, when brand awareness is high, commitment enhances the effect of BTL advertising on brand loyalty in the solar industry.

In the existing literature, there are divergent findings regarding the mediating role of commitment in various industries. Alkhawaldeh et al (2017) found that brand commitment mediates the relationship between brand awareness and brand loyalty among economic sectors in Jordan, emphasising the importance of commitment in strengthening brand loyalty. Similarly, Amani (2015) discovered that commitment acts as a mediator between trust and relationship loyalty to retailers, highlighting the role of trust in fostering customer loyalty. Additionally, Van Tonder (2016) identified that the relationship between quality advice and customer loyalty towards insurance agents is mediated by trust and commitment, demonstrating the critical role of both factors in maintaining long-term customer relationships.

Nevertheless, some studies dispute the mediating role of commitment. Kaur and Soch (2018) found that attitudinal commitment does not mediate the relationship between customer satisfaction, trust, and attitudinal loyalty among Indian consumers in the mobile phone service sector. Bakhshi and Dubey (2020) also reported that affective and continuance commitment towards retail outlets did not mediate the relationship between retail service quality and word-of-mouth communication. Additionally, research conducted by Kurniawan et al. (2022) found that organisational commitment did not mediate the impact of compensation on employee performance among employees of Bukit Duabelas National Park. These findings provide contrasting perspectives on the role of commitment as a mediator, suggesting that further investigation into the context-specific role of commitment is needed.

This inconsistency in the literature could be due to the conditional effect of brand awareness. Brand awareness influences how much commitment affects the link between BTL advertising and brand loyalty in the solar industry (Alkhawaldeh et al. 2017). If a solar panel company runs advertisements, but solar installation companies are not familiar with the brand, they might not commit to it, leading to less loyalty. However, if the brand is well-known, solar installation companies are more likely to commit and stay loyal

after seeing the advertisements, boosting long-term customer relationships (Cardoso et al. 2022). These findings underscore the importance of brand awareness as a strategic asset that can enhance various business outcomes by serving as a critical moderator (Yigit and Tigli 2018). Therefore, well-executed BTL advertising strategies, aligned with strong brand awareness and emotional commitment, can significantly strengthen brand relationships and loyalty.

6.7.7 Interplay between brand awareness, below-the-line advertising, brand loyalty, and trust

The hypothesised relationship between brand awareness, BTL advertising, brand loyalty, and trust are as follows:

H7: Brand awareness moderates the mediated role of trust in the relationship between BTL advertising and brand loyalty.

Given that the mediation of trust is non-significant at the high ($\beta = 0.005, p > 0.05$) and low levels ($\beta = -0.001, p > 0.05$) of brand awareness as indicated in Table 6.20, we conclude that brand awareness does not moderate the mediated effect of BTL advertising on brand loyalty through trust, thus not supporting hypothesis H7.

This finding is consistent with other studies that have also challenged the mediating role of trust in similar contexts. For instance, Yanik (2018) found that while trust in leadership partially mediated the relationship between ethical leadership and job satisfaction, organisational trust did not play a mediating role. Similarly, Hendrawan and Agustini (2021) concluded that trust did not mediate the relationship between brand image and e-loyalty in the e-marketplace context. In the study by Murtiningsih et al. (2019), trust did not mediate the effect of social media marketing on student loyalty, despite its overall influence on loyalty.

These studies collectively suggest that trust may not always act as a significant mediator in various relationships, especially when loyalty is the dependent variable. A common theme emerges from these studies: trust's mediating role is highly context-dependent, and its influence may be diminished by other factors. In this study of the South African solar industry, brand trust does not mediate the impact of BTL advertising on brand loyalty, even at different levels of brand awareness. This suggests that specific industry characteristics, such as market maturity, customer preferences, or regulatory factors, may lessen the role of trust in this context. Additionally, the findings indicate that brand awareness, as a moderator,

failed to enhance the mediating effect of trust on the relationship between BTL advertising and brand loyalty. This underscores that, in certain contexts, both brand trust and brand awareness may not significantly influence these dynamics, highlighting the need to explore other potential mediators or factors.

6.8 Chapter summary

In summary, it should be noted that respondents in this study, who were solar installation companies in South Africa, generally have a positive perception of the advertisements from their main distributor across all mediums. However, there is a slight variance in engagement and perceived effectiveness depending on the type of advertisement. Respondents generally exhibit a positive attitude towards brand loyalty for their main solar brand distributor. High agreement rates on several statements, such as consistently choosing the main distributor and recommending them to others, indicate a robust level of brand loyalty. However, mixed responses on willingness to pay higher prices highlight some cost sensitivity among solar installation companies.

Overall, these results suggest that respondents genuinely care about their relationship with their main distributors and are willing to put in maximum effort to maintain it. The high mean scores and relatively low standard deviations indicate a consistent and strong commitment across the sample. There is also a strong sense of trust and confidence in the main distributor among most respondents. The results highlight the strong competitive advantage and confidence that respondents have in their main distributor's offerings and services. In terms of brand awareness, the results highlight the strong familiarity and recognition that respondents have with their main distributor.

This chapter has also shown that BTL advertising does not have a statistically significant predicting effect on brand loyalty. Therefore, this result does not provide support for hypothesis H1. However, competitive advantage has a statistically significant positive effect on brand loyalty. In other words, the greater the brand's competitive advantage, the higher the level of brand loyalty it will inspire, supporting hypothesis H2. Similarly, commitment has a statistically significant positive effect on brand loyalty, indicating that stronger commitment to a brand leads to greater loyalty, thus supporting hypothesis H3. On the other hand, trust is not a significant predictor of brand loyalty, and therefore, hypothesis H4 is not confirmed.

Brand awareness has been proven to moderate the mediated effect of BTL advertising on brand loyalty through competitive advantage and commitment, with significant mediation at high levels of brand

awareness and non-significant mediation at low levels, supporting hypotheses H5 and H6. However, the mediation of trust remains non-significant regardless of the levels of brand awareness, indicating that brand awareness does not moderate the mediated effect of BTL advertising on brand loyalty through trust, thus not supporting hypothesis H7. These findings highlight the crucial role of brand awareness in shaping the effectiveness of BTL advertising on brand loyalty, particularly through enhancing the mediating effects of competitive advantage and commitment. In contrast, brand awareness does not exert a similar moderating influence when it comes to trust, suggesting that while it is vital in leveraging competitive advantage and commitment to strengthen brand loyalty, its influence does not extend to trust in the same way. Therefore, brands aiming to bolster loyalty through BTL advertising should focus on building awareness to maximise the impact of competitive advantage and commitment, while no strategies are required to enhance the role of trust in relation to brand loyalty. The next chapter will present the conclusion and recommendation of this study.

CHAPTER 7

CONCLUSION AND RECOMMENDATIONS

7.1 Chapter overview

The previous chapter provided an in-depth analysis of the data and discussed the key findings. This chapter focuses on drawing conclusions and offering practical recommendations based on the study's outcomes. It also summarises the main findings, highlights contributions to the academic field, and discusses the implications for both theory and practice. Additionally, the chapter acknowledges the study's limitations, suggests future research directions, and provides a concise summary. The following section revisits the research objectives and hypotheses, serving as a reminder of the study's initial aims and context.

7.2 Introduction

Revisiting the research objectives in each chapter is crucial, as it consistently helps to keep the audience aligned with the study's focus. In support of this approach, the study's theoretical research objectives included a review of the literature on the B2B advertising effects model, brand equity theory, the RBT, and the CTT. Additionally, the theoretical research objectives encompassed a review of the literature on BTL advertising, brand loyalty, competitive advantage, commitment, trust, and brand awareness. Chapters 3 and 4 addressed these theoretical objectives. The study also outlined five empirical research objectives, which aimed to achieve the following outcomes:

- i. To measure the impact of BTL advertising on brand loyalty in the South African solar industry.
- ii. To evaluate the effect of competitive advantage on brand loyalty in the South African B2B solar industry.
- iii. To investigate the effect of commitment on brand loyalty in the South African B2B solar industry.
- iv. To measure the effect of trust on brand loyalty in the South African B2B solar industry.
- v. To examine the moderated mediation effect of brand awareness on the relationship between BTL advertising and brand loyalty through competitive advantage, commitment, and trust in the South African B2B solar industry.

In alignment with the empirical research objectives, this study formulated five research questions:

- i. To what extent does BTL advertising influence brand loyalty in the South African B2B solar industry?
- ii. To what extent does competitive advantage influence brand loyalty in the South African B2B solar industry?
- iii. To what extent does commitment influence brand loyalty in the South African B2B solar industry?
- iv. To what extent does trust influence brand loyalty in the South African B2B solar industry?
- v. Is there a moderated mediation effect of brand awareness on the relationship between BTL advertising and brand loyalty through competitive advantage, commitment and trust in the South African B2B solar industry?

7.3 Conclusions on research objectives and research questions

This section offers conclusions on the research objectives and questions outlined in the introduction. These conclusions contribute to the body of knowledge and address implications for both theory and practice. The following subsections detail the conclusions regarding the theoretical and empirical research objectives.

7.3.1 Conclusion on the literature review

This study reviewed the literature on theories that include the B2B advertising effects model, brand equity theory, RBT, and the CTT in Chapter 3. The study also reviewed literature on key concepts of the study, which included BTL advertising, brand loyalty, competitive advantage, commitment, trust, and brand awareness. The conclusion is that the B2B advertising effects model, brand equity theory, RBT, and CTT sufficiently grounded the concepts of the study, which included BTL advertising, brand loyalty, brand awareness, competitive advantage, commitment, and trust, respectively. Sufficient justification for the application of these theories was presented in Chapter 3. However, this study also provided a balanced view through the review of the criticism labelled against these theories. The next subsection presents conclusions on the empirical research objectives.

7.3.2 Conclusion on solar installation companies' perceptions

This study concludes that solar installation companies in South Africa generally hold positive perceptions of BTL advertising, brand loyalty, competitive advantage, commitment, trust, and brand awareness

regarding their main distributors. The overall mean scores support this conclusion, which consistently indicate moderate to high agreement with the various statements assessed.

The results indicate that solar installation companies have a favourable view of their main distributors' BTL advertising efforts including direct mail, social media, and display advertising. This is evidenced by mean scores ranging from 3.31 to 3.89, with respondents particularly valuing the timeliness and relevance of content in direct mail advertisements. However, the slightly lower engagement levels, particularly in social media and display advertising, suggest that while content is appreciated, it does not always translate into action or purchase intention.

Additionally, the study found strong brand loyalty among solar installation companies towards their main distributors, as indicated by the overall mean score of 3.63. High levels of agreement with statements about consistently choosing the main distributor and recommending them to others underscore this loyalty. Despite this, the mixed responses regarding willingness to pay higher prices reflect some cost sensitivity among these companies, which could influence their loyalty under certain circumstances.

The findings also highlight that solar installation companies perceive their main distributors as having a significant competitive advantage. The high mean scores in statements relating to the diversity of solar products offered, strong relationships with manufacturers, and valuable product knowledge support this. These perceptions suggest that solar companies recognise and appreciate the strategic strengths of their main distributors in the competitive landscape of the solar industry.

The study further concludes that there is a strong sense of commitment and trust between solar installation companies and their main distributors. The high mean scores and low standard deviations indicate consistent and strong positive feelings about these relationships. Companies feel a strong connection to their distributors, maintain long-term relationships, and trust the products and services provided, which are critical components of a sustained business partnership.

Moreover, the study revealed that solar installation companies have a high level of brand awareness regarding their main distributors. The overall mean score of 5.37 suggests that most companies can easily recognise their distributors' names and have a clear understanding of their market positioning. This strong brand awareness is likely to reinforce loyalty and trust, further solidifying the relationship between the companies and their distributors.

This study concludes that solar installation companies in South Africa generally perceive their main distributors positively across various dimensions, including BTL advertising effectiveness, brand loyalty, competitive advantage, commitment, trust, and brand awareness. These positive perceptions can be leveraged to strengthen marketing strategies and customer retention initiatives within the South African solar industry.

7.3.3 Conclusion on the impact of below-the-line advertising on brand loyalty in the business-to-business solar industry

The study concludes that BTL advertising does not have a significant predictive effect on brand loyalty within the South African B2B solar industry, as indicated by the results ($\beta = -0.040$; $t = 0.714$; $p > 0.05$). The lack of a significant relationship is probably because most distributors are already familiar with the solar brands, therefore, BTL advertising adds little value to the loyalty decision. This finding implies that companies should consider combining BTL advertising with other mediating variables (for example, competitive advantage) to enhance its impact on brand loyalty.

7.3.4 Conclusion on the effect of competitive advantage on brand loyalty in the business-to-business solar industry

The current study concludes that competitive advantage has a significant effect on brand loyalty within the South African B2B solar industry. This conclusion is based on the bootstrapping results ($\beta = 0.353$; $t = 6.552$; $p < 0.05$). These results indicate that competitive advantage positively influences brand loyalty. The findings suggest that companies in the South African B2B solar sector that differentiate themselves through unique qualities, superior performance, or distinctive offerings are more likely to foster customer loyalty. Therefore, the conclusion is that maintaining a competitive edge is crucial for building and sustaining brand loyalty in this industry.

7.3.5 Conclusion on the effect of commitment on brand loyalty in the business-to-business solar industry

The current study concludes that commitment has a significant effect on brand loyalty within the South African B2B solar industry. The bootstrapping results ($\beta = 0.209$; $t = 3.031$; $p < 0.05$) support this conclusion. Based on these results, the conclusion is that a strong sense of commitment positively influences brand loyalty. Therefore, fostering customer commitment is essential for enhancing loyalty in this sector.

7.3.6 Conclusion on the effect of trust on brand loyalty in the business-to-business solar industry

The study concludes that trust does not have a significant effect on brand loyalty within the South African B2B solar industry. The statistical analysis, which reveals a non-significant relationship between trust and brand loyalty ($\beta = 0.068$; $t = 1.025$; $p > 0.05$) supports this conclusion. However, it is essential to recognise that while trust is a critical element in B2B relationships, it is not relevant in driving brand loyalty of installers in the solar industry. Installers may prioritise economic benefits and manufacturer support, making trust a less critical factor in their decision to stay with the brand.

7.3.7 Conclusion on the moderated mediation role of brand awareness

This study concludes that brand awareness does have a moderated mediation effect on the relationship between BTL advertising and brand loyalty through competitive advantage in the South African B2B solar industry. This conclusion is based on the moderated mediation results, which show significance at a high level of brand awareness ($\beta = -0.092$; $t = 2.559$; $p < 0.05$) and non-significance at a low level of brand awareness ($\beta = 0.007$; $t = 0.475$; $p > 0.05$). Based on these results, the conclusion is that brand awareness moderates the mediation of competitive advantage in the relationship between BTL advertising and brand loyalty.

Also, in conclusion, brand awareness has a moderated mediation effect on the relationship between BTL advertising and brand loyalty through commitment. The significant moderated mediation results at a high level of brand awareness ($\beta = 0.053$; $t = 2.117$; $p < 0.05$) and the non-significant results at a low level of brand awareness ($\beta = -0.012$; $t = 0.909$; $p > 0.05$) support this conclusion. Therefore, the finding is that brand awareness moderates the mediation of commitment in the relationship between BTL advertising and brand loyalty.

Lastly, this study concludes that brand awareness of the distributor of the solar solutions does not have a moderated mediation effect on the relationship between BTL advertising and brand loyalty through trust. This conclusion is based on the non-significant moderated mediation results at both high ($\beta = 0.005$; $t = 0.712$; $p = 0.477$) and low levels of brand awareness ($\beta = -0.001$; $t = 0.141$; $p = 0.888$). Based on these results, the conclusion is that brand awareness does not moderate the mediation of trust in the relationship between BTL advertising and brand loyalty in the South African B2B solar industry.

7.4 Summary of the major findings and conclusions on research hypotheses

This study found that respondents, namely solar installation companies in South Africa, generally had positive perceptions of advertisements from their main distributor across all mediums. However, engagement and perceived effectiveness varied slightly depending on the type of advertisement. Respondents showed a strong attitude towards brand loyalty for their main solar brand distributor, consistently choosing and recommending them, though there was some cost sensitivity. Below-the-line advertising did not have a statistically significant effect on brand loyalty when considering competitive advantage, commitment, and trust as mediators, but competitive advantage and commitment had significant positive effects on brand loyalty. Trust was not a significant predictor of brand loyalty. Additionally, brand awareness moderated the mediation effects of competitive advantage and commitment on the relationship between BTL advertising and brand loyalty, but not for trust. The next section will discuss the conclusions and recommendations of the study as summarised in Table 7.1.

7.5 Contribution of the study

This study makes three significant theoretical contributions to the fields of BTL advertising and brand loyalty within the solar industry. First, it develops a comprehensive framework that addresses the fragmented nature of existing literature. Prior research often examines factors such as competitive advantage, commitment, trust, and brand awareness in isolation, resulting in a disjointed understanding of how BTL advertising influences brand loyalty (Correia et al. 2021; Hanaysha 2022; Ribeiro et al. 2022). By integrating these elements into a holistic framework, the study bridges this gap and provides a clearer understanding of the interplay between these factors. Moreover, the study critiques the limitations of existing theories, such as the static portrayal of brand equity in the brand equity theory and the narrow focus on media-specific influences in the B2B advertising effects model. It recommends the incorporation of insights from the RBT and CTT to offer a more inclusive understanding of how competitive advantage, commitment, trust, and brand awareness collectively influence brand loyalty (Acar and Polin 2015; Lewicka and Krot 2015; Swani et al. 2020). Additionally, the study proposes an integrative conceptual model that merges multiple theoretical perspectives, including the B2B advertising effects model, brand equity theory, RBT, and CTT. This model provides a robust foundation for understanding the cognitive, emotional, internal, and relational dynamics that shape brand loyalty (Shan et al. 2019; Bernarto et al. 2020; Cortez et al. 2020; Pascual-Ferrá 2021; Nayak et al. 2023; Alcántara-Pilar et al. 2024). This multi-theory approach not only enhances the understanding of BTL advertising's impact on brand loyalty but

also offers practical insights for developing effective strategies in the solar industry, where B2B relationships are crucial.

The second significant contribution of this study lies in its exploration of the complexity of brand loyalty as a customer behaviour. Traditional models often present brand awareness as a straightforward predictor of brand loyalty (Malik 2020). However, this research reveals a more intricate role for brand awareness. It uncovers how brand awareness serves as a moderator in the relationship between competitive advantage and brand loyalty, as well as between commitment and loyalty. Specifically, this study demonstrates the moderated mediation effect of brand awareness, showing that its influence shapes the strength of these relationships. In doing so, it challenges the oversimplified view that brand awareness merely drives loyalty (Alkhaldeh et al. 2017). Instead, the findings reveal that brand awareness is crucial in regulating how competitive advantage and commitment contribute to brand loyalty. This perspective deepens the theoretical understanding of loyalty, highlighting that brand awareness is not just a surface-level factor but a dynamic element that significantly impacts the mediating effects of competitive advantage and commitment (Malik 2020). Consequently, the study not only confirms previous research on the roles of commitment and competitive advantage but also provides new insights into how these mediators' performance varies depending on the level of brand awareness. This contributes to a more refined understanding of the mechanics of brand loyalty, particularly within the context of the solar industry, where customer behaviour is influenced by multiple, interrelated factors (Hasheem, Wang, Ye, Farooq and Shahid 2022).

The third significant theoretical contribution of this study is its innovative conceptualisation and empirical assessment of different BTL advertising forms including social media, display advertisements, and direct mail, as second-order formative subdimensions of advertising. Previous research has examined these advertising components separately (Swani et al. 2020; Qader et al. 2022), without a cohesive framework to explain advertising as a whole. This study is the first to group these advertising forms theoretically and empirically, testing their ability to formatively measure brand awareness within the B2B solar industry. Interestingly, the study revealed that direct mail and social media advertising are the most important dimensions of advertising in B2B solar advertising. By conceptualising these components as formative indicators of a second-order construct, the study provides a more nuanced understanding of how each component contributes to form the construct of BTL advertising. This formative assessment offers a fresh perspective on BTL advertising's role, enhancing both theoretical knowledge and practical strategy development.

7.6 Implications for theory

This study challenges the common assumption that BTL advertising alone significantly predicts brand loyalty, particularly within the solar installation industry. The findings indicate that BTL advertising does not directly contribute to brand loyalty, contradicting earlier studies such as those of Voorveld et al. (2018) and Ma et al. (2023), which emphasised the positive effects of multi-channel advertising strategies on brand loyalty. This insight urges a re-examination of the role of BTL advertising within a more comprehensive brand loyalty framework. In contrast, the study confirms that a competitive advantage plays a critical role in fostering brand loyalty. This conclusion aligns with existing literature, such as the work of Chen (2015) and Adama et al. (2024), which highlights the importance of differentiation through unique qualities and superior performance to cultivate customer loyalty. The findings reinforce the strategic importance for companies, particularly within the solar industry, to focus on maintaining a competitive edge as a key determinant of brand loyalty.

The study also underscores the significance of commitment in predicting brand loyalty. This result is consistent with previous research, including the findings of Shin et al. (2019) and Hidayanti et al. (2018), which emphasise the role of emotional and psychological attachment in sustaining customer loyalty. The strong relationship between commitment and loyalty suggests that brands need to prioritise strategies that foster deep customer commitment to effectively enhance loyalty. Interestingly, the study diverges from established research regarding the role of trust. Unlike Ahmed et al. (2014) and Samarah et al. (2022), who found trust to be a key predictor of loyalty, this study concludes that trust does not significantly predict brand loyalty in the solar installation sector. This finding prompts a reconsideration of how trust is perceived and leveraged in brand loyalty strategies, especially in niche markets such as solar installations, where other factors may outweigh trust in determining customer loyalty.

Finally, the study presents nuanced insights into the role of brand awareness in moderating the relationship between BTL advertising and brand loyalty through various mediators. While brand awareness enhances the effects of competitive advantage and commitment on brand loyalty, it does not exert the same influence on the relationship involving trust. This suggests that brand awareness is more effective in strengthening loyalty when combined with competitive advantage and commitment, but it has limited influence when it comes to trust. These theoretical implications highlight the need for a more tailored approach to leveraging brand awareness, indicating that BTL advertising strategies should focus on enhancing competitive advantage and commitment rather than solely building trust to achieve brand

loyalty in the solar installation sector. Overall, these findings contribute to a deeper understanding of the complex dynamics between BTL advertising, brand loyalty, and the mediating roles of competitive advantage, commitment, and trust, offering valuable directions for future research.

7.7 Implications for practice

This study found that solar installation companies in South Africa generally had positive perceptions of their main distributor's advertisements, though effectiveness varied by advertisement type. While BTL advertising did not significantly predict brand loyalty when considering competitive advantage, commitment, and trust as mediators, competitive advantage and commitment were significant positive predictors of loyalty. Trust, however, was not significant. Brand awareness moderated the impact of BTL advertising on loyalty through competitive advantage and commitment but did not affect the role of trust. Overall, competitive advantage and commitment strongly drive brand loyalty, with BTL advertising playing a less direct role. The following sections offer practical implications for enhancing brand loyalty in the solar industry.

7.7.1 Re-evaluate advertising strategies

While BTL advertising plays a crucial role in raising brand awareness, the study reveals that it does not have a direct effect on increasing brand loyalty among solar installation companies. Distributors should critically assess their current BTL advertising strategies, which often focus on generic messaging or product-centric content, failing to address the specific needs of solar installation companies. These companies typically respond to more than just product features or cost savings; they require a deeper value proposition that resonates with their long-term business goals and challenges.

One of the problems with the current advertising approach is that it may concentrate too heavily on technical specifications, pricing, or standard promotional content. While this may raise awareness, it often lacks the emotional or relational depth necessary to inspire loyalty (Dwivedi et al. 2021). Solar installation companies, as B2B clients, are looking for reliable, long-term partners, not just suppliers. Competitors may see advertisements that merely highlight competitive pricing or product features as transactional and easily replicable, thereby reducing their effectiveness in fostering loyalty.

To improve this, distributors should shift their BTL advertising focus towards storytelling that highlights successful partnerships with solar installation companies, long-term support, and the shared values of

innovation and sustainability. Advertisements should feature case studies or testimonials from installation companies that have benefited from the distributor's products and services over time. By focusing on the distributor's role as a partner in the success of solar installation companies, through support, technical expertise, and reliability, BTL advertising can foster a more meaningful connection. This approach not only raises brand awareness but also indirectly contributes to building loyalty by addressing the specific needs and challenges faced by solar installation companies in their daily operations.

7.7.2 Develop a comprehensive brand loyalty framework

To effectively foster brand loyalty, solar distributors should implement a comprehensive framework that goes beyond BTL advertising. This framework should integrate several loyalty drivers, including competitive advantage, customer commitment, product quality, and exceptional service. One effective strategy could be the introduction of a multi-tiered loyalty programme that rewards solar installation companies for long-term engagement. Such a programme could offer enhanced product warranties, priority access to technical support, and dedicated customer service teams.

By taking a holistic approach, distributors can ensure they are addressing the full spectrum of factors that contribute to brand loyalty. Offering high-quality products and exceptional customer service ensures that solar installation companies feel valued and supported, making them more likely to remain loyal over the long term. This framework will help build deeper relationships, which are more difficult for competitors to disrupt.

7.7.3 Reconsider the role of trust

While trust was found to not be a significant predictor of loyalty in this study, it is essential to consider the decision-making dynamics within the solar industry. Often, consumers select solar products based on brand popularity or profitability, while installers focus on the technical execution and installation process. In this context, trust may not be the driving force behind installers' loyalty, especially if the brand is already in high demand. However, distributors can strengthen their relationship with installation companies by maintaining transparency in pricing, delivery times, and product support. Offering clear and consistent communication regarding product performance and profitability can help installation companies make informed decisions about which brands to recommend to consumers.

For example, ensuring that installers have access to up-to-date sales materials, profit margin insights, and reliable customer service could enhance their willingness to work with the distributor, even if trust is not the primary loyalty driver. Ultimately, while trust may not be crucial to installers' loyalty, focusing on transparency is still essential. Maintaining profitable partnerships ensures that installers remain incentivised to choose the distributor's products based on their ability to meet consumer demand and maximise business efficiency.

7.7.4 Foster commitment through customer education

The study identified commitment as a significant driver of brand loyalty. Solar distributors can foster this commitment not only through emotional and psychological bonds but also by empowering solar installation companies with valuable knowledge and skills (Ouakouak and Ouedraogo 2019). By offering continuous education, such as training programmes, webinars, and technical support, distributors can demonstrate a long-term investment in their customers' success. This educational support can deepen the commitment solar installers have towards their distributor by ensuring they remain updated on the latest technologies, regulations, and industry best practices.

For example, offering training sessions on new solar technologies, or insights on evolving government incentives, will position the distributor as an indispensable partner. This commitment to customer success deepens the emotional and psychological bond between the distributor and the installation company. In doing so, distributors ensure customer retention and increase the likelihood that these companies will recommend their services to others, reinforcing long-term loyalty.

7.7.5 Tailor below-the-line advertising to enhance commitment

Below-the-line advertising strategies should not solely focus on promoting products but should aim to build stronger emotional and psychological bonds with solar installation companies. Distributors can achieve this by designing advertisements that showcase success stories, featuring companies that have benefited from long-term partnerships. Case studies or testimonials from solar installers who have experienced performance improvements through the distributor's products and services can be a powerful way to build emotional commitment. By demonstrating the distributor's dedication to innovation, reliability, and customer success, BTL advertising campaigns can foster deeper emotional connections with solar installation companies. This commitment will encourage loyalty, making price less

of a deciding factor for companies when choosing their distributor. Emotional connections foster a sense of security and partnership, which can lead to longer-term business relationships.

7.7.6 Prioritise competitive advantage

Competitive advantage emerged as one of the most significant drivers of brand loyalty in the study. Distributors should, therefore, focus on continuously strengthening the unique attributes that set them apart from competitors. This could be achieved by offering superior after-sales service, cutting-edge solar technology, and flexible financing options that address the specific needs of solar installation companies. For instance, offering longer warranties or faster installation services can provide added value to solar installation companies, enhancing the distributor's competitive edge. By continuously innovating and differentiating their offerings, distributors can create a strong sense of loyalty among solar installation companies, who are less likely to switch to a competitor if they perceive the distributor's value as irreplaceable.

7.7.7 Enhance below-the-line advertising to support competitive advantage

Although BTL advertising was found to not directly influence brand loyalty, it plays a crucial supporting role by amplifying a distributor's competitive advantage. Solar distributors should focus their BTL advertising on clearly communicating their unique selling points, such as cost-saving solutions, industry-leading technology, or superior service offerings. Below-the-line advertising that highlights how these unique selling points address common pain points for installation companies will reinforce the distributor's competitive edge. By showcasing these unique advantages, advertisements can help solidify the perception that the distributor offers greater value compared to competitors. Even though BTL advertising may not directly drive loyalty, it strengthens the distributor's market position by reinforcing the competitive advantages that installation companies prioritise when selecting a long-term partner.

7.7.8 Leverage brand awareness strategically

Brand awareness plays a moderating role between BTL advertising and brand loyalty through its influence on competitive advantage and commitment. Therefore, distributors should invest in strategic campaigns designed to increase brand visibility within the solar industry. Participating in industry expos, sponsoring renewable energy conferences, and leveraging digital marketing channels such as search engine optimisation and social media can significantly enhance brand recognition. A well-executed brand awareness campaign ensures that advertisements have a greater impact by making the distributor more

recognisable and relevant to solar installation companies. This increased visibility strengthens the distributor's competitive advantage and commitment, ultimately contributing to higher loyalty levels among solar installation companies. By making their brand a familiar and trusted name in the industry, distributors can increase the effectiveness of their overall marketing and loyalty-building efforts.

7.8 Limitations of the study

The present study identified several impacting limitations. These limitations encompassed the sample characteristics, time constraints, the measurement scale, and the geographic scope.

First, while this study encompassed the whole of South Africa, it did not differentiate between installations in urban areas, such as cities with closer access to resources, and those in more rural locations, including farms or residential solutions in smaller towns. Although the solar market in rural areas is often overlooked, it does exist. For example, IBC SOLAR's customers include solar installation companies in smaller towns like Swellendam, Hermanus, and Citrusdal in the Western Cape, catering primarily to large commercial farms and some residential consumers. However, since the study was conducted exclusively in South Africa, the unique social and cultural settings may differ significantly from those in other countries. As a result, the findings may not fully represent the differences in brand loyalty behaviours across varied environments or be applicable internationally. Future studies should aim to differentiate between urban and rural areas and replicate the study in other countries to provide a more comprehensive understanding and determine whether these findings are consistent across different cultural contexts.

Second, this study used a self-reported assessment of brand loyalty, which is often biased due to the social desirability effect. The construct introduced to control for this bias is commonly referred to as a social desirability bias control or social desirability scale (Bergen and Labonté 2020). This construct helps mitigate the tendency of respondents to provide answers that are socially acceptable or favourable, rather than truthful. A widely used tool for this purpose is the Marlowe-Crowne Social Desirability Scale (Akin Arikan, Bastemur and Demirtas Zorbaz 2021). This scale measures the extent to which individuals are likely to respond in a socially desirable manner and has been employed in numerous studies to control for this effect. Additionally, the Balanced Inventory of Desirable Responding is another effective tool (Holden and Fekken 2020). The Balanced Inventory of Desirable Responding captures the overall social desirability bias and delves into two facets: self-deception and impression management (Li and Bagger 2006). Self-deception is where individuals unconsciously present themselves in a favourable light, and

impression management is where respondents intentionally manage their responses to appear socially acceptable. Incorporating these scales into future research on brand loyalty can provide a more accurate assessment by controlling for the social desirability effect. Furthermore, supplementing these measures with objective data such as actual purchase behaviour could enhance the validity of brand loyalty studies.

Third, the study employed a perceptual approach to examine brand loyalty, focusing on factors like BTL advertising, commitment, trust, competitive advantage, and brand awareness. Testing the conceptual model with factual data, such as purchase frequency and customer retention rates, could provide more concrete insights. This would help assess whether these objective measurements yield the same conclusions as the perceptual approach.

Fourth, the findings of this study are specific to the B2B solar industry, particularly in South Africa, and may not necessarily be applicable across other industries. For example, the study revealed that direct mail and social media advertising were the most important dimensions of advertising within the B2B solar sector. However, different advertising channels may be more effective in other industries. Therefore, the conceptual framework introduced in this study should be tested across different industries to determine if similar results are achieved. Future research could focus on exploring the role of advertising in industries outside the B2B solar sector to evaluate whether the same advertising dimensions hold similar importance in different contexts.

Fifth, the study employed a cross-sectional data collection approach, examining the impact of BTL advertising on brand loyalty at a specific point in time. There is no guarantee that these findings will remain relevant in the future. Longitudinal research would be more effective in evaluating how brand loyalty in the solar industry evolves. Additionally, the time available for conducting this study was constrained. The research was conducted using a cross-sectional approach to adhere to the limited timeframe stipulated by the university. Furthermore, the measurement scale employed in this study to assess brand loyalty was confined to BTL advertising, commitment, trust, competitive advantage, and brand awareness. It is important to recognise that other factors also play a pivotal role in achieving brand loyalty.

Lastly, while this study did not exclude installers purchasing from competitors, it shared the questionnaire using IBC SOLAR's platforms. This approach likely reached fewer solar installation companies that purchase from competitors. Future studies should consider broader distribution methods to capture a more diverse range of respondents.

7.9 Directions for future research

Future research should consider five key areas to build on the findings of the present study. These areas include expanding the geographical scope of the research, incorporating a more diverse sample of solar installation companies, applying a mixed-methodology approach, extending the data collection period, and exploring additional factors influencing brand loyalty. First, the geographical scope of the research could be broadened to include other regions beyond South Africa. By including solar installation companies from different countries or continents, future studies could determine whether the findings are consistent across various cultural and economic contexts. This expansion would help produce more generalisable results and provide a broader understanding of the factors driving brand loyalty in the solar industry globally.

Second, future research should include a more diverse sample of solar installation companies, distinguishing between companies operating in urban areas, such as cities with closer access to resources, and those in more rural locations, including farms or residential solutions in smaller towns within the same country. This differentiation would provide insights into whether the urban-rural divide influences brand loyalty behaviours and BTL advertising effectiveness. Additionally, including companies of different sizes and market positions could offer a more nuanced understanding of how various types of installation companies respond to BTL advertising and brand loyalty strategies.

Third, applying a mixed-methodology approach would be beneficial for future studies. The combination of quantitative and qualitative methods would enable researchers to explore the relationships between constructs more deeply and to capture the perceptions and experiences of respondents in their own words. This approach would enrich the findings and offer a more comprehensive view of the factors influencing brand loyalty in the solar industry.

Fourth, future research should consider extending the data collection period by employing a longitudinal research methodology. This would allow researchers to track changes in brand loyalty and BTL advertising effectiveness over time, providing insights into how these relationships evolve. A longer data collection period could also help identify trends that may not be apparent in cross-sectional studies. Lastly, future research should explore additional factors that may influence brand loyalty beyond those considered in this study. For example, reliable product availability, supply chain efficiency, technical support and training, competitive pricing with flexible payment terms, strong after-sales service, and partnership opportunities could provide valuable insights. Including these factors could lead to a more comprehensive

understanding of what drives loyalty among solar installation companies and help distributors develop more effective brand loyalty strategies.

7.10 Chapter summary

This chapter has summarised the research findings. It was determined that respondents, namely solar installation companies in South Africa, generally had a positive perception of the advertisements from their main distributor across various mediums, with some variations in engagement and perceived effectiveness depending on the type of advertisement. The study also found that while BTL advertising does not significantly predict brand loyalty in a model that includes competitive advantage, commitment, and trust as mediators, competitive advantage and commitment do have a statistically significant positive effect on brand loyalty. However, trust was not a significant predictor of brand loyalty. Additionally, the study concluded that brand awareness plays a moderating role in the mediation effect of BTL advertising on brand loyalty through competitive advantage and commitment, with significant mediation observed at high levels of brand awareness. In contrast, brand awareness did not moderate the mediation of trust on brand loyalty, highlighting the non-significant relationship between trust and brand loyalty in this context. Overall, the findings suggest that respondents value their relationship with their main distributor and exhibit strong brand loyalty driven by competitive advantage and commitment, with BTL advertising playing a less direct role in fostering this loyalty.

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APPENDIX A: CONSENT FORM AND QUESTIONNAIRE

Research study information leaflet and consent form

Date

13/11/2023

Title of the research project

Advertising and Brand Loyalty in the South African Solar Industry.

Principle investigator/researcher(s) name(s) and contact number(s):

Ms. Zané Dippenaar 2012011298 072 010 2882

Faculty and Department:

Faculty of Economic and Management Sciences

Department of Business Management

Study leader(s) name and contact number:

Dr Tarisai Rukuni

051 401 2589

Dr Emile Saker Nkwei

051 401 2516

What is the aim/purpose of the study?

To investigate the effect of advertising on brand loyalty while accounting for the role of competitive advantage, commitment, and trust.

Who is doing the research?

This research will be carried out by Ms Zané Dippenaar a PhD student in the Department of Business Management as part of the requirements to complete the Doctor of Philosophy degree in Business Management. She will be guided by her supervisors, Dr Tarisai Rukuni and Dr Emile Saker Nkwei who have research experience.

Has the study received ethical approval?

This study has not yet received approval from the Research Ethics Committee of UFS.



Why are you invited to take part in this research project?

You are invited to take part in this research because you are an installer of solar systems in South Africa who purchased products from the Distributor, IBC SOLAR. It is also understood that you are in a position to understand the research phenomenon that aims to investigate the influence of advertising on brand loyalty while accounting for the role of competitive advantage, commitment, trust, and brand awareness. A minimum sample size in this research is 360 solar installation companies in South Africa who are subscribed to the Distributor, IBC SOLAR's, platforms.

What is the nature of participation in this study?

You are expected to provide answers to the questions asked in this study. The study involves a self-completion questionnaire that will be distributed to you via IBC SOLAR's Facebook and LinkedIn pages, newsletter and online shop. The questions in this study are on the influence of advertising on brand loyalty while accounting for the role of competitive advantage, commitment, trust, and brand awareness. It should take you between 20 and 25 minutes to complete the questionnaire. There is a low risk associated with loss of time to concentrate on completing the questionnaire. To mitigate this risk, you will be allowed to complete the questionnaire at your most convenient time.

Can the participant withdraw from the study?

Participation in this research is voluntary and there is no penalty or loss of benefit for non-participation. Being in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and asked to sign a written consent form. You are free to withdraw at any time and without giving a reason. However, note that it will not be possible to withdraw once you have submitted the questionnaire.

What are the potential benefits of taking part in this study?

Please note that you will not be paid to participate in the study. However, you will be able to contribute to research regarding advertising and brand loyalty in the solar industry in South Africa. Your participation in this study will be kept confidential. It should be noted that completing the questionnaire has no impact on the respondent's relationship to IBC SOLAR South Africa (Pty) Ltd.

What is the anticipated inconvenience of taking part in this study?

There is risk associated with loss of work or study time. In order to mitigate this risk, you are advised to complete this questionnaire at a time that is convenient to you ensuring that you do not interfere with your work or study time. Since the study involves the use of a questionnaire, the procedures involve no foreseeable physical discomfort or inconvenience to you or your family.

Will what I say be kept confidential?

All information obtained from the questionnaire is strictly confidential. The questionnaire data and demographic information will be coded so that it will not be linked to your name. Your identity will not be revealed while the study is being conducted, or when the study is reported in scientific journals and/or research reports. Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. The information received during the project will only be used for research purposes. All the data that you provide in the questionnaire will be handled confidentially. This means that access to your data will be strictly limited to the primary researcher, research collaborators and the designated examiners (appointed by the University of the Free State). Also, your questionnaire responses and personal information will be kept and stored in a confidential format that will only be accessible to the researcher. The results of this study might be published in a scientific journal and/or presented at scientific meetings, but again without revealing the identity of any research participant and institutions involved.

How will the information be stored and ultimately destroyed?

Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard/filing cabinet for future research or academic purposes; electronic information will be stored on a password-protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. After five years the information will be destroyed.

Will I receive payment or any incentives for participating in this study?

Please note that you will not be paid to participate in the study. However, you will be able to contribute to the areas of advertising, brand loyalty and awareness, competitive advantage, commitment, and trust in the solar industry in South Africa.

How will the participant be informed of the findings/results of the study?

If you would like to be informed of the final research findings, please contact the primary researcher, Ms Zané Dippenaar at 072 010 2882. The findings will be accessible online in the event that they have been published. Should you require any further information or want to contact the researcher about any aspect of this study, please contact Dr T.F. Rukuni, who can be contacted during office hours at Tel (051) 401 2589, or on his cellular phone at 073 418 1426 or via email: rukuniTF@ufs.ac.za, or Dr Emile Saker Nkwei who can be contacted during office hours at Tel (051) 401 2516 or via email: NkweiES@ufs.ac.za.

Thank you for taking the time to read this information sheet and for participating in this study.



Consent to participate in this study

I, the undersigned,

(participant's full names to be included), (the "**Participant**")

confirm that I voluntarily agree to participate in the research study referred to as Advertising and Brand Loyalty in the South African Solar Industry (the "**Study**") in relation to Doctor of Philosophy in Business Management and which study is being conducted by Ms Zané Dippenaar (the "**Researcher**").



I, the undersigned Participant, further confirm that–

1. the Researcher has explained the nature, procedure, potential benefits and anticipated inconvenience of my participation in the Study;
2. I have read (or had explained to me) and understood the Study as explained in the attached information sheet;
3. I have had sufficient opportunity to ask questions and am prepared to participate in the Study;
4. I understand that my participation in the Study is entirely voluntary and that I am free to withdraw at any time without penalty (if applicable);
5. I voluntarily provide the UFS and the Researcher with my personal information and consent to the UFS and the Researcher collecting, disclosing and processing my personal information in order to conduct the Study and any related activities in relation thereto;
6. I hereby acknowledge and confirm that I understand the purpose for which the UFS and the Researcher may collect, store, use, delete, destroy, outsource, transfer or otherwise process, as the context and circumstances may require and as contemplated in terms of POPIA, my personal information as set out herein;
7. I am aware that the findings of the Study will be anonymously processed into a research report, journal publications and/or conference proceedings and that my personal information will be aggregated and deidentified at such stage;
8. I also give the UFS permission to share, without notification, the collected data with other researchers at the UFS or other Higher Education Institutions. This permission is dependent on the same principles of ethical research practices, anonymity/confidentiality, safekeeping of information, and other issues listed above apply.

I, the participant, agree to the completion of the questionnaire.

Full name of participant: _____

Signature of participant: _____ Date: _____

Full name(s) of researcher(s): _____

Signature of researcher: _____ Date: _____



SECTION A: BIOGRAPHIC INFORMATION

Please answer the following questions on your biographic information by placing an (x) on your preferred answer.

1. Please indicate your age: _____

2. Gender

Female	1
Male	2
Other: _____	3

3. Years of experience in the solar industry: _____

4. Job title/position

Solar installer	1
Sales representative	2
Technical support	3
Manager	4
Other: _____	5

5. Geographic region in South Africa

Coastal: Western Cape, Northern Cape, Eastern Cape, and KwaZulu-Natal	1
Inland: Gauteng, North West, Mpumalanga, Limpopo, and Free State	2

6. Company size

Sole proprietor	1
Small (1–10 employees)	2
Medium (11–50 employees)	3
Large (51+ employees)	4

7. Most common brands installed

8. Please specify your main distributor for solar products

Please answer the following questions based on your main distributor.

9. Please indicate the frequency of purchasing from your main distributor

SECTION B: ADVERTISING

In this section, please indicate the extent to which you agree or disagree with each of the following statements. You may indicate your answer by placing a cross (x) in your selected response, using the scale: (1) = Strongly Disagree; (2) = Disagree; (3) = Neutral; (4) = Agree; (5) = Strongly Agree. The questions for advertising are adapted from Bilgin (2018) and Budiman (2021).

Advertising		1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
Direct mail advertising						
DM1	My main distributor's direct mail ads are informative	1	2	3	4	5
DM2	The content in my main distributor's direct mail advertisements is consistently up-to-date	1	2	3	4	5
DM3	The materials and messages in my main distributor's direct mail advertisements are engaging	1	2	3	4	5
DM4	I pay close attention to direct mail ads from my main distributor when they arrive in my mailbox	1	2	3	4	5
DM5	I often take action based on the information provided in direct mail advertisements from my main distributor	1	2	3	4	5
Social media advertising						
SM1	Social media ads from my main distributor have an influence on my perception of the brand	1	2	3	4	5
SM2	The posts and updates by my main distributor on social media are interesting	1	2	3	4	5
SM3	I can readily locate the information I need on my main distributor's social media profiles	1	2	3	4	5
SM4	Social media ads from my main distributor grab my attention	1	2	3	4	5
SM5	I engage with my main distributor's social media ads	1	2	3	4	5
Display advertising						
DA1	I consider making a purchase when I see my main distributor's ads online	1	2	3	4	5
DA2	The content displayed in the distributor's online shop is relevant to my shopping needs	1	2	3	4	5
DA3	The banners and display ads in the distributors' online shop are engaging	1	2	3	4	5
DA4	I pay close attention to the distributor's online shop ads when they appear while I'm browsing	1	2	3	4	5
DA5	I frequently click on my main distributor's online shop ads for more information	1	2	3	4	5



SECTION C: COMMITMENT, TRUST, AND COMPETITIVE ADVANTAGE

In this section, please indicate the extent to which you agree or disagree with each of the following statements. You may indicate your answer by placing a cross (x) in your selected response, using the scale: (1) = Strongly Disagree; (2) = Moderately Disagree; (3) = Disagree; (4) = Neutral; (5) = Agree; (6) = Moderately Agree; (7) = Strongly Agree. The questions for commitment, trust, and competitive advantage are adapted from Morgan and Hunt (1994), Mukherjee and Nath (2007), Vatanasombut et al. (2008), Chen, Zhao et al. (2022), Morgan and Hunt (1994), Gefen, Karahanna and Straub W. (2003), and Vatanasombut et al. (2008), Singh et al. (2019) Oppewal and Timmermans (1997) and Correia, Dias and Teixeira (2021).

Commitment		1	2	3	4	5	6	7
		Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
CM1	I feel a strong sense of connection to my main distributor	1	2	3	4	5	6	7
CM2	I have maintained a long-term relationship with my main distributor	1	2	3	4	5	6	7
CM3	The relationship I have with my main distributor is of great importance to me	1	2	3	4	5	6	7
CM4	I am committed to maintaining a strong and lasting relationship with my main distributor	1	2	3	4	5	6	7
CM5	I genuinely care about the relationship with my main distributor	1	2	3	4	5	6	7
CM6	I am willing to put in maximum effort to maintain my relationship with my main distributor	1	2	3	4	5	6	7



Trust		1	2	3	4	5	6	7
		Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
TR1	I have a strong sense of trust in my main distributor	1	2	3	4	5	6	7
TR2	I completely trust the products and services provided by my main distributor	1	2	3	4	5	6	7
TR3	I have great confidence in my main distributor	1	2	3	4	5	6	7
TR4	Based on my past experience with my main distributor, I know it cares about its customers	1	2	3	4	5	6	7
TR5	I can count on my main distributor to do what is right	1	2	3	4	5	6	7
TR6	My main distributor has high integrity	1	2	3	4	5	6	7

Competitive Advantage		1	2	3	4	5	6	7
		Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
CA1	My main distributor maintains strong relationships with reputable solar product manufacturers and suppliers	1	2	3	4	5	6	7
CA2	My main distributor offers a diverse range of solar products and solutions	1	2	3	4	5	6	7
CA3	My main distributor provides valuable product knowledge and guidance	1	2	3	4	5	6	7
CA4	My main distributor is known for its efficient supply chain management for on-time product deliveries	1	2	3	4	5	6	7
CA5	My main distributor is competitive in terms of pricing	1	2	3	4	5	6	7
CA6	My main distributor is reputed for delivering exceptional customer service and support	1	2	3	4	5	6	7



SECTION D: BRAND LOYALTY

In this section, please indicate the extent to which you agree or disagree with each of the following statements. You may indicate your answer by placing a cross (x) in your selected response, using the scale: (1) = Strongly Disagree; (2) = Moderately Disagree; (3) = Disagree; (4) = Neutral; (5) = Agree; (6) = Moderately Agree; (7) = Strongly Agree. The questions for brand loyalty are adapted from Quester and Lin Lim (2003), Tarkiainen and Ellonen (2015), Bilgin (2018), and Swaminathan, Anderson and Song (2018).

Brand Loyalty		1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
BL1	I consistently choose my main distributor over other options in the market	1	2	3	4	5
BL2	I actively recommend my main distributor to others in the industry	1	2	3	4	5
BL3	My preference strongly leans toward my main distributor compared to other alternatives	1	2	3	4	5
BL4	I'd be disappointed to buy from a different distributor due to product unavailability at my main distributor	1	2	3	4	5
BL5	I rarely consider switching to another distributor	1	2	3	4	5
BL6	When I need to make a purchase, my main distributor is my first choice	1	2	3	4	5
BL7	I am willing to pay higher prices for products from this distributor compared to other brands	1	2	3	4	5

SECTION E: BRAND AWARENESS

In this section, please indicate the extent to which you agree or disagree with each of the following statements. You may indicate your answer by placing a cross (x) in your selected response, using the scale: (1) = Strongly Disagree; (2) = Moderately Disagree; (3) = Disagree; (4) = Neutral; (5) = Agree; (6) = Moderately Agree; (7) = Strongly Agree. The questions for brand awareness are adapted from Bilgin (2018) and Chen, Zhao et al. (2022).

Brand Awareness		1	2	3	4	5	6	7
		Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
BA1	I am familiar with the offerings of my main distributor	1	2	3	4	5	6	7
BA2	I easily recognise my main distributor's name when I come across it	1	2	3	4	5	6	7
BA3	When I think about products or services in the solar industry, my main distributor quickly comes to mind	1	2	3	4	5	6	7
BA4	I have a clear understanding of my main distributor's market positioning	1	2	3	4	5	6	7
BA5	I have a clear understanding of my main distributor's brand values	1	2	3	4	5	6	7
BA6	I have a distinct opinion about my main distributor based on my awareness of it	1	2	3	4	5	6	7
BA7	I am aware of the unique characteristics of my main distributor	1	2	3	4	5	6	7

THANK YOU FOR YOUR PARTICIPATION

APPENDIX B: PLAGIARISM REPORT



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APPENDIX C: PROOF OF EDITING



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Proofreading | Technical Editing | Metadata Specialist | Indexing

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Nicolene.Barnard1@gmail.com

21 October 2024

CONFIRMATION OF EDITING AND PROOFREADING

I hereby confirm that I have done the technical layout and language editing for the following dissertation:

Student: Zané Dippenaar

Title: Advertising and brand loyalty in the South African solar industry

Department: Department of Business Management, Faculty of Economic and Management Sciences, University of the Free State

My work for the student included the technical layout of the document, as well as language editing for grammar, punctuation, spelling, and sentence structure. I tried to keep as much as possible of the student's own writing style while making sure that the student's intended meaning was not altered in the editing process. I also checked the list of references making sure that dates, spelling, and names used in the text are consistent with those listed in the reference list.

I have a B.Bibl. (Hons.) Degree and have worked as a cataloguer, metadata specialist and librarian for 33 years. I am an expert in the field of bibliographic information and resources. I have also completed a 10-week Copy-Editing course at the University of Cape Town.

Disclaimer: The ultimate responsibility for accepting or rejecting the changes and recommendations rests with the student and I cannot be held responsible for any layout or language issues that might have emerged as a result of subsequent amendments to the text.

Yours sincerely,



Nicolene Barnard