



**THE POTENTIAL INFLUENCE OF RISKS ON SUPPLY CHAIN MANAGEMENT
PRACTICES IN THE MASERU CITY COUNCIL IN LESOTHO**

by

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DECLARATION

I, Nteboheng Kholoane, hereby declare that the field study, The potential influence of risks on supply chain management practices in the Maseru City Council in Lesotho, hereby submitted for the qualification Master's in Business Administration at the University of Free State Business School is my own independent work and that I have not previously submitted the same work, either as a whole or in part, for a qualification at another university or faculty.

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ABSTRACT

This study investigates the potential influence of risks on supply chain management (SCM) practices at the Maseru City Council (MCC) in Lesotho. Utilizing a qualitative research approach within an interpretivist paradigm, the research identifies, evaluates, and proposes strategies to mitigate supply chain risks affecting the operational efficiency and effectiveness of the council. Data was collected through semi-structured interviews with 12 key participants from a population of 32 across various departments, and thematic analysis was employed to analyse the findings. The study highlights several key risks, including supplier-related disruptions, financial constraints, regulatory challenges, and environmental threats. Mitigation strategies identified include supplier diversification, strategic partnerships, and the integration of technology for real-time supply chain monitoring. The findings underscore the critical role of risk management practices in ensuring operational resilience and service delivery at MCC. The study contributes valuable insights for policymakers and local government entities seeking to enhance supply chain performance in the public sector.

TABLE OF CONTENTS

DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	vi
DEDICATION.....	vii
LIST OF ABBREVIATIONS AND ACRONYMS.....	viii
LIST OF TABLES	ix
CHAPTER 1: INTRODUCTION AND BACKGROUND.....	1
1.1 INTRODUCTION	1
1.2 BACKGROUND OF THE STUDY	2
1.3 PROBLEM STATEMENT	3
1.4 RESEARCH OBJECTIVES.....	4
1.5 RESEARCH QUESTIONS.....	5
1.6 RESEARCH METHODOLOGY	5
1.7 DATA ANALYSIS.....	6
1.8 SIGNIFICANCE OF THE STUDY.....	6
1.9 LIMITATIONS OF THE STUDY	6
1.10 RESEARCH GAP	7
1.11 RESEARCH PROJECT OUTLINE	7
1.12 CHAPTER SUMMARY	8
CHAPTER 2: THEORETICAL FRAMEWORK AND LITERATURE REVIEW	9
2.1 INTRODUCTION	9
2.2 THE THEORETICAL FRAMEWORK.....	9
2.3 SYSTEMS THEORY	9
2.4 ORGANISATIONAL RESILIENCE THEORY	10
2.5 LITERATURE REVIEW	11
2.5.1 <i>Supply chain management</i>	11
2.5.2 <i>Risk and supply chain management</i>	12
2.6 IDENTIFICATION OF SUPPLY CHAIN RISK WITHIN MUNICIPALITIES	14
2.6.1 <i>Financial risks</i>	15
2.6.2 <i>Scope of schedule risks</i>	15
2.6.3 <i>Legal risks</i>	16
2.6.4 <i>Environmental risks</i>	17
2.6.5 <i>Socio-political risks</i>	18
2.6.6 <i>Project institution risks</i>	19
2.6.7 <i>Human behaviour risks</i>	19
2.6.8 <i>Sourcing risks</i>	20
2.7 THE PROCESS OF SUPPLY CHAIN RISK MANAGEMENT	21
2.7.1 <i>Risk identification and classification</i>	22
2.7.2 <i>Risk assessment</i>	22
2.7.3 <i>Risk response</i>	25
2.8 RISK MONITORING AND CONTROL	26
2.8.1 <i>Types of strategic and supply chain control</i>	26
2.9 THE IMPACT OF SUPPLY CHAIN RISKS ON INSTITUTIONAL PERFORMANCE	28
2.10. CHAPTER SUMMARY	29

CHAPTER 3: RESEARCH METHODOLOGY	31
3.1 INTRODUCTION	31
3.2 RESEARCH PHILOSOPHY	31
3.2.1 <i>Interpretivism philosophy</i>	32
3.3 RESEARCH APPROACH.....	32
3.4 RESEARCH DESIGN.....	34
3.5 POPULATION, SAMPLING TECHNIQUES AND SAMPLE SIZE	36
3.5.1 <i>Sample size</i>	36
3.5.2 <i>Recruitment strategy of study participants</i>	38
3.5.3 <i>Sampling techniques</i>	38
3.6 SOURCES OF DATA	40
3.7 DATA COLLECTION METHODS	40
3.8 DATA ANALYSIS.....	41
3.9 RELIABILITY AND VALIDITY	42
3.9.1 <i>Credibility</i>	43
3.9.2 <i>Dependability</i>	43
3.9.3 <i>Transferability</i>	44
3.9.4 <i>Conformability</i>	44
3.10 ETHICAL CONSIDERATIONS	44
3.11 CHAPTER SUMMARY	46
CHAPTER 4: FINDINGS OF THE STUDY	47
4.1 INTRODUCTION	47
4.2 THE FINDINGS ON THE RISKS LINKED TO SUPPLY CHAIN MANAGEMENT AT MCC	47
4.3 THE FINDINGS ON THE SUPPLY CHAIN RISK MITIGATION STRATEGIES BY MCC.....	50
4.4 THE FINDINGS ON THE POTENTIAL IMPACT OF SUPPLY CHAIN RISKS ON SUPPLY CHAIN MANAGEMENT AT MCC	51
4.5 THE FINDINGS ON THE EFFECTIVENESS OF RISK MITIGATION STRATEGIES IN SUPPLY CHAIN MANAGEMENT AT MCC	53
4.6 CHAPTER SUMMARY	55
CHAPTER 5: CONCLUSION AND RECOMMENDATIONS	56
5.1 INTRODUCTION	56
5.2 KEY CONCLUSIONS FROM THE FINDINGS OF THE STUDY	56
5.2.1 <i>Conclusions on supply chain management risks linked to MCC</i>	56
5.2.2 <i>Conclusions on the influence of SCM risks on MCC's supply chain</i>	57
5.2.3 <i>Conclusions on the supply chain risk mitigation strategies by MCC</i>	
5.2.4 <i>Conclusions on the impact of supply chain risks on supply chain management at MCC</i> 57	
5.3 STUDY RECOMMENDATIONS BASED ON THE FINDINGS OF THE STUDY	58
5.4 FUTURE RESEARCH GAPS	59
5.5 CHAPTER SUMMARY	59
LIST OF REFERENCES	60
APPENDICES	77
APPENDIX A: INTERVIEW SCHEDULE	77
APPENDIX B: PERMISSION LETTER	80
APPENDIX C: REQUEST FOR PERMISSION TO CONDUCT THE STUDY	82
APPENDIX D: ETHICAL CLEARANCE	84
APPENDIX E: LETTER FROM THE LANGUAGE EDITOR	85
APPENDIX F: TURNITIN REPORT	86

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DEDICATION

I dedicate this work to my family, whose love and guidance have shaped me into the person I am today. Your words of wisdom, persistent encouragement, and countless sacrifices have fuelled my determination. I am immensely grateful for your support. I am also deeply thankful to God Almighty for bestowing upon me the strength, wisdom, and perseverance to complete this endeavour.

LIST OF ABBREVIATIONS AND ACRONYMS

CLGF	Commonwealth Local Government Forum
CSCMP	Council of Supply Chain Management Professionals
EMV	Expected Monetary Value
MCC	Maseru City Council
SCRMP	Supply Chain Risk Management
SCM	Supply Chain Management
SOW	Statement of Work
UGA	Urban Government Act

LIST OF TABLES

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CHAPTER 1: INTRODUCTION AND BACKGROUND

1.1 Introduction

Section 106(1) of the Constitution of Lesotho (1983) mandates the parliament to establish local authorities within the 10 districts of Lesotho. These authorities shall perform any functions conferred by an Act of Parliament. Local Government consists of two spheres, namely, central and local. In the realm of local government, the central sphere serves as the main administrative hub, while the local refers to the local authorities. The Local Government Act (1997) created a three-tier structure to include community councils, district councils, and urban/municipal councils. Initially, according to Daemane (2011) and Mofuoa (2005), the three-tier structure was categorized into 128 community councils, 10 district councils, and one municipal council. Local government is governed by the Local Government Act (1997) to ensure that there is effective and efficient service delivery (‘Nyane, 2019).

The Maseru City Council (MCC), as the initial urban local government institution, has a vital responsibility in the management and supervision of urban development and the daily operations of the city. The functions of the MCC are, among others, to collect property rates and ensure that social and economic development opportunities are granted to people living within the boundaries of the city of Maseru, through the governing committees within the MCC, as stated in the Local Government Act (1997). The MCC is further mandated to control the natural resources, thus ensuring environmental protection. It is also the responsibility of the MCC to ensure public health, the care of mothers, young children, the elderly, as well as those with various disabilities (Commonwealth Local Government Forum (CLGF), 2017). It is also expected of local government to provide water supply within nearby villages, advance education, indulge in physical planning, allocation of land and minor roads (CLGF, 2017).

The supply chain management (SCM) within the MCC is one of the fundamental processes that drive the operations of the council. The SCM system within the council encompasses the coordinated processes and activities involved in sourcing, procurement, logistics, and distribution of goods and services that are necessary to ensure synergy within various departments, as well as timely and improved service

delivery by the local authority. Hence, any disruption to any line of the SCM processes within the operations of the MCC might render it ineffective in achieving the MCC's mission due to poor and dented service delivery. Therefore, for this study, it is worth exploring the potential influence of risks affecting the SCM practices within the MCC and how best these potential risks can be mitigated. By exploring these potential risks and implementing effective risk mitigation strategies, the MCC can enhance efficiency, reduce costs, and satisfy stakeholders, thus fulfilling its responsibility towards the residents within the MCC.

1.2 Background of the study

According to Jain, Wadhwa, and Deshmukh (2009), SCM encompasses the alignment of procedures and tasks among institutions, or, in this instance, institutions. These interconnected networks, differing in scale and product range, contribute to the conversion of materials into products and their distribution to consumers. In today's interconnected world, effective and efficient SCM plays a vital role in ensuring the smooth functioning of institutions across various sectors (Aitken, Christopher, & Towill, 2002). The MCC is no exception in this matter, as it relies on an efficient SCM system to fulfil its mandate of providing essential services to its citizens. The establishment of the MCC within the Ministry of Local Government, Chieftainship, Home Affairs, and Police, was to ensure that the communities within the city receive efficient service delivery that caters to their social and economic needs and waste management (Daemane, 2011). However, in recent years, there has been a steady decline in effective and efficient service delivery within municipalities (Amber, 2016; Bizana, Naude, & Marcus, 2015), which could be attributed to ineffective SCM processes. However, there is no evidence that the underlying problems with SCM practices within the MCC are the main catalyst behind the current lagging service delivery.

Although the local authorities have been granted partial decentralization on certain tasks without full autonomy, most of the tasks are being carried out by the central government, which delays service delivery (Naha, 2015). Serving approximately 24% of the population within Maseru, the MCC is heading towards a cul-de-sac due to poor service delivery (Naha, 2015). The MCC is a unitary government, with the town clerk being the chief executive officer of the council as determined by section 34(1) of the Local Government Act, 1997. The composition of the council, as stated in section 4(c)

of the Local Government (Amendment) Act (2004), shall consist of not less than seven or more than 13 elected members nominating not more than three chiefs within the MCC area. In addition to the town clerk, who oversees the day-to-day operations of the council, there are six senior management staff members. These include the director of administration, director of finance, director of planning and development, director of parks and recreation, director of health and environment and director of works.

Frost and Thompson (2019:2) suggest that the concept of risk arises from the potential impact of uncertainty on an objective. In the case of SCM, potential risks are any risks that can harm the processes of resource allocation, thus affecting the outcome of production (Waters, 2011:7). Handfield and Nichols (2003:43) define SCM as the handling of the flow of goods and services from the raw materials through consumption by the consumer. Therefore, the current study aims to identify the potential SCM risks, assess them, and find ways to mitigate such risks so that the supply chain processes of the MCC can function effectively and efficiently.

1.3 Problem statement

As previously alluded to, the MCC is mandated to contribute to socio-economic development and poverty reduction by expanding economic activities and ensuring that the marginalized communities, such as women, children, and the disadvantaged, are well taken care of. The mandate further extends to ensuring land/site allocation for various purposes (‘Nyane, 2019). The global management of supply chains has faced obstacles as a result of changes in demand trends and limitations in logistics capabilities. SCM processes have always been vulnerable to disruptions since they came into being (Andriantomanga, Bolhuis & Hakobyan, 2023). While recognized as crucial for trade, SCM has often been given inadequate attention. Geldenhuys (2021) highlighted the significance of SCM in managing finances within the sector, emphasizing its role in ensuring the efficient distribution of goods and services to the community.

While many countries, such as South Africa, Ellram & Murfield (2019:39), have embraced automated SCM practices, the council’s manual approach overlooks risks that could impact its operations. The MCC, in Lesotho, continues to rely on traditional

methods for its SCM, resulting in delays and inefficiencies in service delivery. These outdated procedures are often time-consuming, thereby affecting the efficiency and effectiveness of service delivery. Unfortunately, the delivery of services within the MCC has experienced a decline in the past years. Most importantly, this decline in service delivery is hypothesized to be accentuated by an inefficient supply chain within the council, which ultimately impacts the timely delivery of goods and services, either within various departments or to the public at large.

However, these assertions are not empirically tested, which renders the relationship between SCM within the MCC and the declining service delivery by the MCC inconclusive. Though there have been some studies on SCM practices, there seems to be a lack of research specifically addressing this issue. The absence of an understanding and effective risk management could result in inefficiencies and disruptions within the MCC's supply chain, affecting its ability to deliver quality services to the residents of Maseru. This research study intends to bridge this gap as it aims to identify, analyse and propose strategies to mitigate risks that impact the council's supply chain activities. By filling this research gap, the study hopes to contribute insights for shaping policy decisions and improving the efficiency of the council's SCM.

1.4 Research objectives

Primary research objective

- To identify the potential risks that influence SCM within MCC.

Secondary research objectives

- To evaluate the risks linked to the SCM in MCC;
- To evaluate the potential influence of these risks on the operational efficiency and effectiveness of SCM in the MCC;
- To evaluate the supply chain risks mitigation strategies by the MCC;
- To investigate the effects of risk management procedures on the accomplishment of council goals and objectives in Maseru.

1.5 Research questions

- Which risks are linked to the SCM in the MCC?
- What is the potential influence of these risks on the operational efficiency and effectiveness of SCM in the MCC?
- What are the supply chain risk mitigation strategies deployed by the MCC?
- What are the effects of risk management procedures on the accomplishment of council goals and objectives in Maseru?

1.6 Research methodology

The study employed an interpretive philosophical research approach to investigate the obstacles to efficient SCM in the MCC, Lesotho, and to suggest optimal strategies. This approach is based on the concept that reality is created and understood via social interactions and is influenced by individual perspectives. The study acknowledges that individuals involved in the research, such as employees and stakeholders, actively construct meaning, attitudes, perceptions, and experiences that influence their interpretation of reality (Van Thiel, 2022:34). To adhere to this interpretivist perspective, a qualitative research approach was utilized. This entailed exploring the potential ramifications of hazards on SCM within the MCC.

According to Creswell (2016), qualitative research allows researchers to deliberately select the object or participant for the study. This decision is influenced by the researcher's judgment of the individuals or entities that can offer insights into understanding the subject under investigation. Tongco (2007) emphasizes the importance of considering the informant's expertise and background during the selection phase. The study involved 12 key participants chosen to represent different departments within the MCC, such as administration, finance, SCM, planning and development, engineering, and management. The selection was made based on Bowley's (1926) proportionate sample size calculator to ensure representativeness for each department. The interviews, with an average duration of 60 minutes each, were recorded and transcribed for the purpose of analysis.

1.7 Data analysis

The interview data was analysed using a thematic analysis technique. This entailed converting the audio recordings of the interviews into Microsoft Office Word format through transcription. The transcribed data was subjected to thorough classification, reduction, and the identification of themes and sub-themes (Akşan & Baki, 2017). Prior to engaging in the interview sessions, all participants were obligated to offer informed consent by affixing their signatures to consent forms. This ensured that they were thoroughly briefed about the study's objectives and characteristics and freely consented to participate in the interviews.

1.8 Significance of the study

Understanding the potential influence of risks to the SCM allows for proactive measures to mitigate these risks, thus leading to improved efficiency and effectiveness. Hence, the study contributes by giving a background on the local authorities, the functions of the MCC, and its limitations in serving the communities. As a result, addressing these risks facing the council and finding ways to mitigate them can result in consistent service levels and enhance stakeholder satisfaction. Similarly, this study is not only significant to the local government in Lesotho, but it also serves as a reference point for other government agencies to evaluate their potential SCM risks and how they affect their supply chain, as well as general service delivery in Lesotho. Therefore, while the MCC may be unique in its administrative structure within Lesotho, the findings and recommendations from this study can still serve as a valuable basis for other councils operating similarly to remain vigilant about the potential influence of risks on SCM and take proactive measures to mitigate them. On the grounds of the literature, this study contributes to the literature by addressing the gaps related to the potential influence or risks in SCM and their influence on service delivery in the public sector, especially in the context of Lesotho.

1.9 Limitations of the study

Like any other study, this study also has its limitations, and caution should be taken when interpreting the results. However, these limitations provide some interesting leads for future research studies. The first limitation relates to the sample size used for the study. A sample size of only 12 participants from a population of 32 of the MCC

was considered in this study. As such, future studies or researchers can interview more study participants to gain deeper insights into the potential risks that influence SCM. While serving as the reference point, the few study participants contained in the sample size prohibit the generalization of the findings outside the scope of this study. Therefore, this study can be replicated using a quantitative approach, which will permit the use of a larger sample size; hence, the ability to generalize to the larger audience.

1.10 Research gap

The research gap that has been identified in the supply chain field is that most empirical studies focus on political and economic risks and ignore the importance of other risks that emanate from the internal and external environment. Most of the studies conducted in South Africa and other countries focused on the potential risks that affected the supply chain in the private sector but did not pay adequate attention to public sector institutions, especially municipalities. Limited research is available in the context of Lesotho, and therefore, this study attempts to fill this gap by exploring the potential supply chain risks that pose challenges to the supply chain and service delivery at the MCC. The study extends the scope beyond the economic and political risks but expands to assess other risks that are significant to the council's operations.

1.11 Research project outline

The proposed study contains five chapters that build upon coherent arguments to address the stated objectives. Thus, a summary of these chapters is presented in the subsequent section:

Chapter One: General overview of the study

This chapter introduces the research topic and its relevance to the chosen council. The research objectives, research questions, significance of the study, and limitations of the study are indicated in this chapter.

Chapter Two: Theoretical framework and literature review

This part of the research will not only focus on the MCC but will also incorporate the study of local, regional, and global perspectives. It will cover the core literature related to any potential risks within the SCM.

Chapter Three: Research methodology

The research methods for gathering data will be discussed in-depth following the sampling and research design.

Chapter Four: Data analysis and research findings

This chapter is going to cover the research findings of the council which will be presented following a thematic data analysis.

Chapter Five: Conclusion and recommendations

The last chapter of the research study will summarize the findings of the research and provide the conclusion and recommendations to the MCC on how best it can mitigate potential risks within the SCM processes.

1.12 Chapter summary

Chapter 1 serves as an introduction to the study, providing an overview of its focus, background information, and the rationale behind conducting the research. The aim of the study is not only aligned with the research questions but is also with a chosen research approach that aims at delving deep into the core aspects of the study. Moving forward, Chapter 2 will present a comprehensive literature framework that will further enhance our understanding of the subject matter.

CHAPTER 2: THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Introduction

The second chapter of the research study covers the literature review in which the existing literature is reviewed, examined, and discussed according to different views and perceptions regarding the issue of potential risks and the threats that are found in SCM. In this context, the theoretical framework that guides understanding the embedded operations at the MCC through the interconnectedness of different departments, as well as exposure to the external environment that poses supply chain risks, is presented. Thereafter, the chapter reviews the relevant literature about the potential risks and threats that disrupt the supply chain and service delivery, as well as the mitigation strategies. The subsequent section presents the theoretical framework.

2.2 The theoretical framework

This study is supported by two theories. The first theory is the systems theory, which seeks to portray how the several departments (Administration, Finance, Supply Chain Policy, Planning and Development, and Engineering Departments) at the MCC are interconnected to deliver its mandate, and how the effect on the supply chain department affects the entire council. The other theory underpinning this study is the organizational resilience theory, which also describes the resilience of the MCC amid supply chain shock, thus indicating the mitigating strategies.

2.3 Systems theory

Systems theory is one of the prominent management theoretical frameworks that explain how institutions work or function. Thus, numerous definitions have been ascribed to the concept of a system, but most of the definitions converge to define a system as an entity characterized by different elements or sub-entities that work towards achieving a common goal (McShane & Von Glinow, 2003). Therefore, systems theory in a management context views institutions as a function of different sub-systems or departments that work towards achieving the common objective, which is the institutional mission and vision. As such, systems theory becomes

instrumental in explaining organizational behaviour, change, or development (Cornell & Jude, 2015).

The systems theory has its roots entrenched in biology and systems science (Straussfogel & Schilling, 2009). However, it has since gained popularity in management sciences. The systems theory was first coined and popularized by Ludwig Von Bertalanffy (1949:126) in the early 1950s. The main standpoint of systems theory was to counter the then classical management theory, which viewed institutions as machines and argued that institutions are a function of different sub-systems, and their sum is greater than the sum of their individual parts. Thus, based on the systems theory, any disruption to the sub-system may have cascading effects throughout the entire system (Cornell & Jude, 2015).

Based on these assertions, the systems theory guides in understanding the idea that the MCC is a single entity that is made up of different departments. These departments work towards a similar goal of extending services to the local communities in Maseru. Together, the departments are able to optimize the service delivery that each department would. Hence, potential risks faced by the supply chain and policy department in its operations are likely to dent the operations of the entire MCC, leading to poor service delivery to the local communities.

2.4 Organisational resilience theory

The organisational resilience theory, or institutional resilience theory in the context of this research, is a framework that describes the ability of an institution to anticipate future disturbances and develop sound mitigation strategies to survive the disturbances. Thus, Duchek, Raetze, and Scheuch (2019) view institutional resilience as the ability of an institution to adapt, recover, and thrive during uncertain times. The institutional resilience theory extends beyond recovering from the shocks but also includes learning from them, evolving, and strengthening further after the aftermath (Linnenluecke, 2017). Hence, institutional resilience is characterised by two aspects: adapting to the shocks and learning from the same shocks (Duchek *et al.*, 2019; Linnenluecke, 2017).

In the context of the MCC, the institutional resilience theory helps to understand how the council anticipates supply chain risks, how it adapts to these risks, and how it learns from them. In essence, the institutional resilience theory in the context of the MCC helps to delve deep into the risk mitigation strategies of the council to ensure it continues to serve the local communities in Maseru amidst the supply chain risks.

Systems theory, when integrated with organisational resilience theory, helps in comprehending the challenges that MCC faces in the supply chain risk management. According to systems theory, the MCC can be seen as a number of interrelated departments, and any change in one of those departments can have an impact on the rest of the institution, including supply chain management (McShane & Von Glinow, 2003). Whereas organizational resilience theory is centred on the MCC's capacity to not only identify and respond to these risks, but also to innovate and improve over time, thus becoming sustainable (Linnenluecke, 2017). The integration of these two theories suggests that MCC's ability to manage and mitigate risks is not only dependent on recognizing the interconnections within its various departments, but also on developing adaptive strategies that promote learning and recovery. Thus, while systems theory underscores the system's susceptibility to disruption, organizational resilience theory offers a better lens for MCC to prepare for and regain stability in the face of such risks and continue serving the community.

2.5 Literature review

2.5.1 Supply chain management

The concept of SCM encompasses various elements, leading to the existence of multiple definitions in the literature that emphasise distinct aspects. According to Van Weele (2014:429), SCM can be defined as the comprehensive management of various activities, information, knowledge, and financial resources that are involved in the movement and conversion of goods and services, starting from suppliers of raw materials, component suppliers, and other suppliers. The primary objective of SCM is to ensure that the company's end users' expectations are not only met but also exceeded. According to the Council of SCM Professionals (CSCMP, 2018:18), SCM can be defined from a functional standpoint as the comprehensive planning and effective administration of all activities encompassing sourcing and procurement,

conversion, and logistics management. Significantly, it encompasses the crucial aspect of coordinating and collaborating with channel partners, who may consist of suppliers, middlemen, third-party service providers and customers (Akintoye & MacLeod, 1997).

The MCC implements SCM through its practices of procurement, tendering, risk management, supplier relationship management, and inventory control. The legal framework in Lesotho guides these operations thereby extending their directives into the operations of MCC. The Local Government Act (1997) requires organizations to create monitoring bodies that identifies SCM related risks while establishing accountable decision-making processes. The recent Public Procurement Act (2023) maintains transparency along with fair competitions and efficiency standards to structure public procurement activities within MCC. Finally, the Public Financial Management and Accountability Act (2011) imposes financial compliance standards that enhance proper SCM practices. These established legal framework sets a foundation for SCM within MCC. Although these regulations serve as fundamental guidelines for SCM within MCC, there is still a need for custom made policies to handle unique operational challenges and improve risk management practices within SCM procedures.

2.5.2 Risk and supply chain management

In today's globalized and interconnected business environment, SCM has become increasingly complex and vulnerable to various risks. The effective management of these risks is crucial for institutions to ensure the smooth flow of goods, services, and information throughout their supply chains. By understanding the different types of risks that can influence supply chains, their causes, and potential consequences, institutions can develop robust strategies to mitigate these risks and enhance overall supply chain resilience.

2.5.2.1 Definition of risk

Literally, the term 'risk' has a negative connotation, and many people tend to associate risk with danger or hazard. According to Venter and Botha (2019:361), risk is defined as the possibility of something bad happening. Additionally, Kartam and Kartam

(2001:25) viewed risks as an exposure to loss only. Thus, they viewed risks as an uncertainty that always imposes negative consequences. In another definition, Cabano (2004:13) stated that risks can be defined as uncertainties or unknown factors in a project life cycle. However, risks can also have positive effects on project objectives when they are managed effectively and efficiently. Additionally, Roggi, Garvey, and Damodaran (2012:220) presented a better perspective on the meaning of risk by explaining that risk has both negative and positive connotations. According to Roggi *et al.* (2012:221), the Chinese view risk as both “danger” and “opportunity.” This view of risk by the Chinese emphasizes the fact that you cannot have opportunity without incurring some danger. This is true in SCM, as noted by Ghosh and Jintanapakanont (2004:638) that “*risk management is an important and integral element of management.*” This view of risk management is also supported by Ren (1994), who stated that the success of a manager is heavily influenced by efficient and effective management of the level of risk involved. Therefore, systematic risk management needs to be applied to manage supply chains effectively.

The concept of calculated risk in business can be characterized as a thoughtfully evaluated decision that entails a certain level of personal and financial risk, which is offset by a rational likelihood of obtaining a favourable outcome (Ciccullo, Caridi & Pero, 2013:12). Business entrepreneurs have invariably undertaken a certain degree of risk in the process of establishing their enterprises (Sadgrove, 2020:57). Furthermore, the presence of risk persists even after the establishment of the business. Business owners must consistently evaluate risk in relation to their product or service, in providing their product or service, or in the acquisition of a product or service, as well as within the broader framework of expansion and achievement. In the case of a government institution, such as the MCC, risk must be evaluated and mitigated in the acquisition of goods and services to provide for the needs of citizens.

2.5.2.2 Supply chain risk management

The primary goal of Supply Chain Risk Management (SCRM) is to mitigate the likelihood of unforeseen circumstances and implement a suitable array of strategies to handle such situations efficiently and effectively (Valsamakis, Vivian & Du Toit, 2013). The lack of a universally acknowledged definition of SCRM and limited scholarly literature on the subject provide significant challenges in comprehending its

intricacies (Shahbaz, Muhammad Saeed, Raja Zuraidah, Fauzi, Rehman, & Fazalur, 2017:22).

A study in India by Kraus et al., (2022) shows that it is imperative to consolidate the extensive and fragmented body of literature, hence facilitating accessibility for prospective researchers. The current state of research on SCRM is characterized by both limited scope and fragmented distribution, as indicated by a thorough examination (El Ayoubi & Radmehr, 2023:13). The article aims to provide a comprehensive literature analysis of the examination of terminologies pertaining to supply chain, risk management, and supply chain risk management (Shahbaz *et al.*, 2017:3). The study utilizes a content analysis approach, bibliographic analysis, and an examination of accredited journals and research papers in the field of SCRM. This methodology is considered unique and innovative. The results of this study will indicate that a significant number of scholars concur that risk refers to the unpredictability of outcomes or performances, while supply chain refers to a network of companies and institutions that provide value at each stage of product or service delivery until it reaches the end-users (Ceryno, Scavarda, Klingebie & Yüzcülec, 2013:55). Supply chain risk refers to the occurrence of uncertain and undesirable events, whereas supply chain risk management involves the systematic evaluation of risk sources, analysis of their likelihood, and the development of strategies to prevent, mitigate, or reduce the influence of these risk sources.

2.6 Identification of supply chain risk within municipalities

SCM plays a crucial role in the efficient functioning of municipalities, ensuring the smooth flow of goods and services to meet the needs of their communities. However, like any complex system, municipal supply chains are susceptible to various risks that can disrupt operations and hinder service delivery. Understanding these risks is essential for effective risk management and resilience building within municipal supply chains. The literature review aims to explore the different types of supply chain risks that municipalities face, providing insights into their nature, causes, and potential influences.

2.6.1 Financial risks

One of the key areas of concern in the field of financial management is financial risks. The risks associated with international business operations encompass a wide spectrum, spanning from unanticipated or unfavourable fluctuations in currency exchange rates to the potential insolvency of a supplier (Childerhouse, Hong-Minh & Naim, 2022:33). Several instances of financial risks can be identified, also in the government sector, such as exceeding budgetary allocations, resulting in unauthorized expenditure, encountering constraints, implementing constructive modifications, and encountering missed milestones that necessitate supplementary funding. Financial risks can include unforeseen cost overruns that can be attributed to other risk factors, such as alterations in the necessary scope of work for the effective completion of the task.

The MCC is at risk of facing financial difficulties because of multiple issues. Unfunded mandates necessitate intervention from the parliament to ensure sufficient funds or alleviate the duties placed on the municipality. Internal financial issues may occur due to mismanagement, such as inadequate revenue generation or unregulated expenditures. To achieve successful financial management at the Maseru City Council, it is imperative to tackle certain concerns, such as capacity building and enhancing management procedures (Kabi, Kompfi & Twala, 2014:55). Financial risk assessment remains crucial for MCC because the council needs to handle both the external funding requirements and internal budget allocation issues. The delayed budget allocation from the central government can disrupt MCC's procurement activities by causing disruptions in service delivery. Additionally, the lack of effective revenue collection mechanisms and unregulated expenditures within MCC may exacerbate financial constraints. Consequently, to address this risk, MCC needs to improve financial management abilities and establish additional financial controls to prevent costly overspending and achieve optimized resource utilization.

2.6.2 Scope of schedule risks

The scope of schedule risks refers to the extent or range of potential uncertainties and challenges that may influence the timely completion of a project or task. The principal risks that pose a danger to the timeline are often attributed to inadequate project

definition or a poorly articulated statement of work (Deutsch, Drávavölgyi & Rideg, 2013:19). It is worth noting that these risks can also have financial repercussions, as mentioned before. Schedule modifications frequently occur due to natural calamities (*vis major*) like hurricanes, fires, or floods, or due to noncompliance concerns arising from the supplier (Ross, Westerfield & Jordan, 2003: 67). The scope of schedule risk can manifest when alterations in the plans, for instance in a construction project, are necessary due to the initial statement of work (SOW) being unfeasible or due to technical advancements driven by market forces (Deutsch *et al.*, 2019:6). The main schedule risks for MCC stem from delayed procurement activities or insufficient project planning. For instance, delays in material acquisitions for infrastructural projects such as road maintenance may arise from vague statements of work or unanticipated changes in project requirements, compromising timely service delivery and tarnished organizational reputation.

2.6.3 Legal risks

Potential legal liabilities are associated with a particular course of action or decision. Legal and contractual risks frequently arise from conflicts or divergent understandings of contractual responsibilities, as well as failure to fulfil the stipulations outlined in the terms and conditions (Hillman & Keltz, 2007:32). The utilization or improper utilization of intellectual property can be seen as a legal liability, particularly in cases where there is potential for patent infringement. In addition to the categories, the inclusion of transgressions against legal statutes and civil litigation is also warranted. Local government autonomy plays a role in allowing decision-making power to be decentralized at that level. For instance, if a municipality omitted some clauses of liability in the waste disposal contract it might end up in a lawsuit should the contractor be found to have contravened the set environmental laws. This kind of lawsuit can hamper projects and raise costs, thus overburdening SCM resources (Ambe & Badenhorst-Weiss, 2019).

To reduce such risks, municipalities should procure legal advice. However, it is crucial to balance this with accountability and oversight mechanisms established within a framework by the central government. The MCC operates in line with the regulations outlined in the Urban Government Act (UGA) (1983). Unfortunately, the UGA grants powers to the government, leading to cumbersome bureaucratic processes that hinder

the effectiveness of the MCC. The central government often limits the authority and legal capacities of the MCC and fails to enact necessary laws. Addressing these challenges is essential to find a balance that enables the MCC to carry out its responsibilities efficiently while maintaining supervision, from the central government (Lebentlele, 2000).

MCC faces potential legal challenges arising from contractual disagreements or violations of procurement rules. For instance, the failure of MCC to include liability clauses in its waste management contracts may expose it to environmental lawsuits by contractors. Most importantly, the bureaucracies embedded within the central government may limit MCC swift response to legal challenges, further affecting the SCM within MCC.

2.6.4 Environmental risks

The concept of environmental risk refers to the potential harm or adverse effects that can arise from human activities on the natural environment. It encompasses the likelihood of occurrence and the magnitude of supply chain risk (Kabus, Miciula & Piersiala, 2020:19). During the procurement process, it is imperative to assess the potential environmental risks posed by the supplier or contractor (Wang, Dulaimi & Aguria, 2004:22). Environmental risk refers to the adverse effects that an institution has on water, air, and land due to the release of discharges, emissions, and various other forms of waste. The current waste disposal site, in Maseru, which has been functioning since 1983, poses threats to the local residents. Located on a sloping terrain above the city's water source, the landfill releases gases due to decomposition and spontaneous combustion, posing health dangers to the nearby community. This environmental risk could impact supply chain management negatively (Chapenyana, 2004). For instance, waste disposal contractors may be subjected to a higher level of regulation and may experience delays if new environmental regulations are introduced suddenly (Wang et al., 2020). Such issues not only affect service delivery but also lead to increased operational costs.

Problems related to environmental risks at MCC become apparent through insufficient waste management practices and the operation of old landfills which create health risks and safety hazards. The Maseru landfill creates environmental dangers through

its nearness to water resources which leads to possible contamination events. Unfavourable environmental conditions create two major consequences that interfere with service operations and require higher regulatory fees and operational expenses. MCC needs to focus on sustainable waste management alongside its contractors to meet environmental standards thus reducing the existing risks.

2.6.5 Socio-political risks

The concept of socio-political risk refers to the potential for political factors to have adverse effects on various aspects of society, including economic, social, and cultural dimensions. One of the primary factors to consider is socio-political risk, which encompasses various elements, including the stability of a country, regional stability, political stability, governmental stability, and the extent of corruption within the government (Singh, Singh & Ahuja, 2011:16). The presence of regional political risk has the potential to impact the overall political risk of a country, even in cases when a buyer is engaged in economic activities with a supplier situated in a reasonably stable country within an unstable region.

Socio-political risk refers to the potential hazards and uncertainties arising from the interaction between social and political factors within a given context. When confronted with changes in the regulatory landscape due to shifts in government or heightened recognition of social inequalities, numerous established institutions encounter challenges in their capacity to adjust (Mani, Delgado, Hazen, & Patel, 2017:87). The political dysfunction seen in Lesotho during the formation of the inaugural coalition administration in 2012 can potentially contribute to political risks within the MCC. In Lesotho, for instance, uncertainties in political settings during the formulation of coalitions affected the acquisition of essential supplies, which impacted infrastructural development projects and strained suppliers (Kabi et al., 2014). Thus, this illustrates how government instability results in internal inefficiencies within municipalities.

MCC faces considerable socio-political risks because Lesotho operates under an unstable political environment. When government coalitions shift resources can be delayed through which procurement activities may be disrupted resulting in delays for infrastructure projects and service disruptions. The MCC faces delayed essential supply procurement during periods of political transition because it affects essential

public services. MCC needs to create emergency procedures for addressing political instability alongside improved relationships with interested groups for minimizing the negative effects of unstable political conditions.

2.6.6 Project institution risks

These are generally a result of not having the right people or equipment in the right place at the right time. The MCC might also consider this a planning risk. The risk is associated with the project institution (Achmadi & Mansur, 2018:10). These occurrences typically arise from a lack of appropriate personnel or equipment being present in the correct location and timeframe. The construction project at the Mpilo Boulevard intersection has been facing delays for quite some time now. There is a concern that it may encounter issues due to a lack of manpower and equipment at the required site within the specified timeframe (Mohau, 2022). This risk is attributed to shortcomings in the planning phase, which could lead to delays, inefficiencies, and possible compromises during project implementation.

MCC faces project institution risks when insufficient manpower and inappropriate equipment distribution results in time delays. For example, the delayed completion of the Mpilo Boulevard intersection project highlights planning deficiencies within MCC. The risks affect project efficiency and create challenges to the planned outcomes. Before starting new projects MCC needs to perform detailed feasibility studies to develop better planning processes and ensure proper resources are available including equipment and qualified staff.

2.6.7 Human behaviour risks

The topic of concern is the risk associated with human conduct. Unsurprisingly, the assessment of human behaviour hazards poses considerable challenges. Occasionally, the progress or execution of a project or activity may face potential jeopardy as a result of an individual being ill or sustaining an injury, or due to the departure of essential workers (Froggatt & Quiggin, 2018). Occasionally, it could be attributed to a lack of discernment or suboptimal decision-making.

Furthermore, it is imperative that risk assessment encompasses the identification of internal risks, which are associated with the firm's own operations, as well as external risks, which pertain to conditions beyond the institution, including market factors, the political climate, the regulatory environment, economic circumstances, and so forth (Wang, 2020). Internal risks refer to dangers that an individual or an institution possesses the ability to control or exert influence on the processes, operations, or decisions (Byoun, Kim & Yoo, 2013:28). The elements encompassed within this category consist of estimations of expenses, allocations of personnel, deviations from planned timelines, and the configuration of the final product.

External risks refer to hazards that are beyond the control or influence of a contract manager (Baker, Ponniah & Smith, 1999:65). External risks encompass several factors that have the potential to impact financial contracts, such as governmental actions pertaining to taxation, potential delays that may influence building contracts, and fluctuations in currency rates that could affect the value of international contracts.

The human behaviour risks at MCC stem from inefficient staff operations together with delayed decision-making and elevated employee turnover. Supply chain activities face interruptions when departments fail to coordinate properly, or essential personnel cannot participate in crucial decision-making processes. MCC needs to establish training programs which will improve inter-departmental coordination and establish robust support systems to eliminate potential risks.

2.6.8 Sourcing risks

The third overarching category of supply base risk can be most accurately characterized as sourcing risk. There exists a significant association between extended supply pipelines and heightened vulnerability to risk within global supply networks. It is imperative for the purchaser to assess the likelihood of supply disruption within these intricate supply chains and establish a supply network that incorporates redundancy and flexibility to effectively manage any disruptions that may arise (Yaakub & Mustafa, 2015:34). The degree of rivalry among suppliers in the supply market will also influence the extent of risk exposure. In situations when the number of suppliers is limited or when there is substantial switching costs involved, there exists an elevated chance of being subjected to supplier dominance. This occurs when a

supplier comprehends the challenges or expenses that a customer would face if they were to switch to an alternative supplier (Yaakub & Mustafa, 2015:35).

The coordination of stocks and projections becomes increasingly challenging as the supply chain becomes longer and more intricate. Language, communication, and time differences present significant challenges in the context of a global supply chain. For the MCC to provide services and work with foreign partners, effective communication is crucial. Communicating effectively can present difficulties even when individuals share a common language but possess distinct cultural backgrounds and opinions. Language difficulties may arise due to Lesotho's various official languages, but they must be overcome to guarantee effective communication and understanding. Inefficiencies and delays can result from poor communication or a lack of efficient channels. Furthermore, establishing solid connections and working together requires taking cultural origins and viewpoints into account. Enhancing communication and improving service delivery outcomes are achieved through acknowledging and honouring diverse norms and values (Nguyen, Onofrei, & Truong 2020:265).

Sourcing risks at MCC arise from limited supplier options and challenges in managing complex supply chains. For example, dependence on a few suppliers increases the council's vulnerability to disruptions, while poor communication with international suppliers may lead to delays in acquiring essential materials. MCC must diversify its supplier base and establish strong communication channels to ensure resilience and flexibility in its supply chain operations

2.7 The process of supply chain risk management

According to Zhi (1995), Ho, Zheng, Yildiz, and Talluri (2015) a systematic approach to risk management is categorized into distinct stages including risk identification and classification, risk assessment, and risk response. The discussion on these is provided in the subsequent sections. MCC depends on supply chain risk management for sustaining operational efficiency and delivering effective services to communities. The council needs an organized procedure to both anticipate, evaluate, and solve supply chain risks. The systematic approach helps effectively manage SCM risks which reduces all potential operational disruptions.

2.7.1 Risk identification and classification

The identification of risks holds paramount significance in the development of a project risk management plan as it aims at discerning the origins and categories of hazards linked to the specific project being evaluated (Gupta, 2014:15). Risk identification involves the acknowledgement of prospective risk event circumstances within the project and the elucidation of risk obligations. On the other hand, classification refers to the ability to demarcate risks into groups such as strategic, business, and operational risks (Wang & Chou, 2003:38). The identification of risks is of utmost importance as it serves as the foundation for the analysis and control of any risk management initiative. Business interruptions frequently arise within the corporate value chain, namely at connections between discrete functional units within a broader operational system.

The assessment of how internal processing circumstances affect the generation of cash flow, particularly in terms of operating expenses and sales income, can provide a significant foundation for understanding vulnerable business operations and identifying areas for improvement (Gurtu & Johny, 2021:10). The facilitation of supply chain risk detection can be enhanced by the utilization of a standardized classification system, which simplifies the process of comparing and conveying information regarding significant vulnerabilities. Risk identification plays a pivotal role in the operations of MCC because it reveals potential weaknesses such as budget deficiencies, legal liabilities, and project delays. For instance, the council may encounter risks due to its dependency on outdated procurement methods, which create inefficiencies in service delivery. Therefore, MCC needs to categorize these risks through classification methods to identify the most important points, then direct risk mitigation strategies towards strategic operational and compliance risks which impact its ongoing operations.

2.7.2 Risk assessment

The second step consists of assessment/analysis and evaluation of the risks to develop a risk response strategy (Project Management Institute, 2013). Qualitative risk analysis is the process of assessing the impact and likelihood of identified risks. This process prioritizes risks according to their potential effect on project objectives. The

implementation of structured measurement procedures can assist managers in making formal judgements regarding the magnitude of detected risks. This is achieved by establishing standardized risk metrics, facilitating the consolidation of risk exposure, and establishing specific risk thresholds (Ciccullo, Caridi & Pero, 2013:25). This work is a significant challenge due to either the unavailability of data or reliance on limiting assumptions for risk metrics. In these exercises, it is important not to disregard judgement in favour of relying solely on numerical data. It is advisable to seek the perspectives of seasoned professionals, particularly when considering the assumptions behind produced models and the interpretation of their outputs (El Ayoubi & Radmehr, 2023).

MCC needs to assess operational risks by determining both probability and impact levels affecting processes, like delayed project schedules or financial budget deficits. Without data-driven tools to assess risks, services which are critical to operations become more vulnerable to disruptions. MCC needs to use both qualitative and quantitative risk assessment methods to determine precise potential effects on supply chain activities accurately.

2.7.2.1 Qualitative risk analysis

Qualitative risk analysis is the process of assessing the impact and likelihood of identified risks using inputs such as institutional process assets, project scope statement, risk management plan, and risk register (Payne & Peters, 2004). The levels of probability and impact are assessed through meetings and interviews; all the details are documented, and the risks are rated according to the definitions in the risk management plan. A probability-impact risk rating matrix may be constructed that assigns risk ratings such as low, moderate, and high to risks by combining the probability and impact scales (PMI, 2013).

2.7.2.2 Quantitative risk analysis

Quantitative risk analysis is the process of analysing numerically the probability of each risk and its consequences on institutional objectives, as well as the extent of overall institutional risk. Quantitative methods employ one or more mathematical models that rely on historical data and/or causal variables to analyse risk (Ceryno *et al.*, 2013:11). Some commonly used quantitative risk analysis techniques used in

supply chain and procurement management include risk-adjusted discount rate and statistical methods such as subjective probability, decision analysis, sensitivity analysis, and Monte Carlo simulation (Akintoye & MacLeod, 1997:29). Monte Carlo simulation is a technique based on the repeated generation of one or more risk factors that affect a project's outcome and analysing the level of risk involved in the project when different factors incorporated in the model change (Ragsdale, 2011:25).

Additionally, Zhi (1995:37) noted that risk analysis can be broken down into two main criteria: the probability that indicates the possibility of an undesirable occurrence and the impact that the undesirable occurrence has on the project under consideration.

In analysing financial risks, the risk-adjusted discounted rate is the interest rate adjusted for risk, and the discount rate is the interest rate or rate of return on an investment or project. The risk-free rate of return is the rate investors would require if there were absolutely no risk or inflation (Singh *et al.*, 2011:14). This risk-free rate of return is adjusted by adding an inflation premium and a risk premium including a country risk premium depending on the type of investment and location of the project, to get the risk-adjusted discount rate (Ross *et al.*, 2003:26). Quantitative methods are mostly statistical in nature, and the use of subjective probabilities is often required. Subjective probability is the least formal method of developing probabilities that relies on personal judgement by staff members to estimate probabilities (Keller & Warrack, 2003:32).

The probabilities of risky events are estimated by project staff based on their experience and personal judgment. Additionally, decision analysis involves a logical and quantitative analysis of all factors and possibilities that can influence a decision problem and assist in arriving at an appropriate action to solve the problem. It is based on the decision-maker's subjective or personal preferences and perceptions regarding the evaluation of the probabilities to be used in a decision framework (Teller, Kock & Germünden, 2014:19). Such probabilities express the strength of the decision-maker's belief regarding the uncertainties that are involved when there is little or no direct information available (Keller & Warrack, 2003:13). Decision analysis employs decision trees, expected monetary value (EMV) criterion, and probability theory to make decisions under conditions of risk and uncertainty and can be very useful in any project risk analysis (Valsamakis *et al.*, 2013:17).

Furthermore, sensitivity analysis helps to answer several questions about the optimal solution after solving a decision problem, such as a linear programming model. Sensitivity analysis can help in analysing the level of risk involved in the project when different factors incorporated into the model change (Ragsdale, 2011). Lastly, Monte Carlo Simulation is a technique based on the repeated generation of one or more risk factors that affect a project's outcome and analyses the level of risk involved in the project when different factors incorporated into the model change (Ragsdale, 2011:25).

2.7.3 Risk response

The third step is to put in place an appropriate method to treat the risks. At this step, the management team should decide and formulate risk treatment strategies or mitigation measures (Wang *et al.*, 2004:33). According to Lynch (2004), the risk response is the process of developing options and determining actions to enhance opportunities and reduce threats to the project's objectives by employing appropriate methods. Risk response methods include "avoidance, transference, mitigation, and acceptance" (Lynch 2004). However, these strategies were found to be slightly different from the risk response methods adopted by Baker *et al.* (1999:35), who defined four possible techniques: risk elimination, risk transfer, risk retention, and risk reduction. After the identification and analysis of risks, it is crucial to assess them by considering their likelihood of occurrence and determining their potential economic consequences.

The effectiveness of this approach requires the use of objective evaluation criteria (Childerhouse *et al.*, 2022:11). The potential outcome must be assessed in conjunction with the corporate aims and objectives. Through active participation in this procedure, the institution can determine the most significant potential consequences that align with its mission and assess the need for adjustments to minimize excessive exposure. This will assist the MCC in focusing its attention on the primary hazards necessitating effective management (Kabus *et al.*, 2020:17). Consequently, corporate management has the capacity to exercise decision-making authority pertaining to risk management at the institutional level, opting to either evade, retain, mitigate, transfer, or capitalize

on potential perils. This methodology enables a thorough assessment of risks, as opposed to rendering judgement in isolation or based on a restricted scope.

MCC must develop suitable response strategies to successfully handle supply chain risks. Through supplier diversity practices, the council reduces supply chain risks while better budgetary control strategies lower financial risks. MCC needs to develop avoidance and mitigation practices combined with risk-sharing solutions to successfully deal with its unique supply chain challenges.

2.8 Risk monitoring and control

Supply chain risk is monitored continuously in order to identify, analyse and respond to the different types of risks that may surface in the system (Ciccullo *et al.*, 2013:11). This is an important step because some risk factors may become less important within the supply chain while new risk factors may emerge as the business cycle of the country changes. According to section 23 of the Local Government Act 1997 of Lesotho, every meeting of a standing committee, a special committee or a joint committee shall be held at the office of the councillor at the MCC offices, and any such committee shall at any such meeting have access to the books, deeds, contracts, accounts, vouchers, and other documents and papers of the council, as the case may be. This includes monitoring risks that can affect the supply chain in the municipality.

As a result, MCC needs an ongoing supply chain risk monitoring with effective control systems to detect emerging risks as well as manage current risks properly. The lack of proactive monitoring mechanisms often leads to delays in addressing risks, further exacerbating operational challenges. By leveraging risk monitoring tools and engaging all departments, MCC can establish robust controls that enhance accountability and minimize disruptions.

2.8.1 Types of strategic and supply chain control

In today's fast-paced and competitive environment, institutions must strive to enhance their competitive advantage and streamline their operations, therefore the implementation of effective controls becomes paramount. There are diverse strategies utilized by institutions to ensure success in today's dynamic marketplace and to

uncover various supply chain control mechanisms. MCC can improve operational efficiency through the implementation of strategic and supply chain controls by creating systems to monitor and regulate supply chain management activities. These control measures would enable the council to adapt to changes while maintaining essential services to communities.

2.8.1.1 Premise control

Premise control is a supply chain control whereby every strategic approach is founded upon certain planning assumptions and forecasts regarding alterations and circumstances in the environment. Premise control is a systematic and continuous process aimed at verifying the ongoing validity of the foundational premises upon which a strategy is based (El Ayoubi & Radmehr, 2023:18). If a planning premise becomes invalid, it may be necessary to modify or adapt the strategy to align with the evolving circumstances. In the context of MCC, the premise control constitutes an ongoing assessment and validation of fundamental assumptions underlying the supply chain management practices within the council. This ensures that adjustments can be made to address changes in the procurement environment, such as supplier availability or shifts in community needs, to align with its objectives.

2.8.1.2 Strategic surveillance

This form of strategic control is specifically designed to monitor a diverse array of internal and external events that have the potential to impact the trajectory of an institution's existing strategy. A range of sources can be utilized to gather pertinent information that may impact the strategic decisions of an institution. These sources include trade periodicals, academic journals, conferences, expert consultations, observations, and online resources (Rêgo, Jayantilal, Ferreira, & Carayannis, 2021:3198). At MCC, the strategic surveillance requires monitoring both internal events and external developments that have the potential to affect the supply chain operations. Through multiple information sources such as government directives and relevant stakeholder feedback, MCC can anticipate emerging risks as well as opportunities affecting SCM operations.

2.8.1.3 Special alert control

The managerial environment is frequently characterized by unanticipated occurrences (Deutsch *et al.*, 2013:21). Therefore, it may be important to undertake a thorough and expeditious evaluation of the institution's strategy in response to the sudden and unexpected emergence of an incident. At MCC, special alert control can play a crucial role to evaluate and take actions in response to unexpected incidents including sudden supplier interruptions and modifications in regulatory framework. Through established response systems, MCC can minimize the effects of unexpected events on its service delivery capabilities.

2.8.1.4 Implementation control

Strategic control is implemented by the execution of a selected strategy, involving a range of activities, initiatives, and programs that take place over a specific time period (Hillman & Keltz, 2007:20). The selected approach is initially monitored, and subsequently different milestones are assessed to determine the outcome and impact. Through implementation control at MCC supply chain strategies are effectively carried out by tracking progress while assessing results at specific points throughout the operation. This can help MCC to identify areas that need improvement and ensures that the council's supply chain activities align with this broader operational goals.

2.9 The impact of supply chain risks on institutional performance

According to Zsidisin and Henke (2019), any risks within the supply chain can significantly compromise institutional performance. One consequence of supply chain risks is increased operational costs. Risks in the supply chain affect operational efficiency, resulting in operational disruptions and delays. The costs associated with supply chain disruptions and delays include expediting costs. Expediting costs are premium costs related to the acquisition and transportation of raw materials, goods, or services with the aim of accelerating the delivery of such raw materials, goods, or services. The other costs associated with disruptions and delays due to supply chain risks involve overtime labour costs and supplier switching costs. Overtime labour costs include an additional cost of labour per hour over normal working hours incurred to meet service delivery deadlines. On the other hand, supplier switching costs involve costs associated with the need to quickly source raw materials from alternative

suppliers, which often attract premium prices (Choi, Rogers, & Vakil, 2020). In general, expediting costs, either in the form of overtime labour costs or supplier switching costs often inflate public sector operational costs and consequently erode its budget, thus negatively impacting its performance (Ivanov, 2021).

Similarly, supply chain risks are renowned for leading to product or service delays. Service delivery is a key component in the public sector. Therefore, delays caused by supply chain risks can result in unmet public needs, hence public dissatisfaction. For instance, given the context of local government, delays in the procurement of materials required for road maintenance can lead to dissatisfaction related to a lack of transportation safety and mobility of citizens. Also, disruptions in the procurement processes for new waste management contractors can impose sanitation issues and public health concerns (Shekarian & Parast, 2020). As such, Tang (2006) proclaims that these incidents trigger low public confidence and support for the public sector, thereby affecting long-term public trust and leading to significant reputational harm for local authorities.

Lastly, supply chain risks can have unintended consequences, such as lower levels of employee motivation, employee dissatisfaction, and reduced morale. This is because, during the supply chain disruption caused by supply chain risks, employees experience increased work pressure, which leads to higher levels of employee burnout and stress. This ultimately results in high turnover rates or intentions, which negatively affect employee productivity (Azadegan & Jayaram, 2018). Therefore, lower employee productivity levels significantly affect overall organizational performance. Similarly, because of continuous supply chain disruptions, organizational culture suffers as well, negatively affecting the overall organizational innovativeness and performance. Considering the above, this study seeks to assess the potential influence of risks on SCM practices in MCC.

2.10. Chapter summary

This chapter presented the theoretical basis that supports the objectives of the study as articulated in Chapter 1. The theoretical framework included systems theory and institutional resilience theory to appreciate the importance of each department at the MCC and its influence in shifting performance towards achieving the intended

objectives. Based on systems theory, any potential risks that are likely to impact the supply chain are likely to have ripple effects on the operations of the entire council, leading to poor service delivery. On the other hand, the theory of institutional resilience guided the understanding of the supply chain risk mitigation strategies deployed by the council during uncertain times. Finally, the chapter reviewed the works of other researchers pertaining to the potential risks that affect the SCM practices and the mitigation strategies. Therefore, the subsequent chapter provides an account of the research methodologies implemented by the study towards achieving the objectives.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

The preceding chapter provided a review of the literature pertaining to the potential risks that could affect SCM within the MCC. This chapter derives guidance from the preceding chapters, serving as the fundamental basis for conducting research. The primary objective of this chapter is to detail the steps and procedures followed from data collection to data analysis. The term "research methodology" pertains to the choices made over the course of a research project, which are influenced by certain factors that are distinct to the study being conducted (Sileyew, 2020). As a result, this chapter provides a detailed discussion on the underlying philosophical stance that supports the objective of determining the potential risks that affect SCM at the MCC and justifies the reasons behind the choice. Guided by the philosophical stance, the chapter further presents the discussion on the appropriate research design. Additionally, the chapter elaborates on the research approach, sampling and sampling techniques, methods of data collection, and the suitable analysis techniques. Finally, the chapter delves into the ethical considerations that guided the researcher from the data collection phase to the analysis stage to ensure that valid and reliable results are obtained.

3.2 Research philosophy

It is important to understand the significance of research philosophy, which is defined as the views and beliefs on what constitutes knowledge in research (Rajasekar, Philominathan, & Chinnathambi, 2022:13). Additionally, research philosophy is the growth of a research hypothesis, its information, and nature (Rajasekar et al., 2022:13). In this regard, the interpretivism philosophy is seen as a tentative statement of accepting other people's interpretations, redefining laws of nature. It is based on existing laws while simultaneously looking at the information and experiences that participants have gained about the risks of the supply chain in Lesotho's public sector, and specifically in the MCC. Therefore, the interpretivist philosophy guided the researcher to gather information about supply chain risks and their respective mitigation strategies to address potential risks that affect the efficiency of the council's supply chain.

3.2.1 Interpretivism philosophy

This research has adopted the interpretivism philosophy. In this context, this philosophy believes that truth and knowledge are not objective but subjective, shaped by lived experiences and real-life encounters influenced by history and culture as opposed to laws of nature known as absolute truths. Interpretivism encompasses theoretical frameworks that prioritise the inherent significance of individuals' identities and involvement within the realms of social and cultural existence (Elster, 2007; Walsham, 1995:386). This indicates that the research methods discussed in this context adhere to the perspective that individuals' understanding of reality is shaped by social constructs created by human beings. Consequently, these methods explicitly exclude the approaches employed in the natural sciences (Eliaeson, 2002:13; McIntosh, 1997:25).

The origins of this concept can be traced back to the philosophical traditions of hermeneutics and phenomenology, with Max Weber, a prominent German sociologist, widely acknowledged as its primary influence (Taherdoost, 2020:10). Interpretivists seek to ascertain the underlying meanings and motivations that drive individuals' activities, such as their behaviour and interactions within society and culture (Whitley, 1984:44). In a similar vein, the understanding of cultures can be achieved through the examination of individuals' concepts, cognitive processes, and the significance they attach to certain aspects (Boas, 2022:55). The current anthropological paradigm of cultural research through human behaviours was established by Boas (2022:55), giving rise to this school of thought. Therefore, interpretivism was used to identify and analyse the potential risks that influence SCM in the MCC.

3.3 Research approach

In the realm of research methodologies, there are two distinct approaches that reflect different philosophies or paradigms. These two approaches include a qualitative and quantitative research approach (Cooper & Schindler, 2014). Each approach is characterized by a unique set of principles and techniques. The qualitative approach to research fundamentally differs from quantitative as it seeks to delve deep into the subject matter using non-numeric data (Cooper & Schindler, 2014). Therefore, the qualitative approach, as a form of inquiry, leverages textual, visual, or narrative

information, thereby necessitating the understanding of the underlying phenomena through the exploration of a participant's views, perceptions, and experiences (Ahmad, Wasim, Irfan, Gogoi, Srivastava, & Farheen, 2018). Conversely, the quantitative approach to research relies on numerical data, which is collected using structured surveys, measurements, or experiments. Thus, the thrust of the quantitative approach rests in quantifying the relationships, patterns, and variables in the standardised manner (Ahmad et al., 2018). Hence, the quantitative approach to data analysis seeks statistical generalizability as it is characterized by larger sample sizes for robustness.

Each approach to research design bears distinct data collection methods. The qualitative research approach uses data collection methods such as focus groups, interviews, observations, and content analysis (Farghaly, 2018). The idea is to capture subjective experiences and contextual understanding of the subject matter. On the other hand, the quantitative research approach utilizes standardized approaches such as surveys, structured observations, and experiments to collect quantifiable data for statistical analysis (Farghaly, 2018). Therefore, to analyse qualitative data, researchers often rely on in-depth thematic analysis, coding, and interpretation. These analysis techniques are instrumental in identifying data patterns and themes within the rich and contextually embedded data (Gubrium, Holstein &, Buckholdt, 1994). On the contrary, quantitative data is analysed using approaches such as regression and correlation analysis, with the primary focus of identifying statistically significant patterns and relationships.

Based on the contrast between qualitative and quantitative research design, this study adopts a qualitative approach, and several considerations come to the fore in justifying the choice behind the qualitative approach. Firstly, the research questions underlying the study necessitate the exploration of potential supply chain risks that affect the supply chain and service delivery, as well as the strategies for mitigating risks in SCM in the MCC. Therefore, the research question prioritizes understanding how these risks affect the supply chain and service delivery rather than quantifying these relationships. Secondly, the aim is to understand the participants' experiences within the context of the MCC. Therefore, by leveraging qualitative design, the study aligns with the goals of uncovering unique insights, thus capturing the depth of human

experiences, and offering a comprehensive understanding of the research objectives and questions.

3.4 Research design

Research design serves as the foundation of any research study by setting up essential planning steps to produce trustworthy outcomes. It requires researchers to develop their systematic plan, identify ideal methods to carry out the study, and deal with the challenges that emanate throughout the study (Bryman & Bell, 2011). As this study follows a qualitative approach, there are several research designs associated with the qualitative approach to research, including case study design, phenomenological design, grounded theory design, ethnographic design, and narrative inquiry design. Each of the qualitative research designs offers a distinct methodology based on the research objectives (Luthfiandana Santioso, Febrian, Soehaditama, & Sani, 2024).

The case study research design investigates and analyses a single case inside its natural setting to provide an understanding of a complex challenge within that specific setting (Muzari, Shava, and Shonhiwa, 2022). According to Muzari et al., (2022), despite facing challenges about its scientific quality, the case study research design proves invaluable as it serves multiple academic subjects effectively. It enables detailed examination of bounded events and setting to insights into distinctive contexts (Bryman & Bell, 2011). On the other hand, phenomenological research design studies the basic human aspects of experiences about topics such as grief and joy (Saunders et al., 2019). Through individual interviews, researchers aim to understand the personal meanings people associate with their experiences. Therefore, the investigations depend on participant's real-life experiences to recognize the framework and emotions that form their viewpoint of the topic (Saunders et al., 2019).

Grounded theory requires researchers to build factual theory through participant data while studying their activities and interactions. It creates new theories from scratch as it adjusts quickly to new findings and insights (Luthfiandana et al., 2024). It works through a process of repeated data analysis to build theories directly from what participants share through their lived experiences (Zamani & Babaei, 2020). On the contrary, ethnographic research design allows researchers to immerse themselves in

cultural spaces or contexts to analyse the embedded activities, interactions, and behaviours of a specific social group (Salter & Matlu, 2013). It examines shared social habits and beliefs within one united group while offering thorough explanations of how members live and understand their surroundings. Through ethnographic research design, researchers can discover the specific group behaviours and the norms and rules that shape them (Gertner, Franklin, Roth, Cruden, Haley, Finley, Hamilton, Palinkas, & Powell, 2021).

Finally, narrative research design uses individual stories to find meaning within personal and societal experiences. Researchers who study narratives gain access to profound evaluations of personal experiences which leads to better comprehension of complicated conditions (Barkhuizen, Benson, & Chik, 2014). According to Davis and Mohajan (2018), narrative inquiry bases its approach on understanding how personal experiences form complex links with each other. It incorporates ontological and epistemological methodologies, thus, shaping how researchers interact with the underlying study participants as well as how they interpret the embedded narratives (Chand, 2024). Narrative research design involves the formulation of research questions, data collection through interviews or observations, and implementing thematic analysis for interpretation of the study findings (Chand, 2024).

Based on the methodology outlined in this chapter, this study adopts a phenomenological research design. This is because the emphasis of the study is on the collection of data related to the lived experiences of the SCM risks and their potential impact on the operations of MCC, thus aligns with phenomenological stance which seeks to interpret one's lived experiences (Saunders et al., 2019). Also, the methodology makes use of the interviews as the primary data collection instrument. Interviews are central to phenomenological design as they allow participants to express their subjective views, enabling the researcher to gather insights into their experiences with supply chain risks (Saunders et al., 2019). Lastly, the adoption of an inductive approach as well as thematic analysis focuses on subjective meanings, hence permits the researcher to understand the essence of human experiences within MCC regarding SCM risks and their potential impact on MCC's operations (Saunders et al., 2019).

3.5 Population, sampling techniques and sample size

The target population refers to the complete group of individuals who satisfy the specified criteria. The target population in a study refers to the fundamental and essential elements, including human beings, events, and items, that are combined to form a representative sample (Bryman & Bell, 2011). A population refers to the complete set of individuals and objects that a researcher chooses to represent to derive inferences and draw conclusions that contribute to the development of successful solutions to a research topic. It can also be characterized as the comprehensive assemblage of essential resources required for the provision of information pertaining to a certain study (Tombs & Pugsley, 2020:15). For this study, the population refers to the total number of employees at the MCC. According to the MCC human resources records, there are 32 employees at the MCC, encompassing various roles within the institution such as management, workers committee members, employees, and councillors. Hence, the population of this study constitutes 32 employees from MCC.

3.5.1 Sample size

The sample size in qualitative research studies is subjective and requires no fixed rules. As such, researchers encounter the challenge of determining the appropriate sample size for robustness (Mocanasu, 2020). Bekele and Yohanes (2022) consider a sample between 20 and 60 to be adequate for the study, while Young and Casey (2018) theorize that a sample of 6 to 9, 4 to 6, and 7 to 10 is robust enough for code coverage, partial theme representation, and substantial theme completion, respectively. However, most of the studies, Seetharaman (2016); Onwuegbuuzie & Leech (2005), converge on the idea that the adequate sample size ranges between 10 and 20, with Boddy (2016) specifically stressing that for qualitative studies, data saturation is achieved with a sample size of 12. Therefore, based on the views of Boddy (2016), this study adopted a sample of 12 employees out of 32 employees at the MCC, as it is believed that data saturation will be achieved.

The study further ensured the representativeness of the study sample by selecting the target sample from several departments within the municipality, including Finance, Planning and Development, Engineering, Administration, Management, and SCM, to

get the general overview of the potential risks that influence supply chain management in the MCC. Additionally, six directors from the management department will be interviewed individually. The directors constituted half of the respondents, as they are exposed to strategic information that can help evaluate the potential supply chain risks. For a proportionate sample, the study relied on Bowley’s (1926) proportionate allocation technique given as follows:

Bowley’s Proportionate Sample Size Formula

$$n_h = n * N_h / N$$

Where:

n = sample size estimate

n_h = number of respondents in each subgroup

N = Proportional size

N_h = number of units allocated to each subgroup

Using Bowley’s proportionate sample size formula, three employees each from the Administration Department and Supply Chain Policy Department, one employee each from the Finance Department and Planning and Development Department, and two employees each from the Engineering Department and from top management were chosen. The reason behind drawing a sample of 12 respondents was to ensure that the size of the sample is sufficient and representative of the population to ensure accuracy and reduce sampling error, as it is emphasized that larger samples result in fewer marginal errors (Saunders, Lewis & Thornhill, 2015:13).

Table 3.1: Sample frame

Department	N _h	N _h
Administration	7	3
Finance	3	1
Supply Chain Policy Department	7	3
Planning and Development	3	1
Engineering Department	6	2
Directors	6	2
Total	32	12

Source: Computed by the researcher (2023)

3.5.2 Recruitment strategy of study participants

Recruiting and retaining study participants play a role in ensuring the success of a research project. To efficiently carry out this task the recruitment process involved identifying participants and sharing details with them to gauge their interest in taking part (Patel, Doku & Tennakoon, 2003). Recruitment can be described as an exchange between researchers and potential volunteers that occurs prior to obtaining consent (Patel *et al.*, 2003). This process included identifying individuals, inviting them to participate, and providing study information to assess their willingness to join (Patel *et al.*, 2003). The preliminary approval from the MCC Human Resources Department gave the researcher the green light to proceed with the research, which is attached as "Annexure B." For recruitment, the researcher sent e-mails to potential MCC staff members through the MCC employee database, introducing herself and the objectives of the study. The e-mail further requested the participants to participate in this study, to which they agreed; they indicated their availability, most specifically during lunch time, so that the interview would not disrupt their daily work. For the convenience of the study participants, the interviews were held at the MCC, utilizing one of its boardrooms.

The researcher works within the Ministry of Local Government, Chieftainship, Home Affairs, and Police, where the MCC serves as the government body. It should be noted that the study participants do not supervise the researcher, and *vice versa*, which helps minimize any conflicts of interest. However, participants received disclosure about the researcher's ties to the ministry to enable them to make informed decisions about their involvement. The potential participants were given all information, including details about any conflicts of interest, thus allowing them to provide consent after they understood the researcher's roles and study objectives. The recruitment process was transparent and unbiased, focusing on criteria related to the researcher's affiliation.

3.5.3 Sampling techniques

Sampling is a process whereby a portion of a larger group or population is chosen, serving as the foundation for making judgements or inferences about the entire group or population. In essence, it is the acquisition of data pertaining to a complete population through the examination of the respective subset (Bryman & Bell, 2011). In

most research studies and surveys, it is common practice to employ sampling techniques to develop generalizations or draw inferences about population parameters based on the collected sample data (Muzammil, Visva & Santiniketan, 2011:14). The census approach involves the comprehensive enumeration of all individuals and units within a population to obtain an accurate understanding of its size, whereas sampling is a method that involves the selection of a subset of the population in a manner that is representative of the entire population (Muzammil *et al.*, 2011:16). According to Creswell (2013:19), researchers typically derive inferences about extensive populations by utilizing a representative subset known as a sample. Therefore, based on the brief introduction to sampling techniques, the following section discusses the relevant sampling methods and techniques for this study.

3.5.3.1 Probability and non-probability sampling methods

There are two approaches to sampling, which are probability and non-probability sampling techniques. On the one hand, probability sampling is defined as sampling procedures that provide the opportunity to all research elements, ensuring that the research elements are provided with a chance of selection into the final sample (Saunders *et al.*, 2016). On the other hand, non-probability sampling refers to a technique employed to choose units from a population using a subjective approach, as opposed to a random one (Leedy & Ormrod, 2015:17). Non-probability sampling is a method that does not necessitate a comprehensive survey frame, making it a rapid, straightforward, and cost-effective approach for data acquisition. Therefore, this study employed a non-probability sampling technique in selecting the 12 study participants from the MCC. Most specifically, the study leveraged stratified random sampling as one sampling technique classified under non-probability sampling.

According to Bryman and Bell (2011), given the stratified random sampling technique, the researcher divides the population into smaller subgroups, called strata, based on specific characteristics and ultimately a random sample from each stratum. Thus, the sample selected from each stratum is chosen based on the proportion to its representation in the overall population. For this study, the population of 32 employees from MCC was divided into subgroups or strata based on their respective departments. After strata had been successfully created based on the departments, the proportionate sample was chosen from each stratum or department using Bowley's

proportionate sampling technique. Hence, the departments with a higher proportion of employees, such as the Administration and Supply Chain Policy Departments, were represented by a larger number of study participants relative to their counterparts.

3.6 Sources of data

Data serves as the fundamental basis for doing data analysis within the research process. Data refers to a compilation of disparate and unstructured facts and numerical values obtained from various origins (Presser *et al.*, 2004:13). The sources of data may vary depending on the specific research requirements. In this study, the researcher utilized both secondary and primary data. Secondary data refers to information derived from secondary sources, such as processed and published knowledge sources (Presser *et al.*, 2004:19). Literature encompasses a wide range of scholarly resources, such as textbooks, academic journals, research articles, print newspapers, and other online sources. The researcher utilized secondary sources to enhance understanding of the scholarly discourse surrounding the topic and the potential influence of risks on supply chain management practices. In addition, this study leveraged primary data to examine and redefine perceptions of unforeseen circumstances in the supply chain. Primary data refers to the information that is specifically relevant to the subject of study or data that is directly acquired from the field (Akaranga & Makau, 2016:8). The researcher utilized interviews as a method of primary data collection to gain a deeper understanding of individuals' viewpoints regarding supply chain risks that affect effective operations.

3.7 Data collection methods

The research adopted a qualitative data collection method. The qualitative method concentrated on gathering information from participant experiences, specifically through interviews. For a study to remain authentic, the data collected must be able to relate to the respondents' real-world experiences in the subject area (McLeod, 2013). Interviews were chosen by the researcher because, by using the participants' own words and emotions during interviews, researchers can obtain rich and thorough data that can reveal the participants' intentions, sentiments, and meanings (Rajasekar *et al.*, 2022). Therefore, interviews were used by the researcher to obtain participants' own words and emotions regarding supply chain risks and the impact they cause.

Secondly, interviews facilitate the development of rapport and trust between researchers and participants, which can improve the reliability and richness of the data. The interview schedule was designed in such a manner that it addressed five sections. Section 1 introduced the researcher and the objectives of the study. Section 2 contained questions related to risk assessment in SCM within the MCC. Section 3 contained questions that aided in discovering the risks on the supply chain. Section 4 gathered insights into the potential impact of these risks on supply chain performance. Lastly, Section 5 sought to understand the mitigation strategies for supply chain risks at the MCC. Therefore, the interviews, lasting an hour on average, were recorded using a tape recorder. These discussions took place in person at the council's boardroom in Maseru, Lesotho. Each participant was asked a total of 12 questions.

3.8 Data analysis

Based on the nature of qualitative research, qualitative studies are renowned for assuming an inductive approach. Thus, an inductive approach seeks to derive general conclusions from specific observations or data (Prosek & Gibson, 2021). Therefore, based on the underlying theory of a qualitative or inductive approach, the objective of the researcher is to understand and interpret the embedded meaning, context, and complexities of phenomena in contrast with quantifying them. As a result, the inductive approach is well suited for exploring and gaining insights into individual behaviours as well as their experiences (McGowan, Powell, & French, 2020). Relying on the discussions, this study assumed an inductive approach because the assumption was that the researcher could obtain participants' views, insights, and experiences through interviews. These views, insights, and experiences were then used to generate broader theories about the potential SCM risks that influence the supply chain and the overall service delivery at MCC.

Since the qualitative data collection assumed an inductive approach, thematic analysis was used to identify, analyse, and report on the themes or patterns observed from the data (Morgan, 2022). Normally, thematic analysis involves the analysis of the data obtained from interview transcripts, survey responses, or textual documents. As such, the thematic analysis technique allows the researcher to make sense of large volumes of qualitative data by identifying recurring themes, concepts, or patterns that emerge from the data (Kiger & Varpio, 2020). For this study, thematic analysis was considered

an appropriate technique as it seeks to analyse varying responses from employees at MCC regarding the potential supply chain risks that pose threats to the entire supply chain and the service delivery for MCC.

Drever (2003) proposes that the process of delivering unprocessed data for research inquiries consists of three phases. The initial phase involves data preparation, wherein the unprocessed data is structured and arranged to assist analysis. This involves copying the data and meticulously examining it to avoid any loss of information. It is crucial to organize data according to its qualities in order to ensure manageability and preserve the original information accurately. In summary, these processes guarantee the precise representation and analysis readiness of the data. In the second step, the prepared data is analysed by categorizing and reorganizing it to uncover patterns that are relevant to the study objectives (Drever, 2006). At this stage, the data is classified, encoded, and tallied according to the precise research issues being addressed. This procedure allows the researcher to monitor the origins of the materials, including the relevant participant and interview query, facilitating the identification and comprehension of the patterns arising from the data. In this phase, the researcher summarizes the results, highlighting how the semi-structured interview method was effective in collecting data. According to Drever (2006), the institution of the interview can be influenced by its structure based on the research questions asked at the beginning. However, as the study progresses, adjustments can be made to explore perspectives.

3.9 Reliability and validity

The reliability and validity of the study determine the overall quality of the study. This is because the study's validity and reliability determine how well the methods and techniques implemented in the study measure the underlying phenomena (Rose & Johnson, 2020). According to Sürücü and Maslakçı (2020), given the validity of the study, the researcher intends to assess the accuracy of the instrument in measuring what it intends to measure. Similarly, based on the views of Sürücü and Maslakçı (2020), the reliability of the study, on the other hand, seeks to measure the consistency of the measure and whether the measure will produce similar results in different situations, while holding other things constant. Thus, the reliability test is considered as a test for internal consistency. Both the validity and reliability of the study differ on

the grounds of the research approach adopted. While the findings are still termed validity and reliability in quantitative studies, in qualitative studies, they are referred to as trustworthiness (Rose & Johnson, 2020). Hence, the trustworthiness of the qualitative research study involves credibility, dependability, transferability, and confirmability (Moyo, 2018), and a brief discussion on these measures follows:

3.9.1 Credibility

The credibility of the study refers to the degree of accuracy of the findings and results of the study. That is, how truthful the findings and results reported in the study are. As such, credibility is considered one measure of internal validity. According to Nassaji (2020), credibility, or the accuracy of the findings and results of the study, stems from data handling processes and analysis to ensure that the findings and results reported in the study are a true reflection of the study participants' perceptions. Based on these viewpoints, it is argued that the credibility of the study is determined by the data collection procedures. This further extends to the inclusion-exclusion criteria for the respective study participants (Amin *et al.*, 2020). To ensure the credibility of the study, appropriate sampling measures and techniques were applied. Regarding inclusion-exclusion criteria, the study divided the study participants into strata based on their respective departments and chose the study participants randomly using Bowley's proportional sampling technique. This ensured that each department was represented in the study.

3.9.2 Dependability

Unlike credibility, dependability is one measure of reliability or internal consistency of the research study that ensures the research processes and procedures are consistent and provide stable results over time. The strength of the dependability measure is that it permits other researchers to deploy similar methods and procedures in other studies in the future, but under similar circumstances (Nassaji, 2020). To ensure dependability in this study, the study thoroughly articulated the appropriate research methodology followed by the researcher to arrive at the findings and results of this study. The articulated research steps and methods serve as an audit trail that allows other researchers to implement similar procedures in their studies in different contexts. Finally, the study flagged the embedded limitations of the study, which signal

potential biases and how the perspectives of the researcher might have influenced the outcome of the study (Amin *et al.*, 2020).

3.9.3 Transferability

In research, the concern is whether the findings and results of the study can be generalized to broader contexts. This is often referred to as external validity. Therefore, external validity relates to the extent to which the findings and results of the study can be inferred or generalized to other contexts and locations, as well as populations (Nassaji, 2020). Generally, qualitative studies differ from quantitative studies in terms of objectives. Unlike quantitative studies, qualitative studies do not aim at optimizing transferability or external validity. However, the extent of external validity in qualitative studies remains an important consideration (Moyo, 2018). Therefore, the objective of this study is to determine the potential supply chain risks and their likely influence on the embedded supply chain and service delivery at MCC. As such, the study does not seek to optimize transferability to the external context; however, the results and findings of this study, which constitute a sample of 12 employees at MCC, are still considered relevant for inferences to the entire local government environment in Lesotho.

3.9.4 Conformability

Conformability in qualitative research relates to the objectivity of the study. On the grounds of conformability, Armin *et al.* (2020) assert that the findings of the research study should be free from researcher bias. Researcher bias stresses the ability of the researcher to dictate or influence the findings and results of the study under consideration (Nassaji, 2020). As such, to uphold the principle of conformability, the researcher recorded the interviews to serve reference points when interpreting the results to ensure that the researcher's bias is minimized by constantly referring to the recorded audios of the interviews (Amin *et al.*, 2020).

3.10 Ethical considerations

Saunders *et al.* (2012:160) argue that within the research study or process, ethical issues often arise at any stage of the research, and they can directly affect the value

of the research. Therefore, the following should be treated with caution as they can jeopardize the value or integrity of the research.

- **Informed consent:** it is the obligation of the researcher to inform the participants about the purpose, methods, potential risks, and or benefits of a research study so that they can decide whether to continue or opt out of the research. To uphold the principle of informed consent, the researcher approached the potential study participants and explained the objectives of the study and subsequently invited the potential participants to partake in the study. Upon giving consent to participate, the participants were asked to fill out the participants' consent forms prior to participation in the study. This was to indicate that the participants had received sufficient information about the study; hence, based on the information they received, they gave consent to participate.
- **Anonymity:** Anonymity refers to the state of withdrawing from collecting information that can be used to trace back the study participants to the specific questionnaire. This includes refraining from collecting information such as participants' names, identification numbers, or insurance numbers. For this study, the names or any identifiable information of the study participants were replaced by pseudonyms or codes to reflect the personal information of the study participants.
- **Confidentiality:** Maintaining confidentiality is essential to safeguard participants from any potential harm that may impact them. In research ethics, confidentiality implies steps taken to ensure that third parties have limited access to participants' information or data. The study adopted a qualitative approach and sought to collect data through recorded interviews. Therefore, to ensure limited access to the digital recordings, the recordings will be stored on a password protected device whereby only the researcher has access to the password.
- **Conflict of interest:** The ethical consideration of conflict of interest relates to the situation where the researcher has competing interests, either financial, professional, or personal interests. In the context of this study, the researcher is an employee at the MCC, which poses challenges of conflicting interest. However, to mitigate the potential risk of conflict of interest, the researcher disclosed that she is an employee at the MCC in the study participants' recruitment form/note.
- **Risk and benefit analysis:** Before engaging participants in a research study, risks and benefits ought to be identified, assessed, and mitigated to avoid any harm to

the participants. The potential risks associated with this study include study participants' privacy concerns, which may lead to emotional harm. The privacy concerns may arise from disclosing sensitive information, resulting in emotional distress for the study participants and fear of negative consequences. However, to mitigate these risks, the study prioritized participants' anonymity and confidentiality. Despite these risks and their relevant mitigation strategies, the study presents potential benefits such as knowledge contribution to improving supply chains at the MCC to effectively discharge its mandate to safeguard the rights and well-being of the population around Maseru.

- Compliance with regulations: The research project was approved by the ethics committee of the University of the Free State before it was conducted. Researchers must seek approval first from the committee, adhere to any rules and regulations for research and acknowledge any works that are not their own to avoid plagiarism. The study was approved by the University of the Free State ethics committee, ethics clearance number: UFS-HSD2024/1482.

3.11 Chapter summary

The chapter provided an account of the methods and procedures followed in addressing the research objectives raised in Chapter 1. The research design, research tools, population, sample, sampling procedure, data collection and management protocols, data presentation and analysis procedures, and ethical considerations were all covered in this chapter. Combined, all the subsections discussed in this study constitute the overall research methodology for the study. An examination was conducted of the research instruments utilized in the study. It described methods for collecting data, such as interviews and focus groups, as useful tools for gathering information. This chapter concluded with a discussion of the results' presentation and analysis, along with the ethical issues that were considered while conducting the research. The presentation, analysis, and discussion of the results are the main topics of the following chapter.

CHAPTER 4: FINDINGS OF THE STUDY

4.1 Introduction

This chapter presents an analysis of the results obtained from the interviews conducted on the practices of supply chain management at the Maseru City Council. The chapter seeks to address each research objective, synthesizing data from interviews to explore the risks, challenges, and impacts observed in the context of MCC. The research focus is on the identification of risks associated with supply chain risk management and their impact, followed by an assessment of the measures applied to minimize these risks. It further explores the effectiveness of the measures taken to minimize these risks. Therefore, each section blends findings with participant quotations and then compares them with previous research findings to determine the similarities and differences.

4.2 The findings on the risks linked to supply chain management at MCC

In the assessment of risks in supply chain management within the MCC, several observations were made that helped to capture the dynamics of the institution and the key issues that prevent its optimal functioning.

Procurement delays were pointed out as the first significant risk by participants. Most of the participants pointed out that bureaucratic procedures act as a barrier to the timely acquisition of goods, with cascading effects on the project delivery schedule and business performance. For example, according to participant 1, "it is common to find that bureaucratic processes tend to slow down procurement, contributing to project delays." This was supported by participant 4, who said that problems with acquiring approvals might not only affect specific initiatives but also the council's ability to meet the community's needs in general. This type of procurement challenge can lead to stakeholder dissatisfaction and possible reputational loss for the council. These findings are in accordance with the literature which suggests that delays due to bureaucratic procurement structures are detrimental to supply chain efficiency (Ndunge & Mutembei, 2022).

Another significant risk associated with supply chain management is the lack of adequate supply chain infrastructure. Thus, the study participants acknowledged that

the scarcity of both transport and storage infrastructure directly affects supply chain performance. For instance, participant 6 noted transport difficulties are caused by poor road infrastructure, especially in terrible weather conditions, leads to disruptions within the supply chain. In addition, inventory management is further exacerbated by inadequate storage facilities, as explained by participant 9, who attests that, "...in the absence of proper storage, we usually encounter inventory management problems resulting in losses and shortages." Such shortcomings in infrastructure affect the timely and efficient service delivery by the council. This finding is consistent with other studies, which show that quality infrastructure is critical for supply chain management (Albalushi, Mishra, & Abebe, 2023; AzizZadeh, Balouei Jamkhaneh, & Ghorbanpour, 2023).

Supplier reliability was also identified as a common theme among the study participants. Numerous issues related to the stability and quality of the suppliers were mentioned. Participant 3 also stated, "If our suppliers delay in delivering our order, we are forced to look for other suppliers, and that can be expensive." This inconsistency not only affects the operational flow of the processes but also puts pressure on the council to maintain relationships with stakeholders. Hence, these fluctuations in supplier reliability point to a major risk factor within the supply chain that needs to be addressed to facilitate supply chain processes. This observation is in line with the literature, which underscores the importance of supplier reliability for sustained supply chain management (Lin & Lin, 2024; Jayatilleka, 2024).

Another important risk identified is the effect of political instability on supply chain management processes. Participants expressed worry over how changes in government policies could affect the supply chain dynamics. In reference to that, participant 5 further explained that "...as demonstrated by recent changes in government policies, our supply chain can change overnight and that makes planning challenging." This unpredictability shows the complexity that political factors bring into the supply chain. These findings align with the literature on the negative effects of political instability on supply chain practices (Jadallah, & Feyza, 2020; Mwangi, 2024).

In addition, inflationary risks as well as currency fluctuations were considered a significant threat to supply chain management at MCC. Participant 7 asserts that, "...sometimes, due to inflation, costs of material increase which affect our budgets and

thus puts us in a rather unpleasant situation as we have to set our priorities.” Such economic risks require prudent capital budgeting to curb their adverse effects, hence explaining the need for proper risk management. This assertion corresponds with literature stating that economic risks have a strong negative bearing on the efficiency and effectiveness of the supply chain (Zhou, Wang, Liu, & Zhang, 2023)

Natural disasters and climate changes were also expressed as critical risks that impact the efficiency of the supply chain processes at MCC. Participants observed that adverse weather conditions hampered the flow of the supply chain processes since it is not easy to move goods and/or provide services during such extreme weather conditions. This viewpoint is in line with the literature highlighting that extreme weather conditions such as heavy snow in Lesotho affect transport systems, leading to delays and ultimately increased costs (Doll, Papanikolaou, & Maurer, 2014). Participant 10 stressed the importance of addressing climate risks by noting that severe weather conditions present challenges to the transportation of products and service deliveries. The council is, therefore, unlikely to operate at the same level of efficiency since climate fluctuations affect service delivery in unpredictable ways. This finding supports literature on climate change and its effects on supply chains (Zhou et al., 2023).

Regarding the assessment and categorization of risks, participants reported on different approaches such as operational impact, financial impact, frequency and predictability, compliance, and severity of the consequences of the risks. Again, most of the respondents indicated that risks are evaluated on the basis of operational factors. For example, the identified risks that may affect an ongoing project are considered more critical than those that may affect the project or the outcome of the project in the long run. Other considerations included financial consequences such that risks that may cause considerable cost overruns were being closely managed. The interviews pointed to the fact that the council has been able to categorize and prioritize risks by classifying threats according to their potential impact and likelihood, a strategy supported by Al-Fares and Al-Dhaafri (2020) who stresses that risk assessment tools help in the proper identification of risks and allocation of resources.

To evaluate and measure these risks, the respondents stated that historical data analysis and market monitoring tools were employed. Historical data helps in determining trends while real-time market analysis informs financial risk management

strategies. Participants also stressed that they need to have information about changes in legislation, referring often to legal advisors who play a crucial role in integrating legal frameworks within MCC and contribute to assessment of systemic risks associated with supplier evaluations (Lopez, Debois, Slaats, & Hildebrandt, 2020, Zasada & Fellmann, 2016). Thus, ensuring compliance by disseminating the regulatory changes across all the departments. This proactive approach to risk assessment is supported by Liu & Lee (2021), who expounded on the need to use data analytics to prevent the disruption of the supply chain.

4.3 The findings on the supply chain risk mitigation strategies by MCC

This finding highlighted that risk management practices were considered critical in the functioning of the council. Most of the study participants converged on the most employed risk mitigation strategy, which involves the diversification of suppliers and strategic partnerships. This strategy helps to organise the supply chain to avoid excessive reliance on a single supplier, which was identified as a high risk during the risk analysis process. Some participants also noted that the MCC has strived to work with new suppliers both within and outside the country to reduce vulnerability should a supplier falter or underperform. The council also concluded multiple supplier contracts in a quest to minimize disruptions that can completely halt the projects when a certain supplier fails. This agrees with Chen et al., (2020), who hold the view that supplier diversification can help firms to minimize the impact of supply chain disruptions.

In addition, some of the respondents indicated that the council fosters strategic supplier relationships whereby it works hard to engage suppliers in order to construct a flexible supply chain system. For instance, strategic partnerships with suppliers guarantee predictable supply chain relations and commitments on risk minimization. This method of relationship building is consistent with the ideas outlined by Huo et al., (2021) who noted that supplier relationships enable risk sharing and support operational resilience.

Other essential practices described by the participants include the use of technology for supply chain performance tracking and risk evaluation. Study participants identified that the council uses digital supply chain management to monitor inventory status,

shipments, and supplier performance in a real-time format. Through effective use of technology, the council can identify any early signs of slowdown and promptly take corrective measures. Participant 2 described the system as an “early warning tool that helps identify potential risks related to inventory shortages or supplier delays, allowing for timely interventions.” This strategy corresponds with literature on technology integration in the supply chain context to mitigate the embedded risks (Awais, et al., 2023).

Another measure identified during the interviews is the maintenance of buffer stock and proper inventory control. Some of the potential risks that participants highlighted include the practice, by the council, of holding some stock of raw materials and other resources to ensure that the institution is able to continue functioning in case of interrupted supply chains. This is in line with the inventory management policies that Li et al., (2021) view as helpful in minimizing the impacts of supply chain disruptions.

During the discussion on the effectiveness of such strategies, the following success stories were highlighted by the participants. For instance, the buffer stock strategy was useful in preventing project delays in a particular critical infrastructure project. In the same way, the council was also able to use technology to monitor the supply chain in real time and avoid a likely delay caused by a supplier’s financial problems. In each of these cases, effective risk mitigation strategies enabled control of risks and delivery of projects accordingly. Moreover, participants reported that the increased supplier diversification approach strengthened the relations with suppliers and minimized major disruptions. For instance, participant 1 proclaimed that “...by diversifying our suppliers and working closely with them, we ensure that there is always a backup plan in place if something goes wrong.” This statement shows how these strategies have been effective as they minimized supply chain risks for the council.

4.4 The findings on the potential impact of supply chain risks on supply chain management at MCC

A frequently cited aspect across the interviews was the view that there are barriers to the council’s capacity to operate because of delays in the supply chain. Most participants argued that materials such as construction materials and office supplies were constantly delayed, which hindered the progress of projects and normal operations. For instance, participant 7 acknowledged that, due to a delayed delivery

by a supplier, one of the infrastructure projects was also delayed. In a similar vein, it was also discovered that these delays led to significant setbacks in construction timelines. When such delays occur, the general performance slows down and at times, results in increased costs. This finding tallies with Liu et al. (2020) view that any form of delays affects project timelines and costs. Participants also pointed to the fact that procurement risks such as bureaucracy leads to delays in the supply chain. This is renowned for leading to long lead times, under which the council must wait for long periods to receive the goods and services needed to implement projects, in a way that compromises the ease and effectiveness with which projects may be undertaken.

On the other hand, supplier performance was considered to pose a risk to product or service quality. Several participants complained of experiencing quality deficiencies from suppliers, which subsequently affected the supply chain management processes. For instance, participant 9 complained that "...a supplier had supplied substandard construction materials to the institution, and this had an impact on project timelines and overall costs as rectifications had to be made in regard to the supplied substandard quality materials. This was not only time-wasting but also expensive in the long run." This corresponds with Gao et al.'s (2020) assertion that low quality from suppliers can impede supply chain processes, thereby causing delays and imposing additional costs.

Political risks were seen to pose some threat to supply chain performance targets and goals. Some of the participants also reported that political instabilities may, at times, affect supplies and result in delays in approval of supplies. Participant 2 explained that, often, a change in the political regime may slow down procurement approvals or even affect the entire project schedule, making it extremely hard to deliver the project as planned. These findings align with Baryannis et al. (2020), who identified political risks as one of the factors that influence supply chain efficiency.

According to the interviewees, several approaches were employed in assessing the supply chain risks and their effect on the relevant KPIs as a way of measuring the success of SCM strategies and their correspondence to institutional objectives. These included aspects such as delivery times, costs, and customer satisfaction as the most typical KPIs cited.

- **Delivery times:** As the participants stressed, the delays in procurement or transportation were monitored according to project timelines, with managers always monitoring the variance between the planned and the actual delivery time. Of the interviewees, participant 4 stated that “We are able to identify the delays and track them using the project management tools that are effective in comparing the planned schedules with the delays experienced on a project.”
- **Cost management:** Budget tracking systems in place ensure that the effects of risks associated with the costs of the supply chain are properly managed. Concerning effectiveness, participants indicated that cost overruns due to delays or quality problems were monitored based on financial performance indicators and project budgets. For instance, participant 12 highlighted that “We measure cost impact by looking at the variance between the initial budget and actual spending, especially when there are delays that incur additional costs for procurement.”
- **Customer satisfaction:** Some of the respondents highlighted that customer satisfaction feedback surveys and client satisfaction measurements were done as a way of measuring the effects of risks in the supply chain on service delivery. For instance, one interviewee strongly held that “Customer satisfaction is measured by the feedback we receive after project completion. Delays or poor quality affect our ability to meet the expectations of our clients, and we track this through formal surveys.”

4.5 The findings on the effectiveness of risk mitigation strategies in supply chain management at MCC

Among the key measures reported by participants was the use of stringent procurement measures that would prevent procurement-related delays. A number of the respondents suggested that increased transparency in procurement processes can improve efficiency and consequently save a considerable amount of time in the procurement of supplies and services. This was testified to by the first participant who said, “Through an integrated procurement system, we have been able to reduce the time that we take in procuring goods and services and become more responsive to the communities’ demands.” This is in line with previous literature reporting that clear procurement practices can improve the efficiency and effectiveness of the

procurement processes (Paul, Ogugua, & Eyo-Udo, 2024; Adebayo, Paul, & Eyo-Udo, 2024).

Another strategy that can be used, according to the participants' responses, was the development of relationships with credible suppliers. From the interview analysis, it was discovered that MCC benefited from cultivating good relations with suppliers as this assisted in the delivery of goods and services. Participant 3 narrated, "This results in better planning since we rarely encounter disruptions due to working with trustworthy suppliers." This finding corresponds with other research pointing to the role that supplier relations play in maintaining sustainable supply chains (Cooper, 2024; Mwangi, 2024).

Training and capacity building also emerged as important measures to maintain adequate buffer stock and proper inventory control. Several participants were of the opinion that training of the staff engaged in supply chain management could help enhance institutional functioning and responsiveness to issues in the supply chain. This was put forth by participant 4, who claimed that regular training enables their team to tackle any arising procurement problem by providing the necessary skills, thus supporting the literature stating that training and capacity building become effective in increasing institutional resiliency in procurement processes (Becker, 2014; Vargas-Hernández, 2022).

Further, the use and application of technology in supply chain management practices were identified as effective strategies to manage supply chain processes within MCC. In relation to this, participants pointed out that technology had made it possible to enhance communication and monitor the flow of supply chain events in real-time within the council. For example, participant 5 highlighted that it has been easy for them to track stocks through the available digital supply chain infrastructure, thereby minimizing cases of stockouts. This observation is consistent with literature that discovered the positive impact of technology on supply chain processes (Paul, Ogugua, & Eyo-Udo, 2024).

However, participants highlighted that some of the strategies were not as efficient as they had expected. For instance, contingency planning as one of the most effective risk control strategies was acknowledged, but specific concerns were raised about its

practical application. For instance, participant 7 noted, “we actually developed strategies, but those strategies do not always contain measures for all types of risks.” This sentiment appears in contrast to literature that calls for more comprehensive and well-implemented contingency planning as a significant aspect of risk management in procurement processes (Cooper, 2024).

Collectively, the evaluation of risk management measures in supply chain management at the MCC brings into focus key areas of sound SCM practices, namely, procurement efficiency, supplier relationships, infrastructure enhancement, training and development, and technology incorporation. Many of these concepts are supported by previous research, thereby providing further validation of their use in the context of supply chain management. Nevertheless, the issues raised by participants in relation to the sufficiency of contingency planning suggest that it requires further improvement. Thus, filling these gaps and increasing the efficiency of risk management measures will be important for the MCC in terms of improving its performance and the quality of its services.

4.6 Chapter summary

This chapter provided an understanding of the data gathered on the SCM at MCC based on the research objectives. The identified potential risks include procurement risks, lack of infrastructure, supplier risks, political risks, economic risks, and risks related to climate change. These risks were compared with the findings from the literature review to identify the similarities and discrepancies that can help understand the supply chain risks at MCC. The chapter also assessed the supply chain risk management framework used by MCC and outlined its successes and challenges. Lastly, the chapter established the effect of the identified risks on the operational efficiency of the MCC. Overall, this chapter highlighted the importance of proactive strategies to enhance MCC's operational efficiency, ultimately contributing to improved service delivery. Thus, the findings provide a foundation for developing robust and resilient supply chain management practices at MCC.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the discussions and analysis of the major research findings obtained from the study of SCM practices at the MCC. To provide insights into the risks, challenges, and impact, the empirical results from the interviews have been integrated and discussed with the existing literature of supply chain management. In addition, the chapter provides specific recommendations for development and potential future research topics. The goal is to provide suggestions that will strengthen MCC's supply chain risk management framework, consequently contributing to increased supply chain efficiencies.

5.2 Key conclusions from the findings of the study

The objective of this research study was to identify the potential risks that influence the SCM within MCC, evaluate the potential impact of these risks on operational efficiency and effectiveness, and lastly recommend adequate risk mitigation strategies. These objectives were achieved by adopting a qualitative approach within an interpretivist paradigm. Thus, data was collected through interviews with 12 participants from different departments at MCC. Ultimately, the data collected through interviews was analysed using thematic analysis leading to the identification of risks, their potential impact on the SCM practices within MCC, and the risk mitigation strategies. Therefore, the subsequent section provides conclusions to the study based on the outlined research objectives.

5.2.1 Conclusions on supply chain management risks linked to MCC

The study established and analysed various risks that affect supply chain management processes at MCC. Internal risks include bureaucratic processes attributed to a lengthy approval process, thus leading to procurement delays. These findings align with the views of Ambe and Badenhorst-Weiss (2012), who discovered that bureaucratic inefficiencies in procurement processes are a common challenge in public sector SCM. Other factors include lack of infrastructure and unreliable suppliers which significantly affect the supply chain processes at MCC. The external risks, mainly political and economic risks, were also identified as critical risks affecting the

supply chain management at MCC. Thereby, further backing Christopher's (2016) findings that the macroeconomic environment is one of the factors affecting SCM.

5.2.2 Conclusions on the influence of SCM risks on MCC's supply chain

The identified risks have a significant effect on the operations and performance of SCM. For instance, it was discovered that bureaucratic processes result in procurement delays, which significantly and negatively impact project schedules, costs, and service delivery. These inefficiencies are in line with the discussions provided by Bolton (2021), who highlighted that procurement delays are associated with poor operational performance within municipalities. On the other hand, resource constraints, especially in infrastructure, also hamper the flow of logistics and distribution, and this has an impact on MCC in terms of meeting service delivery standards, thereby supporting Lin and Lin's (2024) opinion on the significance of strategic supplier management for optimum supply chain performance.

5.2.3 Conclusions on the supply chain risk mitigation strategies by MCC

The analysis indicated that risk management is indispensable for the efficient operations at MCC, including supplier diversification and strategic partnership. From the analysis of the findings, it can be concluded that supplier diversification minimizes reliance on a specific supplier, thereby mitigating any risks, such as non-performance, that can arise. To implement the supplier diversification strategy, the council has actively been seeking new suppliers both domestically and internationally to minimize disruptions in project implementation or service delivery. Similarly, strategic partnerships with suppliers help develop supply chain flexibility and ensure risk-sharing among parties involved in the supply chain, thus increasing the stability of supply chain management. Also, the adoption of technology for the constant tracking of stock levels and suppliers makes it possible to identify risks and address them promptly. Finally, it can be concluded that buffer stock and inventory control are critical practices that would be useful in case the supply chain is interrupted.

5.2.4 Conclusions on the impact of supply chain risks on supply chain management at MCC

It has been established that risk management strategies impact the implementation of the strategic objectives at MCC. The study concluded that the effective implementation

of supply chain risk management strategies leads to enhanced supply chain operations at MCC, thereby facilitating the council's agenda of timely service delivery. This is in line with Cooper (2024), who states that to sustain the institutions over the long term, risk management must be incorporated into the institutional culture. However, the inconsistent application of these procedures has undermined MCC's efforts to meet its objectives, particularly in service delivery and cost management. Effective risk management can enhance resource allocation, optimize service delivery, and foster better stakeholder relationships, essential for achieving council goals.

5.3 Study recommendations based on the findings of the study

Considering the findings on supply chain risks, their influence, the supply chain risk mitigation strategies, and the effectiveness of the supply chain risk mitigation strategies on the supply chain performance of MCC, the research puts forward the following recommendations:

- **Improve procurement processes:** To address delay issues and enhance the procurement process, MCC should strengthen its digital procurement processes. According to Gunasekaran et al. (2017), this practice can help eliminate unnecessary bureaucracies in procurement processes and guarantee an ordered approach to the management of suppliers.
- **Invest in infrastructure:** Further investments are required in the transport and storage facilities to improve the flow of supply chain operations at MCC. Albalushi et al. (2023) posit that infrastructure investment is critical for reducing supply chain management inefficiencies.
- **Strengthen supplier relationships:** Forging long-term strategic relations with suppliers will help in managing the risks of disruptions in the supply chain. For this very reason, Lin and Lin (2024) agree that developing long-term working relationships increases reliability and service quality.
- **Institutionalized training programs:** This process should be done through routine and strategic supply chain management training to enhance the capacity of supply chain employees at MCC. Becker (2014) affirms that qualified staff can control supply chain risks effectively.
- **Foster a proactive risk management culture:** Implementing a risk management culture within MCC can make an important contribution to improving intensive and

sustainable work in supply chain management. Cooper (2024) argues that institutions with a culture focused on risk awareness enhance the level of institutional resilience.

- **Engage stakeholders effectively:** MCC should consider higher engagement with stakeholders in a quest to contribute towards the development of a stronger framework for supply chain management, as demonstrated by Avcı (2022).

5.4 Future research gaps

Subsequent research could also analyse how supply chain risk management training and capacity-building interventions could potentially affect MCC operations in the long-run. This study could assess the performance of various training approaches and the degree to which the employees are able to translate what they have learned into practice in the long-run. It could also determine how continuous staff training might affect their performance, service delivery, and stakeholders. This would aid in understanding the value of investment in employee training as well as help in developing strategies that would ensure continued efficient chain management within municipal areas.

5.5 Chapter summary

This chapter has addressed each study objective through a structured analysis of the key findings. It highlighted the risks affecting MCC's SCM, their impact on operational efficiency, and the effectiveness of current risk mitigation strategies. Recommendations were proposed to improve SCM practices and align them with MCC's strategic goals. Finally, suggestions for future research were presented to expand on this study's insights and contribute to the ongoing improvement of public sector SCM.

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APPENDICES

Appendix A: Interview Schedule

Place of interview.....

Date of interview.....

Introduction

Good morning/day/afternoon (Introduce myself)

I would like to take this opportunity to thank you for taking time from your busy schedule to take part in this study. Thank you once again for your willingness to share your valuable experiences, knowledge, and institutional skills with me regarding the identification and analysis of potential supply chain management risks within the Maseru City Council and their influence on the supply chain management processes, as well as the strategies put in place to mitigate these risks.

We should not take more than an hour to complete the interview. Firstly, I would like to ask if we may audio record our discussion. This is to ensure that the answers you provide during this interview are not misinterpreted during the transcription and analysis. However, to ensure that you are not misinterpreted or misunderstood, you can review the transcription of the interview afterwards. *(If YES, switch on the recorder)*. As indicated in our previous communication, this study will ensure the anonymity of participants. Although recorded, the study will adhere to the undertaking that the transcription of the data will be done by a professional transcriber. The audio files recorded will be kept in a password-protected device until it is permanently deleted after a period of five years. Finally, your personal details will not be linked to any statement in the transcript of the interview.

You are welcome to ask any questions before we start with the questions. You may also ask questions for clarification during the interview.

Relevant definitions

Risks: Relates to adverse events in the supply chain processes that can lead to a negative impact on the organization if not properly managed.

Risk management: Involves the management of risks. This can be prior or post occurrence to prevent them or when they occur to mitigate their impact.

Supply chain: Relates to a network of organizations, people, activities, information, and resources involved in the production, distribution, and delivery of goods and services from producers to end-users.

Questions

Risk Assessment in Supply Chain Management (SCM):

- Can you identify any potential risks associated with the supply chain management processes within the Maseru City Council?
- How do you classify and prioritize these risks in terms of their potential impact on SCM operations?
- What methods or tools are utilized to assess and quantify the identified risks within the supply chain?

Impact of Risks on SCM Performance:

- Have you observed any instances where supply chain risks have affected the operational efficiency or effectiveness of SCM processes in the Maseru City Council?
- Can you provide examples of specific risks that have led to delays, disruptions, or other challenges in SCM operations?
- How do you measure the impact of supply chain risks on key performance indicators such as delivery times, cost management, and customer satisfaction?

Mitigation Strategies for Supply Chain Risks:

- What strategies or measures are currently in place to mitigate supply chain risks within the Maseru City Council?
- How are these mitigation strategies determined and implemented across different stages of the supply chain?
- Can you provide any successful examples where these strategies have effectively addressed or minimized supply chain risks?

Effectiveness of Risk Management Procedures:

- How do you evaluate the effectiveness of the existing risk management procedures in managing and mitigating supply chain risks?
- Are there any challenges or limitations associated with the current risk management approach in ensuring the achievement of council goals and objectives?
- What improvements or enhancements do you envision for the risk management framework to better support SCM operations and overall organizational performance?

Conclusion

Thank you once again for your time in participating in this study. The insights shared are valuable to the success of this study. If you have any questions, opinions, concerns, or views on any of the listed questions above and/or the topic of the study in general, you can contact me at e-mail: 2020676470@ufs4life.ac.za, or at cell number +266-62332002.

Alternatively, you can contact my supervisor at e-mail cdolivier@lantic.net or cell number: +27 72 150 9464.

Thank you

Appendix B: Permission Letter

MASERU CITY COUNCIL

P.O. Box 911
Maseru 100
Lesotho



Telephone: (266) 22317386
Telex: 4223 MMC LO
Fax: (266) 22310418

Your Ref:

Contact Person:

Our Ref:

Date: June 20th 2024

205 Nelson Mandela Drive
Park West,
Bloemfontein 9301
Tel: +27 (0)51 401 9337
duplessisA@ufs.ac.za

Dear Miss Nteboheng Kholoane

Subject: Permission to Conduct Research on “The potential influence of risks on supply chain management practices in the Maseru City Council in Lesotho.”

We acknowledge receipt of your request to conduct research on the potential influence of risks on supply chain management practices within Maseru City Council (MCC). After careful consideration, we are pleased to grant you permission to proceed with your research in our Council.

However, we kindly request that you adhere to the following guidelines throughout the duration of your research:

- 1. Direct Communication:** You are allowed to engage in direct communication with our municipal staff for the purpose of your research. However, it is essential that you respect their schedules and ensure that your interactions do not disrupt their daily activities. Please coordinate with the relevant departments to arrange suitable meeting times to minimize any inconvenience.
- 2. Financial Responsibility:** We would like to inform you that all expenses associated with your research, such as data collection, equipment, materials, and any other related costs, will be entirely borne by you. The council will neither provide any form of financial assistance nor incur any costs or obligations in relation to your research.

TOWARDS THE FUTURE TOGETHER

Town Clerk City Treasurer Director of Works Director of Health & Environment
Administrative Secretary Director of Planning & Development Director of Parks & Recreation

3. Health and Safety: It is vital that you take full responsibility for your own health and safety throughout the duration of the research project. Please ensure that you adhere to all applicable safety regulations, guidelines, and protocols to minimize any potential risks or hazards. The council will not be liable for any injuries, damages, or losses arising from your research activities.

We trust that you understand and will comply with these requirements. Your research in the field of supply chain management is of great importance, and we appreciate your contribution to our council.

Should you require any further assistance or have any additional questions, do not hesitate to contact the council.

Thank you for your interest in conducting research within Maseru City Council, and we wish you success in your endeavors.

Wishing you all the best for this exciting new chapter in your professional journey.

Yours In Governance


Anna Mohapi

Director Human Resources

Appendix C: Request for permission to conduct the study



Dear: MASERU CITY COUNCIL

RE: Preliminary permission to conduct research at your organization

MASERU CITY COUNCIL

DATE

02 OCTOBER 2023

PRELIMINARY TITLE OF RESEARCH PROJECT*

POTENTIAL RISKS THAT INFLUENCE THE SUPPLY CHAIN MANAGEMENT IN THE LESOTHO MINISTRY OF LOCAL GOVERNMENT, CHIEFTAINSHIP, HOME-AFFAIRS AND POLICE WITH SPECIFIC REFERENCE TO THE MASERU CITY COUNCIL: A CRITICAL ANALYSIS

PRINCIPLE INVESTIGATOR

Name and surname of student

Student number

Contact number

NTEBOHENG KHOLOANE

2020676470

+266-62332002

FACULTY AND DEPARTMENT

Economic and Management Sciences Faculty
Business School

STUDY LEADER NAME AND CONTACT

Name of study leader

DR. BASIE OLIVIER

Contact number

+27721509464

APPROVAL NEEDED

This study still needs ethical approval from the General Human Research Ethics (GHREC) committee at the University of the Free State. As part of the application for ethical clearance I need temporary approval from you to conduct the research in your organization. Once the Ethical Clearance certificate has been issued by the GHREC, the formal and final permission document and the data collection instruments will be provided to you for final consideration and approval.

Therefore, in order for me to complete my research, I need your permission to:

Permission Requested (YES, NO)	Request Approved (YES, NO)
-----------------------------------	-------------------------------

Collect data from	N/A	
	YES	✓
Access to internal data	YES	✓
Access to internal documentation	YES	✓
Including your organization's name in the study and the title of the study. If the answer is no, please also indicate whether I can still get access to the above if the study results are anonymized.	YES	✓
Using the data collected for future conference proceedings and or article publication.	YES	✓

ADDITIONAL STIPULATIONS

If you have any additional stipulations about the temporary request for permission to conduct research in your organization, please include those stipulations in the space provided.

In addition to the strategic plan, I kindly request the supply chain department policies of the Maseru.

City Council to help mitigate risks. To uphold confidentiality, all information shared between the council and myself will be treated as strictly confidential. Along with employee handbooks or policy manuals, I would also greatly appreciate any relevant documentation outlining the strategies

and policies implemented for ensuring effective service delivery within the organization.

Yours sincerely

N. Kholoane

MASERU CITY COUNCIL
HUMAN RESOURCE SECTION
Ama Mkhosi
 Name, surname and signature of individual for the permission
MASERU LESOTHO

7266 58864006
 Contact number

Director

Appendix D: Ethical Clearance



GENERAL/HUMAN RESEARCH ETHICS COMMITTEE (GHREC)

Registration Number: REC-112922-058

25-Sep-2024

Dear Miss Nteboheng Kholoane

Application Approved

Research Project Title:

The potential influence of risks on supply chain management practices in Maseru City Council in Lesotho

Ethical Clearance number:

UFS-HSD2024/1482

We are pleased to inform you that your application for ethical clearance has been approved. Your ethical clearance is valid for twelve (12) months from the date of issue. We request that any changes that may take place during the course of your study/research project be submitted via an Amendment on RIMS to the ethics office to ensure ethical transparency. Furthermore, you are requested to submit a Final Report on RIMS for your study/research project to the ethics office once the project has concluded. Should you require more time than the allotted 12 months to complete this research, please apply for an extension by submitting a Continuation/Report on RIMS. Thank you for submitting your proposal for ethical clearance. We wish you success with your research.

Yours sincerely,

Dr Adri Du Plessis

Chairperson: General/Human Research Ethics Committee

**Dr Adri
du
Plessis** Digitally signed
by Dr Adri du
Plessis
Date: 2024.09.29
19:03:25 +02'00'

205 Nelson Mandela P.O. Box 339
Drive Bloemfontein 9300
Park West Tel: +27(0)514019337
Bloemfontein 9301 djplessis@ufs.ac.za
South Africa www.ufs.ac.za



Appendix E: Letter from the Language Editor



Natalie Stear (BA Hons, M.Ed)
Cell: 083 258 3776
e-mail: njstear@iafrica.com
18 April 2024

TO WHOM IT MAY CONCERN

I hereby confirm that I have professionally proofread and edited the Master of Business Administration Proposal of Nteboheng Kholoane, entitled "The Potential Influence of Risks on Supply Chain Management Practices in the Maseru City Council, Lesotho."

(Master of Business Administration, UFS Business School, Faculty of Economic and Management Services, University of the Free State)

Sincerely

N.J.STEAR

Gceberha (Port Elizabeth)
April 2024

Appendix F: Turnitin Report

Final dissertation

ORIGINALITY REPORT

13% SIMILARITY INDEX	8% INTERNET SOURCES	6% PUBLICATIONS	5% STUDENT PAPERS
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PRIMARY SOURCES

1	www.researchgate.net Internet Source	1%
2	Submitted to Midlands State University Student Paper	1%
3	Wang, Lei. "Research on Risk Management for Healthcare Supply Chain in Hospital.", Liverpool John Moores University (United Kingdom), 2021 Publication	1%
4	Mhelembe, K.. "The Relationship Between Supply Chain Risk, Flexibility and Performance in the South African Public Sector", Vaal University of Technology (South Africa), 2024 Publication	<1%
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"Enhancing Supply Chain Visibility and
Performance: A Review of Industry 4.0
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42 Obondi, Kennedy Christopher. "The
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