

**UNIVERSITY
OF
LUSAKA**

School of Postgraduate Studies

**OPTIMISING MANAGEMENT INFORMATION SYSTEMS FOR GROWTH AND
SUSTAINABILITY OF SMES IN RETAIL TRADE SECTOR IN LUSAKA, ZAMBIA.**

A

Dissertation presented

in Partial Fulfilment for requirement of the program

Master of Business Administration General (MBAGEN)

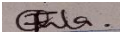
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DECLARATION

I, Florence Chela, declare that this dissertation is my original work, and has not been submitted in part or in full for any degree at this or any other University.

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Date: 20th January, 2025

Dr. Stella Zulu Chisanga

DEDICATION

This dissertation is dedicated to my Family, whose unwavering love, support and encouragement have been my source of strength throughout this journey.

To my spouse, thank you for believing in me, and inspiring me to pursue my dreams. Your sacrifices have been invaluable, and I am forever grateful.

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LIST OF ACRONYMS

MIS	Management of Information Systems
SMEs	Small and Medium Enterprises
MSME	Ministry of Small and Medium Enterprises
IS	Information Systems
ITC	International Trade Center
GDP	Gross Domestic Product
ICT	Information Communication Technology
KPI	Key Performance Indicator
DT	Digital Technologies
CRM	Customer Relationship Management
PACRA	Patents and Companies Registration Agency
ZDA	Zambia Development Agency
ZamStats	Zambia Statistical Agency
ILO	International Labour Organisation
POS	Point of Sale
ZPOS	Zambia Point of Sale
SAP	Systems Applications and Products
ERP	Enterprise Resource Planning
ZESCO	Zambia Electricity Supply Corporation

ABSTRACT

This research analysed the significance of Management Information Systems (MIS) in the development and sustainability of Small and Medium Enterprises (SMEs). SMEs are hubs in the Zambian economy that face numerous challenges, such as lack of access to markets and resources, which affect their growth and performance. A qualitative approach was used to delve into how the use of MIS tools help address these challenges in relation to operational efficiency, decision-making, and customer engagement.

Data were collected from fifty-four (54) participants through questionnaires and in-depth interviews. The findings suggest that making use of MIS tools like inventory management systems, point-of-sale solutions, and customer relationship management systems led to significant improvements in operational efficiency, financial management, and customer performance. These developments implied enhanced profitability and competitive advantage, thus facilitating long-term sustainable business growth.

The research further identified barriers to MIS adoption, which included high costs, low availability of technical staff, and a lack of awareness of various available options. To address these barriers, the study highlighted the need for affordable, scalable, and user-friendly MIS solutions tailored to the needs of SMEs in developing economies. It also emphasises the importance of capacity-building measures, such as training programs and policy-driven initiatives, to enable SMEs to fully leverage MIS for growth and sustainability.

This study contributes to the existing literature by providing empirical insights into the role of MIS in SME sustainability, particularly in the retail sector. It bridges the gap between theoretical understanding and practical implementation by outlining key factors influencing MIS adoption. Additionally, the study offers practical significance by providing direction for policymakers, technology providers, and SME stakeholders on leveraging MIS for the growth of Lusaka's retail trade market. By demonstrating the potential impact of MIS, this research informs strategic decision-making and policy formulation aimed at fostering SME resilience and competitiveness.

CHAPTER ONE: INTRODUCTION AND BACKGROUND

1.0 Introduction

Small and medium enterprises (SMEs) play a vital role in the economic development of Zambia, particularly in the retail sector, where they contribute significantly to job creation, poverty reduction, and overall economic growth. However, despite their importance, SMEs in Lusaka face numerous challenges that hinder their growth and sustainability. One of the most significant obstacles is the inefficiency of traditional management practices and the lack of effective management information systems (MIS). In this digital age, the adoption and optimisation of MIS have become increasingly crucial for businesses to enhance decision-making, improve operational efficiency, and gain a competitive edge.

A Management of information systems also referred to as MIS is comprised of tools, techniques, and procedures planned in a way to manage the use of information in an organisation. Information Systems (IS) can be defined as the people, processes, and technology that work together to collect, store, analyse, and present information (Laudon and Laudon, 2015). As is the case with most urban centers, micro, small and medium enterprises (MSMEs) are an important engine for economic growth and development, job creation and business skills promotion in the retail trade sector of Lusaka (MSME, 2023).

Management Information Systems (MIS) provide real-time data and analysis, enabling businesses to streamline processes, manage resources effectively, and make informed decisions. However, in the context of Lusaka's retail SMEs, the adoption of MIS remains relatively low, and the systems that are in place often fail to meet the needs of these businesses. This study seeks to fill the gap in the existing literature by investigating how the optimisation of MIS can contribute to the growth and sustainability of retail SMEs in Lusaka.

Previous research highlights that digital technologies and processes act as key drivers for the success of small and medium-sized enterprises (SMEs) (Matobvu, 2020). Information systems greatly contribute to business optimisation as it allows firms to make better decisions, minimise costs and generate more revenue by automating the

most relevant business processes. From a business perspective, MIS are essential to value-adding activities, enabling the acquisition, transformation, and distribution of information to improve decision-making, boost organisational performance, and ultimately increase profitability (Laudon & Laudon, 2010). Despite their potential, research has shown that SMEs, particularly in developing countries like Zambia, face significant hurdles in adopting and effectively utilizing MIS. The lack of technical expertise, high implementation costs, and resistance to change are just a few of the barriers. Moreover, while studies have explored the benefits of MIS in larger businesses, there is a limited understanding of its role in SMEs, especially in retail. This study will address this gap by focusing specifically on Lusaka's retail SMEs and evaluating how MIS can be optimized to foster growth, improve competitiveness, and enhance decision-making processes. Zambia's SMEs have struggled to fully contribute to the country's economic growth due to these numerous challenges. To overcome these hindrances and achieve sustainable growth, SMEs must adopt innovative solutions, with Management Information Systems (MIS) being a critical tool for success.

The importance of MIS in the retail sector cannot be overstated. In an era where consumer behavior is increasingly driven by digital technology, businesses that fail to embrace MIS risk falling behind their competitors. MIS enables SMEs to gather valuable insights into customer preferences, inventory management, and financial performance—critical factors for success in the retail sector. Without a clear understanding of these aspects, SMEs are vulnerable to inefficiencies, stockouts, and missed opportunities, all of which contribute to high failure rates.

Specifically, this research sought to find current management approaches for information systems for SMEs and evaluate them in terms of their suitability for encouraging growth both in terms of business development and also for running and accommodating the realities of SME businesses in the retail industry of Lusaka. Across the world, including Zambia, retail has been increasingly the recipient of various types of MIS and business operations have been fundamentally changed.

However, despite having great advantages like enabling good decision-making, cost cuts, and improvement in business processes, various SMEs experienced difficulty in effectively utilising them. This study explored the potential of MIS in addressing the

specific challenges faced by SMEs in the retail sector and identified strategies for leveraging these systems to improve performance, growth, and long-term sustainability.

This chapter is an introduction to the study, the formulation of the problem, the importance and breadth of the study, and a glossary of key terms and concepts.

1.1 Background to the study

Small and medium enterprises (SMEs) constitute the backbone of the Zambian's economy particularly within the retail industry. In a study conducted by the International Trade Center (ITC,2019), it was discovered that these enterprises make up 97% of all businesses, generate over 70% of the Gross Domestic Product (GDP), and amount to 88% of employment. This is a very important sector as it helps the government with job creation and income generation. However, the sector faces a lot of challenges as most SMEs do not have the required resources to grow sustainably for the long term as there's lack of information management and sustainable business processes. Management Information Systems (MIS) offer useful mechanisms to break through these constraints. From a business point of view, information systems are indispensable, as they contribute to the processes of increasing the value-adding activities. These systems are instrumental in the processes of collecting and processing, encoding and disseminating information that can be utilised by managers in decision-making. They enable organisations to increase the efficiency of business operations, performance and profitability.

Historically, the SME sector in Zambia has been constrained by a combination of internal and external factors, including limited access to finance, high operational costs, inadequate infrastructure, and a lack of skilled labor. Additionally, many SMEs face difficulties in adopting modern technologies and systems, which has prevented them from fully capitalising on the opportunities provided by digital transformation. The retail sector, in particular, has been slow to embrace technological advancements, with many businesses still relying on manual processes and outdated systems to manage operations.

Information systems (IS) give data on real-time accurate environment, which enables managers to develop strategies rapidly, by collecting and processing data, recognise patterns, and also guaranteeing the provision of the right resources (Laudon & Laudon, 2004). In addition, IS encourages better departmental interaction, facilitates creative solutions design, and aids the organisation keep pace in a fast-paced market.

The advent of management information systems (MIS) has presented an opportunity for SMEs to overcome these challenges. MIS, which encompasses a range of tools and technologies designed to collect, process, and analyse business data, has become increasingly important for SMEs seeking to improve their efficiency and decision-making capabilities. In the retail sector, MIS plays a critical role in managing inventory, tracking sales, and understanding customer behavior, which are essential for improving competitiveness and ensuring sustainability.

Today, the digital transformation of SMEs is gaining momentum, driven by technological advancements and shifting consumer expectations. E-commerce, social media marketing, and digital payments are reshaping how SMEs in the retail sector interact with customers and manage their operations. Retail SMEs in Lusaka, in particular, are adopting online platforms to expand their customer base and offer more convenient shopping experiences. Furthermore, the integration of digital tools for inventory management, financial tracking, and customer relationship management is beginning to gain traction. However, the adoption of integrated and optimised MIS solutions that align with the needs of these businesses remains limited.

This amalgamation of effective decision-making and the enrichment of various business functions make information systems very valued in the development of corporate strategy due to the increase in profitability that is vividly enjoyed strategy.

According to Laudon and Laudon (2010) information systems form the core of the means for achieving business goals in that they help organizations to get things done that add to the creation and delivery of value to customers. Similarly, O'Brien and Marakas (2011) emphasise that these systems serve as a basis for facilitating communication, process improvements, and integration between different business departments, all of which contribute to an organization's success.

Digital changes have become ground-breaking and front-line in the transformation of businesses in the new age (Matobvu, 2020). Increasingly, it has forced some businesses at all levels to become full-time online business players for market visibility and survival in this highly competitive environment (Ladokun, Osunwole & Olaoye, 2013).

As digital transformation continues to reshape the business landscape, it is clear that the adoption of MIS is no longer a luxury for SMEs but a necessity for survival and growth. This study seeks to explore how optimising MIS can contribute to the growth and sustainability of retail SMEs in Lusaka, particularly by addressing the current gaps in their MIS adoption and implementation. By examining the barriers to MIS adoption, as well as the opportunities it presents, this research aims to provide insights into how retail SMEs in Lusaka can leverage technology to improve operational efficiency, enhance decision-making, and gain a competitive advantage in the marketplace.

According to the Ministry of Small and Medium Enterprises (MSME, 2023) revised development policy, Lusaka's retail sector is dominated by SMEs with various businesses, for example, grocery stores, apparel boutiques, Agro shops, Ndiyo centers, hair salons and many more. Traditional methods of information management, such as manual record-keeping, inhibit data analysis and decision-making. Most SMEs in the retail sector do not use MIS solutions, for most, it is the lack of information and understanding of the benefits that come with the utilisation of the same.

The non-utilisation of MIS in businesses results in several challenges. For example, difficulties in controlling inventory levels, resulting in stockouts or overstocking, inefficient customer relationship management, and reducing loyalty and repeat business. In addition, there is inadequacy in having real-time data for making educated pricing, promotion, and marketing decisions. Understanding customer behavior and purchasing trends is also another challenge.

The purpose of the study was to comprehensively identify the available MIS options for SMEs, analyse the challenges they are currently facing, and provide an overall evaluation of potential solutions to address these challenges. Furthermore, the study

aimed to offer practical recommendations for the selection, deployment, and optimal utilization of suitable MIS solutions tailored to the specific needs of local SMEs.

1.2 Statement of the problem

Small and medium enterprises (SMEs) in Zambia, particularly in the retail sector, experience high failure rates due to operational inefficiencies, poor decision-making, and an inability to compete effectively in the market. One of the critical factors contributing to these challenges is the inadequate adoption and optimisation of Management Information Systems (MIS). Despite the increasing recognition of digital transformation as a driver of business sustainability, many retail SMEs in Lusaka either lack MIS entirely or use outdated and fragmented systems that fail to provide real-time insights for effective business management.

The MSME revised Development Policy (2023) highlights the importance of SMEs in driving the economy forward. The report stated how SMEs play an important role in the Zambian economy by creating jobs, fostering innovation and driving economic progress. Research has consistently shown a high failure / static rate among SMEs, around 70.4%, which threatens their ability to contribute meaningfully to the economy. Studies indicate that inefficient data management, poor inventory control, and lack of financial tracking—common issues in SMEs without optimised MIS—lead to lost revenue, cash flow problems, and ultimately, business failure. While larger firms have successfully leveraged MIS to enhance efficiency and competitiveness, SMEs in Lusaka struggle with limited knowledge, financial constraints, and resistance to adopting such technologies. Addressing barriers is essential to improving the survival and success rates of SMEs, ensuring that they can continue to drive innovation and economic development in Zambia.

Despite their potential, small businesses are underutilised as a means of addressing these issues. The lack of strategic support and development for small enterprises limits their capacity to generate employment and contribute to national transformation, particularly in disadvantaged communities. There is a need to explore how small businesses can effectively be leveraged to curb unemployment and promote equitable resource distribution among the underprivileged, contributing to broader economic and social development.

Management of information systems adoption has the potential to alleviate these issues and generate positive results for SMEs. According to Mwila (2019), the use of technologies provides numerous benefits to economies, including improved operational efficiencies, innovation, improved access to local and international markets, and increased overall productivity and growth for businesses. The use of ICT can boost business competitiveness, as the internet provides several opportunities for SMEs to compete on an equal footing with major enterprises.

The main problem addressed in this study is that the inefficient adoption and optimisation of MIS is a significant contributor to the high failure rates of retail SMEs in Lusaka, limiting their growth and sustainability.

This study sought to investigate the extent to which MIS inefficiencies affect SME performance in the retail sector, identify the barriers to MIS adoption, and explore strategies for optimising these systems to improve operational efficiency, enhance decision-making, and ensure long-term sustainability.

1.3 Research Objectives

The following are the specific objectives of this research:

- i. To investigate the available Management Information Systems (MIS) options for SMEs in the retail trade sector in Lusaka.
- ii. To evaluate the integration of management information systems in SMEs within the retail trade sector in Lusaka.
- iii. To assess barriers faced by SMEs in the retail trade sector in the implementation and optimisation of MIS.
- iv. To evaluate the impact of Management Information Systems on the operational efficiency, decision-making, and overall growth and sustainability of SMEs within the retail trade sector of Lusaka.

1.4 Research Questions

The following are the research questions of this research:

- i. What management information system choices are available for SMEs in Lusaka's retail trade sector?

- ii. What is the level of integration of management of information systems in SMEs within the retail trade sector in Lusaka?
- iii. What barriers do the SMEs in the retail trade sector face in the implementation and optimisation of MIS?
- iv. What is the impact of management of information systems on the operational efficiency, decision-making, and overall growth and sustainability of SMEs in the retail trade sector in Lusaka?

1.5 Significance of the Study

This research aimed at establishing the importance of MIS for SMEs in the retail sector in Lusaka, Zambia and how MIS can help these businesses and industry achieve sustainable development and growth of the social and economic aspects of the country. The study also dealt with the detailed examination of the scope of the available options as far as adoption is concerned for SME communities and the influence of MIS on the profitability of the business. The goal was to have barriers identified and add advice as to how the barriers could be overcome in relation to MIS usage. The research results could guide the development of appropriate policies, strategies and training sessions in order to increase the level of MIS use among retail SMEs in Lusaka. By conducting a detailed examination of current MIS practices and identifying likely areas for improvement, this study aimed to provide an inclusive framework that can guide SMEs in leveraging MIS for long-term success and growth.

1.6 Scope of the Study

The focus of this research was on how Management Information Systems (MIS) can enhance the performance of Small and Medium Enterprises (SMEs) in the retail sector of Lusaka, Zambia.

1.7 Delimitation

1.7.1. Geographic Focus

The study was conducted in Lusaka, Zambia on SMEs in the retail sector. This made it possible to understand the problems and possibilities faced by local businesses in the region in more detail.

1.7.2 Industry Focus

Different sectors of Lusaka's retail trade were analysed. These included grocery stores, apparel boutiques, electronics retailers, and agro-based retailers.

1.7.3 MIS Scope

The research examined the use of common Management Information Systems (MIS) like inventory management systems, point-of-sale systems, and customer relationship management (CRM) tools among retailers. In addition, it explored other systems that are available for Small and Medium Enterprises (SMEs). However, new systems such as cloud computing and mobile applications were considered, a complete analysis of these advanced solutions was beyond the scope of this research.

1.7.4 Inclusions

The study looked at how MIS are being used by SMEs in the specified retail sectors. This section analyses the MIS that are in use, challenges together with perceived benefits and the factors that have an impact on their use. The impact of the use of MIS on Key Performance Indicators (KPIs) for the growth and sustainability of SMEs were among the things under study. These included sales increase, profitability, customer satisfaction, effective stock control and cost of operations. To increase the use of MIS in the retail sector of Lusaka, various recommendations were developed. These included ways of overcoming the challenges of putting MIS in place together with the best way of using MIS.

1.8 Definition of Key Terms and Concepts

The following are the key terms in the research and their meanings.

Management of information systems (MIS):

This is a discipline based on the tools, processes and systems used by businesses to retrieve, handle and analyse information. (Coursera staff, 2024).

Optimising:

To use such a situation or resource in the best way possible (Oxford Dictionary).

Growth and sustainability:

Growth is defined as the process of something becoming bigger while sustainability is the ability to be maintained at a certain rate or level (Oxford Dictionary).

Small medium Enterprises (SME):

A small and midsize enterprise (SME) is a business that has a certain limit on revenue, the value of assets or the number of employees (Instopedia.com).

Table 1. Micro, Small and Medium Enterprises Classification in Zambia.

Enterprise	Annual Turnover	No. Of employees
------------	-----------------	------------------

Micro	K1- K800, 000	0-10
Small	Between K800,000 and K5, 000,000	10-50
Medium	Between K5, 000,000 and K10,000,000	50-100

Source: Revised national Micro Small and Medium Enterprise Development Policy.

<https://www.msme-gov.zm>

Retail Trade Sector:

Retail trade consists of selling goods in the state that it is procured (or after minor alterations), generally to a customer base of private individuals regardless of the quantities sold (Insee, 2019).

1.9 Organisation of the study

Chapter one

This chapter introduces the research topic, outlining its significance, the basis for carrying out the investigation, and the expected results. It describes the scope of the research, including the precise areas that will be covered, as well as any limits that may effect the study. It also defines key terms and concepts relevant to the topic to ensure clarity and understanding.

Chapter Two

This chapter presents a comprehensive review of existing studies related to the research topic, including both global and local perspectives. It examines previous research methodologies, findings, limitations, and potential areas for improvement. The chapter also discusses relevant theories and frameworks that inform the study, concluding with an analysis of the key concepts and variables, and how they interrelate within the context of the research.

Chapter Three

This chapter presents a comprehensive review of existing studies related to the research topic, including both global and local perspectives. It examines previous research methodologies, findings, limitations, and potential areas for improvement. The chapter also discusses relevant theories and frameworks that inform the study,

concluding with an analysis of the key concepts and variables, and how they interrelate within the context of the research.

Chapter Four

This chapter focuses on the presentation of data collected from the research participants, as well as the analysis of the results. It provides a detailed account of the findings, using appropriate statistical tools and techniques to interpret the data.

Chapter Five

This chapter interprets and discusses the results of the study in the context of the research objectives and theoretical framework. It analyses the implications of the findings, highlighting their relevance to existing literature, as well as the contribution they make to the field.

Chapter Six

The chapter is based discussions in the main report body and on the research findings and discussions.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter includes a comprehensive review and synthesis of current literature related to the research issue, delivering a profound understanding of the theoretical and empirical foundations that guide the study.

2.2 Empirical Literature

Management Information Systems (MIS) is essential in improving the functioning of SMEs particularly in the retail trade sector. According to Laudon and Laudon (2004), Information Systems knowledge is crucial when it comes to developing competitive firms, managing international organisations, and delivering valuable products and services to customers. Empirical research shows that MIS can greatly enhance business operations in various industries through enhancement of business processes and enabling efficient decision-making and overall functionality of businesses.

The following section presents a range of global, regional and local academic researches performed to examine the impact of MIS on business operations and strategic planning. And it will be concluded with general overview of various MIS benefits for firms.

2.2.1 Global and Regional Reviews of Digital Technologies (DT) and MIS in SME Growth and Strategy

Olateju (2024) carried out a study evaluating the effect of digital technologies (DT) on SMEs in Lagos, Nigeria. This study investigated the impact of digital technologies on activities of SMEs, especially regarding growth and business expansion using quantitative approach. Olateju compared SMEs using digital technologies with those that did not. The findings indicated that DT implementation significantly contributed to both business expansion and increased profits. Consequently, Olateju suggested the general implementation of digital tools by SMEs to promote growth and expansion.

Kamau (2022), in her study on the integration of management information systems (MIS) and the performance of small and medium enterprises (SMEs) in Embu County, Kenya, highlights the critical role of information systems in modern SME operations. The study indicates operational efficiency, cost saving, competitive advantage strengthening, productivity and service quality can all be facilitated in successful MIS

implementation. Kamau's quantitative study reveals that SMEs in Embu County have basic ICT skills, with performance influenced by ICT infrastructure quality, management support, user expertise and information storage.

Similarly, Memon et al. (2021) examined the part that management information systems (MIS) play in strategic decision-making within Pakistan. The study aimed to demonstrate the importance of MIS in achieving competitive advantage through enhanced strategic decisions. Qualitative systematic analysis demonstrated that MIS is a powerful tool in strategic decision-making, it facilitates data collection and analysis, and contributes to improving business processes and strategic implementation.

Matobvu (2020) investigated the effects of digital technologies on small, micro, and medium enterprises (SMMEs) in developing towns of South Africa, in particular the Vhembe District Municipality in Limpopo Province. Based on the Technology-Organization-Environment (TOE) framework, this quantitative study identified that SMMEs possessing access to digital technologies experienced higher information and market access, lower operational costs, higher productivity and revenue. The concluding results demonstrated that digital technology adoption resulted in a significant enhancement of SMMEs performance with regards to all performance indices.

Furthermore, Aliu (2019) studied the effect of the internet on SMEs in Kosovo, specifically the developments in the technology adoption behavior. The analysis used a quantitative methodology, using structured questionnaires to determine the effect of internet technologies in daily business operations. The outcome revealed that most of the enterprises had implemented new technologies to business processes, thereby stressing the internet's contribution in improving operational efficiency.

Lastly, Kiradoo (2011) assessed the significance of MIS in strategic decision-making to gain a competitive advantage. According to the study report, the qualitative systematic review showed that MIS helps companies collect, compile, process and disseminate actionable business intelligence. This imparts an organisation with the ability to make strategic, informed decisions and consequently, to improve its position

in the competition. Kiradoo determined that MIS is an important means for enhancing business competitiveness and decision-making processes.

2.2.2 Local Reviews of ICT Adoption and It's Impact on SME Performance in Zambia

Local studies have been carried out to investigate the effect of Information Technology (IT) and internet activity in the management of small businesses in Zambia.

Ngoyi and Mwila (2019) reported on studies on how SMEs in Zambia use information and communication technology (ICT) to acquire business information. The outcomes revealed ICT as an important factor of business operations, both formally and informally. The primary motivations SMEs use of ICT SMEs were cost saving and the ease of conducting business. However, the study identified some of the challenges, including the high cost of ICT infrastructure, unstable power supply, poor internet services, data leakage, as well as various kinds of cyber-related threats. Yet, the study also demonstrated that SMEs tend to prefer utilising available options (Facebook, Instagram, TikTok), for their business and growth of the market. The research also found numerous benefits of ICT adoption for SMEs, namely, the decrease in operational expenses, better financial control, stock keeping and enhanced customer trailing.

In a linked experimental study, Sianjase (2016) investigated the impact of ICT on the performance of small-scale enterprises in Zambia using Porter's value chain model to define business processes. The study revealed that ICT adoption significantly reduced operational costs and time, with mobile phones emerging as the most commonly used device. The research focused on identifying the most frequently used ICT tools and assessing their impact on specific business operations. Through a quantitative methodology, the study determined that ICT plays an essential role in improving the competitiveness, productivity, and efficiency of SMEs in Zambia.

Daka (2016) carried out an exploratory study to examine the impact of ICT adoption on selected manufacturing and business firms in Zambia. Using a cross-sectional approach, this study applied the diffusion theory of innovation as a theoretical framework to understand ICT adoption dynamics within these firms.

The study revealed that commonly used ICT tools, such as computers and the internet, have high adoption rates among businesses. It further demonstrated that by incorporating more advanced ICTs, firms could rebrand themselves, enhance productivity, increase profit margins, and contribute more significantly to the national economy. The study stressed that not only is it a very important cost-saving tool, the adoption of ICT can also help improve both productivity and operational efficiency.

2.2.3 Strategic Business Decisions

O'Brien and Marakan (2005) stress the vital role of MIS in optimising the use of scarce resources by providing intelligent information support for decision-making processes. This optimisation is particularly important in fields, such as, where the competitive advantage rests on being able to manage and allocate resources. According to their findings, MIS not only facilitates effective decision-making but also ensures that implementation processes are streamlined through enhanced coordination, minimising wasteful delays and inefficiencies in operations.

O'Brien and Marakan's study highlights deeply embedded use of MIS across many areas, and shows that it is broadly applicable to all communication needs, strategic decision-making and wide productivity gains. MIS allows companies to gain from the use of data, and real-time insights and enables them to adjust to shifts in the market, optimally manage resources and enhance flexibility of operational processes. This is mostly pertinent in industries including manufacturing, retail, and healthcare, where the efficient use of resources and timely management of decisions are important to maintaining high levels of output.

The widespread adoption of MIS also echoes its important role in enhancing operational efficiency, reducing costs, and increasing organisational agility. By integrating communication channels, MIS enables stakeholders at different organisational levels to collaborate more effectively, thereby improving the quality of decisions made. O'Brien and Marakan (2005) argue that these systems contribute to the achievement of higher productivity by ensuring that the system in which MIS is implemented operates with optimal coordination and reduced downtime.

Their research is consistent with broader research that emphasises MIS as a key enabler of business performance across industries. The power to combine, analyse

and distribute information at a great speed enables organisations to react and adapt to changes in the business environment in a more intelligent way by clarifying uncertainties and achieving better strategic results (Kiradoo (2011)).

In conclusion, O'Brien and Marakan's study offers significant insights into the multi-layered advantages that MIS affords, such as its ability to enhance resource use, promote coordination and contribute to systematic decision-making. With the dynamism of contemporary industry development, MIS continues to be a core element that facilitates the pursuit of increased productivity, and sustained competitive advantage in dynamic market environments.

2.2.4 Customer Relationship Management (CRM)

The adoption of MIS in CRM has significant positive effects on customer satisfaction. Successful CRM is essential for the survival of retail SMEs. Kalinda and Tembo (2020), showed that implementation of MIS in Lusaka's retail environment led to better customer data management, responsive marketing and enhanced customer service. These improvements resulted in better client's satisfaction and loyalty, which are both key to for future development.

Research pinpoints major difficulties in SME MIS implementation, such as lack of finances and technical training, and infrastructure issues. Mwansa (2018) points out insufficient access to finance as a limitation of the adoption of strong MIS solutions, whereas Phiri (2021) described the fact that many SMEs and their workforce in Lusaka were not equipped to use MIS effectively, which translated to underutilisation and resistance. Lungu (2017) also noted that in addition, lack of reliable power supply, poor internet connectivity, and lack of funds create challenges for the operation and efficiency of MIS.

2.2.5 Advantages of the Methodology for the Previous Studies

Diversity of Case Studies

The review is based on a diverse body of global, regional, and local research, which provided an integrative view of the effects of MIS in various areas and businesses. This diversity extended the analysis and made it possible for generalisability while emphasising regional specific hurdles and potential. Research from Nigeria (Olateju,

2024), Kenya (Kamau, 2022), Pakistan (Memon et al., 2021), South Africa (Matobvu, 2020), Kosovo (Aliu, 2019), and Zambia (Ngoyi and Mwila, 2019; Daka, 2016) provided a global framework, which allowed a comparison of how MIS is implemented in various economic and infrastructural contexts.

Mixed Methods Approach

While the predominant approach in the literature appears quantitative, the inclusion of qualitative methodologies (as seen in Memon et al., 2021, and Kiradoo, 2011) provided a broader understanding of strategic implications of MIS. Quantitative data, such as profit growth and operational efficiency statistics, are useful for empirical testing, whereas qualitative data contribute to understanding the depth of strategic decision-making and operational nuances.

Focus on SMEs

The literature review suitably focused on small and medium enterprises (SMEs), which was also the focus of this study. SMEs often face unique constraints (e.g., financial, infrastructural, and technical), hence adoption MIS is not homogenous and rather context-dependent. Through examining SMEs, the review tackled an important area of business that is frequently overlooked in larger-scale technological studies.

2.2.6 Disadvantages and Methodological Gaps on Previous Research

Overemphasis on Quantitative Methods

Almost all the studies reviewed were based on quantitative methods. Although this was statistically sound, it ignored the valuable information that could have been gathered from deep qualitative research, especially into the nature of tones that would have emerged from experience, adoption barriers, and the cultural changes needed to successfully implement MIS integration. Qualitative approaches like interviews or case studies, may offer a richer picture of how MIS is felt and used by employees and management.

Lack of Longitudinal Data

The majority of studies reviewed were based on cross-sectional approaches, such as Olateju (2024), Kamau (2022), and Daka (2016), where data were collected at one point in time. Cross-sectional studies have a limitation in being able to monitor the longitudinal effects of MIS adoption on firm performance. A longitudinal approach

would provide insights into the sustainability of the benefits of MIS, particularly in fast-evolving sectors like retail or manufacturing.

Limited Discussion of Contextual Challenges

The review touches on some contextual challenges, such as the lack of technical expertise and infrastructure (Phiri, 2021; Lungu, 2017), but these issues are not sufficiently explored. A more detailed examination of socio-economic and infrastructural challenges, especially in developing countries, would be essential for understanding the practical barriers to MIS adoption. For instance, studies like Ngoyi and Mwila (2019) briefly mention power supply problems and poor internet connectivity but the implications of these barriers on MIS effectiveness require deeper analysis.

Insufficient Exploration of Industry-Specific Dynamics

While the review discusses MIS's benefits for SMEs, it does not delve deeply into how MIS impacts specific industries differently. For instance, health or logistics industries may have highly contrasting MIS needs compared to retail or manufacturing. An industry specific approach would have yielded a more targeted insight into the sector-level challenges and opportunities in implementation and integration MIS.

2.2.7 Appropriateness of Methods Used in Previous Research

Quantitative Validity

The application of structured techniques and statistical analysis, as demonstrated in research such as Olateju (2024) and Kamau (2022), was suitable in establishing empirical relationships between MIS adoption and operational progresses such as cost savings, increase in earnings and performance enhancements. These methods are robust for drawing generalisable conclusions in broad contexts.

Application of Theoretical Frameworks

The level of depth came from the use of frameworks, for example the Technology-Organisation-Environment (TOE) framework as described by Matobvu (2020) and Porter's value chain by Sianjase (2016). These frameworks provided a structured way to analyse the interaction between technological factors, organisational capabilities, and external environments, making the studies theoretically sound.

Gap in Comparative Regional Analysis

While the literature review provides examples from various countries, it lacks a focused comparative analysis that could highlight key differences in MIS adoption between developed and developing countries. Factors such as regulatory environments, infrastructure quality, and labor market capabilities could be analysed in greater detail to understand how these variables influence the success of MIS adoption in different contexts.

2.1.8 Identified Gaps in the Literature

Lack of User-Centric Perspective

One of the significant gaps in the review is the absence of user-centric studies. Many studies emphasise organisational benefits, such as profit growth or operational efficiency, but there is little focus on how employees interact with MIS or how customer experience improves through MIS integration (apart from Kalinda and Tembo's, 2020, discussion on CRM). Exploring employee training, resistance to change, or user satisfaction could provide a fuller understanding of the practical challenges in adopting MIS.

Infrastructural Barriers in Developing Countries

While studies like Ngoyi and Mwila (2019) and Phiri (2021) briefly mention infrastructural challenges, such as poor internet services and erratic power supply, there is a need for more extensive research on how these issues specifically hinder the effectiveness of MIS in developing regions. For example, how do firms in regions with unreliable electricity supply adapt their MIS usage, and what cost implications does this have?

Limited Focus on Emerging Technologies

The review focuses on traditional MIS tools (computers, internet, and basic ICT systems), but it misses out on discussing emerging technologies such as artificial intelligence (AI), blockchain, and the Internet of Things (IoT). These technologies are becoming increasingly integrated into modern MIS and have the potential to further revolutionize industries by automating decision-making processes, enhancing cybersecurity, and improving data analytics capabilities.

Scalability of MIS in SMEs

The scalability of MIS in growing SMEs is an underexplored topic in the literature. While the review touches on financial constraints and infrastructural challenges, it does not examine how SMEs can scale their MIS infrastructure as they grow. This is an important consideration, as the needs of a small business can drastically change as it expands into new markets or scales its operations.

2.2.9 Discussion of Purpose, Hypotheses and Methodology of Previous Studies

Purpose

The studies reviewed in the empirical literature aimed to investigate the impact of Management Information Systems (MIS) on the operations and strategic planning of Small and Medium Enterprises (SMEs). These studies primarily focused on how MIS affects operational efficiency, decision-making, and competitive advantage in various regions, including Nigeria, Kenya, Zambia, South Africa, Kosovo, and Pakistan.

Proposition

While specific hypotheses vary across studies, the general hypothesis centers on the proposition that MIS adoption improves SME performance through enhanced decision-making, operational efficiency, and competitive advantage. Studies such as Olateju (2024) and Kamau (2022) hypothesized that firms adopting MIS or digital technologies experience better growth, efficiency, and profitability compared to those that do not adopt such technologies.

Research Design

The predominant research designs across these studies were quantitative, with a few using qualitative or mixed-methods approaches. For example:

Olateju (2024) employed quantitative methods to compare SMEs that implemented digital technologies versus those that did not.

Kamau (2022) used a quantitative approach with structured surveys to assess how SMEs in Embu County used MIS to improve operations.

Memon et al. (2021) took a qualitative method to study the use of MIS in strategic decision-making.

While quantitative designs are beneficial for collecting empirical data and testing hypotheses across large samples, the lack of qualitative studies limits the exploration of subjective experiences, such as user challenges and attitudes toward technology.

Sample

Sample sizes varied across the studies, and many used random or stratified sampling methods:

Olateju (2024) selected three hundred and twenty (320) SMEs in Lagos, Nigeria, to investigate variances in business performance related to digital technology usage. One hundred and fifty (150) were utilising digital technology while one hundred and seventy (170) were not.

Kamau (2022) focused on SMEs in Embu County, Kenya, ensuring a representative sample with 80 respondents through structured sampling.

Memon et al. (2021) applied a smaller sample size of twenty (20) in Pakistan to understand strategic decision-making among big enterprises.

Overall, the samples in each study were suitable for the population under investigation. Nevertheless, the external validity of the results is potentially restricted by restricted sample sizes and region-specific data, especially in low-income countries with their own infrastructure and economic constraints.

Instrumentation

Instrumentation in these studies generally involved structured questionnaires and surveys, especially in the quantitative studies. For example:

Kamau (2022) used structured questionnaires to collect data on the impact of MIS on firm performance.

Olateju (2024) developed a questionnaire to record performance factors including profit growth, business expansion, and digital technology adoption.

Memon et al. (2021) used interviews to collect qualitative data on strategic decision-making processes.

The use of structured instruments warrants consistency and reliability in data collection. However, there is a risk of instrument bias if the questionnaires are not

carefully designed to capture nuanced user experiences. A more mixed-methods approach that includes both surveys and interviews, would have provided a more complete understanding of MIS's effects.

Data Analysis

The most common method of data analysis was statistical analysis for quantitative studies, including the use of:

Descriptive statistics to gain insights into the scale of MIS usage (e.g., percentage of firms adopting MIS tools).

Inferential statistics, such as regression analysis, to examine the relationship between MIS adoption and business performance metrics like cost reduction, profit margins, and operational efficiency (Kamau, 2022; Olateju, 2024).

Thematic analysis was employed in qualitative studies like Memon et al. (2021) to explain patterns in interview responses to strategic decision-making.

Synthesis of Key Findings

The reviewed studies consistently highlight the significant impact of **Management Information Systems (MIS) and digital technologies** on SME performance, reinforcing the hypothesis that MIS adoption leads to **improved operational efficiency, cost reduction, business growth, and competitive advantage**.

Kamau (2022) and Ngoyi & Mwila (2019) emphasise the role of **ICT infrastructure and management support** in enhancing efficiency, lowering costs, and improving financial and inventory management. Similarly, Olateju (2024) demonstrates that SMEs leveraging digital tools experience **substantial profit growth and business expansion**. Memon et al. (2021) further underscore that MIS adoption is not only an operational necessity but also a **strategic tool for decision-making**, enabling firms to gain a competitive edge.

Collectively, these studies illustrate that **MIS and ICT adoption drive SME sustainability by optimising resources, reducing inefficiencies, enhancing decision-making, and fostering long-term growth**.

Validity of Findings

Although the findings are, in general, applicable to the samples considered, generalisability to the more general body of SME may be restricted for the following reasons:

Geographical Limitations

Most studies were conducted in specific regions, such as Nigeria or Zambia, which have unique challenges (e.g., poor infrastructure, limited internet access, poor electricity supply). As a result, findings may not be applicable to SMEs in nations that have more strong infrastructure.

Cross-Sectional Design

Most MIS adoption studies on are cross-sectional, thereby reducing the understanding of the long-term effects. Key threats to internal validity include:

- A. **Selection bias:** firms that are motivated or sufficiently resourced may be biased as seen in Kamau (2022) and Olateju (2024).
- B. **Instrument reliability:** Too much reliance on designed questionnaires can be narrow in scope.
- C. **Confounding variables:** Outside influences such as economic environment, can alter observed effects of MIS.

Suggestions to Address Threats to Validity

The following are suggestions that are designed to improve internal validity by reducing selectiveness, controlling confounding variables and strengthening causal links between independent and dependent variables in study design.

1. **Randomised control trials (RCTs):** Arbitrarily assign firms to MIS adoption to alleviate selection bias.
2. **Mixed-methods approaches:** Use qualitative approaches like interviews to improve data and reduce questionnaire bias.
3. **Longitudinal studies:** track firms over time to evaluate sustained MIS impact.
4. **Control for confounding variables:** Explain external influences like economic circumstances and industry-specific barriers in research design.

Weaknesses of the Previous Studies

The reviewed studies have weaknesses that may affect their accuracy, clarity and completeness, potentially compromising the reliability, validity and generalisability of their findings.

1. **Limited Qualitative Insight:** Excessive dependence upon quantitative approaches ignores subjective experiences with MIS.
2. **Underrepresentation of Micro Enterprises:** Micro enterprises play an important part many economies, but are often excluded from studies.
3. **Generalisability Issues:** Results are region-specific, therefore limiting applicability to other contexts in developed countries.

Suggestions for Improvement

Adopting recommendations aimed at remedying deficiencies can further elevate research methodology, foster research reliability and validity, and lead to a more productive advancement of knowledge in the field.

1. **Expand Sampling:** Include diverse firms across regions and sectors for broader applicability.
2. **Increase Mixed-Methods Use:** Qualitative methods should be incorporated to augment quantitative data and deliver deeper understanding.
3. **Longitudinal Designs:** Study the long-term impacts of MIS on firm performance.
4. **Training and Infrastructure Focus:** Investigate their role as critical factors in successful MIS adoption, particularly in developing countries.

The review highlights MIS's role in improving SME efficiency and decision-making globally, regionally and locally. While offering valuable insights, it identifies gaps such as reliance on quantitative methods, lack of longitudinal data, and limited focus on contextual and industry-specific challenges. Addressing this gap can enhance understanding and inform better MIS implementing strategies.

2.3 Theoretical literature

Various theories have been adopted by several researchers. The following are some significant theories and frameworks related to this topic.

2.3.1 Resource-Based Views (RBV)

According to this notion, a firm's resources and competencies are crucial to gaining a competitive edge and performing well. The resource-based view (RBV), sometimes known as the "resource-based view of the firm", is a managerial framework used to assess the strategic resources a corporation might exploit to attain long-term competitive advantage (Wikipedia).

2.3.2 The Balanced Scorecard

Provides a framework for evaluating financial, customer, internal process, and innovation performance, all of which MIS may help with. The balanced scorecard allows managers to assess the company from four distinct perspectives. Kaplan and Norton stated that, while providing managers with information from four viewpoints, the balanced scorecard reduces information overload by minimizing the number of metrics employed.

2.3.3 Diffusion of Innovation Theory

This theory investigates the factors influencing the acceptance and successful implementation of MIS solutions inside SMEs. Retailers are attempting to adopt new, attractive, and exciting technologies to catch consumers and improve retail management strategies, fuelled by the continuous technology push (Pantano et al., 2017, 2018b) and consumers' demand for new in-store experiences (Bertacchini et al., 2017; Dacko, 2017; Hagberg et al., 2016; Lee and Leonas, 2018; Pantano et al., 2017; Pantano and Viassone, 2014; Roy et al., 2017; Willems et al., 2017).

2.3 Conceptual Framework

A conceptual framework organises complex ideas systematically, guiding research by illustrating relationships between key variables (Hassan, 2024). In this study, it highlights the link between implementing optimised MIS and its impact on growth and sustainability of retail SMEs in Lusaka, forming the foundation for the investigation. Below is an overview of the various variables central to the study:

2.3.1 Independent Variables

The following are the factors of the study that were not influenced or altered by other variables that were under observation (Andrande, 2021).

A. Optimised MIS

The independent variable in this study is the optimised Management Information System (MIS), designed specifically to address the distinct needs of retail SMEs in Lusaka. This includes functionalities that enhance business operations, such as:

Inventory Management: Efficient tracking of stock levels, reorder points, and turnover rates, ensuring businesses avoid overstocking or stockouts.

Sales and Customer Data Analysis: The ability to track customer purchasing behavior, sales trends, and analyse this data to inform future business strategies.

Financial Reporting and Planning: Tools that streamline financial processes, enabling accurate reporting, budgeting, and forecasting for better financial management.

Customer Relationship Management (CRM) Tools: Systems that enhance interactions with customers, leading to better customer retention and personalized marketing strategies.

The optimised MIS is theorised to improve operational efficiency and overall business performance for retail SMEs, enabling them to better compete in the dynamic Lusaka retail market.

2.3.2 Moderating Variables

The following were the variables that influenced the strength or direction of the relationship between the independent and dependent variables.

A. SME Features

The internal characteristics of the SME play a moderating role in determining how effectively an optimized MIS can be implemented and utilized. These features include:

Size and Resource Availability: Smaller SMEs with limited financial and human resources may face constraints in adopting advanced MIS solutions.

Existing Technical Infrastructure: The presence of a digital foundation within the business (e.g., computers, POS systems) influences the ease with which an MIS can be integrated.

Management's Digital Literacy and Willingness: The leadership's understanding of digital tools and their willingness to adopt new technologies significantly impact MIS adoption and utilisation.

B. Market Environment

External market conditions also moderate the relationship between optimized MIS and SME outcomes. These include:

Retail Sector Competitiveness: In highly competitive markets, the need for efficient MIS tools may be more pronounced, as businesses strive to differentiate themselves.

Consumer Preferences: Shifts in customer behavior and expectations (e.g., demand for faster service, and personalised shopping experiences) can drive the adoption of technologies that enhance customer engagement.

Regulatory Environment: Legal and regulatory factors, such as data protection laws and industry standards, may influence the features and compliance requirements of MIS systems.

2.3.3 Dependent Variables

The following factors were evaluated as dependent variables and were influenced by independent variables. These factors represented the outcomes of the relationships under investigation.

A. Growth

Growth is a key dependent variable in this study, which will be measured by various performance indicators, this was adapted from the previous studies. The following are the performance indicators:

Increased Sales and Profitability: A direct measure of how the MIS improves revenue generation and profit margins (Sagar, 2024).

Growth in Market Share: Expansion of the business's footprint within the retail market, indicating success in competing against other SMEs (Sagar, 2024).

Expansion Opportunities: The ability to enter new markets or introduce new products, facilitated by the enhanced operational capacity provided by the MIS (Sagar, 2024).

B. Sustainability

Sustainability in this context refers to the long-term viability of the SME (Gunawan, et.al, 2023), with a focus on:

Environmental Practices: Adoption of resource-efficient technologies that minimise waste and optimise the use of materials.

Social Responsibility: Engagement in ethical sourcing, fair labor practices, and contributions to community welfare.

C. Long-Term Financial Stability

This variable assesses the SME's ability to maintain financial health over an extended period, ensuring continued operations, the ability to reinvest in growth, and resilience to market fluctuations.

2.3.4 Relationships Between Variables

The relationship between these variables forms the core of the research inquiry. The implementation of an optimised MIS is expected to drive improvements in operational efficiency, decision-making, and overall performance. This leads to tangible benefits in SME growth and sustainability. However, the impact of MIS on these outcomes is moderated by internal SME features (for example, size, resources, digital literacy) and the external market environment (e.g., competitiveness, consumer behavior, and regulatory factors).

In summary, the conceptual framework assumes that an optimised MIS contributes to enhanced growth and sustainability for retail SMEs. The effectiveness of this relationship, however, depends on both the internal characteristics of the SME and the broader market conditions in which it operates. Understanding these dynamics is crucial for assessing the potential benefits of MIS adoption and providing recommendations for its successful implementation in Lusaka's retail sector.

2.4 Chapter Summary

This chapter provided a comprehensive review of existing literature, examining studies that have been done both locally and globally. The review highlighted key findings from previous research, offering valuable insights into the topic while identifying gaps that this study aims to address. The theoretical literature explored various relevant theories, establishing a foundation for the study's approach. Additionally, the

conceptual framework outlined the anticipated relationships and outcomes, setting clear expectations for the subsequent chapters.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter discusses the methods used to explore the specific aspects that influence MIS optimisation for SME growth and sustainability in Lusaka's retail trade sector. It describes the research philosophy, approach and design, study population, sample size, sampling techniques, data collection techniques, and data analysis methodology and ends with ethical considerations.

3.2 Research Philosophy

Interpretivism offers a comprehensive and nuanced understanding of social phenomena by providing a "thick description" of the subject matter, as defined by Geertz (1973). This methodology rests on the assumption that the social world is constituted on the basis of subjective meaning by individuals, thus requiring the researcher to interpret these meanings to understand what is occurring (Blumberg et al., 2011). Interpretivism also suggests that the researcher's role is intrinsically interactive with the phenomenon being studied. This is in line with Habermas' (1972) claim that human interests, shape not only how we think but also how we explore the world. These interests guide the way we form of research questions, how the knowledge is formed and how the results are interpreted.

The interpretivist paradigm rests on several key assumptions: the social world is understood by interpreting the meanings individuals assign to it, and this process is inherently subjective. Researchers adopting this approach seek to understand social phenomena through the lenses of those being studied, making it distinct from positivist approaches that emphasise objectivity and quantification (Blumberg et al., 2011).

In the context of this study on the growth and sustainability of SMEs in retail trade in Lusaka, an interpretivist approach allowed the exploration on how owners and managers of these SMEs perceive and experience the role of MIS in their business operations. Through their subjective experiences, the authors were able to gain insights from how these systems influence business growth, decision-making, and long-term viability. This was important to learn more than just how MIS worked, but also its perceived value and impact from the perspective of the business owners.

3.3 Research Approach

3.3.1 Qualitative Research Approach

Creswell (2014), defines qualitative research as “an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem”. It analyses actions and interactions, taking into account the intentions of the actors. The use of this research approach enabled the researcher to delve into deep understanding through detailed description.

The goal of this study was to extract the deep rich insights into the social phenomena, behaviours, attitudes, and motivations of the people; hence the use of this technique was appropriate for the topic. Addressing the how and why of the subject to get a description of situations and happenings in the small and medium enterprises sector. Furthermore, addressing the subtleties of human experiences, interactions, and meanings, a qualitative research method provided complete and distinctive knowledge. That can provide deep, contextually rich understanding to inform theory development and the real-world application.

3.4 Research Design

This study used case study and phenomenological research designs to provide a holistic and multidimensional approach to investigating the optimisation of Management Information Systems (MIS) for the growth and sustainability of SMEs in the retail trade sector in Lusaka. This approach was designed to capture both the specific details of individual cases and the broader patterns of lived experiences, offering valuable insights into the practical realities of MIS usage.

As Creswell (2007) defined it, a phenomenological study “describes the meaning for several individuals of their lived experiences of a concept or phenomenon” (p. 57). This model facilitated an in-depth examination of the lived experiences of individuals who use MIS within retail SMEs in Lusaka. Through this method, the study aimed to gain a deep understanding of how MIS is perceived, adopted, and utilised, and its role in the growth and sustainability of these businesses.

In contrast, the case study design provided a structured framework for investigating the application of MIS within SMEs in the retail trade sector. Yin (2014) suggests that case study research is ideally positioned for investigating a modern phenomenon in its real-life setting, especially when the boundaries between phenomenon and its

environment are not clearly defined. This approach allowed for a very deep investigation of the precise settings in which MIS operates, presented a good overview of the theoretical and practical aspects to support both academic study and business practice.

The study focused on a small group of SMEs to conduct detailed investigations into how MIS adoption had influenced their business operations, the challenges they face, and their overall sustainability. Rich qualitative data was collected through interviews, observations, and document analysis, offering a holistic understanding of MIS's role in optimizing business processes for SME growth and sustainability.

3.5 Study Population

This study's population included all small and medium-sized firms (SMEs) involved in retail trade in Lusaka. These establishments encompassed a broad spectrum of industries including but not limited to grocery stores, clothing stores, agro-supply outlets, pharmacies, chemists, butcheries, and others, which illustrates the variety of Lusaka's retail environment. The presence of businesses from various industries ensured a thorough grasp of how Management Information Systems (MIS) are used in various retail settings.

As defined by the Ministry of Small and Medium Enterprises Development (MSME, 2023) policy, a small-scale retailer is characterised as an enterprise employing between 11 and 50 individuals with an annual turnover ranging from ZMW 250,001 to ZMW 5,250,000. Medium-sized retail enterprises, on the other hand, employ 51 to 100 workers and have an annual turnover of ZMW 5,250,001 to 25,000,000 (Ministry of MSME, 2023). These criteria were used to help identify participants for this study, ensuring that both small and medium-sized retailers are represented.

This classification was important as it mirrored the vast difference within the SME sector. It also indicated the range of operational capabilities, resource availability, and barriers to MIS adoption that retailers may experience depending on size and financial condition. Working within this set of parameters, the study yielded valuable implications for the use of MIS in fostering growth and sustainability in various types of SMEs.

3.6 Sample Size

The Revised National MSME (2023) development policy, Zambia had about 110, 508 SMEs with Lusaka having the highest at 43.5% enterprises. The sample size for this study was 80 participants and was chosen from an approximate population of 45,000 SMEs. The choice was based on the qualitative research principles ensuring depth and saturation of data over statistical generalisation. For thematic saturation, a sample size of 80 was enough to guarantee that information gathered was comprehensive, and representative of important themes in the population. This study comprised both registered and unregistered SMEs operating in the retail trade sector in Lusaka. This made the sample diverse and representative of the area's retail businesses, covering both formal and informal sectors. Registered stores were identified on the official databases run by the Patents and Companies Registration Agency (PACRA) and the Zambia Development Agency (ZDA), which have all the details of firms operating in Lusaka.

The informal sector accounts for a significant share of the retail environment in Lusaka. According to the International Labour Organization (ILO, 2021), 70% of Zambians are employed by the informal sector, and retail is a significant part of it. Many informal retailers operate without official registration yet play vital roles in local markets such as Soweto Market, Kabwata, Kamwala, and Chilenje.

The Zambia Statistics Agency (ZamStats) stated in its 2022 Census that Lusaka has a large number of SMEs, both formal and informal, with many operating in various commercial and residential premises. The census found 4.6 million structures nationwide, many of which are used for small-scale company operations (ZamStats, 2022). This highlights the need to add unregistered SMEs in the study to reflect the entire range of MIS usage across the retail sector.

3.7 Sampling Techniques

Convenience sampling was employed in this study to gather insights from various businesses classified as SMEs within the retail trade sector. This non-probability sampling method was chosen due to its practical advantages, including ease of access to participants and time efficiency (Etikan, Musa, & Alkassim, 2016). It allowed the

researcher to include businesses that were readily available and willing to participate, which was crucial given the time constraints and logistical limitations of the study. Despite its limitations, convenience sampling was deemed appropriate for this exploratory research, as it facilitated the collection of diverse perspectives across different types of SMEs.

3.8 Data Collection Instruments.

For data collection, the researcher employed structured questionnaires and interviews. The structured questionnaires provided quantitative data, ensuring consistency and comparability across responses, while the interviews allowed for deeper exploration of participants' perspectives, yielding qualitative insights. This method approach was designed to enhance the comprehensiveness of the data, allowing for both breadth and depth in understanding the research questions.

3.9 Data Analysis

Qualitative data analysis is the process of analysing, and interpreting qualitative research data, non-numeric, conceptual information, and user feedback, to capture themes and patterns, answer research questions, and identify actions to improve. Thematic analysis was the data analysis procedure that was used as it was appropriate for the study as it entailed detecting, analysing, and reporting patterns or themes in data to gain insights into the research topic being investigated. In the study, people's views, opinions, experiences, and values were used according to the data collected. Paying particular attention to the data helped ensure robust findings and eliminated subjective and biased interpretations of the collected data.

3.10 Ethical Considerations

During the data collection process, the researcher adhered to strict ethical guidelines to ensure that the study was conducted in a responsible and ethically sound manner. Key ethical considerations included safeguarding participants' privacy and maintaining confidentiality of their data. Informed consent was obtained from all participants, who were specifically informed about the study's aim, methodology and withdrawal rights at any time. Transparency was maintained throughout the research process, and the researcher demonstrated integrity by avoiding any form of data manipulation or misrepresentation.

3.11 Chapter Summary

This chapter provided a comprehensive design for the research process, ensuring a clear and structured approach to the study. It started with a theoretical footing, adopting interpretivism to emphasise understanding the subjective experiences and perspectives of participants. The research approach was qualitative, allowing for in-depth exploration and rich detailed insights into the topic.

The research design employed phenomenology and case study framework to gain insights into the lived experiences of participants in the retail SMEs in Lusaka, providing both depth and conceptual relevance. The population was constituted by the retail SMEs in Lusaka, with a sample of 100 participants selected using convenience sampling.

The data collection process involved two primary instruments: questionnaires and interviews, facilitating an inclusive understanding of the research questions. The data was analysed with a thematic analysis approach, to find patterns, themes, and outputs from the collected data.

Ethical considerations were carefully considered, ensuring participant anonymity, informed consent and adherence to ethical research standards throughout the whole process. This chapter successfully laid the groundwork, for performing a systematic and ethically appropriate investigation according to the stated research goals.

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the conclusions from an analysis of data acquired from SMEs in Lusaka's retail sector. The findings are organised around issues such as MIS adoption rates, fundamental functionalities, integration levels and hurdles, and underutilised regions. These findings allowed a clear view of the present state of MIS application and its effect on business operations across the sector.

4.2 Response rate

A sample of eighty (81) respondents were selected from the target population to participate in the study. A total of sixty (60) questionnaires were distributed and twenty (21) interviews were sought. The table below tabulates the response rate from the different types of data collection instruments used.

Table 4.1 Response rate from Respondents

Response Rate	Frequency	Percentage
Questionnaires filled	41	68.3
Questionnaires not filled	19	31.7
Interviews carried out	13	65
Interview requests and not carried out	7	35
TOTAL	80	

Source: Researcher (2024)

Table 4.1 The study achieved 68.3% response rate for questionnaire and 65% for interviews, both exceeding 50% adequacy threshold set by Mungenda and Mungenda (2010). These rates are sufficient to ensure reliability and validity of the findings.

4.2 Respondents Information

Respondent's Role in the Business

The study sought to identify the roles of respondents within their respective businesses. The results, as presented in the table, reveal that 63.2% of the

respondents were business owners, 26.3% were managers, and 10.5% were IT specialists.

Table 4.2 Respondents role in the business

	Role	No.	Percentage
1	Owner	51	63.2
2	Manager	21	26.3
3	IT Specialist	6	7.4
4	Other	2	2.8
	Total	80	100

Business Years of Operation

Table 4.3 presents the duration of business operations among the respondents. The data indicates that 27.5% of the businesses have been in operation for one to three years, 26.3% for four to six years, 19.6% for less than a year, 15.8% for seven to ten years, and 10.8% for over ten years. These findings demonstrate that the respondents represent businesses with varying lengths of operational experience.

Table 4.3 Years of operation

	Duration	No.	Percentage
1	Less than one year	15	19.6
2	1-3 years	21	27.5
3	4-6 years	22	26.3
4	7-10 years	13	15.8
5	More than 10 years	9	10.8
	Total	80	100

Business Type

The study categorised the respondents' businesses into five main types: Clothing, Food and Beverages, Hair/Beauty, Electronics, and Other (unspecified types). The analysis of the completed questionnaires revealed that 31.6% of the respondents represented clothing businesses, 26.3% were from food and beverage businesses, 25.4% represented hair/beauty businesses, 10.5% were from electronics businesses, and 6.2% represented other types of businesses.

Table 4.4 Business type

	Business Type	No.	Percentage
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1	Clothing	25	31.6
2	Food and beverages	21	26.3
3	Hair/Beauty	20	25.4
4	Electronics	9	10.5
5	Other	5	6.2
	Total	80	100

Number of Employees

The study examined the size of the workforce within the respondents' businesses, and the results are summarised in Table 4.6. Businesses employing between one and ten individuals accounted for 41.2% of the responses, while 43% represented businesses with 11 to 50 employees. Additionally, 15.8% of the respondents indicated that their businesses employed between 51 and 100 individuals.

Table 4.5 Employee size.

	No. of employees	No.	Percentage
1	1-10	33	41.2
2	11-50	34	43.0
3	50-100	13	15.8
4	Above 100	0	0
	Total	80	100

4.4 Investigating the available MIS options in the Retail Trade Sector

This study aimed at investigating the range of MIS options available to SMEs in the retail trade sector, examining the levels of adoption, their accessibility, usability, and knowledge on the existing systems on the market.

Current Adoption of MIS

Responses revealed a mixed attitude toward MIS adoption. A significant number of businesses (nearly half) reported not using any MIS. There were numerous reasons attributed of non-implementation for any system but the most frequent were financial limitations and lack of information. Furthermore, the belief that MIS is not needed for smaller businesses was also a factor in no adoption. One business owner stated, *"I don't think my business is big enough to need such a system. It's just extra costs for now."* Another remarked, *"I've heard about MIS, but I wouldn't even know where to start or how it could help me."*

Amongst the users MIS, the systems are mainly applied to financial management and point-of-sale operations. *“MIS helps us track sales and manage inventory efficiently. Without it, I’d struggle to keep things organised.”* Another noted, *“We see MIS as an investment; it saves time and reduces errors in our financial records.”* This suggests that while some SMEs recognise the value of these systems, many still face hurdles in embracing them fully.

Among the responses, there were a minimal percentage of participants who expressed uncertainty regarding whether the systems they currently use qualify as MIS. These systems included tools such as Excel and basic POS systems. They highlighted the need for clearer definitions and understanding of MIS. As one respondent noted, *“We use a point-of-sale system, but I’m not sure if it’s considered a full MIS.”*

Types of MIS in Use

Participants who use MIS reported employing varied systems tailored to their operational needs, indicating diverse preferences among SMEs in Lusaka’s retail sector. They cited various systems, including QuickBooks, Point-of-Sale systems, SAP, and Microsoft Dynamics. These selections illustrate a trend towards tools designed to solve address operational challenges such as financial tracking and sales management. *“We use ZPOS for tracking our sales and inventory. It’s simple but very effective for a business like ours.”* Another mentioned, *“Our custom POS was developed by a local tech company, and it’s tailored to our specific needs, which makes it more practical.”* Another participant highlighted that they use Quickbooks because its easier, *“QuickBooks has been a game-changer for managing our accounts—it’s easy to use and keeps everything in one place.”*

The diversity in the systems mentioned reflects businesses’ varied needs, from managing inventory to integrating customer data.

Motivations for Choosing MIS

The selection of MIS by SMEs was predominantly influenced by factors such as affordability, ease of use, and peer recommendations. Respondents frequently highlighted the simplicity and accessibility of these systems as critical determinants in their decision-making process. For instance, one participant remarked, *“It’s easy to*

use, even for someone like me who isn't very much into computers and internet things." Another explained, "We wanted something simple that our team could quickly understand and operate." Affordability emerged as the most commonly cited factor, with one respondent noting, "It seemed like a cheaper option for managing sales and inventory." These findings underscore the emphasis SMEs place on cost-effectiveness and user-friendliness, often prioritising these attributes over more advanced system features.

Other respondents preferred software tailored to their specific needs, such as inventory tracking or financial management. "It was perfect for our business because it helps with inventory and sales tracking." "This system matched exactly what we needed to manage our finances." Another respondent stated that and is quoted, "We needed something for centralised control of the inventory tally, sales and current promotions." These comments highlight the value SMEs place on software specifically designed to their needs.

Challenges to Adoption

The implementation was consistently associated with a significant cost of MIS. Participants further reported the absence of technical expertise and lack of knowledge about available systems as significant challenges. As one respondent put it, "We don't have the technical expertise to implement such systems." These barriers suggest the need for targeted support, such as training programs and affordable MIS solutions, to encourage adoption.

Frequency and Areas of Use

The frequency of MIS usage among businesses varied, with some employing the systems daily while others used them on a more occasional basis. Respondents described MIS as particularly useful for managing financial data, sales tracking, and inventory management. One participant noted that "MIS streamlines business operations, particularly in stock management." Another emphasised its role in financial oversight, stating, "It helps us manage our finances effectively" and "MIS is essential for financial reporting." Sales tracking and inventory management were consistently emphasized across responses, with participants referencing activities such as "daily sales tracking," "comparing sales trends," and "real-time audit management." These

insights underscore the critical role of MIS in enhancing operational efficiency and decision-making processes within businesses.

Challenges with MIS Usage

Some participants expressed concerns about the complexity and cost of maintaining these systems. Others pointed to external factors such as power outages (load-shedding) that hinder effective use while others complained of the fluctuating exchange rates. Most business owners mentioned, *“The fluctuating dollar cost affects the affordability of software upgrades.”*

Awareness of Alternative Systems

Although participants were aware of alternatives like Odoo, Sage, and CRM tools, many felt unprepared to explore them. Other participants however had no idea what MIS is and its existence. This highlights a gap in knowledge and readiness, which could be bridged through awareness campaigns and demonstrations tailored to SMEs.

4.4.1 Themes Emerging from the Adoption of MIS

Based on the work conducted in this study, several themes were identified that offered rich descriptions that drive MIS adoption, the perceived value of such systems, and the obstacles preventing the successful implementation of these systems. The following are key concepts that emerged from the participants regarding the adoption of MIS in their businesses:

Adoption Reluctance: Financial constraints and lack of expertise were the main reasons for non-adoption, revealing a need for supportive interventions.

Value Perception: Businesses that implemented MIS rated them as essential to operational efficiency, in particular, financial and sales management.

Diverse Needs: The variety of MIS systems highlighted the importance of flexibility in solutions to cater to different business models.

Training as a Key Enabler: The absence of technical expertise repeatedly emerged as a barrier, suggesting that capacity-building initiatives could significantly improve adoption rates.

These themes collectively form a detailed framework for understanding the complexity of MIS adoption in SMEs. They also give actionable insights for policymakers, technology providers, and business executives to support the proper use of MIS and realize its full potential for driving growth and sustainability.

Table 4.6 Summary of MIS availability and adoption

Themes	Key Insights	Implications
Adoption Reluctance	Financial constraints and lack of expertise are primary barriers	Subsidies and financial aid are crucial to overcome adoption challenges.
Value Perception	MIS are crucial in financial and sales management.	Highlighting MIS benefits can motivate hesitant businesses to adopt these systems.
Diverse needs	SMEs require flexible and adaptable MIS solutions to meet their unique business requirements.	Customisable MIS solutions are needed to cater for varied needs.
Training as a key enabler	Lack of technical expertise limits adoption and usage.	Capacity-building programs can like training can empower SMEs to adopt and maximise MIS effectiveness.

4.5 Evaluating the Integration of MIS in SMEs

This study sought to evaluate the integration of MIS within SMEs in Lusaka's retail trade sector, examining the extent of integration, the factors influencing integration, and the impact on business performance. By understanding the current state of MIS integration, this research aimed to identify opportunities for improvement and provided

insights that could inform strategies to foster growth and sustainability within the sector.

Integration of MIS into Business Operations

The responses revealed varying levels of MIS integration in their business operations highlighting significant differences in the extent to which MIS is integrated.

Fully Integrated Systems: Several businesses reported complete integration of MIS, describing its daily use for key operational tasks. Respondents highlighted activities such as *“real-time monitoring of stock, sales, and movement”* and *“audit management.”* These businesses demonstrated a high reliance on MIS for maintaining efficiency and streamlining processes.

Partially Integrated Systems: Other businesses indicated partial integration of MIS, typically within specific functional areas such as customer management or financial tracking. These organisations used MIS selectively, aligning its application with their immediate operational priorities rather than incorporating it into all aspects of their workflow.

Non-Usage of MIS: Some respondents stated that they do not use MIS, instead relying on traditional, manual methods such as record books for managing business activities. For instance, one participant remarked, *“We use books in our business and review them periodically to track progress.”* This group highlighted their preference for manual systems despite acknowledging some limitations compared to digital alternatives.

These findings illustrate a spectrum of MIS adoption, ranging from full integration to complete reliance on manual processes, reflecting varied levels of technological advancement and resource availability among businesses.

Impact of MIS Integration

The impact of MIS varied significantly based on the degree of integration within business operations.

Enhanced Efficiency: One of the most frequently cited benefits of MIS was its ability to improve operational efficiency by streamlining processes and enabling faster decision-making. Respondents reported that MIS systems “*help with decision-making*” and make it easier to “*track money and sales,*” emphasising their role in optimising day-to-day business activities.

Improved Tracking: MIS was also recognised for its effectiveness in enhancing tracking capabilities, particularly in sales and financial management. A number of participants also mentioned on how the system had “*enhanced the efficiency of the store’s operations,*” allowing for better oversight and control.

Business Growth and Improved Management: Many respondents ascribed MIS to fostering business growth and improving management practices. Participants reported notable improvements in operational speed and ease of management, stating that MIS enables them to “*do things fast*” and provides “*easy management.*” One respondent further emphasised that the system had “*enhanced the efficiency of the store’s operations,*” reflecting its role in facilitating organisational development and improved performance.

These insights underline the transformative potential of MIS, particularly when integrated effectively into business operations, to drive efficiency, growth, and better management practices.

Business Areas Relying on MIS

Participants highlighted several key areas where the use of MIS was most prevalent, demonstrating its usefulness in supporting various business functions.

Sales and Finance: Sales and financial management emerged as the most frequently mentioned areas of MIS application. Businesses relied on these systems for tasks such as transaction tracking, financial reporting, and overall fiscal oversight.

Inventory Management: A significant number of respondents underscored the role of MIS in streamlining inventory management. This included tracking stock levels, monitoring inventory movement, and conducting audits to ensure accuracy and efficiency.

Customer Relationship Management (CRM): Some participants noted the use of MIS for managing customer-related activities, including tracking customer data and enhancing engagement through tailored strategies. One respondent summarised these insights, stating, *“MIS is heavily used in sales, CRM, and finances,”* reflecting the system’s importance across multiple critical business functions.

These findings emphasise the integral role of MIS in improving operational efficiency and supporting strategic decision-making within organizations.

Observed Benefits of MIS Use

Participants frequently identified several key benefits of using Management Information Systems (MIS), highlighting its impact on various aspects of business operations.

Enhanced Efficiency: MIS was widely recognised for its role in improving efficiency, particularly in tracking and managing inventory, financial transactions, and sales. Respondents highlighted the system’s ability to *“detect stock levels and losses”* and its *“ease of tracking money and numbers,”* emphasising its contribution to operational precision.

Streamlined Processes: Several businesses credited MIS with streamlining operations and enhancing service delivery. In addition to improving internal workflows, MIS supported efforts to increase *“brand awareness,”* enabling SMEs to reach broader audiences and strengthen their market presence.

Improved Stock Management: Real-time insights into inventory levels emerged as a significant advantage of MIS. Respondents noted that the system allowed businesses to maintain a *“better stock of needed goods,”* ensuring product availability and reducing the risk of shortages. One participant remarked, *“It helps us detect stock levels and losses quickly,”* underscoring the practical benefits of the system for inventory control.

These findings illustrate the critical role of MIS in enhancing efficiency, optimising processes, and supporting effective stock management in SMEs.

4.5.1 Themes Emerging from the Integration of MIS in SMEs

The themes emerging from participant responses provide essential insights regarding MIS adoption, functionality, and problems. These themes provide a thorough overview of how SMEs use MIS to improve financial and operational efficiency, as well as identify impediments and potential for deeper integration. The goal is to discover patterns in MIS usage that can help advise strategies for increasing its adoption and influence on SME growth and sustainability.

1. **Key Functionalities:** Core functions such as sales, finance, CRM, and marketing dominate MIS usage. Accounting and financial stability are top priorities, with financial reporting and loss detection being the most emphasised areas.
2. **Adoption Levels:** MIS adoption varies from full integration to minimal use. Businesses with higher adoption report greater benefits, while others identify untapped potential.
3. **Barrier to Integration:** High costs, lack of technical expertise, and resistance to change hinder widespread integration. Overcoming these challenges requires strategic investments and capacity building.

Table 4.7 Summary of themes on MIS integration

Themes	Key Insights	Implications
Key functionalities	- MIS is mainly used for sales, finance, CRM, and marketing, with financial reporting and loss detection as priorities.	- Enhancing MIS features related to financial stability and customer relationship management is critical.
Adoption levels	- MIS adoption varies, with full integration providing significant operational and financial benefits.	- Promoting the benefits full adoption can encourage

		broader and deeper MIS usage.
Barriers to integration	- High costs, lack of technical experience, and resistance to change, are common obstacles.	- Strategic investments in affordable systems and capacity-building initiatives are essential in overcoming these barriers.

4.6 Assessing Barriers faced by SMEs in the Retail Sector in the Implementation of MIS

The study aimed to examine the barriers encountered by SMEs in the retail sector when implementing Management Information Systems. The following discussion outlines the key obstacles identified through responses from various businesses.

Challenges to MIS Implementation

The implementation of MIS among SMEs is hindered by several critical challenges, including cost, technical difficulties, and infrastructure issues. The following were highlighted by several respondents as challenges.

1. Cost Constraints

Cost emerged as the most significant barrier to MIS adoption. Participants highlighted the financial strain associated with ongoing expenses such as software licenses, regular updates, and hardware investments. These challenges are further worsened by currency fluctuations, particularly for dollar-denominated subscriptions. Respondents emphasised the unpredictability of costs, stating, “The fluctuating costs due to the dollar make it very hard to plan,” and noted that, “Maintenance costs are a

burden on top of the initial investment.” Additionally, costs related to employee training, internet connectivity, and power were frequently mentioned as compounding factors. One participant noted, “The cost of applications, along with training employees, connectivity, and power challenges, is taxing.” These expenses collectively strain the budgets of SMEs, limiting their ability to sustain MIS systems effectively.

2. Technical Challenges

A lack of technical expertise and operational complexity emerged as recurring issues. Many SMEs reported difficulties in understanding and managing MIS without professional support, with one respondent stating, “The system is too complex for us to understand without professional help.” Insufficient technical knowledge among staff further hindered effective system use, as highlighted by remarks such as “Our staff were not equipped with the needed knowledge.” Training initiatives, while essential, were deemed costly and time-intensive. Moreover, only a limited number of personnel were adequately trained to manage these systems, leading to operational bottlenecks.

3. Infrastructure Issues

Infrastructure-related challenges, particularly power outages and unreliable internet connectivity, were significant barriers to MIS implementation. With the inconsistent electricity supply, power outages disrupted operations and reduced the reliability of MIS. Participants noted that “Loadshedding disrupts our operations and makes it hard to rely on these systems.” Similarly, poor or unavailable internet connectivity further impeded real-time data access and system updates. Comments such as “Poor internet most times” and “Internet connectivity and ZESCO issues” underscored the pervasive nature of these barriers. Without consistent access to electricity and reliable internet, SMEs struggle to fully leverage the benefits of MIS.

These challenges underline the need for targeted interventions to address financial, technical, and infrastructural barriers to MIS adoption. Policymakers and stakeholders must consider cost-effective solutions, capacity-building initiatives, and infrastructure investments to fully exploit potential of MIS by SMEs.

Training on MIS Use

The respondents were queried about how many received any of training in the use of MIS. The majority reported having no formal training, highlighting a significant gap in capacity building within the sector. However, those who had undergone training emphasised its effectiveness in enhancing their skills and improving system utilisation. For instance, one participant noted, *"Yes, the training was very effective in improving our use of the system."* This stressed the value of structured training programs in nurturing competence and maximising the benefits of MIS implementation.

Challenges in Integrating MIS into the businesses

This analysis examined how SMEs rate the difficulty of integrating MIS into their operations on a scale of 1 (easiest) to 5 (most challenging).

The respondents who have had training and are adept with technology didn't find it challenging with integrating MIS in their business processes. While the ones with minimal or no training faced the greatest challenges as they had to rely solely on their own knowledge, train their employees themselves and expressed concern about the lack of friendly systems. Generally, respondents faced moderate challenges in the integrating MIS in their businesses.

Main reasons behind non-implementation of MIS in Business

In order to understand as to why some respondents have not implemented MIS into their business, they were asked to specifically state the reasons they haven't done so. Many recalled that they never saw the necessity as they looked at the size of their businesses. Some alluded to the fact that there is little knowledge of such systems. While others stated that they would rather continue with the old ways of manually entering their data into books as that is what has worked for them.

4.6.1 Emerging themes on Barriers in the Implementation of MIS in Retail Businesses

The analysis of respondents' data yielded several recurring insights that closely aligned with the study's objectives:

1. Financial Constraints:

- **High costs adoption and maintenance;** Costs associated with software licences, hardware investments and regular updates are substantial barriers.
- **Unpredictability due to currency fluctuations;** US dollar priced-subscriptions lead to budget uncertainty.
- **Additional Expenses:** Costs related to employee training, internet connectivity, and power supply add to financial strain.

2. Infrastructure Challenges:

- **Unreliable Power Supply;** Frequent power outages (load-shedding) disrupt operations of MIS systems.
- **Poor Internet Connectivity;** Limited or inconsistent internet access impedes real-time updates.

3. Deficits in Awareness and Training: A lack of awareness regarding the available MIS solutions, coupled with inadequate training programs, continues to hinder the broader integration of these systems into business operations.

4. Resistance to Change and Integration Difficulties:

- **Preference for manual systems;** Some SMEs prefer traditional manual old system.
- **Perceived lack of necessity;** Smaller businesses often do not see the value or necessity of implementing MIS.
- **Integration Difficulties;** Integration is easy for businesses with trained and tech-savvy personnel, while others struggle due to lack of training and unfriendly systems.

Table 4.8 Summary of themes on barriers of implementation

Themes	Key Insights	Implications
Financial constraints	<ul style="list-style-type: none"> • High costs, currency fluctuations and extra expenses. 	<ul style="list-style-type: none"> • Software, licences, hardware, training, internet and power costs.

Infrastructure	<ul style="list-style-type: none"> • Power and internet issues 	<ul style="list-style-type: none"> • Outages and poor connectivity affect the operations of MIS.
Awareness and training	<ul style="list-style-type: none"> • Deficits in awareness and training 	<ul style="list-style-type: none"> • Limited knowledge and training hinder MIS integrations.
Resistance to change	<ul style="list-style-type: none"> • Preference for manual systems • Perceived lack of necessity 	<ul style="list-style-type: none"> • Some SMEs see MIS as unnecessary or stick to familiar traditional methods.
Integration	<ul style="list-style-type: none"> • Training gaps and complexity of systems. 	<ul style="list-style-type: none"> • Trained users adapt easily, others face challenges.

4.7 Impact of MIS on Operational Efficiency and Decision-Making

This section evaluates the impact of MIS on operational efficiency and decision-making processes within businesses. The findings, derived from respondents' insights, explore various dimensions of MIS impact, highlighting key areas of improvement and challenges faced.

Impact of MIS on Businesses

Respondents were asked to share their experiences regarding changes in their business operations resulting from the adoption of MIS. The feedback varied, with the extent of impact differing based on individual business expectations and use cases.

Enhanced Operations and Efficiency: MIS adoption has significantly improved operational workflows and efficiency, as frequently noted by respondents. Statements

such as *“We are able to do our processes fast and track them easily”* and *“It has made financial management easy and cost-efficient”* underscore these improvements.

Cost Efficiency: Respondents highlighted that MIS facilitated optimal resource allocation. For example, one participant remarked, *“Since we are able to track our most sold goods, we are able to spend our resources wisely.”*

Better Decision-Making: The availability of timely and actionable insights enabled respondents to make informed business decisions. Statements such as *“We are able to make better decisions because we know where the good sales are coming from”* and *“It has helped us do things differently”* illustrate this benefit.

Financial Oversight: Many participants emphasised the positive role of MIS in financial management, citing its effectiveness in tracking income and expenditure. A cross-cutting theme was the simplified ability to manage finances, a benefit consistently recognised by respondents.

Data Management: The storage and accessibility of business information were reported as major advantages. Respondents mentioned that MIS systems allowed them to *“easily store and retrieve information.”*

Supply Chain Efficiency: The ability to identify customer preferences through sales trends enabled businesses to optimise their supply chains. One respondent shared, *“We are able to supply products that customers demand because MIS helps us identify trends.”*

General Positive Impact: Some respondents expressed overall satisfaction with MIS adoption, using phrases such as *“positively,” “greatly,”* and *“better”* to describe their experiences without additional elaboration.

Key Areas of Improvement

Respondents identified specific domains where MIS adoption yielded the most significant improvements. These areas, ranked in order of impact, include:

1. **Financial Management:** This emerged as the most notable improvement, with respondents consistently highlighting streamlined financial processes and effective cost management.
2. **Decision-Making:** MIS-enabled access to timely and accurate data improved decision-making capabilities. For example, one respondent noted, *“I am able to make better decisions because I know where the good sales are coming from.”*
3. **Sales Growth and Customer Retention:** By aligning product offerings with customer needs, businesses reported increased sales and expanded customer bases. A participant stated, *“We are effective in providing the things our clients need.”*
4. **Inventory Management:** The ability to monitor stock levels and restock efficiently was frequently cited as a key benefit. One respondent noted, *“Employees know through data review in the books that we track stocks even without daily counting.”*
5. **Record-Keeping:** Respondents highlighted improved storage and accessibility of business records as a key advantage of MIS.

Influence of MIS on Decision-Making

Respondents were asked to describe how MIS have influenced their decision-making processes. The feedback indicates that MIS has fundamentally enhanced business decision-making, summarised into the following themes:

Key Enhancements in Decision-Making

1. **Real-Time Feedback:** Respondents highlighted the value of real-time insights, enabling swift, fact-based decisions. For example, one respondent noted, *“We get feedback in real-time, helping us decide when to implement promotions or restock.”*
2. **Enhanced Agility:** MIS provided businesses with the ability to make faster and more data-driven decisions, thereby increasing their operational agility.
3. **Simplified Processes:** By consolidating and presenting critical information clearly, MIS has simplified the decision-making process. One participant remarked, *“It has helped us to know exactly when to order drinks and what*

quantities are sold often. All we have to do is check our records, and we know where to take our business.”

Specific Business Improvements

Respondents identified several notable areas where MIS has positively influenced business performance:

Sales Tracking: The ability to monitor and track sales in detail has been significantly improved.

Stock Management: Businesses reported enhanced restocking decisions informed by sales trends, improving customer satisfaction and profitability. As one participant noted, *“Orders are now customer-focused.”*

Customer Engagement: MIS has enabled businesses to better meet customer needs, fostering loyalty and repeat business. A respondent observed, *“We have more return customers because we restock products they want.”*

Financial Decision-Making: The accuracy provided by MIS in tracking financial data has led to better spending decisions and more efficient resource allocation.

Overall Business Growth

Businesses that have integrated MIS reported notable improvements in overall growth and performance:

1. **Efficiency Gains:** Faster and more accurate operations have allowed businesses to scale their activities effectively.
2. **Enhanced Planning:** MIS has supported improved long-term planning by providing accurate and accessible data. One respondent commented, *“We plan better based on the information that is stored.”*
3. **Increased Profitability:** Allocating resources to in-demand products and services enabled businesses to higher revenues and in turn have opportunities for recapitalization.

Impact on Sustainability and Long-Term Planning

MIS adoption had also contributed to the sustainability of businesses, with respondents noting benefits and summarised into two very important aspects of businesses:

Improved Financial Management: Accurate data enabled businesses to plan expenditures and investments more efficiently, ensuring financial stability.

Strategic Decision-Making: Insights from MIS have leveraged strategic position with long-term business goals. One participant summarised, *“Due to the accuracy of the information provided by the system, we are able to plan better and allocate resources efficiently.”* The readily available data has enhanced the ability of businesses to set and achieve sustainable objectives.

4.7.1 Key Insights on MIS Efficiency and Decision-Making

The results from the study showed the following important themes regarding the role of MIS in enhancing business operations and decision-making:

1. Efficiency Gains: MIS has significantly improved efficiency across many areas, including operations, financial management, and supply chain processes. Businesses that have implemented MIS routinely described simplified workflows and enhanced use of resources.

2. Strategic Decision-Making: The actionable insights provided by MIS empower businesses to make more informed and strategic decisions. This capability enables organisations to be responsive to market dynamics and internal challenges.

3. Timeliness: Real-time data availability enables businesses to act quickly and reactively to changes in dynamic markets.

4. Operational Simplicity: Simplified data presentation within MIS systems makes decision-making more accessible, particularly for SMEs with limited technical expertise.

Table 4.9 Summary of themes on MIS efficiency and decision-making

Themes	Key Insights	Implications
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Efficiency gains	<ul style="list-style-type: none"> • MIS improves operations and efficiency management. 	<ul style="list-style-type: none"> • Essential for streamlining workflows in SMEs.
Strategic decision-making	<ul style="list-style-type: none"> • Enables informed and responsive decisions. 	<ul style="list-style-type: none"> • Helps businesses to adapt to market dynamics.
Timeliness	<ul style="list-style-type: none"> • Real-time data ensures quick decisions 	<ul style="list-style-type: none"> • Enhances agility in competitive markets.
Operational Simplicity	<ul style="list-style-type: none"> • Simplified designs aid non-technical users. 	<ul style="list-style-type: none"> • User friendly MIS encourages broader adoption.

4.8 Respondents Views on Different Aspects of MIS

Suggested Areas for Improvement in MIS

The respondents were asked for suggestions on how MIS can be improved to help them enhance decision-making, and the following were the responses.

Common Challenges Identified

Respondents identified several challenges as aspects of MIS that they would like improved. The three key areas suggested for enhancing MIS usage were affordability, offline functionality, and simplification

Advice for SMEs Considering MIS Adoption

Respondents emphasised the benefits of MIS adoption, highlighting its positive impact on business operations. They advised SMEs to ensure proper infrastructure is in place and recommended patience and thorough training during implementation for successful adoption.

Desired Features for an Ideal MIS

Respondents outlined the ideal features of an MIS, prioritising comprehensive and cost-effective systems that address all business needs while remaining affordable. They also emphasised the need for speed, ease of use and user-friendly functionality.

Feedback on Current MIS Experience

Additional feedback was gathered regarding the overall experience with MIS in businesses. Many users expressed positive views, highlighting improvements in agility and operational efficiency with comments such as, “The system enhances the operations of the store by being agile and efficient. However, some provided neutral feedback, simply stating, “No”, or “Its been okay”.

4.9 Chapter Summary

In conclusion, the analysis and findings presented in this chapter highlight the critical role of Management Information Systems (MIS) in driving business growth and efficiency, particularly for small and medium enterprises (SMEs). Through thematic analysis of responses, several key areas of improvement and desired functionalities have been identified, such as affordability, user-friendliness, and the importance of real-time, data-driven decision-making. SMEs expressed a clear need for MIS solutions that are not only cost-effective but also comprehensive in their coverage of business operations, from financial management to customer engagement and inventory control. The recommendations provided by respondents underscore the importance of designing systems that are adaptable to the unique needs of SMEs while promoting ease of use and ensuring sufficient support for their successful implementation. The findings also point to areas where awareness and training can enhance the adoption and effective utilisation of MIS. By integrating these insights, businesses can better leverage MIS to streamline operations, optimise resource allocation, and improve overall performance, ensuring sustainable growth in a competitive market.

CHAPTER FIVE: DISCUSSIONS OF FINDINGS

5.1 Introduction

This chapter explores the study's findings concerning the research questions, as well as the implications. It gives an in-depth analysis of all the research questions posed and critically examines the findings. Each question is scrutinised, and the corresponding results are discussed in detail, shedding light on their significance and potential impact on the field of study.

5.2. What Management information system choices are available for SMEs in Lusaka's retail trade sector?

The study revealed that retail SMEs in Lusaka have a wide range of MIS solutions but the most common ones used were Quickbooks and Point-of-sale systems. Other more complex systems like SAP were also available and used by a few of the bigger businesses. Some businesses were not so sure whether their systems qualified as MIS as there was little or no knowledge of what MIS is. The use of social media platforms like Instagram and Facebook was also noted as an aspect of the system. The accessibility of these solutions varied, with cloud-based systems gaining popularity due to ease of use and affordability. According to Laudon and Laudon (2022), the rise of cloud-based MIS has enhanced access to advanced business tools, enabling smaller enterprises to compete effectively in the business market.

However, a noteworthy finding was that a significant number of respondents were unfamiliar with the concept of MIS. Several owners admitted that they had never heard of the term MIS and some were uncertain about its applications and benefits to their businesses. For some, they stated that their businesses were too small and such were only needed for big businesses.

The lack of awareness emphasises the critical gap in the adoption and implementation of MIS among SMEs in the retail trade sector in Lusaka. It echoes a broader issue identified in developing economies where limited exposure to technology and inadequate training hinder the uptake of digital tools. Osman et al (2019) argued that lack of awareness and understanding of DT is one of the primary barriers to technology adoption in African countries. Similarly, Ghobakholo, et al (2012) emphasised that success of MIS initiatives often depends on targeted awareness campaigns and training programs tailored to SMEs.

The findings highlight a two-way challenge: while there are numerous options of available MIS in Lusaka, lack of awareness significantly limits their adoption. This issue aligns with the technology acceptance model proposed by Davis (1989), which suggests that perceived usefulness and ease of use play a critical role in technology adoption. Without a clear understanding of what MIS is, or its potential benefits, business owners are unlikely to perceive these systems as useful or necessary.

In addition, the findings echo the diffusion of innovation theory Rodgers (2003) which identifies that awareness is the first stage in the adoption process. Therefore, if SME owners are unaware of MIS or their potential applications, they cannot move to the next steps of interest, evaluation, trial and adoption.

5.3 What is the level of integration of MIS in SMEs within the retail trade sector in Lusaka?

The findings revealed that there was significant variability in the levels of integration of MIS within the SMEs retail trade sector. While some businesses have effectively adopted MIS into their business operations, others use their systems only minimally, or not all, due to challenges such as technical limitations and cost constraints.

Generally, most SMEs use MIS for only simple accounting, sales tracking and inventory management. For example, systems like Quickbooks or POS are used to streamline financial reporting and track sales levels. Others, have however taken more advanced approaches by using systems that extend to customer relationship management and analytics.

The limited integration of MIS in businesses is also largely due to lack of technical expertise, insufficient training and the perception that MIS are unnecessary for small businesses. Some owners admitted that they felt overwhelmed over the complexity of systems while others felt that the cost was the deterrent.

This aligns with the findings by Osman et al (2019) who argue that digital literacy and access to training are critical factors for the effective utilisation of technology in developing economies. In addition, Laudon and Laudon (2022) highlight that SMEs in resource constrained settings often adopt technology incrementally, focusing on immediate needs rather than long term integration.

The variability in MIS integration reflects both challenges and opportunities for SMEs in Lusaka. According to the diffusion of innovation theory (Rogers, 2003), businesses at different stages of MIS adoption are influenced by their level of awareness, perceived complexity and relative advantage. While innovators and adopters are exploring CRM and analytics capabilities, the majority are still struggling with foundational applications.

The technology acceptance model also (TAM) proposed by Davies (1989) also provides a useful lens to understand the disparity. SMEs with higher perceived ease of use and usefulness of MIS tend to integrate these systems more comprehensively while those facing usability challenges or limited resources struggle to move beyond basic functions.

5.4 What barriers do SMEs in the retail trade sector face in the implementation and optimisation of MIS?

The study revealed several barriers hindering the adoption and optimisation of MIS by SMEs in the retail trade sector in Lusaka. The barriers are interrelated and often intensify one another, creating a complex network of challenges for business owners.

1. High Cost

The financial burden of acquiring, implementing and maintaining MIS solutions is a significant deterrent for many SMEs. Costs associated with software licensing, hardware procurement, and system customisation often exceed the budgets of smaller businesses. However, High costs are not unique to Lusaka, studies like those by Heeks (2018) highlight the affordability gap as the primary barrier of technology adoption in developing countries.

2. Limited Digital Literacy

A lack of knowledge and technical skills among SME owners and employees was another prominent barrier. Many business owners reported feeling overwhelmed by the complexity of the MIS tools and expressed hesitation in investing in things that they didn't understand. These studies align with the findings by Chigona et al (2019) which emphasise that digital literacy is the critical enabler of technology adoption, particularly in regions where exposure to advanced tools is limited.

3. Inadequate Infrastructure

Unstable internet connection and frequent power outages emerged as the significant challenges for SMEs trying to rely on MIS. The infrastructural limitations are particularly problematic for cloud-based systems that require constant connectivity. The role of infrastructure as a barrier has been widely documented in studies on technology adoption in Sub-Saharan Africa. According to Donner et al. (2020), infrastructure deficits limit the scalability and reliability of digital solutions, reinforcing dependency on manual processes.

4. Lack of tailored MIS and Vendor Reliability

Most of the available MIS is made for larger businesses, and lack the customisation of SMEs specific needs. In addition, there is limited availability of local vendor support and reliability, and that complicates MIS adoption. The gap in tailored solutions is an opportunity for developers and vendors to venture into creating MIS tools and solutions specifically for SMEs.

The barriers identified in this study reflects broader challenges documented in the literature on MIS adoption in developing nations. Financial constraints, digital literacy gaps and infrastructure deficiency are common themes as noted by Heeks (2018) and Osman et al. (2019).

In Lusaka, these factors are compounded by unique local factors as such as unreliable internet and power supply, as well as unavailability of MIS solutions tailored to SME needs. This presents a challenging environment to businesses seeking to leverage MIS for growth and sustainability.

Furthermore, the lack of vendor support exacerbates these challenges as SMEs often lack the internal resources to troubleshoot issues or adapt to systems independently. These findings underscore the need for collaborative efforts to address these barriers and create an enabling environment for MIS adoption in Lusaka.

5.5 [What is the impact of MIS on the operational efficiency, decision-making, and overall growth and sustainability of SMEs in the retail trade sector?](#)

The study demonstrated that MIS significantly enhances operational efficiency, supports data-driven decision making and fosters overall growth and sustainability for SMEs in Lusaka's retail trade sector. Businesses that effectively implement and utilise report measurable benefits across multiple dimensions, including streamlined processes, increased customer satisfaction, and improved financial performance.

1. Operational Efficiency

MIS plays a crucial role in automating tasks, reducing redundancies and enhancing workflow efficiency. SMEs that adopted MIS for sales management, inventory, and financial reporting experienced notable reductions in operational errors and time spent on manual tasks. The results are consistent with Laudon and Laudon (2020) who highlight the potential of MIS to increase operational efficiency effectiveness through automation of activities and better resource utilisation.

2. Decision making

Implementation of MIS supports decision-making because it provides real-time information and analytical tools. SMEs that have leveraged MIS to analyse sales trends, customer preferences, and operational metrics reported more confident and timely decisions.

According to Dovenport and Harris (2017), the function of MIS in data-driven decision-making is well established globally. In Lusaka, the study demonstrates how MIS empowers SMEs to overcome traditional reliance on intuition and subjective evidence in place of analytical insights.

3. Growth and Sustainability

The transformative impact of MIS extends beyond operational efficiency and decision-making to support long-term growth and sustainability. SMEs using MIS reported improved financial performance, enhanced scalability and better adaptability to market changes.

These findings resonate with Elbeltagi et al. (2013), who highlights the role of MIS in enhancing competitiveness in dynamic markets. The capability to streamline, organise

and adjust processes and resources shows that MIS is a critical tool for achieving sustainable growth in the retail trade sector.

The study's findings confirm the transformative impact of MIS on SMEs, particularly in resource constrained environments like Lusaka. MIS affords a competitive edge by tackling important issues such as high operating costs, inefficiencies and limited market insights.

This is consistent with global research including Laudon & Laudon who argue that MIS adoption is crucial for businesses, seeking operational excellency and growth. In addition, as a tool in Lusaka's context, MIS is used to address challenges such as unreliable manual processes and insufficient market data.

Nevertheless, the extent of these benefits depends on the level of MIS integration and user competence. SMEs that invest in understanding and utilising MIS capabilities are better positioned to reap the rewards. Equally, those with partial or ineffective adoption risk underutilising these systems and missing out on potential gains.

5.5 Chapter Summary

This chapter confirms the transformative potential of MIS for SMEs in Lusaka's retail trade sector. MIS has the ability to support businesses in overcoming operational inefficiencies, foster better decision-making, and achieve sustainable growth. The degree of these benefits however, depends on successful adoption and user skills. The challenges of costs, knowledge, and infrastructure need to be addressed if the full benefits of MIS are to be realised. These findings add to the general knowledge of technology in resource-constrained environments.

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter summarises the key findings and implications and provides recommendations for stakeholders and suggestions for future research.

6.2. Conclusions

The research aimed to investigate the role of Management information systems in improving operations, decision-making, growth and sustainability of SMEs within Lusaka's retail trade sector.

6.2.1 Summary of the Findings

The study looked at four specific objectives: to investigate the available MIS options for SMEs in the retail trade sector in Lusaka; to evaluate the integration of MIS in SMEs within the retail trade sector in Lusaka; to assess barriers faced by SMEs in the retail trade sector in the implementation and optimisation of MIS; to evaluate the impact of MIS on the operational efficiency, decision-making and overall growth and sustainability of SMEs within the retail trade sector of Lusaka. The data was collected from 100 participants from a population of around 45000 SMEs who retailers who trade in various goods and services in Lusaka. The study employed phenomenology research design and primary data was collected using structured questionnaires and interviews. The researcher sought the assistance of the supervisor to ensure that the questionnaire had content validity. The data collected was analysed using thematic analysis techniques, and themes and key insights were identified.

MIS choices Available for SMEs

The study revealed that SMEs have a wide range of MIS solutions in Lusaka including basic accounting solutions, sales tracking and other cloud-based systems, though affordability and localisation remain huge challenges.

Level of MIS Integration

The level of integration varies widely, with many SMEs only using basic functions due to technical or financial constraints while others incorporate more advanced features such as customer relationship management and data analytics. However, a significant number of SMEs either had no idea about MIS or perceived it as something for bigger businesses.

Barriers to MIS Adoption

The study established that high costs, limited digital literacy and inadequate infrastructure such as poor internet and power outages are the key barriers of MIS adoption by SMEs. These barriers collectively deter the optimisation of MIS in by SMEs in Lusaka.

Impact of MIS on SME Performance

The study revealed that MIS significantly enhances operational efficiency, decision-making, and growth, but its benefits depend on effective implementation and use.

6.2.2 Contributions to the Knowledge

The study contributes to the growing literature on MIS adoption in developing economies by:

- Providing insights into the unique challenges faced by SMEs in Lusaka's retail trade sector.
- Highlighting the potential of MIS to address local operational inefficiencies and promote growth.
- Identifying gaps in MIS solutions, such as the lack of localised systems tailored to the specific need of SMEs in Zambia.

6.3 Recommendations

Based on the study, following are the recommendations made, and they are split in three parts, for SMEs, Policymakers and Vendors.

6.3.1 For SMEs

- Invest in digital literacy: SME owners and employees should seek training on MIS usage to maximise the benefits of these systems. Partnering with local training providers or online platforms could be a cost-effective approach. And also looking out for companies that provide free trainings from time to time.
- Start Small and Scale gradually: SMEs should adopt basic MIS solutions according to their immediate needs and scale up as their technical expertise and financial capacity grows.
- Collaborate with business associations: SMEs can use industry associations to negotiate for subsidised MIS packages and trainings. They can also be on the look out for companies that provide free trainings from time to time.

6.3.2 For Policy Makers

- **Improve Infrastructure:** Government programs should be directed at increasing internet access and stable electricity to enable technology use.
- **Subsidise technology for SMEs:** Policymakers could induce incentives to make adoption and maintenance cheaper.
- **Promote Awareness Campaigns:** Launch supporting campaigns for raising awareness among SMEs of the advantages and options.

6.3.3 For MIS vendors

- **Develop localised solutions:** Develop cost-effective and easy-to-use MIS designed for specific needs of SMEs in Lusaka.
- **Enhance support services:** Give reliable post-sales support, including training and troubleshooting, to inspire SMEs to adopt and optimise MIS.

6.4 Suggestion for Future Research

1. **Expand Geographic Scope:** Future studies should involve SMEs from other parts of Zambia to give a more holistic understanding MIS adoption.
2. **Longitudinal studies:** Conducting longitudinal research would help assess the long-term impact of MIS on SME performance and stability.
3. **Sector- Specific Analysis:** Further research could focus on specific subsectors within the retail trade to identify unique challenges and opportunities.
4. **Public-Private Partnerships:** Investigating the role between collaborations between government, businesses and technology providers in addressing barriers to MIS adoption could offer valuable insights.

6.5 Conclusion

The findings for this study underscore the transformative potential of MIS for SMEs in Lusaka's retail trade sector. Despite the challenges of cost, infrastructure and digital literacy, MIS offers significant opportunities for improving efficiency, decision-making, growth and sustainability. Addressing the identified barriers requires a collaborative effort from SMEs, Policymakers and technology providers. Through the adoption of the recommendations, presented in this chapter, stakeholders will be able to create a conducive platform that will facilitate SME expansion and support national economic development in Lusaka, and Zambia as a whole.

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APPENDICES

Appendix I: ETHICAL CLEARANCE



SCHOOL OF POSTGRADUATE STUDIES

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UNILUS-RESEARCH ETHICS COMMITTEE

Ref no: FWA00033228-6108/24

Date: 26th September 2024

STUDENT NAME: Florence Chela

OPTIMISING MANAGEMENT INFORMATION SYSTEMS FOR GROWTH AND SUSTAINABILITY OF SMES IN RETAIL TRADE SECTOR IN LUSAKA ZAMBIA.

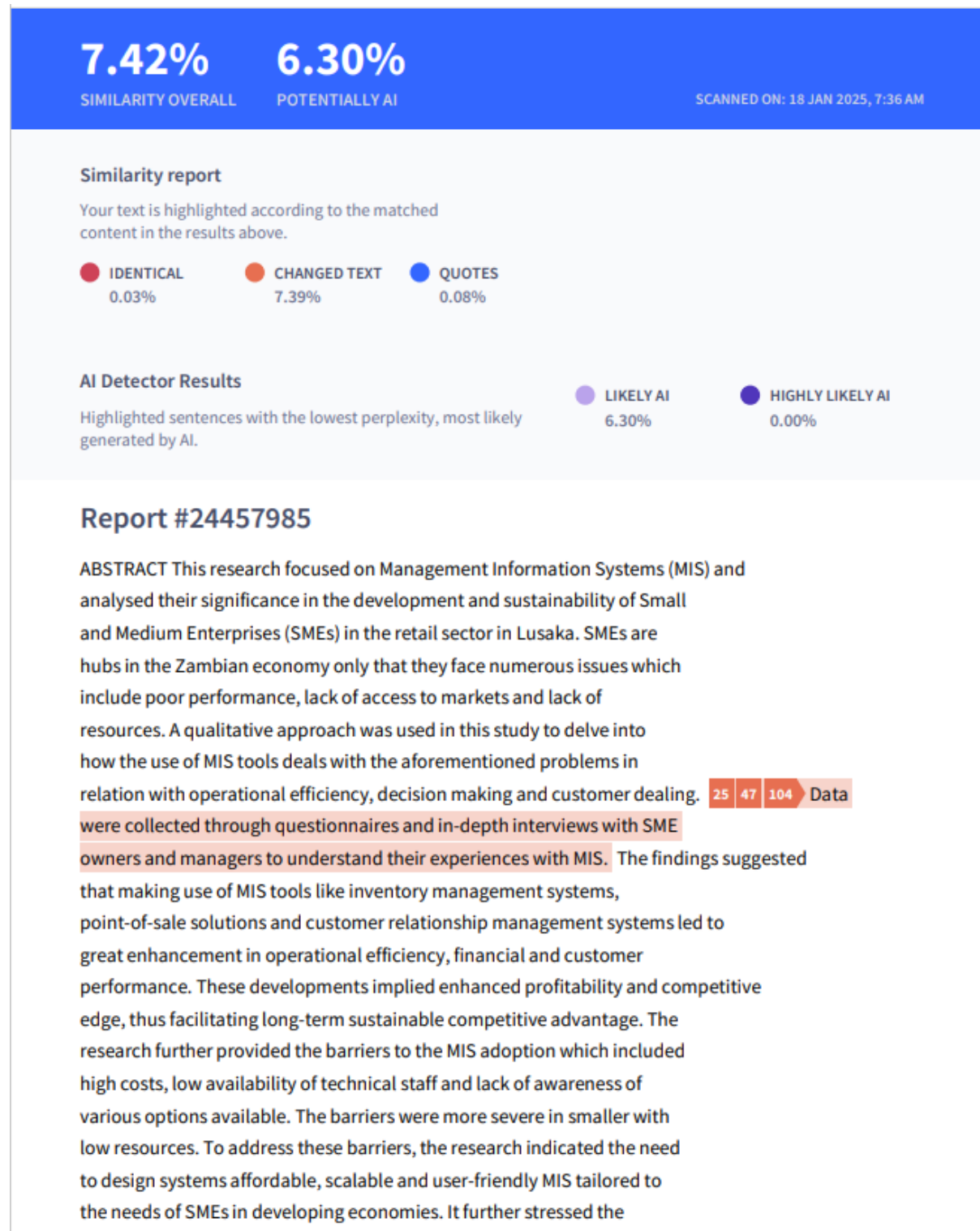
The above research was submitted to the research ethics committee for review. The study has no major ethical problems and is approved subject to the following:

1. The study cannot be changed without express permission of the UNILUS research ethics committee.
2. Approval from the necessary authority should be sought.

The committee wishes you success in your work.

Professor Kasonde Bowa
MSc(Glasgow),M.Med(UNZA),FRCS(Glasgow),FACS,FCS,DPH(LSTMH),MPH(UCL)
Chairman- UNILUS REC
Professor of Urology and Consultant Urologist
Deputy Vice-Chancellor – Research and Innovation
Executive Dean - School of Medicine and Health Sciences

Appendix II: SIMILARITY INDEX/AI REPORT



Appendix III: QUESTIONNAIRE

Section A: General Information

1. What is the name of your business? (Optional)
2. What is your role in the business?
 Owner Manager IT Specialist Other(Please Specify)
4. How long have you been operating?
 Less than 1 year
 1-3 years
 4-6 years
 7-10 years
 More than 10 years
5. What type of retail trade does your business engage in?
 Clothing Food and beverages Hair /Beauty Electronics Other
(Please specify)
6. What is the size of your business in terms of employees?
 1-10 11-50 51-100 Other

Section B: Investigating Available MIS Options

7. Are you currently using any management information system (MIS) in your business?
 Yes No Maybe
8. If the answer to the above question is yes, what management information system are you currently using?
.....
9. What factors influenced your decision to choose this particular software?
.....
10. If you are not using any system, what are the primary reasons for not implementing any MIS?
.....
11. Can you provide more detail about any particular challenges you have come across in this regard?
.....

12. How frequently do you use MIS in your business?

.....

13. What specific areas do you find it more useful?

.....

14. What are the primary functions of your MIS?

- Financial Management
- Sales Tracking
- Inventory Management
- Customer Relationship Management
- Other (Please Specify)

15. What other MIS solutions are you aware of, but have not been implemented?

(List any)

.....

SECTION C: Integration of MIS in SMEs

16. To what extent have management information systems been integrated into the daily operations of your business? Could you provide specific examples?

.....

17. How has this integration impacted those areas?

.....

18. Which areas of your business rely most heavily on MIS?

.....

19. What benefits have you observed from its use?

.....

20. Which areas of your business use MIS the most? (tick all that apply).

- Sales/ Point of sale (POS)
- Accounting and Finance
- Inventory Management
- Customer Management
- Supply Chain Management
- Other (Please Specify)

SECTION D: Barriers to MIS Implementation

21. What challenges have you faced in implementing MIS in your business?

.....

22. Can you provide examples of specific difficulties you've encountered?

.....
23. On a scale of 1-5, how challenging has it been to integrate MIS into your business?

Very easy() 1 () 2 () 3 () 4 () 5 Very challenging

24. If you have not implemented MIS, what are the main reasons behind this?

.....
25. Have you received any training on using MIS, and if so, how effective was the training in enhancing your skills?

.....
SECTION E: Effect of MIS on operational efficiency and decision-making

26. How has the use of MIS impacted your business?

.....
27. What areas have you noticed the most significant changes?

.....
28. Can you describe how MIS has influenced your decision-making process?

.....
29. What specific aspects of your business have seen improvement due to MIS usage, and how has this impacted your overall business performance?

.....
30. Have you noticed any overall growth in your business since implementing MIS? If yes, what can you attribute this growth to?

.....
31. How has MIS affected the sustainability and long-term planning of your business?

.....
Section E: Recommendations and future considerations

32. What suggestions would you make to improve the use of MIS in SMEs within the retail trade center?

.....
33. What advice would you give to other SMEs looking to adopt MIS?

.....
34. Are there any specific features or functionalities you would like to see in an ideal MIS?

.....

35. Any additional feedback regarding your experience with MIS?

.....
.....