



Evaluation of the application of Integrated Financial Management Information Systems in selected municipalities of KwaZulu-Natal

submitted in fulfilment of the requirements of the degree of

Doctor of Philosophy in Business and Information Management

in the

Faculty of Accounting and Informatics

at the

Durban University of Technology

by

Thenjiwe Pretty Kweyama

Date Submitted: August 2024

Supervisor: Dr CJ Nyide

(DBA: Finance)

Date: 16 August 2024

DECLARATION

I, Thenjiwe Pretty Kweyama, declare that this thesis is a representation of my work in conception and execution. This work has not been submitted in any form for another degree at any university or institution of higher learning. All information cited from published or unpublished works has been acknowledged.

Signature

16/08/2024

Date

APPROVED FOR FINAL SUBMISSION

16/08/2024

Supervisor's name

Dr CJ Nyide

Date

(DBA: Finance)

DEDICATION

I dedicate this dissertation to my beloved hero, my late father,

Bhekukwenza John Kweyama.

Your spirit lives on and keeps me going even on the most difficult situations.

ACKNOWLEDGEMENTS

First and foremost, I would like to thank the Lord Almighty for His grace, which has brought me this far. This has been one of the toughest journeys but God has been with me throughout. Dear Lord, thank you.

It is very important to me that I convey my appreciation to the following people:

- A special thank you goes to my supervisor, Dr CJ Nyide. I just do not have enough words to thank you and show you my appreciation throughout my study journey. You have been with me every step of the way. Thank you for your guidance, words of encouragement and mentorship. This is indeed your calling! May God continue to bless you.
- To my family, my dear mother, my siblings and my nephews, I would like to express my gratitude for the constant support, love and prayers. You have always been there whenever I needed you. May Almighty God bless each and every one of you.
- A huge gratitude and appreciation goes to my fellow PhD candidate Ms Busisiwe Sibisi, who is a colleague and a good friend. Your positive energy, encouragement and support played a huge role in this journey.
- To all the three municipalities who allowed me an opportunity to do this study, thank you: it would not have been possible without you.
- To all the respondents who participated in this study, thank you very much for your time and responses, which were much appreciated, and contributed invaluable towards this study.
- To all my dear friends, who have been there for me throughout this journey, your support does not go unnoticed; may God bless you all.

LIST OF ACRONYMS

AGSA	Auditor General South Africa
COGTA	Cooperative Governance and Traditional Affairs
DMS	Document Management System
DWS	Department of Water and Sanitation
EDMS	Electronic Document Management System
ERP	Enterprise Resource Planning
FMIS	Financial Management Information Systems
GL	General Ledger
ICT	Information and Communications Technology
IDP	Integrated Development Plan
IDT	Innovation Diffusion Theory
IFMIS	Integrated Financial Management Information Systems
IT	Information Technology
JLM	Jozini Local Municipality
KZN	KwaZulu-Natal
M&E	Monitoring and Evaluation
MFMA	Municipal Financial Management Act
mSCOA	Municipal Standard Chart of Accounts
NT	National Treasury
PFM	Public Financial Management
PT	Provincial Treasury
OGD	Open Government Data
SDBIP	Service Delivery Budget Implementation Plans
SCM	Supply Chain Management
SA	South Africa
TOE	Technology Organisational Environment
UIFWE	Unauthorised, Irregular, Fruitless and Wasteful Expenditure
UKDM	uMkhanyakude District Municipality
ULM	City of uMhlathuze Local Municipality

ABSTRACT

This study evaluates the implementation and effectiveness of Integrated Financial Management Information Systems (IFMIS) in selected municipalities in KwaZulu-Natal (KZN), South Africa. The study is driven by the observation that the current financial systems in these municipalities are not fully integrated, contributing significantly to issues of corruption, fraud, and inefficiency. The primary aim is to assess whether the existing financial management information systems can generate credible reports that aid in strategic decision-making by management and stakeholders.

Given the qualitative nature of the study, interpretivism emerged as the most suitable research philosophy. A purposive sampling method was employed to select municipalities that best addressed the research objectives, involving 12 senior officials from three municipalities. This study used in-depth interviews for data collection, and thematic analysis was employed to analyse data collected from selected municipalities, utilising a cross-case analysis approach to explore unexpected findings, commonalities, contradictions, and conclusions across multiple cases. Innovation Diffusion Theory and Technology-Organisation-Environment were used to underpin the study.

The research highlights the significant gaps in the current systems, including limited reporting capabilities, inadequate training provided to the relevant officials, insufficient server capacity, a high level of UIFW expenditures, and weak security controls. These deficiencies contribute to sub-optimal financial management and service delivery performance. Moreover, the study identifies critical barriers to the successful implementation of IFMIS, such as resistance to change, and technical challenges. It also explores best practices and proposes new technological approaches that could enhance the financial management capabilities of municipalities. The research concludes by developing a framework for the successful implementation of IFMIS, aimed at improving financial accountability, transparency, and efficiency in municipal operations. The key findings suggest that while IFMIS has the potential to significantly improve financial management and service delivery, its success depends on addressing the identified challenges and adopting a comprehensive implementation strategy. The study provides valuable insights and recommendations for policymakers, decision-makers in the municipalities, and other stakeholders involved in enhancing financial systems in local government.

TABLE OF CONTENTS

DECLARATION	i
DEDICATION	ii
ACKNOWLEDGEMENTS	iii
LIST OF ACRONYMS	ii
ABSTRACT	v
TABLE OF CONTENTS	
Error! Bookmark not defined.i	
LIST OF TABLES	xiii
LIST OF FIGURES	xiv
CHAPTER ONE	1
INTRODUCTION AND OVERVIEW OF THE STUDY	1
1.1 INTRODUCTION	1
1.2 RESEARCH BACKGROUND	1
1.3 PROBLEM STATEMENT	3
1.4 RESEARCH AIM, OBJECTIVES AND QUESTIONS	4
1.4.1 Research Aim	4
1.4.2 Research Objectives	4
1.4.3 Research Questions	4
1.5 RATIONALE AND SIGNIFICANCE OF THE STUDY	5
1.6 RESEARCH DESIGN	6
1.6.1 Research Paradigm	6
1.6.2 Target Population	7
1.6.3 Sampling and Sampling Method	7
1.6.4 Data Collection	7
1.6.5 Data Analysis	8
1.6.6 Bias and Ensuring Rigour and Trustworthiness	8
1.7 STRUCTURE OF DISSERTATION	9
1.8 SUMMARY OF THE CHAPTER	10

CHAPTER TWO	11
THEORETICAL FRAMEWORK FOR THE ADOPTION OF IFMIS BY MUNICIPALITIES	11
2.1 INTRODUCTION	11
2.2 THEORETICAL REVIEW	11
2.2.1 Innovation Diffusion Theory (IDT)	12
2.2.2 Application of IDT Theory	14
2.2.3 Empirical Studies on IDT	15
2.2.4 Relevance of the IDT Theory in IFMIS	17
2.3.1 Technology-Organisation-Environment (TOE) Theory	19
2.3.1.1 Characteristics of TOE Framework	19
2.3.2 Application of TOE Theory	21
2.3.3 Empirical Studies on TOE	22
2.3.4 Relevance of the TOE Theory in IFMIS	24
2.4 JUSTIFICATION FOR THE ADOPTION OF THE THEORETICAL FRAMEWORK	24
2.5 SUMMARY OF THE CHAPTER	25
CHAPTER THREE	26
SOUTH AFRICAN MUNICIPALITIES AND FINANCIAL MANAGEMENT	26
3.1 INTRODUCTION	26
3.2 AN OVERVIEW OF SOUTH AFRICAN MUNICIPALITIES	26
3.2.1 Types of Municipalities	27
3.2.2 The Objectives and Role of Municipalities	27
3.2.3 Powers and Functions of Municipalities	28
3.3 FINANCIAL MANAGEMENT IN SOUTH AFRICAN MUNICIPALITIES	29
3.3.1 Definition of Financial Management	29
3.3.2 Financial Management and Government Accounting Standards for Municipalities	29
3.3.2.1 The Introduction of Municipal Regulations on Standard Chart of Accounts	30
3.3.2.2 Benefits of mSCOA	33
3.3.2.3 International Public Sector Accounting Standards	33
3.4 THE ROLE OF THE AUDITOR-GENERAL SOUTH AFRICA (AGSA)	34
3.5 FINANCIAL MANAGEMENT CHALLENGES FACING MUNICIPALITIES	35

3.5.1 Poor Accountability	36
3.5.2 Mismanagement of Municipal Funds and Corruption Challenges	37
3.5.3 Financial Sustainability and Viability Challenges	38
3.5.4 Lack of Qualified Human Capital	38
3.5.5 Challenges in Generating Municipal Revenues and Debt Collection	39
3.5.6 Challenges in Leadership and Governance	40
3.5.7 Supply Chain Management Challenges	41
3.5.8 Contract Management	42
3.5.9 Unauthorised, Irregular, Fruitless and Wasteful Expenditures Challenges	43
3.6 FINANCIAL MANAGEMENT PRACTICES WITHIN SOUTH AFRICAN MUNICIPALITIES	44
3.6.1 Oversight Structures	45
3.6.2 Internal Audit and Audit Committee	46
3.6.3 Budgeting and Financial Reporting	47
3.6.4 Supply Chain Management	48
3.6.5 Assets Management	49
3.6.6 Monitoring and Evaluation	50
3.7 SUMMARY OF THE CHAPTER	51
CHAPTER FOUR	52
INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEMS	52
4.1 INTRODUCTION	52
4.2 THE EMERGENCE OF FINANCIAL MANGEMENT IN FORMATION SYSTEMS	52
4.2.1 The Role and Purpose of FMIS	53
4.2.2 The Application of FMIS in Municipalities	53
4.2.3 Key Components and Features of FMIS	54
4.3 BENEFITS AND ADVANTAGES OF FMIS	55
4.4 CHALLENGES IN IMPLEMENTING FMIS	57
4.5 FMIS IN THE CONTEXT OF PUBLIC FINANCIAL MANAGEMENT (PFM)	62
4.6 FINANCIAL SYSTEMS USED BY MUNICIPALITIES	63
4.7 THE ROLE OF IFMIS IN MUNICIPALITIES	67
4.7.1 Introduction to IFMIS	67
4.7.2 Benefits and Advantages of IFMIS	68

4.8 BEST PRACTICES OF IFMIS IN MUNICIPALITIES	73
4.9 CRITICAL FACTORS INFLUENCING THE SUCCESSFUL IMPLEMENTATION OF IFMIS	74
4.9.1 Critical Internal Factors	75
4.9.2 Critical External Factors	78
4.10 SUMMARY OF THE CHAPTER	79
CHAPTER FIVE	80
RESEARCH METHODOLOGY	80
5.1 INTRODUCTION	80
5.2 RESEARCH PARADIGM	80
5.2.1 Subjective Nature of the Topic	81
5.2.2 Complex Social Reality	81
5.2.3 Qualitative Data Collection	81
5.2.4 Contextual Understanding	82
5.3 RESEARCH DESIGN	82
5.3.1 Determining the Type of Case Study	82
5.3.2 Reporting Case Study Findings	83
5.4 TARGET POPULATION	83
5.5 SAMPLING METHOD	84
5.6 SAMPLE SIZE	85
5.7 DATA COLLECTION	87
5.7.1 Interview Schedule	87
5.7.2 Interview Schedule Design	88
5.7.3 Pilot Test	88
5.8 DATA ANALYSIS	89
5.9 ENSURING RIGOUR AND TRUSTWORTHINESS	89
5.10 BIAS	90
5.11 ETHICAL CONSIDERATIONS	91
5.12 SUMMARY OF THE CHAPTER	92
CHAPTER SIX	93
DATA ANALYSIS AND DISCUSSION	93

6.1 INTRODUCTION	93
6.2 GENERAL DESCRIPTION OF THE SELECTED MUNICIPALITIES	94
6.2.1 General Overview of Jozini Local Municipality	94
6.2.2 General Overview of uMkhanyakude District Municipality	95
6.2.3 General Overview of City of uMhlathuze Local Municipality	95
6.2.4 A Brief Summary of the Respondents	95
6.3 PRESENTATION OF DEMOGRAPHIC INFORMATION OF RESPONDENTS	96
6.3.1 Number of Years of Experience	97
6.3.2 Period Using FMIS	97
6.3.3 Age Group	98
6.3.4 Qualifications	98
6.3.5 Gender	99
6.4 DATA ANALYSIS PER RESEARCH THEMES AND RESEARCH OBJECTIVES	99
6.4.1 Theme 1: Current FMIS Adopted by Municipalities	99
6.4.1.1 UIFW Expenditures Linked to FMIS	100
6.4.1.2 FMIS Policies	101
6.4.1.3 Implementation Status of Policies	102
6.4.1.4 FMIS used by the Selected Municipalities	103
6.4.1.5 FMIS Updates	104
6.4.1.6 Issues Raised by AGSA Relating to FMIS	104
6.4.1.7 Preparation and Implementation of An Audit Action Plan	106
6.4.1.8 Addressing FMIS Issues Timeously	107
6.4.1.9 Compliance of FMIS with the MFMA	108
6.4.1.10 Conclusion on Theme 1	109
6.4.2 Theme 2: Extent to Which FMIS are Used	110
6.4.2.1 Integration of FMIS with Other Systems	110
6.4.2.2 Knowledge of FMIS within the Finance Department	111
6.4.2.3 FMIS and General Ledger Modules	113
6.4.2.4 Frequency of FMIS Updates	113
6.4.2.5 Types of Reports from FMIS and Frequency	114
6.4.2.6 Conclusion on Theme 2	115
6.4.3 Theme 3: Factors Affecting the Successful Implementation of IFMIS	116
6.4.3.1 Frequency of Training of Official on Financial Management Practices	117

6.4.3.2 Cash Flow Management Strategy and FMIS	118
6.4.3.3 Timeous Payment of Creditors	119
6.4.3.4 Changes Influenced by IFMIS Implementation	120
6.4.3.5 Behaviour and Attitude on IFMIS Development and Implementation	122
6.4.3.6 Support from Other Organs of State	123
6.4.3.7 Recommendation by AGSA	124
6.4.3.8 Communication Channels	125
6.4.3.9 Comparison of Reports with Other Municipalities	126
6.4.3.10 Conclusion on Theme 3	127
6.4.4 Theme 4: Best Practices of IFMIS for the Municipalities	128
6.4.4.1 Trainings and Support from System Owners	128
6.4.4.2 Training of Key Officials on IFMIS Implementation	129
6.4.4.3 Project Leaders and Their Role on IFMIS Implementation	130
6.4.4.4 Data Security, Backup and Document Management System	131
6.4.4.5 Champion’s Understanding of Environment and Systems to be Integrated	133
6.4.4.6 Capacity of the ICT Servers	134
6.4.4.7 Relevant Skills for Finance and ICT Officials	135
6.4.4.8 Conclusion on Theme 4	136
6.5 SUMMARY OF THE CHAPTER	137
CHAPTER SEVEN	138
DISCUSSION AND INTERPRETATION OF RESULTS	138
7.1 INTRODUCTION	138
7.2 DISCUSSION OF FINDINGS AS PER RESEARCH OBJECTIVES AND THEMES	138
7.2.1 Current FMIS Adopted by Municipalities	138
7.2.2 Extent to Which FMIS are Used	141
7.2.3 Factors Affecting the Successful Implementation of IFMIS	142
7.2.3.1 Internal Factors	142
7.2.3.2 External Factors	146
7.2.4 Best Practices of IFMIS for the Municipalities	149
7.3 SUMMARY OF THE CHAPTER	152
CHAPTER EIGHT	153

CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY	153
8.1 INTRODUCTION	153
8.2 SUMMARY OF FINDINGS FROM EMPIRICAL STUDY	153
8.2.1 Objective One: To Examine the Current FMIS Used by the Selected Municipalities	153
8.2.2 Objective Two: To Establish the Extent to which FMIS are Used by the Selected Municipalities	155
8.2.3 Objective Three: To Determine Factors that Affect the Successful Implementation of IFMIS by the selected Municipalities	157
8.2.4 Objective Four: To Explore Best Practices of IFMIS for the Municipalities in KZN	159
8.3 A SUGGESTED FRAMEWORK FOR IMPLEMENTING FULL INTEGRATION OF FMIS IN MUNICIPALITIES	161
8.3.1 Achieving Full System Integration	162
8.3.2 Measuring Integration Success	163
8.4 IMPLICATIONS OF THIS STUDY	165
8.4.1 Theoretical Implications	165
8.4.2 Practical Implications	166
8.5 RECOMMENDATIONS TO MUNICIPALITIES	167
8.6 LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH	172
8.6.1 Limitations of the Study	172
8.6.2 Suggestions for Future Research on IFMIS	172
8.7 SUMMARY OF THE CHAPTER	173
REFERENCES	175
APPENDICES	190
APPENDIX A: LETTER OF INFORMATION	190
APPENDIX B: CONSENT	192
APPENDIX C: INTERVIEW SCHEDULE	193
APPENDIX D: GATEKEEPERS' LETTERS	202
Municipal A	202
Municipal B	203
Municipal C	204
APPENDIX E: ETHICAL APPROVAL LETTER	205
APPENDIX F: TURNITIN REPORT	206
APPENDIX G: PROOF OF LANGUAGE EDITING	207

LIST OF TABLES

Table 2.1	The adoption of IDT in IFMIS studies
Table 2.2	The adoption of TOE theory in IFMIS
Table 3.1	mSCOA Segments Description
Table 5.1	Sample size
Table 6.1	Respondents' information and interview information codes
Table 6.2	Number of years of experience
Table 6.3	Period using FMIS
Table 6.4	Age group
Table 6.5	Qualifications
Table 6.6	Gender
Table 6.7	UIFW expenditure incurred in the past three years
Table 6.8	FMIS policies which cover finance sectors or portfolios
Table 6.9	Financial issues raised by AGSA relating to FMIS in last 3 years
Table 6.10	Knowledge of FMIS within the finance department
Table 6.11	Frequency of updates on FMIS

LIST OF FIGURES

- Figure 2.1 Research Model
Figure 3.1 mSCOA segments

CHAPTER ONE

INTRODUCTION AND OVERVIEW OF THE STUDY

1.1 Introduction

This study sought to evaluate the application of Integrated Financial Management Information Systems (IFMIS) in selected municipalities in KwaZulu-Natal. Currently, the municipalities' financial systems are not fully integrated, which makes a huge contribution to corruption and fraud (Attigbe, 2019:33). The purpose of the study is to evaluate the current financial management information systems used by the municipalities and whether they are able to effectively produce the credible reports which are used by management and other stakeholders to make strategic decisions. The preponderance of scholarly literature indicates that disintegrated financial management systems have limited ability to generate reports, have poor response times, and access security controls are weak, which results in low performance in financial management (Ibrahim et al., 2022:89). This study intends to identify the gaps that are currently caused by unintegrated financial management systems.

This chapter presents the research problem, aim, and objectives of this study. Brief summaries of the research background, problem statement, rationale and significance of the study are outlined in this chapter. This chapter further indicates the research design used by this study and finally, how bias, rigor and trustworthiness were ensured during the data collection and analysis.

1.2 Research background

The implementation of IFMIS in local government has been driven by the need to enhance financial transparency, accountability and efficiency (Chalu, 2019:4). The researcher has observed that most municipalities' Financial Management Information Systems (FMIS) are not integrated, which normally hinders the production of credible financial management reports which are used to make informed and strategic decisions. Section 71 of the Municipal Finance Management Act (MFMA) (2003:64) mandates that the accounting officer of a municipality,

no later than 10 working days following the conclusion of each month, must provide a statement in a prescribed format regarding the municipality's budget to the mayor and the relevant provincial treasury. National Treasury introduced the municipal Standard Chart of Accounts (mSCOA) reporting which is a standardised reporting system on which all municipalities are expected to report their budget (National Treasury, 2021). However, the municipalities still experience problems with their financial systems which are not fully integrated (Gcora and Chigona, 2019:9). Most municipalities' Payroll systems, Supply Chain Management (SCM) systems, and online banking systems are not integrated to their financial systems, which makes it very difficult to effectively provide accurate reports, the integration is performed manually, which offers huge space for errors.

Kwetana (2019:14) contends that the financial accountability of the local government domain is deteriorating nationwide. Communities are openly expressing their unhappiness with the sluggish service delivery of municipal products and services, which impedes progress and growth. This has been documented in all media communications channels, including national television (Kwetana, 2019:14). For the municipalities to achieve credible, transparent and effective financial reports, the FMIS needs to be fully integrated, which will improve the standard of the service delivery to the communities, as mandated by the South African Constitution (Gcora and Chigona, 2019:1). The economy is significantly impacted by the appalling FMIS across all public organisations, as noted by Attiogbe (2019:14). Additionally, all countries worldwide are striving to improve the quality of life for their citizens by providing products and services at reasonable rates and in appropriate quantities.

KZN is one of the provinces that presents a unique case for studying the application of IFMIS due to its diverse municipalities, ranging from urban centres to rural areas, with varying levels of resources and capacities. The application of IFMIS aims to create a unified and efficient financial management framework, facilitating better decision-making and resources allocation. However, the success of IFMIS implementation is contingent upon several factors, including the adequacy of training for municipal officials, the integration of the system with the existing policies and practices, and the technical infrastructure available to support the system.

This study seeks to contribute to the IFMIS discourse within the government sector and to the body of knowledge. Furthermore, it will enlighten all on the importance of the IFMIS and how

it can improve the accuracy of the reporting systems. This will assist management when making the strategic decisions and council when making decisions for its communities. The study further aims to examine how effectively the systems are being utilised, identifying the challenges faced by the municipalities and determining the impact on financial management. By doing so, it seeks to provide insights that can guide improvements in IFMIS implementation, ensuring that these systems fulfil their intended purpose in enhancing municipal financial governance.

1.3 Problem Statement

According to the Auditor-General of South Africa (AGSA) (2019:13), the majority of district municipalities are still experiencing difficulties with fundamental financial and performance management procedures. Furthermore, municipalities continue to exhibit a lack of responsiveness in the implementation and monitoring of action plans, as well as poor governance structures that compromise effective accountability (Niekerk and Sebakamotse, 2020:273). Devastating repercussions are the result of the failure to exert proper administration and supervision over the financial operations of local government in specific defined areas (Kalonda and Govender, 2021:5). The National Treasury Municipal Finance Management Act Circular 108 (2021:5) notes that municipalities are not consistently transferring their opening balances to the current year of transaction on their financial systems as expected, and notes that all transactions and journals relating to that particular year must be processed in order to prepare for the annual financial statements. When municipalities are not doing this correctly and consistently, it compromises the credibility of the municipal Standard Chart of Account data strings submitted (Nama et al., 2022:43).

Currently, municipalities in South Africa are attempting to enhance their financial management by implementing IFMIS (Gcora-Vumazonke, 2021:26). According to Gcora and Chigona (2019:1), IFMIS has been identified as a critical instrument for economic growth and development. This is achieved by guaranteeing that municipalities effectively manage public resources in order to improve the delivery of services to citizens. The afore-mentioned authors add that even though IFMIS have been introduced in South African municipalities, they have not been used effectively. Insufficient attention to the change management process and

acceptance by intended end-users are among the numerous barriers that have been identified in previous studies in relation to the acceptance of new technology in government departments (Gcora and Chigona, 2019:1). It is believed that IFMIS systems can facilitate the compliance of government operations with domestic regulations and international financial reporting standards, as well as increase efficiency and justice (Attigobe 2019:18). The application of IFMIS by municipalities has been the subject of limited research (Gcora and Chigona, 2019:1). Therefore, the objective of this investigation is to conduct a critical assessment of the implementation and implementation of IFMIS in chosen towns.

1.4 Research Aim, Objectives and Questions

This section introduces the research aim of this study, along with the research objectives and research questions.

1.4.1 Research Aim

The main aim of this study is to evaluate the application of the integrated financial management system in selected municipalities in KZN and to develop an IFMIS framework that is suitable for implementation by municipalities

1.4.2 Research Objectives

- To examine the current financial management information systems (FMIS) used by the selected municipalities in KZN.
- To establish the extent to which financial management information systems are used by the selected municipalities in KZN.
- To determine factors that affect the successful implementation of IFMIS by municipalities.
- To explore best practices of FMIS for the municipalities in KZN.
- To develop a framework for the successful implementation of IFMIS by municipalities.

1.4.3 Research Questions

- What are the current FMIS used by the selected municipalities in KZN?

- What is the current level that the FMIS is used in the selected municipalities in KZN?
- What are the factors that affect the successful implementation of IFMIS by municipalities?
- What are the best FMIS practices that can be explored by the municipalities in KZN?
- How can municipalities integrate and implement the best practices of FMIS?

1.5 Rationale and significance of the study

The rationale for this study was to understand how IFMIS can enhance financial management in municipalities. Effective financial management is crucial for local governments to ensure accountability, transparency, and efficient use of resources. By focusing on the selected municipalities, the study has identified specific challenges and barriers for adopting IFMIS. These insights assisted in developing the strategies to overcome challenges and to be used on the IFMIS implementation. The study firstly revealed new knowledge and increased the information that will be available to the local government sphere as far as financial management and financial systems are concerned, especially in KZN municipalities. It endeavoured to establish the factors which are the barriers that hinder the successful implementation of the IFMIS in the municipalities of KZN. Moreover, the study suggests a framework to be utilised by the municipalities on the implementation of the IFMIS to rectify the weaknesses that were identified as findings in this study.

The evaluation of IFMIS in the selected municipalities of KZN is essential due to the critical role these systems play in enhancing financial management, transparency, and accountability within local government. Municipalities are responsible for delivering a wide range of services to the public, the efficient financial management is key to ensuring the effective allocation and utilisation of resources. However, municipalities face challenges such as inefficient financial processes, inadequate financial reporting, and issues with compliance and oversight from the relevant stakeholders, structured committees, municipal council and other organs of state. By evaluating the application of IFMIS, this study seeks to identify best practices, gaps, and challenges in the current implementation. This evaluation will further provide valuable insights into how these systems can be optimised to improve financial governance and service delivery in the region.

The significance of this study lies in its potential to influence policy and operational improvements in the financial management practices of municipalities in KZN. By identifying the strengths and weaknesses in the application of IFMIS, the study can guide the municipalities in making informed decisions regarding the adoption and enhancement of these systems. It can also contribute to the development of standardised guidelines and training programmes, ensuring that municipal staff are well-equipped to use these systems effectively. Moreover, the findings of this study can inform the provincial and national government strategies for supporting municipalities, fostering better compliance with financial regulations, and promoting greater transparency and accountability. Ultimately, this study aims to enhance the overall efficiency, effectiveness, and reliability of financial management in the KZN municipalities, leading to improved public service delivery and trust in the local government institutions.

1.6 Research Design

The research design serves as the foundation for data collection and analysis, guiding the entire research process, from formulating research questions to conducting the final data analysis (Muriithi and Wamiori, 2020:64). It outlines the steps needed to achieve research objectives and resolve issues encountered during the investigation. In this study, a qualitative approach was chosen to explore and understand the complexities of IFMIS adoption in selected municipalities in KZN. This approach was selected based on the study's aim, objectives, and research questions, providing a thorough framework for investigating the subject matter (Kalman, 2019:343).

1.6.1 Research paradigm

A research paradigm guides the researcher through every stage of the study. Given the qualitative nature of this research, interpretivism was chosen as the guiding philosophy of this study. This paradigm provides deep insights and unique findings, facilitating the collection and interpretation of qualitative data to offer a nuanced understanding of the situations studied (Alharahsheh and Pius, 2020:42). Interpretivism aligns well with qualitative research methods such as focus group, interviews, participant observation, document and archival data analysis

and ethnography, which are effective for capturing rich, context-specific insights (Bonache and Festing, 2020:109).

1.6.2 Target Population

Muriithi and Wamiori (2020:65) describe a population as the entire group of people, events, or objects sharing a common trait, which forms the basis for drawing conclusions. According to AGSA (2020:22), KZN has 54 municipalities, including 1 metro, 10 districts, and 43 local municipalities. The study's population includes all employees in the Finance and Information and Communication Technology (ICT) departments of these municipalities. However, the total number of employees is unknown due to confidentiality issues in Human Resources departments. Therefore, the target population comprises officials in strategic positions within the Finance and ICT departments, who understand financial management systems and have extensive experience in the local government.

1.6.3 Sampling and Sampling Method

This study used purposive sampling, a non-probability sampling method, also known as judgemental sampling, where researchers select participants based on specific attributes (Rivera, 2019:5). The researcher identifies the required information and intentionally selects participants who can provide relevant insights (Ebenezer and Piate, 2023:65). This method was chosen to address the research questions and objectives effectively. Purposive sampling enabled the selection of municipalities and individuals who could best contribute to the study's goals. The study focused on municipalities at different stages of integrating their financial systems: one fully integrated, one partially integrated and one not yet integrated, ensuring a mix of local, district and city municipalities within the varying audit opinions from the past three years. The Finance and ICT departments were prioritised due to their primary use of IFMIS and relevance to the study. This sampling technique has been similarly employed in related studies, such as those by Ibrahim et al. (2022:97) in Nigeria; Yaokumah (2020:17) in Ghana, and Safo (2020:29) and Mugendi (2023:41) in Kenya. The sample was the total of twelve municipal officials from three selected municipalities in the Finance and ICT departments.

1.6.4 Data Collection

Data collection aimed at understanding the research topic, involved three main qualitative methods: document reviews, in-depth interviews, and observations (Taherdoost, 2021:11). This study used in-depth interviews for data collection. The researcher sought permission from selected municipalities and received approval letters. Initially, face-to-face interviews were scheduled, with virtual options available. During interviews, both closed-ended and open-ended questions were used, and the sessions were recorded and transcribed. To ensure accuracy, the transcriptions were compared with field notes. Direct communication with participants is highlighted as the most suitable method for content validity in qualitative research (Ricci et al., 2019:149). Additionally, data triangulation was employed by gathering data at different times and situations to enhance accuracy (Amin et al., 2020:1475).

1.6.5 Data Analysis

Kalpokaite and Radivojevic (2019:44) highlight the challenges in selecting appropriate research techniques and analytic tools for qualitative data analysis. Thematic analysis, commonly used in qualitative studies, aids in ensuring the accuracy and reliability of data coding (Braun and Clarke, 2022:6). This study employed thematic analysis to analyse data collected from selected municipalities, utilising a cross-case analysis approach to explore unexpected findings, commonalities, contradictions, and conclusions across multiple cases (McGrath and Hughes, 2018:136). Qualitative data analysis not only reveals the complexities of human behaviour and real-world experiences, but also provides contextual understanding and theoretical insights rigorously applied (Raskind et al., 2019:32; Lester et al., 2020:96).

1.6.6 Bias and Ensuring Rigour and Trustworthiness

Bias in research refers to discrepancies between participants' true realities and how they convey them to researchers (Bergen and Labonte, 2020:783). This study addressed bias through data triangulation, a method that involves examining research questions from multiple perspectives to validate findings (Amin et al., 2020:1475). By collecting data at different times and from various sources, the researcher ensured a comprehensive analysis and openness to adjusting theories based on new information. Additionally, sharing preliminary results with relevant academics for critical feedback further mitigated bias, ensuring a rigorous and well-rounded study approach.

The study ensured rigor by adhering to principles such as comprehensive reporting, establishing trust with participants, and evaluating validity-enhancing strategies. Triangulation, member checking, audit trials, reflexivity, peer debriefing, and achieving data saturation were employed to ensure rigor and trustworthiness (Daniel, 2019:1; Hamilton, 2020:196, and Aguboshim, 2021:182). Multiple data sources and case studies were utilised to enhance credibility and deepen understanding of the research phenomenon (Rose and Johnson, 2020:434; Morgan, 2022:65). Triangulation not only validated findings but also contributed to the study's credibility by cross-verifying data sources and ensuring a robust conclusion (Amin et al., 2020:1475).

1.7 Structure of Dissertation

This study is structured as follows:

CHAPTER ONE introduced readers to what has been described as the problem statement of the study. The chapter made the reader aware of the aim, objectives, research questions, research background, problem statement, rationale and significance of the study. The reader was guided as to what motivated the problem and what is recommended to solve the problem. This chapter further indicated the research design used in this study and how bias, rigour and trustworthiness were ensured in this study.

CHAPTER TWO discusses the theoretical framework for the adoption of IFMIS in municipalities. The application and relevance of the adopted theories are discussed and the justification for the adoption of theoretical framework is also outlined in this chapter.

CHAPTER THREE covers the first part of the literature review, with the intention of providing a summary of previous research on the philosophies and Constitution of the South African municipalities and financial management.

CHAPTER FOUR consists of the second part of the literature review. This part of the literature review focuses more on the emergence of financial management information systems (FMIS), and the role and application of FMIS in the selected municipalities of KZN. This

chapter also discusses the benefits, features and challenges of the FMIS in municipalities. It outlines the introduction of IFMIS in municipalities. Critical factors affecting the successful implementation of IFMIS as well as best practices of IFMIS in municipalities are covered in this chapter.

CHAPTER FIVE discusses in detail the research methodology. The research paradigm, research design, the qualitative research methodology and the use of case study are explained.

CHAPTER SIX comprises the analysis and results, presenting the qualitative analysis of the data obtained through interview schedules. It describes how data was processed into meaningful results that the reader will be able to interpret and understand.

CHAPTER SEVEN focuses on the interpretation of the results for this study, relative to the findings of the literature review.

CHAPTER EIGHT is the final chapter of the dissertation and contains the conclusions that were drawn from the findings in Chapters Six and Seven. This chapter also addresses objective five of this study and outlines the framework developed for the IFMIS implementation in municipalities. It also contains the various recommendations that are made for further research.

1.8 Summary of the chapter

The backdrop for this research was the primary focus of this chapter, which functioned as an introduction. The research problem, research objectives, and research questions were discussed, in addition to the justification for performing the study. Additionally, this chapter delineated the chapters of the research endeavour. The subsequent chapter provides a literature study that is relevant to the financial management of South African municipalities.

CHAPTER TWO

2.1 Introduction

This chapter discusses in depth the different theories that are adopted in this study. These are the theories that underpin this investigation of the IFMIS and its use in the selected municipalities. Discussions focus on the rationale behind the theories and theoretical framework choices. Finally, this chapter explores the application of the chosen theories, empirical studies available and the relevance of the chosen theories.

2.2 Theoretical review

A theoretical framework is referred to as the "blueprint" or direction for a research project and is a framework that is based on an established theory in a particular field of study and that is relevant to or represents the study's hypothesis (Mensah et al., 2020:56). Furthermore, it is a design that the researcher frequently "borrows" in order to construct his or her own research enquiry. This indicates that a research is built on a theoretical framework, which serves as the foundation and which can support a qualitative research approach (Mensah et al., 2020:56). Thus, a solid theoretical basis improves the calibre of a study's findings by allowing researchers to recognise presumptions and provide insightful criticism (Wald and Daniel, 2020:499). Wald and Daniel (2020:502) assert that although there is general consensus on the definition of a theoretical framework, it is generally understood to be a logical structure that incorporates a theory. A theoretical framework functions as a map or a travel schedule that helps researchers find their way through the complexity of knowledge structures, or theories, and to look for better ways to maximise comprehension by drawing on prior information and the experiences of others who have had comparable situations (Wald and Daniel, 2020:502).

This study adopted two theories, the Innovation Diffusion theory and the Technology-Organisation-Environment that sought to buttress the research design and enhance the rigour of the research. The theories are discussed next.

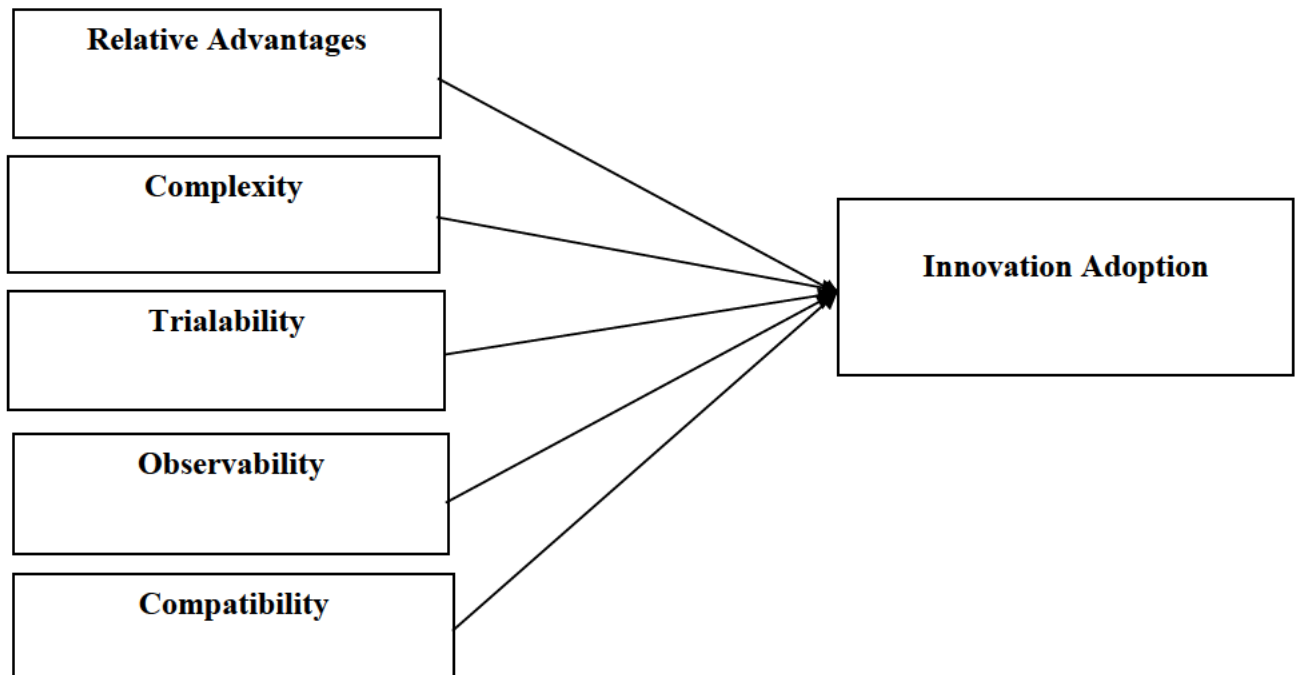
2.2.1 Innovation Diffusion Theory (IDT)

In terms of the definition of the Innovation Diffusion Theory (IDT), "innovations that offer benefits, perceived compatibility with existing practices and beliefs, low complexity, potential trialability, and observability will have a more widespread and rapid rate of diffusion" (Al-Rahmi et al., 2019:26798). It was initially introduced in the field of communication to define the process by which an idea or product accumulates momentum and disseminates (or disseminates) among a specific population or social system over time. As a consequence of this dispersion, individuals gradually adopt a new idea, habit, or product as part of a social system. Adoption is the act of an individual engaging in an action that differs from their past behaviour (for example, when they buy or use a new product, when they learn and utilise a new behaviour, etc.). In order for a notion, behaviour, or product to be embraced, an individual must perceive it as innovative or inventive (Wambugu, 2019:40).

Five innovative qualities that precede any adoption are delineated by IDT: 1) relative benefits (economic gains or perceived convenience); 2) complexity (relatively easy to use or try); 3) compatibility (coherence with the existing values, needs, and prior experiences of potential adopters); 4) observability (assessment of implication); and 5) trialability (experimentation prior to adoption) (Min et al., 2018:3). Chalu (2019:3) notes that Rogers (1983) established IDT, which aims to identify the elements that influence the adoption of IT-related innovations by organisations. The Diffusion of Innovation Theory, which Rogers developed in 1962, is unquestionably one of the oldest concepts in social science (Amukhuma, 2018:23).

This study uses the IDT to identify the key variables that influence the adoption of IFMIS in municipalities, as illustrated in Figure 2.1. IDT is regarded as a reliable model for analysing any new breakthrough or technology (Gharaibeh et al., 2020:3427).

Figure 2.1 Research Model



Source: Gharaibeh et al. (2020:3427)

In Rogers' (1983) IDT, there are five key characteristics of innovations that affect adoption: relative advantage, compatibility, complexity, trialability, and observability (Chalu, 2019:3). In order to acquire a thorough understanding of the aspects that the IDT suggests may affect municipalities' willingness to adopt IFMIS as an innovation, this study used a focus group methodology. There are fifteen respondents in the focus group that occupy management positions in the selected municipalities. Five crucial criteria determine the pace of acceptance of new discoveries and technology (Goh and Sigala, 2020:5). Several benefits were evaluated when the respondents participate in answering interviews questions.

- **Relative advantages**

The degree to which an invention is seen as being superior to the notion it superseded, is referred to as relative advantage (Gharaibeh et al., 2020:3428). Additionally, it is when a

potential user believes the innovation has a better benefit than the current technique (Goh and Sigala, 2020:5).

- **Complexity (ease of use)**

Complexity is the degree to which a new idea is seen as being somewhat challenging to comprehend and apply (Gharaibeh et al. 2020:3428). Moreover, it is whether a new technology is regarded as being difficult or simple to use (Goh and Sigala, 2020:6).

- **Trialability**

Trialability is the degree to which a novel concept can be evaluated on a small scale (Gharaibeh et al., 2020:3428). It is the extent to which adopters can experiment with an invention and whether trial and error can be viewed as being risk-free or not likely to result in significant/unaffordable expenses and losses (Goh and Sigala, 2020:6).

- **Observability**

Observability is the degree to which the outcomes of an innovation are visible to others (Gharaibeh et al., 2020:3429). It is simpler for others to adopt a strategy if the results are visible (Goh and Sigala, 2020:6).

- **Compatibility**

Compatibility is the term used to describe the extent to which an invention is perceived as aligning with the values, experiences, and needs of potential adopters (Gharaibeh et al., 2020:3429). Furthermore, it applies if a prospective user determines that the innovation is compatible with his or her own values, culture, and needs (Goh and Sigala, 2020:5).

2.2.2 Application of Innovation Diffusion Theory

The IDT which is applicable to both individuals and organisations, explains how, why, and how quickly new ideas spread throughout communities (Ali et al., 2020:5). According to the IDT, innovation is said to be transmitted over a long period of time through particular channels and people are said to have a specific level of openness to innovation; it typically takes them a long time to accept new technology. The present study uses the IDT to ascertain how the

chosen municipalities would react to the adoption of IFMIS. The IDT model has been utilised in many research studies to analyse how innovative technology is adopted at the organisational level (Ali et al., 2020:5). Moreover, IDT includes more particular innovation characteristics that are helpful in understanding why people adopt an innovation or how they decide to do so (Min et al., 2018:3). As Chalu (2019:6) articulates, IDT, as created by Rogers (1983), aims to give elements for enterprises to adopt IT-related advances. The researcher views IDT as one of the theories that are applicable in this study.

IDT is applied in this study because this approach divides elements for adoption into three categories: person traits, organisational internal characteristics, and organisational external characteristics. IDT considers both the micro- and macro-perspectives of adoption in the company as a result (Chalu, 2019:6). Furthermore, Paavola (2020:18) argues that Rogers' theory suggests that potential users make decisions to adopt or reject an innovation based on beliefs that they form about the innovation. The IDT proposes five core attributes of innovation: relative advantage, compatibility, complexity, trialability, and observability, that influence the user's choice and behaviour (Rogers, 1983). However, IDT's simplicity prevents it from recognising the intricate social and psychological elements that influence behaviour, which in turn influences adoption. Based on the reasons articulated, the study applies the IDT as one of the theories relevant to the research.

2.2.3 Empirical studies on IDT

Amukhuma (2018:24) views IDT as the communication theory that aims to clarify how an idea or product gains popularity over time and spreads throughout a social system or a particular community. Additionally, he points out that a new concept, item, or action is ultimately adopted by a certain group of people or social system as a result of this diffusion. Wambugu (2019:40) posits that the adoption of a novel thought, action, or item (innovation) is a process in which certain individuals are more likely to accept the innovation than others. In a social system, it is not possible for these events to occur simultaneously. Consequently, it is essential to understand the characteristics of the target audience when introducing an invention to them, since these characteristics may either facilitate or impede the acceptance of the innovation (Wambugu, 2019:40). Goh and Sigala (2020:4) argue that technology adoption is described as the process by which an innovation is communicated through certain channels among the

members of a social system over time. It is a unique kind of communication since the communications are about innovative ideas. Adoption of new technologies can also be expedited if significant other groups endorse and encourage the behaviour referred to as supportive subjective norms (Goh and Sigala, 2020:4).

Table 2.1 reflects different studies that adopted the IDT amongst the theories in their study relating to the IFMIS.

Table 2.1 The adoption of IDT in IFMIS studies

AUTHOR(S) & YEAR OF STUDY	RESEARCH TITLE	SUMMARY
Amukhuma, C.E. (2018)	Challenges Facing the Implementation of IFMIS in Technical and Vocational Education and Training Institutions in Nairobi County, Kenya.	This researcher highlights that the IDT makes it possible to evaluate the IFMIS implementation process at the Technical Institutions with regard to the current study. Moreover, the researcher states that because IFMIS complies with the theory's principles, it has been considered an invention or innovation in relation to the theory.
Chalu, H. (2019)	The effect of IFMIS Adoption on Financial reporting Quality in Tanzanian Local Governments	IDT is a micro-perspective when it concentrates on the internal organisational structure and individual qualities, but it is a macro-perspective when it evaluates the adoption throughout time and includes external organisational features, according to this author. This author also asserts that the relationship between IFMIS adoption and FRQ will be

		<p>influenced by internal and external organisational factors, which may be more effectively comprehended through the application of IDT. IDT also has the disadvantage of disregarding technology circumstances in favour of the context of the decision-making unit. Consequently, it was imperative to investigate an alternate hypothesis that considers the technological environment.</p>
Wambugu, M.P. (2019)	<p>Determinants of IFMIS Implementation, in National Governments in Meru County</p>	<p>This researcher mentions that the IDT, which provides the framework for his study, allows the examination of IFMIS adoption by national government agencies. Furthermore, the adoption is the choice to fully utilise an invention as the best available course of action, whereas rejection is the choice to not accept an innovation. That reasoning will be used to explain national government departments' support for and opposition to IFMIS.</p>

Source: Author's research

2.2.4 Relevance of the IDT in IFMIS

According to Ngetich (2018:25), a social system does not implement a new idea or product simultaneously; rather, it does so through a process in which some people adopt the new idea or innovation more quickly than others. Understanding the traits of the target demographic that may facilitate or impede acceptance of the new technology, is crucial when promoting it to that group. The researcher perceives that the greatest explanation to describe how a particular technology is embraced is through the adoption of IDT. In regard to the current study, the IDT makes it possible to evaluate how the IFMIS is being implemented in the selected municipalities.

Additionally, there are further four crucial components of the spread of innovation that are identified by Rogers' theory that should be fully comprehended. These are time, communication routes, social structure, and innovation. IFMIS has been viewed as an innovation or creation in relation to the theory because it is consistent with the elements of the theory. The act or process by which those involved generate information and communicate it with their co-workers or counterparts in an effort to achieve a shared comprehension or understanding, is considered or defined as communication in this context. To encourage the IFMIS system's spread into the systems of the chosen municipalities, it is imperative that the system be exposed to highly effective and efficient communication channels.

When an innovation's diffusion process is being carried out, a temporal dimension should also be taken into consideration. Additionally, it has been demonstrated that the social structure affects an individual's capacity for innovation; as a result, it can be used to classify individuals as implementers or adopters. Therefore, recommendations are made that it is crucial to fully understand the innovation decision-making process in order to facilitate or accelerate the diffusion of an invention or new technology (Ngetich, 2018:26).

The theory of IDT forms the basis of this investigation. This theory aids in understanding how the relevant users are made aware of the introduction of IFMIS in the local government system and how trainability, observability, compatibility, relative advantage, and complexity are crucial factors in convincing the relevant municipality officials to implement IFMIS in their operations (Goh and Sigala, 2020:5).

To examine the IFMIS used by municipalities and to establish the extent to which these systems are adopted, the IDT will be adopted since this theory focuses on understanding how, why and at what rate innovative ideas and technologies spread in a social system. Moreover, this theory aims to clarify in terms of communication how a thing or an idea picks up steam over time and spreads within a social system or a particular group of people.

2.3.1 Technology-Organisation-Environment (TOE) Theory

To explain the process of technology adoption in organisational analytical units, Tomatzky and Fleischer initially developed the term Technology-Organisation-Environment (TOE) in 1990 (Aligarh et al., 2023:3). The TOE framework directly originated from IDT, but it also considers the environment in which the company is working and does not assign the involvement of individual qualities (Chalu, 2019:6). There are several examples of TOE that is always evolving. Moreover, the TOE framework emphasises that an information system's acceptability is influenced by the conditions of technology advancement, organisational design, and industrial environment.

The TOE framework fundamentally merges a framework of environmental considerations, technical considerations, and organisational considerations. Aligarh et al. (2023:3) regard TOE as the sole theoretical framework that considers all the factors that can influence the adoption of information systems. The organization's size, scope, administrative structure, and internal resources are all considered organisational considerations, whereas the organization's essential internal and external technologies are referred to as technological factors. The economy, rivals, and governmental regulations are all examples of environmental factors (Aligarh et al., 2023:3).

2.3.1.1 Characteristics of TOE framework

In order to elucidate the primary elements that influence the adoption of technical innovations at the organisational level, the TOE framework analyses three components: technological factors, organisational factors, and environmental factors.

- **Technological Characteristics**

The internal and external technologies that are pertinent to the selected municipalities are addressed by the TOE framework's technological context and this covers both technology that are used internally at the company and those that are available on the market (Badi et al., 2020:5). The technological features that influence adoption choices are relative benefit, compatibility, complexity, trialability, and observability, as per Rogers' 2003 IDT. Relative advantage, the initial technical element, is the extent to which an innovation is perceived as superior to the concept it replaces (Badi et al., 2020:5). It depends on the specifics of the innovation to determine this relative advantage, which is often seen as a crucial sign that innovations will be adopted (Badi et al., 2020:5).

Compatibility is the second technological component; it refers to how well an invention fits the demands, experiences, and values of potential adopters (Badi et al., 2020:5). The novel solutions adoption is frequently greeted with resistance by organisational members since implementing new developments has the potential to significantly alter the organisation and its practices. The new changes brought about by the adoption must therefore be consistent with the infrastructure that the organization now has (Badi et al., 2020:5).

The third technological factor is complexity. It is described as the degree to which users regard an invention to be somewhat challenging to understand and apply (Badi et al., 2020:5). Complex technologies are frequently coupled with uncertainty, which can make them more difficult to execute successfully. Indeed, less complex discoveries have a higher chance of being adopted (Badi et al., 2020:5).

The fourth technological factor is trialability, which is the degree to which an innovation may be tried in a restricted setting (Badi et al., 2020:6). According to Lin and Chen (2012), there is a higher chance that an invention will be successfully adopted if people and organisations get the chance to test it out before adopting it (Badi et al, 2020:6).

Observability, the sixth technological component, is defined as the degree to which an innovation's effects are visible to other people (Badi et al., 2020:6). According to conventional wisdom, businesses will be more likely to adopt new technology if they can see the advantages that other businesses are experiencing as a result of doing so (Badi et al., 2020:6).

- **Organisational Characteristics**

The size and scope of the organisation are two factors that fall within the organisational context and two key elements of the organisational setting in this study are municipalities' readiness for information technology (IT) and top management support (Badi et al., 2020:6). Furthermore, the support from senior management is thought to lessen the importance of the forces resisting the change and aid in overcoming internal resistance. The encouragement of change through conveying and reinforcing the company's values and vision can also have an impact on the adoption process (Badi et al., 2020:6).

- **Environmental Characteristics**

The environment serves as the setting in which a company conducts its operations, as well as its industry, rivals, access to outside resources, and interactions with the government (Badi et al., 2020:6). The competitive pressure is a significant environmental component that has been emphasised by numerous research. It has been observed that the number of organisations using new technology in a given industry has a significant impact on the diffusion of innovation, as businesses compete to be the first to adopt the newest advancements to maintain their competitive edge (Badi et al., 2020:6).

2.3.2 Application of Technology Organisation Environment theory

The TOE paradigm has been used to study how municipalities adopt new technologies and has a solid theoretical foundation and significant empirical support (Kwabena et al., 2021:330). Numerous studies have evaluated the adoption of technical breakthroughs within organisations using the TOE framework. This study used a TOE framework in the context of IFMIS. Technological features of an organisation typically describe IT innovation qualities which impact the business implementation of new innovations in IT. Top management support is one of the three most critical variables impacting an organisation's adoption of IT innovation. Additionally, studies on the adoption of technology using the TOE framework have shown that the decision of an organisation to adopt new technology is significantly and favourably correlated with top management support (Abed, 2020:3). It was deemed appropriate to adopt TOE which clarifies three aspects of the organisational context impacting technology adoption.

2.3.3 Empirical studies on TOE

The TOE hypothesis, which was created by Tornatzky and Fleischer in 1990, takes into account three variables that affect an individual's inclination to adopt: the technological context, the organisational context, and the environmental context (Chalu, 2019:3). Because of the following justifications, the TOE model is used as the study's theoretical foundation. First, many previous researchers have used this paradigm to investigate issues that are closely related. Second, the TOE paradigm focused on multiple environmental and organisational elements rather than just one technology factor. Third, the TOE framework incorporates a shared perspective that acknowledges that the business changes are created by both the business's components and its employees (Kwabena et al., 2021:331). Chalu (2019:4) outlines that Hendriks carried out a study in South Africa with the goal of identifying the risks and obstacles associated with IFMIS implementation. He discovered that there are several challenges, which prevents IFMIS from always achieving the intended goals.

Amongst others, the following studies in Table 2.2 adopted TOE theory in their studies relating to technology innovation such as IFMIS.

Table 2.2 The adoption of TOE theory in IFMIS

AUTHOR(S) & YEAR OF STUDY	RESEARCH TITLE	SUMMARY
Chalu, H. (2019)	The effect of IFMIS Adoption on Financial reporting Quality in Tanzanian Local Governments.	Chalu (2019:4) outlines that Hendriks carried out a study in South Africa with the goal of identifying the risks and obstacles associated with IFMIS implementation. He discovered that there are several challenges, which prevents IFMIS from

		always achieving the intended goals.
Abed, S.S. (2020)	Social commerce adoption using TOE framework: An empirical investigation of Saudi Arabian SMEs.	The TOE paradigm has been used to research the adoption of improvements in technology and has a strong theoretical foundation and empirical backing.
Chalu, H. (2019)	The effect of IFMIS Adoption on Financial reporting Quality in Tanzanian Local Governments.	By particularly evaluating the impact of IFMIS on three measures of FRQ (understandability, relevance, and reliability) and by applying the TOE among the theories the study adopts, the present study will add to the body of existing literature.
Sayginer, C. and Ercan, T. (2020)	Understanding Determinants of Cloud Computing Adoption using an Integrated Diffusion Innovation (DOI) Technological, Organisational and Environmental (TOE) model.	The authors highlight that the TOE framework has been utilized by multiple studies. Al-Hujran et al. (2018) used a qualitative research methodology to conduct six in-depth interviews with developing country residents to identify the primary service challenges. The authors observed that in a technological environment,

		<p>perceived relative advantage, security, privacy, trust, and compatibility were all extremely significant. It was acknowledged that the integration requirement was a significant indicator in an organisational setting.</p>
--	--	---

Source: Author's research

2.3.4 Relevance of TOE theory in IFMIS

This study will use TOE theory which, according to Chalu (2019:6), was developed by Tornatzky and Fleischer (1990). It considers technology, organisation and environment as contexts influencing the prosperity to adopt a technological system. Therefore, in order to develop a framework for the successful implementation of IFMIS by municipalities, the TOE theory will add value as it considers 1) the technological context which encompasses both internal and external technologies applicable to the organisation; 2) the organisational context which focuses on the resources and characteristics of the organisation, and 3) the environmental context which focuses on the industry's structure, availability and lack of technology, competition, suppliers of services and regulatory environment.

2.4 Justification for the adoption of the theoretical framework

Since organisations want to improve the quality of the data required for better decision-making, information technology adoption in accounting systems has been occurring for a while. Many theories have been developed to describe and forecast the effects of implementing specific information technology on the end products of accounting systems, such as accounting information. Chalu (2019:6) argues that researchers have embraced, updated, invented, and validated these theories and models in order to better understand and forecast the adoption of

new technologies. Two of the three pertinent hypotheses are embraced in this research investigation, though all three are discussed in depth.

IDT is the first theory, which takes into account relative advantage, compatibility, complexity, trialability, and observability as the five fundamental features of innovations that impact acceptance and adoption (Chalu, 2019:3). Furthermore, the best explanation for grasping how a particular technology is adopted is Roger's idea of innovation dissemination. The aforementioned idea makes it possible to examine how the local government sphere has used IFMIS in the context of the current study. Adoption, according to Rogers, is the choice to fully utilise an invention as the best available course of action, whereas rejection is the choice to not accept an innovation (Wambugu, 2019:41). Chalu (2019:6) adds that although IDT is crucial to understanding IFMIS, it cannot be utilised as one theory for the adoption of IFMIS. Hence this study will also adopt TOE, a theory that considers variables influencing the decision about adoption of a complex system such as IFMIS.

This study chose TOE technique because it is coherent and consistent with other frameworks like IDT. Furthermore, IDT is a macro-perspective when it takes into account implementation through time and incorporates exterior organisational features, whereas it is a micro-perspective when it concentrates on internal organisational structure and individual traits (Chalu, 2019:6). IDT sees adoption and invention as a procedure that defines the decision to accept or reject a specific technology by taking into account the invention itself, communication channels, social systems, and time. It can be utilised to understand IFMIS, but it cannot be the sole theory employed in this research; as a result, the TOE and IDT theories are both adopted. The researcher believes that these adoption theories are helpful for researching IFMIS adoption since they take all the relevant factors into account.

2.5 Summary of the chapter

The two theoretical frameworks or theories that are relevant to the study are covered in this chapter. The IDT and the TOE theories were selected for their empirical, practical, and pertinent aspects which support the current investigation, as this chapter outlines. The research methodology that this study used will be covered in the next chapter.

CHAPTER THREE

SOUTH AFRICAN MUNICIPALITIES AND FINANCIAL MANAGEMENT

3.1 Introduction

In this chapter, existing literature in the context of South African municipalities and financial management is reviewed. The chapter opens with an overview of South African municipalities, including information on their function and structure. Financial management challenges and practices in South African municipalities are also covered.

3.2 An overview of South African municipalities

The Republic of South Africa's Constitution, Chapter 7 (1996:74), states that municipalities are the local level of administration and that they must be established for the entire country. The Constitution further specifies that a municipality's planning, administration, and budgetary procedures must be organized and managed to support social and economic development and, above all, give the community's basic necessities top priority. Koma (2010:111) and Nyide (2023:3) add that the Republic of South Africa's new Constitution, which was ratified in 1996, established local government as the hub of its service delivery system and the driving force behind efforts to eradicate poverty. Koma (2010:113) asserts that a community's needs, interests, and aspirations can be effectively met by local government, which is suitably characterized as a branch of government situated inside a community. Magagula et al. (2019:2) state that the national, provincial, and local governments were established during the era of democracy.

To highlight the state of South African municipalities, this section presents the objectives and roles of different categories of municipalities. It also outlines roles, types, powers, and functions of municipalities.

3.2.1 Types of municipalities

The total number of municipalities in the Republic of South Africa is 280, and these constitute the local sphere of government (Mello, 2018:2). There are 228 local municipalities, 44 district municipalities, and 8 metropolitan municipalities total. The ability of these municipalities to provide municipal services varies, and they are divided into three categories: district (B), local (C), and metropolitan (A) (Mello, 2018:2). Magagula et al. (2019:2) add that the Republic of South Africa's Constitution and supporting legislations governs the operations of metropolitan, district, and local municipalities, which make up local government. Section 155 (1) of the Constitution of South Africa (1996:75) mentions that the categories of municipalities are as follows:

Category A: a local government with the only legislative and administrative power in its jurisdiction. According to National Treasury (2019:69), Category A municipality is a metropolitan municipality that has legislative and exclusive authority in its area.

Category B: a municipality that coexists alongside a category C municipality in its territory and shares legislative and executive authority.

Category C: a municipality with legislative and executive jurisdiction over other municipalities in the same area. In other words, this category refers to a district municipality that has legislative and executive power over a region that is shared by multiple municipalities.

3.2.2 The objectives and role of municipalities

The Constitution of South Africa (1996:74), Section 152 (1), lists the following as the goals of the local government sector: i) to provide local communities with accountable and democratic government; ii) to guarantee the provision of services in a sustainable manner; iii) to promote social and economic development; iv) to promote a safe and healthy environment; and v) to encourage community organizations and communities to get involved in local government matters. Nyide (2018:811) mentions that municipalities are tasked with providing essential services to communities, and part of their mandate is to provide possibilities for inhabitants by offering assistance, building infrastructure, and promoting a sustainable economy that

improves quality of life. Kroukamp and Cloete (2018:62) intimate that local government should be heavily involved in efforts to provide services, lessen inequality, and show individuals that their community can function effectively and efficiently.

Mello (2018:2) mention that the categories of municipalities can be classified as urban (category A), semi-urban (categories B and C, primarily), or rural (categories B and C). While rural communities see a higher turnover of qualified staff, municipalities in the urban areas have the ability to attract most skilled workers. The difficulty of municipalities to keep vital qualified individuals who are crucial to improve evaluation and monitoring services is negatively impacted by the inability to retain qualified workers (Mello, 2018:2).

3.2.3 Powers and functions of municipalities

South Africa's Constitution, Section 156, outlines the authorities and duties of the municipalities. A municipality is entitled to administer and exercise executive power over the local government matters specified in Parts B of Schedules 4 and 5, as well as any additional mandates delegated to it by any other sphere of government, such as provincial or national government. According to Section 156 of the South African Constitution (1996:75), a municipality may also create and implement bylaws to ensure the efficient management of the affairs under its jurisdiction. As already mentioned, the spheres of government constitute national, provincial, and local government. These spheres are separate, interconnected, and interdependent (Mello, 2018:2). The distinctiveness of the spheres was restricted by the Constitution in Section 139, which stipulates that the two upper spheres are able to meddle in matters pertaining to the lower spheres if the latter is unable to carry out its statutory and constitutional obligations (Mello, 2018:5). According to Magagula et al. (2019:2), the Local Government Municipal Structures Act 117 of 1998 establishes a division of duties and authority between municipalities where metropolitan areas are autonomous local authorities. Districts and their local municipalities share responsibility for local government. Magagula et al. (2019:2) further state that facilitating and guaranteeing equitable access to resources and services for all communities is the stated goal of responsibility sharing between a district and its local municipalities.

3.3 Financial Management in South African municipalities

Financial management includes budgeting, planning, revenue, procurement, asset management, cash and expenditure management, monitoring, and reporting (Nyide, 2018:814). Mbatha and Mutereko (2022:287) add that in order to adhere to the principles of good governance, there are oversight structures that need to be built and utilised successfully in South African municipalities to ensure sound financial management.

3.3.1 Definition of Financial Management

Aliyu (2018:22) states that financial management can be defined as an activity that involves organising and managing the financial resources of an organisation. Financial management, in general, is the control of an organisation's finances for the purpose of achieving its financial goals. It is based on identifying and utilising available financial resources (Bismark et al., 2018:178). Furthermore, planning, regulating, coordinating, and overseeing the organization's financial resources in order to meet its goals is all included in financial management (Mbatha and Mutereko, 2022:291).

National Treasury (2015:3) states that financial management encompasses all management decisions and actions, including supply chain operations, that affect the allocation and administration of scarce financial resources assigned with achieving predetermined goals. Nyide, (2018:814) intimates that financial management in South African municipalities include inter alia, budgeting, planning, revenue, procurement, assets management, cash and expenditure management, oversight, and reporting.

3.3.2 Financial Management and Government Accounting Standards for municipalities

The public has the right to fully acknowledge the government's responsibility in managing the resources entrusted to it and its adherence to the law (Jeriansyah and Mappanyukki, 2018:723). In this regard, transparency is critical. Transparency is characterised as accurate financial information that is made available to the public (Jeriansyah and Mappanyukki, 2018:723). Furthermore, the dimensions of transparency are informative, openness and disclosure,

(Gomes, 2019:3). Therefore, financial reporting must satisfy the broad and common information needs of possible external users (Van Helden and Reichard, 2019:8). As such, defining an acceptable level of standardisation is essential to obtaining good performance and reporting it transparently (Patrucco, 2020:4).

3.3.2.1 The introduction of Municipal regulations on a Standard Chart of Accounts

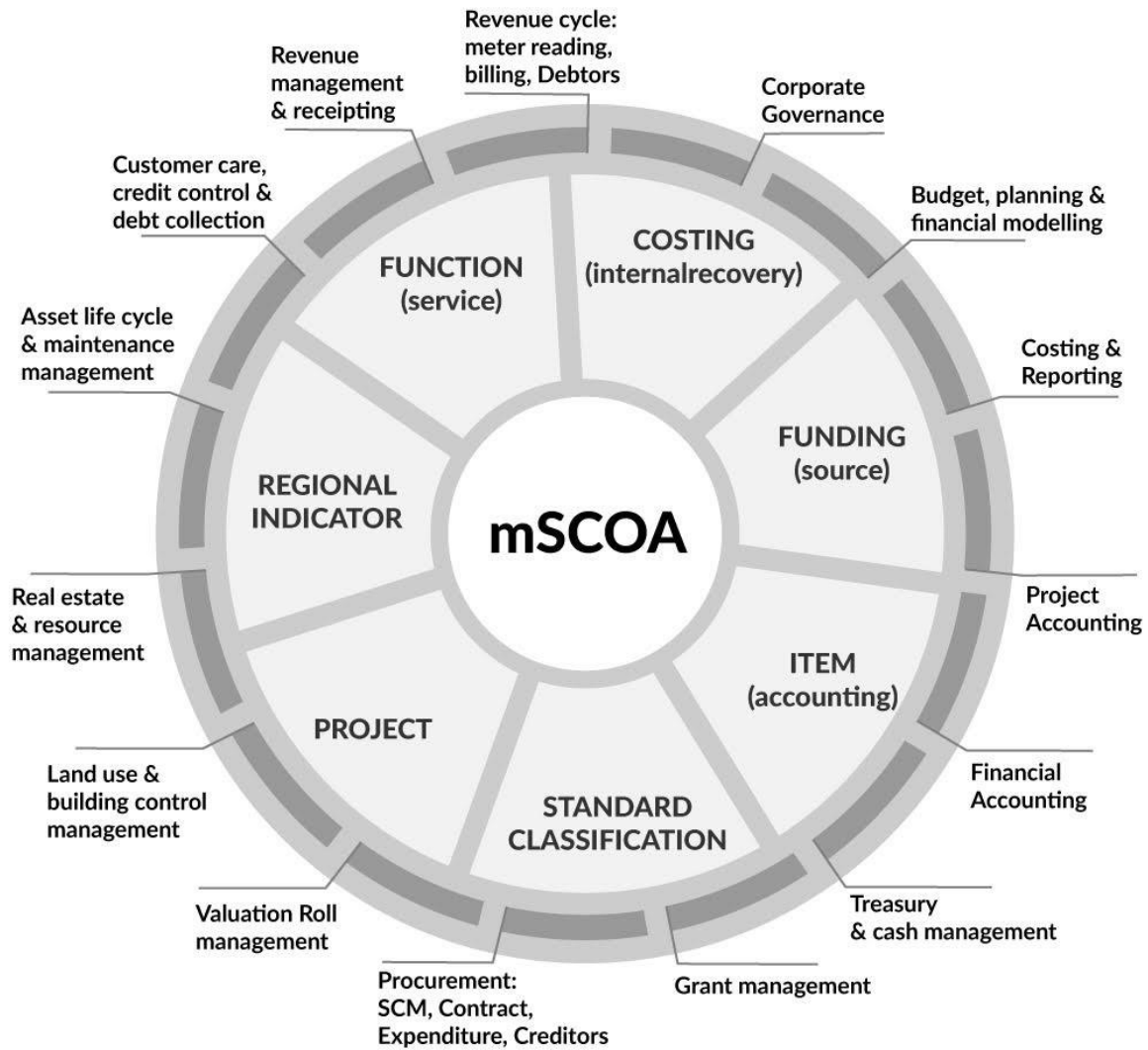
The Municipal Regulations on a Standard Chart of Accounts (mSCOA) were implemented to non-pilot municipalities by National Treasury Circular No. 1 of July 2015, with the goal of achieving full mSCOA compliance by July 1, 2017. A consistent and standardized methodology for classifying financial transactions is offered by mSCOA (National Treasury, 2015). In essence, this means that municipalities and their entities must follow mSCOA's prescribed method (the how) and format (the look) for recording and categorizing all expenses (capital and operating), revenue, assets, liabilities, equity, policy outcomes, and legislative reporting (National Treasury, 2015). As indicated in Figure 2.1, mSCOA offers a consistent and standardized framework for classifying financial transactions across seven categories.

Niekerk and Sebakamotse (2020:273) mention that in the context of South African municipal government, ethics refers to applying moral norms and guidelines when carrying out duties. In addition to requiring adherence to legal and regulatory frameworks, these ethical principles and standards also call for the promotion and maintenance of a high degree of ethical conduct, the provision of efficient service delivery, and responsible local governance and municipal financial management (Niekerk and Sebakamotse, 2020:273).

Niekerk and Sebakamotse (2020:273) that unethical behaviour, fraud, corruption, and an increase in the misuse of municipal funds and assets arise in spite of the constitutional ethical principles, standards, different codes of conduct, legal framework, and guidelines, incompatible principles, a lack of oversight and accountability, and poor financial management. Additionally, the researchers point out that, as a result of unfair and uncompetitive procurement practices and poor contract management, just 2% of all municipalities are fully complying with SCM regulations according to the AGSA Consolidated Report for Local Government Audit Outcomes of 2018–2019 (Niekerk and Sebakamotse, 2020:275). Bismark et al. (2018:179) further state that the core activities of any business's

success are its financial management procedures, which also conceptually lead to financial profitability.

Figure 3.1 mSCOA segments



Source: National Treasury (2015:2)

Brown (2020:31) states that a consistent and standardized framework for classifying financial transactions is provided by mSCOA across 7 segments. National Treasury (2015:2) argues that instead of only being a financial reform, mSCOA is a business reform that calls for multifaceted transaction recording and reporting across all 7 segments. Figure 3.1 also illustrates the items that fall under each segment. Table 3.1 provides a short description of all 7 segments.

Table 3.1 mSCOA Segments Description

Segment Name	Segment Description
Project	Is there a specific project associated with this transaction, and if so, what kind of project?
Function	What function or sub-functions ought the transaction to be recorded against?
Item	What kind of transactions need to be documented - are they related to an asset, liability, net asset, profit or loss, or revenue and expenses?
Funding	Which finance source will be used for the transaction, and where will the revenue come from?
Costing	How does this transaction affect secondary costing?
Regional	Which geographic location is best for capital investment or which is best for operational spending in terms of service delivery?
Municipal Standard Classification	Should the transaction be registered against a particular organisational vote or sub-vote?

Source: National Treasury (2015:2)

Brown (2020:33) believes that because South African municipalities have different issues, it will be hard to apply legislation with a blanket approach. Gcora and Chigona (2019:3) mention that enabling a central point of access for all municipal information is a fundamental design feature of the mSCOA chart, and it is accomplished by reporting to different stakeholders at the provincial and national levels. Furthermore, National Treasury (2015:3) argues that while mSCOA does not mandate particular business procedures inside a municipality, it does have an impact on those processes only through the application of its design principles, which are represented by the seven segments. To put it briefly, every step in the municipality's business processes that depends on the municipality's system(s) for the receipt or extraction of financial information would be impacted (National Treasury, 2015:3).

3.3.2.2 Benefits of mSCOA

There are a number of macro and micro benefits associated with the implementation of mSCOA. An mSCOA compliant implementation permits the drawing of a trial balance in each of the pertinent segments when executed correctly (Kwetana, 2019:27). Moreover, the municipality will have an IDP and projects budget that has been compiled in mSCOA segments, with very few variance adjustments, to guarantee that daily transactions are recorded in the proper accounts and that the municipality can conduct its daily operations through a portal function for input into the national data warehouse (Kwetana, 2019:27). According to Gcora and Chigona (2019:2), mSCOA will support management's financial operations and help with budget choices, fiduciary obligations, and the creation of financial reports and statements.

National Treasury (2018:4) states that the benefits of mSCOA include standardised reporting for the whole government reporting, which will relieve reporting fatigue; information and reporting costs can be utilised in a multi-dimensional reporting. National Treasury (2018:4) adds that mSCOA raises levels of cooperative government, enhances accountability and transparency, and strengthens municipal auditing, all of which contribute to increased service delivery, stability, and consistency.

3.3.2.3 International Public Sector Standards

International Public Sector Accounting Board (IPSASB) has created a set of accounting rules for the public sector known as International Public Sector Accounting Standards (IPSASs) (Baskerville and Grossi, 2029:103). According to Gomes et al. (2019:2), IPSASs are used as a guide for the development of consolidated financial statements in the public sector. The public sector has adopted consolidated financial statements as a result of the reforms and the implementation of accrual accounting standards (Gomes et al., 2019:2). Baskerville and Grossi (2019:105) add that the adoption of IPSAS may be a step towards worldwide accounting harmonization, and that the goal of consistency of accounting systems across member nations will have positive effects on the world economy.

3.4 The role of Auditor-General South Africa (AGSA) in municipal financial management

An important part of the local government's financial management is the Auditor-General of South Africa (AGSA). According to Section 188 of the Constitution (1996:95), the AGSA is responsible for the financial administration of all state administrators and departments, both national and provincial. Matlala and Uwizeyimana (2020:1) clarify that the AGSA's purpose in local government is to audit financial reports and other statutory outputs in order to boost public trust in the operation of the municipality. The oversight, insight, and foresight governance tasks are supported by the role of the government's auditor (Matlala and Uwizeyimana 2020:3).

Section 188 of the South African Constitution (1996:95) indicates that the AGSA's duties include auditing and reporting on the accounts, financial statements, and financial management of all national and provincial state departments and administrators, all municipalities, and any other organization or accounting entity that is mandated to be audited by the AGSA by national or provincial legislation. Section 181 (1) of the South African Constitution (1996:92) mentions that the Republic of South Africa's constitutional democracy is reinforced by state institutions. Section 181(2) of the South African Constitution (1996:92) further indicates that these institutions are autonomous and only subject to the law and the Constitution. They have to act impartially, use their authority, and carry out their duties without favouritism or fear. Section 181(3) emphasised that other state organs must support and safeguard these institutions through legislative and other means in order to maintain their independence, impartiality, dignity, and efficacy (The South African Constitution, 1996:92).

The report from the AGSA (2021:12) state that AGSA is liable to the National Assembly, to which it submits an annual report together with its strategic plan, budget, and other key accountability instruments each year, detailing its operations and the execution of its duties. Matlala and Uwizeyimana (2020:1) mention that the competences, capabilities, and constitutionally stated mandate of AGSA to serve the public within the established legal frameworks by consistently applying ethical principles and professional standards provide it the capacity to audit local government institutions.

Nyide (2018:815) alludes that a clean audit and municipalities fulfilling the needs and wishes of their communities are made possible in part by efficient financial management. AGSA regularly audits departments of the national and provincial state, and local governments, as well as certain public entities and municipal entities (AGSA, 2021:16). Performance audits, special audits, and investigations are examples of discretionary audits carried out by AGSA (AGSA, 2021:16). Its audit reports, which evaluate the findings of the audits at the national, provincial, and local levels, are made available to the public and presented to Parliament, provincial legislatures, and city councils (AGSA, 2021:16).

Furthermore, in order to facilitate accountability and hence advance good financial governance practices in South Africa, AGSA is crucial. It accomplishes this by giving the various legislatures independent assurance regarding whether organizations using public funds have handled their financial affairs in accordance with good financial practices, have complied with the applicable legal framework, and have given reliable information regarding the accomplishment of their performance and financial goals (AGSA, 2021:17).

3.5 Financial management challenges facing municipalities

Alleged financial irregularities, inadequate accountability, corrupt practices, maladministration, financial mismanagement, a lack of public trust, and service delivery barriers are common problems for municipalities (Kroukamp and Cloete 2018:1). Masuku and Jili (2019:1) also note that financial irregularities, corruption, and poor administration are common problems in South Africa's service delivery system. Protests against violent service delivery are a result of high levels of incompetence and inefficiency on the part of local government. Mello (2018:2) mentions that in South Africa, a number of municipalities are not operating at the standard demanded by the law and the people who foot the price for these towns' management. In most municipalities, inadequate service delivery and governance continue to be grave challenges (Kalonda and Govender, 2021:5). On the other hand, Meyer and Auriacombe (2019:1) argue that there are complex concerns that affect urban government which include housing, unemployment, waste management, poor tax bases, water purification and sanitation, energy, maintenance of roads, building and other issues related to increasing urbanization.

The discussion here further highlights some of the challenges relating to financial management that the municipalities in South Africa encounter.

3.5.1 Poor Accountability

A kind of responsibility for public institutions is financial accountability, which requires organisations to use public funds economically, efficiently, and effectively without waste or corruption (Dewi et al., 2019:1376). Municipalities across the nation experience accountability breakdowns that prevent them from accomplishing their goals, which has a detrimental impact on local community life and service delivery (Niekerk and Sebakamotse, 2020:271). According to Sibanda et al. (2020:1), in order to be held accountable, municipal officials especially those in the Supply Chain Management (SCM) unit must report on, account for, justify, and explain their actions as well as take ownership of the results of their financial expenditures. Chitimira et al. (2022:17) emphasise that, accountability is attained when a person is held accountable for all of their behaviour and/or activities. It is difficult for those who engage in illegal activity to accept full responsibility for their activities and deal with the fallout from them without accountability. Therefore, it is concerning that the instruments available to identify instances of authority abuse and corruption are not being properly applied in order to ensure accountability. (Masuku and Jili, 2019:2).

Poor accountability in local government and the service delivery inadequate in many municipalities in South Africa are exacerbated by the insufficiency of comprehensive systems for observing officials' performance (Magagula et al., 2019:6). Furthermore, officials in municipalities seem not to be held accountable for their performance. Accountability requires SCM public servants to accept responsibility for their acts, document them, provide justification for them, and bear accountability for the intended results. Effective, efficient, and compliance with SCM standards is ensured by internal control in municipal financial reporting. (Sibanda et al., 2020:2).

Because individuals in local government are not held accountable for financial misconduct, corruption, maladministration, and other related illicit activities, it is argued that good corporate governance practices, as well as appropriate transparency and accountability mechanisms, must be effectively adopted and used throughout the field of local government. (Chitimira et al.

2022:18). In 2019, the AGSA revealed that only 5% of municipalities in South Africa attained financial accountability, while many of them performed poorly due to ineffective leadership, limited institutional capabilities, poor financial management, corruption, and political instability (Enwereji, 2022:22). Government at all levels is required to be accountable and transparency, particularly in the public sector, to guarantee that public funds or resources are used and are supported by proper and relevant records that are expected to be made available to the public and accessible (Eugene, 2019:29).

3.5.2 Mismanagement of Municipal funds and Corruption challenges

There have been reports of widespread corruption in all three levels of government in South Africa (Masuku and Jili, 2019:2). As pointed out by Kalonda and Govender (2021:9), Most South African municipalities have inadequate financial management, weak control and accountability frameworks, and a rise in fraud, corruption, and misappropriation of public funds and assets. This is corroborated by the report by AGSA (2020:1), which mentions that the absence of oversight over public funds lead to financial maladministration and ethical misconduct. Chitimira et al. (2022:7) confirms that numerous issues with corruption, misappropriation of public funds, and bad administration have emerged as a result of the implementation of ineffective governance practices in a number of municipalities in South Africa. Again, Nama et al. (2022:43) add to the discourse by emphasising that the local municipalities in South Africa have been plagued by poor management, theft of public funds, nepotism, a lack of qualified workers, corruption, and a lack of financial accountability.

Corrupt practices at the local government level also include the misusing mayoral funds; paying bribes to obtain services; misusing travel allowances; creating fictitious tenders; council members not paying for municipal services; using municipal facilities for party-political or personal purposes; and appointing people without following human resource processes (Kroukamp and Cloete, 2018:70). Greater financial mismanagement in South African municipalities is a hindrance to the progress, development, and expansion of the nation. It creates concerns about the morality and ethics of the municipalities and upsets the economy to the point where, in the event that the municipality lose money due to fraud and financial mismanagement, they are compelled to make up for such losses by raising taxes and prices (Tshikundamalema, 2020:17).

3.5.3 Financial sustainability and viability challenges

Auditor-General South Africa (AGSA) consolidated data on local government audit results for the previous nine years show that the majority of municipalities were found to be financially unviable (Matlala and Uwizeyimana, 2020:2). The reports indicated issues about the municipalities' capacity to continue operating financially because doing so could seriously impair their ability to maintain their infrastructure and provide basic services (Matlala and Uwizeyimana, 2020:2). To ascertain the municipality's capacity to deliver services, financial viability is an essential issue (Moloto and Lethoko, 2018:750). The ability of municipalities to legitimately impose taxes and charge for the services they render enables them to defray their costs by covering the provision of these services, which makes municipal financial viability essential (Moloto and Lethoko 2018:750).

Furthermore, Hajilou et al. (2018:77) assert that because there is no comprehensive approach to municipalities' revenue sources in the form of a macroeconomic system, adjustments and interventions, and the enforcement of self-reliance and self-sufficiency policy, the financial sector of municipalities is in an unsustainable situation. South Africa's municipalities continue to face a significant financial sustainability crisis due to poor financial management, a lack of innovation and dedication, and the fact that majority of these municipalities continue to rely on national and provincial funds (Beda, 2019:28).

3.5.4 Lack of qualified human capital

Shava and Chamisa (2018:4) state that, in South Africa, there is a lack of qualified experts in the technical and finance fields. Mubangizi (2019:556) also notes that there is a severe skills shortage in financial and technical matters at the local government level. This adversely affects most municipalities across the country. Tshikundamalema (2020:16) asserts that the inexperience of municipal finance authorities contributes significantly to municipalities' failure to be financially sustainable and results in inadequate service delivery at the local level. According to Moloto and Lethoko (2018:750), some of the difficulties faced by local government emanate from the fact that important municipal employees lack the necessary training, expertise, and resources to carry out their duties. Most municipalities recruit

inexperienced, unskilled officials, which results in a lack of efficient frameworks for performance management and coordination (Ngqwala, 2019:34).

The lack of qualified personnel in local government is largely caused by not following appropriate recruitment policies. For example, Kalonda and Govender (2021:7) assert that the political patronage plays a major role in the appointment of key officials in municipalities, sacrificing merit in the sake of politics. The municipal management is negatively impacted by the lack of capability, particularly in terms of finances and human resources (Hettiarachchi, 2018:5). Recently, the issue of staff members' lack of aptitude in the nation's municipalities has been noted, and the Local Government Budgets and Expenditure Review found that one of the primary causes of municipalities' inadequate financial management was a lack of institutional capability (Tshikundamalema, 2020:15). According to the Auditor-General's report, the majority of South African local government personnel lack the requisite understanding and capabilities to carry out municipal rules and procedures, particularly when it comes to the creation of financial statements and annual financial reports (Chitimira et al., 2022:17).

3.5.5 Challenges in generating Municipal Revenues and Debt Collection

One of the key challenges facing municipalities is the ability to generate their own revenues as there is a culture of non-payments of accounts by customers (Moloto and Lethoko, 2018:751). Tshikundamalema (2020:17) asserts that most scholars reveal that majority of municipalities have difficulty collecting revenues from their residents for the services they provide, and that financial mismanagement inside the municipalities is demonstrated by their incapacity to collect the necessary funds for initiatives related to service delivery. Non-payments of accounts by customers weakens the financial viability of municipalities. Enwereji and Uwezeyimana (2020:334) highlight that the issue of not paying for municipal services stems from the anti-apartheid movement, when people claimed they were entitled to the services since they were a benefit of democracy.

Moloto and Lethoko (2018:752) further argue that municipalities face difficulties in collecting debt because of inadequate recording systems, a high proportion of impoverished people, a culture of non-payment that exacerbates ratepayer boycotts, accounts that are not sent to debtors or are delivered to incorrect locations, and customers who refuse to pay for services

provided by the municipality. According to Ababneh and Rawabdeh (2018:49), revenue collection is impacted by a number of variables, including ineffective government policies, political meddling, corruption, inefficient administrative processes, and poor budgeting. The politicians also have an influence on the process of revenue collections as they sometimes tend to abuse some financial functions, including revenue collections, to maximise their chances of being re-elected (Ababneh and Rawabdeh, 2018:50). Local and district municipalities require sufficient funding to carry out their mandated duties to their indebted citizens as well as to support their operations and projects. However, for the municipalities to accomplish effective payment compliance, the collection of own revenue continues to be a major challenge (Enwereji and Potgieter, 2018:228)

Kalonda and Govender (2021:9) allude that municipalities lack the capacity and means to understand the debt management practices. As such, municipalities are unable to collect outstanding revenues due to the municipalities from customers. The municipalities' failure to collect payments for the services they provide is a serious challenge and this is mostly caused by the absence of a suitable framework for collecting revenues for the services rendered, which has a detrimental effect on municipalities capacity for financial survival, (Hettiarachchi et al., 2018:5). Enwereji and Potgieter (2018:227) add that for South African municipalities, generating enough revenues from citizens' payments for municipal services remains a serious challenge because many citizens have not yet been able to instil a culture of paying for services rendered by municipalities. The biggest obstacle to municipal financial sustainability is that they are unable to set up appropriate procedures to help them with revenue collection. Moreover, customers' unwillingness or incapacity to pay municipal bills results in financial challenges for municipalities, which in turn impairs their ability to remain financially sustainable and fulfil their constitutional obligation to deliver services to their communities (Beda, 2019:16).

3.5.6 Challenges in Leadership and Governance

The literature from different researchers demonstrates that the level of inadequate provision of services is a result of poor leadership; corruption; inefficient governance structures; misappropriation of council funds; and inadequate implementation of human resource practices, all of which, either separately or collectively, have a negative impact on

local governance (Kalonda and Govender, 2021:2). In addition to the conflict between key political and administrative officials, dealing with politicians' improper meddling in administrative concerns is a challenging challenge and this appears to be related to the problem of the division of powers between the executive authority and the legislative (Ngqwala, 2019:35). Furthermore, the researchers have noted that inadequate service delivery, a lack of moral behaviour in government leadership, and a suitable mechanism to deal with unethical behaviour in government institutions are the major issues impacting financial management difficulties in the South African government (Mbandlwa et al., 2020:24986). Mbatha and Mutereko (2022:285) mention that the Republic of South Africa's 1996 Constitution, which established various authorities to regulate accountability in local government activities and relevant government departments, summarizes good governance in its relevant chapter.

Malpractices, corruption, and poor governance have also been triggered by financial challenges and poor administration (Kalonda and Govender, 2021:3). Poor service delivery and governance remain major issues in the majority of local governments. Ngqwala (2019:34) articulates that the executive members of local governments, including the mayor, the council, municipal managers, and senior officials, are expected to set an example, be responsible, and see to it that clean audits are achieved. The local municipalities' goal of achieving congruence between administrative and political leadership is a crucial factor. Moreover, in South Africa, issues with ethical leadership contributed to corruption in several government institutions and corruption is a result of weak leadership ethics, which leads to subpar public service delivery (Mbandlwa et al., 2020:24986). Municipalities continue to struggle with leadership because political leadership is viewed as weak in good governance and consequence management and the position that a person holds in an organisation does not automatically qualify them as a leader, rather, they perform a vital function in that organisation.

3.5.7 Supply Chain Management Challenges

The Auditor-General also looked at supply chain management and the 2012/2013 AG Report reveals that the procurement of R3.5 billion could not be audited because the necessary paperwork was not submitted by the municipalities. Almost 46% of municipal contracts went to employees, council members, or other state representatives. Furthermore, the aforementioned infractions had no repercussions (Kroukamp and Cloete, 2018:70). The South

African municipal government still struggles with efficiency when it comes to sourcing, tendering, and buying products and services, even with SCM systems in place. Regressions in local government audit results are mostly caused by the ongoing incapacity to create, implement, and oversee effective SCM systems, oversight, internal controls, and financial reporting procedures (Sibanda et al., 2020:1). Mndaweni (2018:4) asserts that the public sector in South Africa is dealing with significant SCM issues, which is a critical problem because it prevents the provision of services to the needy communities.

Moreover, numerous issues with public procurement, such as a lack of oversight mechanisms, inadequate monitoring and evaluation, and an unstable and volatile environment, were identified in empirical studies carried out by other academics (Maramura and Shava, 2021:622). As per the results of the 2018–2019 local government audit, the proportion of municipalities with significant SCM compliance findings increased from 72% to 81%. Two of the primary reasons for this regression are insufficient ability, knowledge, and proficiency in financial reporting, as well as inefficient internal control systems and procedures (Sibanda et al., 2020:3). Corruption in the SCM system is a difficult-to-control phenomena that can be ascribed to poor financial responsibility, lack of transparency, inefficient internal controls, and unethical behaviours (Maramura and Shava, 2021:622).

3.5.8 Contract Management

The handling of contracts is yet another issue that needs to be addressed. One powerful tool that may be used to fight corruption and guarantee good governance, value for money, and high-quality service delivery is transparent or open contracting (Fourie and Malan, 2020:13). Matto et al. (2021:725) point out that the government uses procurement contract management as a tool to provide critical public services and projects to the residents. However, in the procurement context, procuring organisations deliver these initiatives through efficient contract administration (Matto et al., 2021:725).

Procurement contract administration has been linked to assisting purchasers in ensuring that involved suppliers are appropriately managed. But despite the significance of contract management in the public sector, researchers found that these organisations are struggling with issues around procurement contract management (Changalima et al., 2022:3). Significant

contract management non-compliance issues have been found in recent audit findings on public procurement including issues with inadequate contract preparation, contracts that have not been vetted, received but uninspected goods and services, paid for but undelivered goods and services, failure to prepare progress reports, and failure to monitor performance and advance payment securities (Matto et al., 2021:727).

Numerous malpractices have been reported for countless times by the AGSA office on contract management and procurement. Current procedures are not always compliant with the law, especially when it comes to fairness, openness, and transparency; among the findings are that standard contracts were not published or opened to the public, bid documents were not made public, and evaluation minutes from bid committee meetings were not made public. Best practices dictate that bidders' names and prices be made public during the opening of bids and that this information be published (Fourie and Malan, 2020:13). Challenges with contract management challenges involve the expenses and resources that purchasing organisations expend while managing formal contracts with their engaged suppliers, and these challenges have an impact on how well these companies accomplish their objectives when partnering with suppliers (Changalima et al., 2022:3).

3.5.9 Unauthorised, Irregular and Fruitless and Wasteful Expenditure challenges

When the funds of the municipality are improperly spent without a budget that has been approved, it is known as unauthorised expenditure. When the municipality's money is spent in violation of the provisions of the relevant legislation, it is considered an irregular expenditure. When an expenditure is made in vain and/or when such an expenditure might have been avoided by exercising reasonable caution, it is considered a fruitless and wasteful expenditure (Chitimira et al. 2022:12-13). An analysis of the efficiency with which the financial resources have been managed to meet the best interests of the municipality is part of the evaluation of the financial management goals. Examining how these goals were accomplished in South Africa has revealed financial mismanagement, which is described as spending that is unauthorised, irregular, fruitless, and wasteful and results in financial distress for the country (Mishi et al. 2022:3). Furthermore, issues like a lack of adequate internal controls and poor financial management, have a negative impact on the financial performance of municipalities. Moreover, municipalities become contributors in the three categories of inadequate financial

management which are irregular expenditure, unauthorised expenditure, and fruitless and wasteful expenditure (Nzama, 2019:1514).

Compliance with the regulations of SCM, legal frameworks, and laws needs to be reinforced due to persistent occurrences of fruitless, irregular, and wasteful expenditure. The AGSA observes that in order to achieve sound financial responsibility, not all municipalities fully adhere by the principles of accountability and the relevant municipal legislation, and this has led to an increase in unauthorised, irregular, and wasteful expenditures (Enwereji, 2022:22). Furthermore, a qualified audit opinion was achieved by multiple municipalities as a result of fruitless and wasteful expenditures and inefficient public service delivery is hampered in the majority of municipalities in South Africa by irregularities and a lack of accountability (Mbandlwa, 2020:24991). Consistent instances of fruitless, irregular, and wasteful expenditures necessitate strengthening of compliance with SCM policies, rules, and legal frameworks (Sibanda et al., 2020:1).

3.6 Financial management practices within South African municipalities

Financial management practices have long attracted the attention of researchers globally. Depending on diverse purposes, scholars put an emphasis on different aspects of financial management practices. According to Mbatha and Mutereko (2022:287), the development and efficient use of oversight structures is necessary to ensure excellent financial management in South African municipalities while upholding the values of good governance. Nyide (2018:814) adds that municipalities can be transformed by efficient financial management by timely reporting that guarantees current information and leads to the implementation of high-quality judgments. Furthermore, efficient financial management guarantees that there is enough data to support the decision-making phase. Mbatha and Mutereko (2022:291) maintain that sound financial management is essential and required for the municipalities to deliver services to the people in an effective manner. In addition to enhancing governments' ability to produce money to cover expenses, good financial management techniques also enable them to sustainably deliver the high-quality services that their constituents need (Tshikundamalema, 2020:8).

In the review of the financial management practices, the following section explores and provides a detailed discussion on the key financial management practices adopted by municipalities.

3.6.1 Oversight structures

Priono et al. (2019:78) highlight that one type of internal control that is managed by executive oversight to assure the accomplishment of governmental goals, such as enhancing people's welfare, is financial management. Transparency and accountability in local government financial management are fostered by audit as a control method (Priono et al., 2019:78). Municipal councils frequently fail to adequately oversee the financial reporting processes in the municipalities, which frequently results in a number of material misstatements and financial reporting flaws in the majority of annual reports of municipalities due to a lack of effective monitoring and oversight measures (Chitimira et al., 2022:15).

Magagula et al. (2019:6) highlight that there have been signs of a lack of coordination between the district and local municipalities in everything from political oversight to administrative level work. Mayors have voiced concerns about the council's competence being undermined without necessarily boosting service delivery and increasing accountability. Kalonda and Govender (2021:8) state that the findings on the South African Cooperative Governance and Traditional Affairs (COGTA) report, indicates that poor adherence to regional laws and regulations is a widespread occurrence in South Africa and has resulted in subpar service delivery.

Magagula et al. (2019:4) refer to the Constitution of the Republic of South Africa, which outlines that the authorities and duties of municipalities must carry out in order to fulfil their mandates and also provides for the creation of local government structures that will supervise the operations of individual municipalities as well as the entire local government sector. Van Helden and Reichard (2019:7) state that for accountability purposes, an oversight body primarily needs certain reports that include financial data as well as information about whether the municipality is providing the services mandated to them. Moji et al. (2022:1) state that according to transparency International inadequate oversight leads to greater chance of public funds being pocketed by public officials. Van Helden and Reichard (2019:7) emphasise that

oversight bodies that are legally permitted to impose rules and give financial support to public sector organisations might hold a powerful position as a user group of the accounting information of these organisations.

3.6.2 Internal Audit and Audit Committee

According to its definition, auditing is an activity in which the practitioner draws conclusions intended to boost the level of confidence of the intended users other than the responsible party about the results of the assessment or measurement of the subject matter against the criteria (Seitheisho, 2019:10). Management and every employee regularly participate in an internal control system to give reasonable assurance for the achievement of organizational goals through efficient activity, the accuracy of financial reporting, the protection of state assets, and compliance with laws. (Ekayanti et al., 2018:1220). Eugene (2019:19) states that internal controls are programmes and procedures implemented step-by-step by management of an organisation to help the organisation achieve its goals and objectives and comply with laws and regulations and management relies on internal controls to ensure that things do not go wrong.

Internal auditors are seen as having a crucial role in providing independent assurance and advising services on internal control, risk management, and governance processes and they frequently report directly to the organisation's top management (Seitheisho, 2019:10). The objective of internal audit is to increase organisational competency and effectiveness via insightful analysis and internal auditors play a critical role in examining an organisation's risk profile and recommending areas to improve risk administration (Eugene, 2019:26). Eugene (2019:26) mentions that there are four basic parts to an internal audit: verifying written records, analysing policies, evaluating the rationale and completeness of procedures, internal services, and staffing, and presenting recommendations for improvements to the management.

On the other hand, one of the responsibilities of the audit committee is to analyse corporate financial information, but internal audit must also assess and contribute to the improvement of internal controls and the efficiency of internal audit function and audit committee should be combined to achieve better accountability (Bananuka et al., 2018:139). Furthermore, the audit committee oversees internal audit procedures, evaluates business financial data, and acts as a

communication channel between the internal and external auditors (Bananuka et al., 2018:139). Moreover, it is argued that the internal audit function of an entity performs assurance and consulting duties meant to evaluate and improve the effectiveness of the firm's risk management, governance, and internal control processes (Bananuka et al., 2018:140). Seitheisho (2019:11) clarify that an effectiveness of the audit committee is described as meeting its obligations to oversee the internal audit system, evaluate company accounting data, and communicate with external auditors. Furthermore, through its diligent supervision efforts, a good audit committee should guarantee accurate financial reporting, internal accounting controls, and risk management.

3.6.3 Budgeting and Financial Reporting

As per Mbatha and Mutereko (2022:286), since budgetary reforms enhanced the way Integrated Development Planning (IDP) has been implemented, appropriate budgeting is a must to improve financial management in the local municipalities. Nzama (2019:1519) outlines the municipal budget process that, before the beginning of each fiscal year, the council of a municipality must approve the annual budget for the municipality. As per the Municipal Systems Act 2000 (Act No. 32 of 2000), Section 34 requires the municipality to update the integrated development plan, and Section 21 of the MFMA mandates that the mayor of a municipality take this into account when preparing the annual budget. Nyide (2018:815) further adds that the executive role of the municipality is to approve, monitor the budget, ensure that there is enough money to carry out the municipality's mandate and effective financial management guarantees that there is enough information to contribute to the decision-making stage. Therefore, it is assumed that the fundamental elements of public financial management include legislative appropriation, budget implementation, accounting and financial reporting, auditing, and evaluation (Seitheisho, 2018:14).

The mayor should also consider the national and provincial budgets, as well as the fiscal and macroeconomic policies of the federal government, as well as realistic revenue and expenditure estimates for future years (Nzama, 2019:1519). According to the International Federation of Accountants, governments must provide accurate and comprehensive information about expenditures and transactions in order to foster public trust, demonstrate accountability and sound fiscal management, and enhance their own credibility. High-quality, strong, and

effective accrual-based financial reporting systems are able to deliver the necessary information because they successfully manage government assets and liabilities, allowing for their accurate recording, reporting, and disclosure (Dewi et al., 2019:1373).

Mbatha and Mutereko (2022:286) highlights that the accounting officer is required to ensure that good financial management processes are always adhered to, including establishing good financial systems. Alkaraan (2018:3) adds according to the researchers, effective accrual financial measurement and reporting systems should be results-oriented and give management and the legislature relevant data for decision-making, control, performance evaluation, and accountability. The financial statements are records of a company's financial data for a given accounting period and can be used to assess the company's performance. Complete and honest information that is not intended to mislead users is a characteristic of good financial reporting (Dewi et al., 2019:176).

3.6.4 Supply Chain Management

In order to replace the antiquated procurement and provisional methods, the national and provincial governments of South Africa created an SCM strategy to direct uniformity in procurement reform procedures in government in 2003 (Mndaweni. 2018:25). The public sector in South Africa uses procurement practices to accomplish economic, social, and environmental objectives of the various governments. The acquisition of commodities and services is their major goal, but they are also being utilised to advance social, industrial, or environmental goals, which are secondary to those goals (Mndaweni, 2018:24). Chitimira et al. (2022:13) concur that the MFMA stipulates specific mechanisms, processes, and procedures that must be adhered to when municipalities are awarding contracts.

SCM policies are employed to guarantee the fair, equal, transparent, economical, and competitive procurement of municipal products and services. Furthermore, when municipal budgets are utilized to accomplish significant outputs and goals that have been outlined in the municipalities' Service Delivery Budget Implementation Plans (SDBIPs) and Integrated Development Plans (IDPs), the SCM regulations are intended to safeguard value for money (Sibanda et al., 2020:2). Internal control guarantees timely, accurate, and SCM-compliant financial reporting by municipalities. In South African public organizations, supply chain

management systems have been hailed as a constructive development that can improve welfare for the general public and change how public services are delivered (Sibanda et al., 2020:3). Despite the fact that public procurement is essential to government operations and to the development of a country, studies on the subject reveal undesirable practices that hinder procurement performance. Additionally, there is enough proof of supplier development in the context of the manufacturing sector and the electronics industry to enhance purchasing performance (Changalima et al., 2022:4).

3.6.5 Assets Management

Governmental audit and oversight organisations have been instrumental in stressing the significance of effectively managing capital assets in a number of countries (Kaganova and Telgarsky, 2018:143). The efficiency of fixed asset management is affected by several variables and can be done in a number of stages, including asset inventory, asset valuation, asset optimization, legal review, audit, and asset supervision and control (Ekayanti et al., 2018:1220). Furthermore, government departments must establish and maintain an organisational climate that promotes positive behaviour and sound management since the internal control system is the cornerstone of the entire process of excellent asset management (Ekayanti et al., 2018:1221).

Okwori et al. (2021:1015) further elaborate that asset management is a collection of procedures that water utilities use to maintain the service levels of their assets, such as pipe networks, as efficiently as possible over the course of their entire life cycles. Bonthuys et al. (2019:5) point out that it is the obligation of municipal institutions to manage the assets and liabilities of the municipality in order to maintain adequate and long-lasting service delivery is governed by several statutory obligations within the South African municipal framework. The National Treasury (NT), the Department of Water and Sanitation (DWS), and the Department of Cooperative Governance and Traditional Affairs (CoGTA) each play a significant role in driving regulatory efforts pertaining to the asset management in South Africa (Bonthuys, 2019:5).

3.6.6 Monitoring and Evaluation

As a continuous process, monitoring and evaluation (M&E) entails the systematic collection of data on predetermined indicators to provide management and important stakeholders with ongoing reporting that is connected to metrics of the degree of progress and goal achievement as well as the utilization of resources allotted (Matsiliza, 2019:492). M&E play a crucial role in the effective delivery of basic services to communities by ensuring that each role-player complies with the rules and regulations. M&E have evolved from being a tool for performance evaluation to an empowering and emancipating process that may foster a new culture of capacity building within the public sector (Matsiliza, 2019:491). The World Bank has shown that M&E go hand in hand because they are both used to assess how well an activity or programmes is performing. Monitoring is understood as an ongoing process of information gathering and performance indicator analysis that enables one to relate to an evolving programmes result (Matsiliza, 2019:491).

Gislar (2019:27) asserts that monitoring is used as a routine information gathering that enables feedback of any threat that is likely to impede ongoing intervention. It also helps as a continuous process that, at the beginning, provides management with useful information that may impede program efforts and fail to yield the desired outcomes (Gislar, 2019:27). On the other hand, Evaluation is the planned, ongoing, and objective assessment of tasks or completed projects or programmes, along with their planning, implementation, conclusion, and results. Moreover, in order to ascertain results, progress on effectiveness and efficiency, the impact of interventions, and the sustainability of programs, it may also be used to establish priorities, the relevance of activities, and their goals quantified through objectives (Matsiliza. 2019:492).

Nonyane (2019:25) argues that the goal of M&E must be viewed in light of the crisis that South Africa's local government is currently experiencing with relation to demonstrations over the delivery of demanding services that are brought on by inefficient and ineffective methods to assess the effects of service delivery. Furthermore, the afore-mentioned author argues that it is now well-established from several studies that the M&E system's primary purpose is to monitor and assess the relevance of the vision and mission of the organisational objectives that are being realized at a constitutional level. Evaluation is an assessment that can be used by the organisation in observing whether the resources were used in a right way to achieve the

expected results of a certain program (Gislar, 2019:27). Moreover, monitoring is a regular activity that allows for the tracking of any risks or uncertainty that can cause project operations to diverge from their intended course. As a result, it will guarantee that enough spending and resources are used in accordance with the established strategy and reduce any potential risks (Gislar, 2019:34).

3.7 Summary of the chapter

An overview of South African municipalities was discussed in this chapter, detailing their objectives, responsibilities, and organisational structure. Municipalities' roles and responsibilities were also discussed, along with financial management in South African municipalities. The chapter covered some of the financial management challenges that South African municipalities are dealing with, as well as some best practices in the field. Additionally, the role of the Auditor-General was explained.

The integrated financial management information systems used by municipalities are presented in the next chapter.

CHAPTER FOUR

INTERGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEMS

4.1 Introduction

This chapter provides a discussion of the relevant literature and theories pertaining to FMIS and IFMIS. It begins with a breakdown of the emergence of financial management information systems, highlighting the key components and features of FMIS. The benefits, advantages and challenges in implementing FMIS are articulated and briefly discussed. In addition, the role of IFMIS and financial management systems used by municipalities are examined and discussed. Lastly, this chapter discusses the best practices for IFMIS implementation in municipalities, including the critical factors that contribute to its success or failure.

4.2 The emergence of financial management information systems

FMIS is a group of automated tools that help governments create, carry out, and keep an eye on their budgets (Ngetich, 2018:12). Saputra, Subroto, Rahman, and Saraswati (2021:278) define FMIS as a system that accumulates and processes all financial data into information required for financial decision-making by interested parties. Saputra et al. (2021:278) note that the financial information system is a component of a management information system, which is a collection of interconnected and interdependent financial subsystems that yield corporate financial information. In addition, Amukhuma (2018:11) defines FMIS as a collection of automated tools that enable governments to create, implement, and monitor budgets. This study will adopt Gcora-Vumazonke's (2021:25) definition, which states that FMIS are informational tools that track financial activities and enable effective budget creation, budget execution, accounting and financial reporting, forecasting, decision-making, and fiduciary duties, as well as the creation of auditable financial statements.

4.2.1 The role and purpose of FMIS

The National Treasury established FMIS to be applied across all municipalities in the nation and this was done for the purposes of addressing poor financial management in municipalities (National Treasury, 2018). Sugiyantari and Titisari (2018:94) note that the demand for community transparency, increased decentralisation accountability, and the volume of local government's financial transactions formed the basis for the development of the FMIS. It is encouraging local governments to take advantage of technological advancements in the management of financial information (Sugiyantari and Titisari, 2018:94). Furthermore, Gcora-Vumazonke (2021:25) utters that the goals of FMIS are to increase municipalities' data management security, transparency, efficiency, accountability, effectiveness, and a thorough grasp of financial reporting in South Africa.

Information and communication technology (ICT) facilitate both the advancement of governance through superior administration and the improvement of public financial management. Numerous governments around the world have adopted emerging technologies to increase responsiveness and expand the services offered to citizens and businesses (Uwiragiye, 2018: 14). The South African government granted municipalities access to FMIS to assist with budget creation and execution, accounting and reporting, performance monitoring, auditing, and evaluation (Gcora-Vumazonke, 2021:6). FMIS has not yet acquired significant traction and is not yet implemented by the majority of municipalities (Gcora-Vumazonke, 2021:6).

4.2.2 The application of FMIS in municipalities

FMIS have been implemented, but because implementation has not been widely adopted, municipalities are still having trouble deploying and using them as a tool for achieving and proving improvement in financial management (Gcora-Vumazonke, 2021:25). FMIS was adopted to ensure accountability and transparency for all financial activities (Ndegwa and Mungai, 2019:268). Supporting the nation's budget release, voucher production, payments, accounting, and reporting processes is the responsibility of FMIS (Pasape and Godson, 2022:524). The municipality cannot fulfil its obligations to provide services if it does not have a steady stream of revenue. In actuality, this means that towns inside the municipal territory

must pay higher taxes, levies, rates, and service fees in order for the municipalities to make a profit. However, due to institutional mismanagement, poor administration, and a lack of accountability, one in three municipalities is dysfunctional, which creates problems for the provision of services (Van Niekerk and Sebakamotse, 2020:271). Ngetich (2018:12) points out that the current FMIS platform provides significant assistance to governments in meeting domestic and international rules regarding financial and reporting standards. Additionally, through centralised web-based solutions that give access to a sizable population of approved budget users at various levels, it helps the government decentralise its activities (Ngetich, 2018:12). FMIS solutions can assist improve the efficiency and equity of government procedures, and good FMIS deployment improves financial control and reporting (Pasape and Godson, 2022:522).

4.2.3 Key Components and features of FMIS

The features of FMIS can range from the computerization of record bookkeeping functions to an itemized framework covering finance, risk management, duty control, obligation management, income management, and records payable (Muriithi and Wamiori, 2020:56).

- **Data collection and Integration**

The government must make the most of information technology innovation to build work procedures and information system networks that streamline access to work units and enable integrated government operations (Anggriawan and Yudianto, 2018:34). Using IT financial systems will result in the elimination of time-consuming processes, a decrease in error rates, as well as simplicity through the use of a central accounting database, parallel data flow, and enhanced throughput (Chalu, 2019:2). Furthermore, using the fiscal tool of FMIS, all financial management-related tasks are consolidated into a single application.

- **Financial reporting and analysis**

Uwiragiye (2018:17) highlights that the purpose of an information system is to increase organisational efficiency in the provision of services, to provide flawless, trustworthy, real-time results, and to support organisational mission. Moreover, FMIS supports the automated

and integrated process of managing public finances, which includes accounting, reporting, and the creation and implementation of budgets (Ndegwa and Mungai, 2019:268).

- **Budgeting and Forecasting capabilities**

The system is an IT-driven accounting and budgeting tool intended to help the government create and implement budget requests, allocate funds, track financial operations reports, and deliver public services more effectively, efficiently, and economically (Ndegwa and Mungai, 2019:2). A strong and practical FMIS should be able to monitor events and financial transactions, register them, and compile them in order to provide crucial budgetary information (Muriithi and Wamiori, 2020:56). Furthermore, by automating spending planning, income collection, and the ideal readiness of important budgetary reports and justifications, FMIS supports monetary administration through the use of budgetary data and interchanges innovation for public money-related administration (Muriithi and Wamiori. 2020:56).

- **Security and data integrity**

Muriithi and Wamiori (2020:58) suggest that with all the financial reports being properly created and the budget being precise and transparent, FMIS increases the budget's credibility and confidence. Through an integrated financial management and accounting system, FMIS plays a crucial part in improving the effectiveness of financial controls by producing thorough, trustworthy, secured, pertinent, and timely financial information (Muriithi and Wamiori, 2020:58).

4.3 Benefits and advantages of FMIS

South African municipalities benefit from FMIS in terms of external scrutiny, accounting and reporting, and budget design and execution (Amukhuma, 2018:12). Improved openness and transparency, less wasteful spending, budget control, automatic banking information reconciliation, and fully balanced financial information, were the main financial advantages of FMIS (Izang et al., 2022:224).

The next section outlines several benefits and advantages associated with the implementation of Financial Management Information Systems (FMIS) within municipal settings.

- **Enhanced decision-making and strategic planning**

FMIS enhances the municipality's financial management through improved cash, debt, and liability management, the capacity to use historical data to enable better budget modelling procedures, and decision-making (Gcora-Vumazonke, 2021:49). The organisation's budgets must be thorough and include both its short-term and long-term goals if they are to continuously enhance performance. Monitoring and controlling allow businesses and their management to keep tabs on the status of their tasks and make necessary adjustments while also ensuring that risks are anticipated and managed (Njau, 2020:34).

- **Improved financial transparency and accountability**

Solutions for FMIS have a huge potential to boost involvement, accountability, and openness while also significantly improving the efficiency and equity of government operations, (Ndegwa and Mungai, 2019:268). Furthermore, Sugiyantari and Titisari (2018:95) argue that the advancement of information technology can enhance performance and enable tasks to be completed more quickly, precisely, and accurately, ultimately leading to an improvement in productivity. Therefore, to increase decentralisation's accountability and openness, FMIS is required. Amukhuma (2018:11) asserts that the current FMIS platform provides significant assistance to governments in meeting domestic and international rules regarding financial reporting standards. Through centralised web-based solutions that give access to a sizable population of approved budget users at various levels, it also helps the government decentralise its activities.

- **Cost saving and resource optimization**

To increase the effectiveness of government service outputs, public finance management must be improved. This has an impact on how money is allocated to local and national goals, how easily new technologies can be invested in, and how cost-effectively government services are provided (Izang et al., 2022:224).

- **Compliance and regulatory advantages**

The effectiveness of the FMIS as a tool for budget management depends on both its technological soundness and the institutional and regulatory environment in which it is

employed (Izang et al., 2022:226). However, for FMIS systems to function effectively and prevent losses, physical supports are necessary (Izang et al., 2022:226).

4.4 Challenges in implementing FMIS

FMIS deployment has run into a number of user-related challenges that need to be addressed right away (Kofahe et al., 2019:33). If these concerns are not addressed appropriately, they will have a negative impact on user behaviour, intention to use, ongoing use, and, ultimately, user satisfaction with the system. Furthermore, inadequate incentives; lack of support; reluctance to change; lack of knowledge; education level of system users, and insufficient supply of system training are among the issues faced by FMIS users (Kofahe et al., 2019:33).

In contrast to the provincial and national government domains, municipalities are presently confronted with a multitude of obstacles that compel them to undergo transformation. These challenges stem from the implementation of information systems for the purpose of financial management, which demands constant adaptation from organizations in order to remain appropriate and competitive (Gcora and Chigona, 2019:3). The lack of sense of ownership toward the installed systems has been identified as one of the barriers to the usage and acceptance of FMIS in municipalities, and sense of ownership may be defined as the control that a person feels over an object and how they utilise it (Gcora-Vumazonke, 2021:26). Additionally, the implementation of FMIS faces a number of obstacles, including a lack of competence, a lack of willingness to change, institutional difficulties, and technical difficulties (Sugiyantari and Titisari, 2018:95).

The discussion now presents the key challenges associated with implementing FMIS within the context of municipalities. Implementing FMIS in municipalities can be a complex process with several challenges, some of which are discussed next.

- **Financial and Technological constraints**

More than half of local government FMIS implementation sites have not updated their chart of accounts in the last eight years due to serious capacity and implementation challenges (Pasape and Godson, 2022:524). Moreover, financial reporting is delayed as a result of these challenges,

and the quality of reporting and accounting in MDAs is questioned, with external audit reports demanding that these flaws be addressed on a regular basis (Pasape and Godson, 2022:524).

- **Organisational resistance and change management**

Information system installation is still a challenge for local government, which calls for a well-defined change management strategy to have a high success rate (Gcora and Chigona, 2019:3). Lack of employee participation in the development of the strategic planning for the implementation of information systems for the workplace contributes to the lack of end-user ownership of information systems in public sector organisations like municipalities (Gcora-Vumazonke, 2021:26). According to Gcora-Vumazonke (2021:26), the municipal finance department employees raised a concern that they are not given opportunity to participate in the development of the FMIS. Wasihun (2018:22) asserts that without change management procedures, businesses might not be able to adjust to the new systems and take advantage of performance improvements and change management is essential for technology installation and business process reengineering.

Understanding the backdrop of municipalities in South Africa and comprehending why change efforts frequently fail, are essential initial steps (Gcora and Chigona, 2019:2). Wasihun (2018:20) argues that any system that is implemented within an organisation results in changes to roles, responsibilities, and functions; some people impacted by these changes will fight the changes. Furthermore, a variety of stakeholders inside the organisation may oppose the change, including those with vested interests who profited from earlier approaches, government servants who perceive it as a threat to their careers, and those who are afraid of the unknown (Wasihun, 2018:20). Managers encounter opposition to change, and depending on the situation and time frame, they respond to it differently (Sungu and Aila, 2022:82).

- **Training and skills development**

System improvements are typically hampered by the government's inability to solve issues relating to human resources, such as manpower planning, hiring qualified personnel, providing alluring incentives, and staff training (Amukhuma, 2018:34). Additionally, the system's improvements have also been hindered by organisational failure, a lack of management

capacity, and a failure to prioritise critical elements like task delegation, middle-level manager empowerment, and team-building abilities (Amukhuma, 2018:34).

- **Limited financial resources**

If the information support system is not interconnected, offering integrated information management will be difficult and expensive. Furthermore, a lack of coordination between financial and non-financial processes may lead to poor management decisions (Izang et al., 2022:226).

- **Data accuracy and integrity**

Lack of use of essential financial management procedures could hinder the organisation's long-term sustainability and expansion. The use of efficient data processing and reporting mechanisms through the deployment of integrated financial management information systems and appropriate internal control processes are just two examples of these activities (Mugenyi, 2020:1438).

- **Change management**

Gcora and Chigona (2019:5) point out that applying change management to end users of information systems can be defined as a way to guarantee that they accept a recently introduced system or piece of software. Furthermore, the introduction of a new system or the integration of an old one, such as FMIS, significantly changes the way that municipal operations are conducted, thus a cautious approach is required to prevent possible end-user opposition (Gcora and Chigona, 2019:5). Amukhuma (2018:28) suggests that because it is human nature to resist change brought about by a new system, it is crucial to carry out a thorough change management exercise or training and the process of creating, sustaining, and systematically evaluating changes within an organisation is known as change management. Moreover, the researchers understood that researching the variables influencing change management in the application of FMIS in municipalities necessitates a thorough comprehension of the circumstances surrounding the individuals involved (Gcora and Chigona, 2019:6).

Attiogbe (2019:37) adds that there are forces opposing a prospective shift, with state agency employees being recognized as potential opponents of the FMIS's implementation. It is said that the key to effective change is to "unfreeze" the current systems by strengthening the forces pushing change or by lowering the forces of resistance and "freezing" a new one (Attiogbe, 2019:37). Moreover, adopting a new information system, such as the FMIS, largely alters how operations will be carried out. As a result, careful management is necessary to prevent any worker resistance and the new system impacts how things were previously done, which alters the organisational culture (Amukhuma, 2018:28). Additionally, the ability of an organisation to change, the method by which it manages the changes, and how it adjusts itself while going through the process of change, are the only factors that determine whether reforms of any kind are implemented successfully (Amukhuma, 2018:29).

- **Resistance to change**

With knowledgeable and dedicated staff, change management can be utilised to optimise the benefits that can be expected after the new system is fully implemented in addition to minimizing the negative effects of employee or staff resistance on the adoption or implementation of new innovations (Amukhuma, 2018:28). Employee adaptation to change is not always easy: they require purposeful change management (Gcora and Chigona, 2019:4). Moreover, one of the main reasons for change not "sticking" is resistance to change, which can be decreased by increasing willingness for change. (Gcora and Chigona, 2019:5).

Amukhuma (2018:29) notes that resistance to change typically comes from a number of influential high-ranking stakeholders within the company due to the benefits they may have been receiving from the older techniques and their conviction that they will not be able to continue obtaining those benefits under the new method or system: this could be a significant issue. Making sure there is clear communication, education, and training, as well as through "quick wins" that highlight the benefits of the change, are the most effective ways to overcome resistance to change (Amukhuma, 2018:30). Therefore, the researcher suggests that to encourage personnel to adopt FMIS, the changes related to its implementation should be communicated to all the role-players and stakeholders involved.

- **Inadequate IT infrastructure**

It is crucial to recognise the influence obstacles and challenges can have on how the process is carried out and managed. Additionally, lack of infrastructure, resources, data systems, compatibility problems, a skills gap, leadership ideology, organisational cultures, and employee attitudes are just a few of the factors that make it difficult to integrate ICT (Wasihun, 2018:22). However, some hurdles relating to the adoption of IFMIS were noted, such as political conflicts amongst the various actors, technical issues, and institutional difficulties (Mugenyi. 2020:1441).

- **Capacity and skills gap**

The lack of alignment between FMIS and the employees' work procedures worries the workforce. The main reason why end users are hesitant to adopt FMIS is a lack of ownership toward it, as well as the lack of opportunity for end-users of FMIS to take charge of and participate in the development of FMIS for their municipality (Gcora-Vumazonke, 2021:6). This opposition of the system could also be explained by the possibility that some of these stakeholders' fear losing their jobs as a result of the new system, because it will perform the majority of the labour that they currently perform (Amukhuma, 2018:29). The audit Deloitte did on leadership thoughts, skills, and capacity challenges is in agreement with the attribution to subpar FMIS implementation and it is perceived that the top management is unfamiliar of the Municipal Financial Management Act, which is essential to managing municipalities' budgets (Beda, 2019:71). Moreover, municipalities are burdened by an untrained workforce, as well as by a lack of training, succession planning, skill shortages, skills transfer, and the fact that most municipalities lack individuals with the necessary technical expertise, which leads to poor service delivery (Beda, 2019:79).

- **Project management and vendor selection**

The accountant general's office system unit has limited capability, necessitating continued reliance on the vendor (Pasape and Godson, 2022:524). Services are affected when private contractors provide subpar work and there is a lack of oversight and review of subpar work performed by private contractors (Amukhuma, 2018:71).

- **Sustainability and maintenance**

A supportive program should be developed in order to reinforce the conventional system and continue uninterrupted with the operation and maintenance of FMIS; for the longevity of their current system, this should be maintained (Gautam, 2020:2). According to a report on the civil society organisation on sustainability index, the use of sophisticated financial management software in data processing and reporting was limited in many organisations, despite the pressing need to develop tools that would allow them to improve their financial management practices (Mugenyi et al., 2020:1438).

4.5 FMIS in the context of Public Financial Management (PFM)

The automation of Public Financial Management measures is one of the main development plans. The FMIS presentation has begun in recognition of the administration's ability to successfully utilise both existing and developing innovation to enhance the flow of changes and the board of money (Muriithi and Wamiori, 2020:55).

The discussion that follows briefly deliberate on roles, public budgeting, fiscal transparency, and accountability in relation to FMIS within the context of Public Financial Management (PFM).

- **Role of FMIS in public financial administration**

A FMIS is one that uses the same central database as other PMF (Public Financial Management) information systems to record and report daily financial operations, provide accurate consolidated results for support in decision making, monitor performance, and publish content on the web (Amukhuma, 2018:11). A FMIS for managing public funds has also been found to be a crucial tool for economic development, as it guarantees that the government can raise funds and manage and distribute limited public resources effectively and efficiently, with the main objective being to improve citizen service delivery (Muriithi and Wamiori, 2020: 55).

- **Government Budgeting and expenditure tracking**

Wasihun (2018:26) argues that one of the biggest obstacles to the FMIS implementation in developing nations is the lack of sub-national governments with the capacity to implement systems, such as provincial and regional administrations. Additionally, the lack of technical or Web employees, a lack of financial resources, a lack of knowledge of FMIS applications, and a lack of support from elected officials, are some of the obstacles preventing the success of FMIS efforts (Manoharan and Ingrams, 2018:59).

- **Fiscal transparency and accountability**

Muriithi and Wamiori (2020:55) point out that in the past, issues with revenue mobilisation and a lack of transparency and accountability in the use of limited public funds have been associated with PFM practices. These and other issues have led to repeated growth in budget deficits, public indebtedness, and underwhelming economic performance, necessitating the adoption of efficient finance management systems (Muriithi and Wamiori, 2020:55).

4.6 Financial systems used by Municipalities

Van Niekerk and Sebakamotse (2020:271) state that without sufficient funding, no municipality can carry out its constitutionally required development role and provide quality services. Moreover, IFMIS is viewed as an information system that keeps track of financial occurrences and disseminates financial data via an automated accounting system (Chalu, 2019:4). The local financial accounting system has an impact on the quality of the financial report produced by the local government.

A key aspect determining the quality of information is the interaction between people and systems as well as the system implementation, therefore, the quality of information from the Local Government Financial Statements will be impacted by the availability of this internal control mechanism (Anggriawan and Yudianto, 2018:34). This is because it is available and will make it easier for users to process financial data and to operate in accordance with the government accounting standards that have already been implemented in the financial

accounting system (Muda et al., 2018:2). Moreover, it is suggested that the government should pay greater attention to internal control systems to reduce risk and loss at local government units because they are still far from ideal (Muda et al., 2018:3). Information technology is advancing quickly, and because of this, there are more options than ever for people to access and manage, and to make accurate use of local financial data (Anggriawan and Yudianto, 2018:34).

- **Payroll systems**

Rusly et al. (2019:148) add that gaining control of the process through the development of innovative computerized payroll systems is beneficial since it reduces calculation errors made by humans, strengthens data security against breaches, and boosts competitiveness. The aforementioned authors assert that payroll processing systems aid businesses in processing employee salaries, benefits, overtime, and deductions in an accurate, timely, and methodical manner. By making contributions to their employee provident fund and social securities, it also helps firms meet their legal and moral obligations to their workforce as well as comply with government laws like tax authorities.

- **e-Government systems**

The use of ICT in government to provide services to citizens, businesses, and other government agencies, is known as e-Government. In the United Nations, e-government refers to a government's use of ICT to change its internal and external business relationships (Chipeta, 2018:2). Open Government Data (OGD) could be promoted in Africa through e-government, Transparency, accountability, openness, trust, effectiveness, and engagement are all encouraged, and E-government is more than just having a government website online; it is an integrated strategy that puts the needs of the public at the forefront of governmental operations (Chipeta, 2018:1). Manoharan and Ingrams (2018:57) view e-Government as a complex phenomenon that touches on a variety of dimensions, such as e-participation, e-information, and e-transaction. Further terms used to characterize the concept and practice of e-government include digital government, online government, and more modern terms like mobile government, ubiquitous government, and smart government (Manoharan and Ingrams, 2018:57). Twizeyimana (2018:19) states that the use of Information and Communication

Technologies (ICTs) by government organisations to improve government is known as e-government and is now considered a technological innovation that will aid governments in achieving goals like better administration, internal efficiency, and public service delivery.

Other researchers have argued that the institutional underpinnings of government, including laws, procedures for making decisions, and organisational sociotechnical cultures and norms, are also subject to change. These institutions can vary greatly locally and may be used to explain variations in e-Government growth (Manoharan and Ingrams, 2018:58). e-Government makes public services available around-the-clock, whenever consumers need them, and from wherever they are. It also permits public services to be performed virtually rather than in person, making them more effective (Putra et al., 2018:2252). Putra et al. (2018:2253) highlighted The advantages of e-Government include increased productivity and improved operations in public administration and bulk processing thanks to ICT. Additionally, programs that run via the internet offer information and consumer communications while reducing data gathering and transmission costs, and service is improved by e-Government. ICT can facilitate stakeholder information and idea sharing, which will ultimately help stakeholders determine specific policy outcomes and e-Government aids in increasing public and government confidence (Putra et al., 2018:2253).

- **SCM systems**

It is time for the government to use information technology in this technological age to execute development and speed up the development process. Information and communication technology promises transparency, worldwide reach, efficiency, and speed of information delivery (Putra et al., 2018:2251). Regressions in local government audit results are mostly caused by the ongoing incapacity to create, implement, and oversee effective SCM systems, oversight, internal controls, and financial reporting procedures (Sibanda et al., 2020:1). Furthermore, supply chains are used by South African municipalities to acquire products, services, and building projects for the public interest. In order to meet the needs of citizens, the system is necessary for obtaining and distributing products, services, and infrastructure works (Sibanda et al., 2020:1). Moreover, the procedure for implementing an electronic procurement system to enhance the purchase of goods and services, and to access contracts and bid documents, that is, an electronic document management system (EDMS) is also being built.

To speed up turnaround times for the Quotation System, internal controls on Formal Written Quotations (Informal Tenders) are being established (Sibanda et al., 2020:4).

- **Enterprise Resource Planning (ERP) systems**

ERP systems, such as EPICOR, SAP, Free Balance, ORACLE, Microsoft Navision, and others, provide the foundation upon which IFMIS is built. Due to the fact that most ERP solutions were created for corporate organisations, it was thought that they lacked several essential modules for public sector financial management (Chalu, 2019:2). The failure to prioritise soft concerns like change management and business processes has resulted in numerous ERP deployment disasters (Wasihun, 2018:22). Integration was required because most ERP solutions were created for corporate organisations and were thought to lack all the necessary components for public sector finance management (Chalu, 2019:4).

- **The adoption of IFMIS and extent of use within municipalities**

The adoption of IFMIS bolstered public financial management systems, resulting in increased openness, accountability, and responsiveness to public expenditure policy priorities (Njau, 2020:14). Chalu (2019:4) claims that improving efficiency, effectiveness, accountability, openness, data security, and comprehensive financial reporting were the goals of IFMIS implementation, but that this goal was not tested to see if it had been met. Ndegwa and Mungai (2019:272) elucidate how IFMIS, as a management tool, helps management to prioritise spending across policies, projects, and programs, control spending and deficit, allocate resources in an equitable and efficient manner, make better use of budgeted resources, and accomplish goals at the lowest feasible cost. Most countries using IFMIS are poor nations; it has been put into practice in nations like South Africa and Nigeria due to inconsistencies, a high rate of corruption, and studies that concentrated only on the drawbacks and shortcomings of the software (Safo, 2020:16).

Amukhuma (2018:15) believes that over time, IFMIS has emerged as one of the most well-liked approaches to financial management reform. Its goals are to support complete financial reporting, accountability, openness, efficiency, and effectiveness as well as security in data management. On the other hand, Sugiyantari and Titisari (2018:95) argue that the adoption of

IFMIS has difficulties due to a lack of resources, a lack of enthusiasm for change, institutional issues, and technological issues. All municipalities must execute their IFMIS in accordance with the criteria of the Municipal Charts of Accounts, and they must also create and approve a completely compliant budget cycle in order to ensure successful financial management (Gcora-Vumazonke, 2021:50). The technical quality of the IFMIS service and its efficiency in fostering openness, integrity, and accessibility had a beneficial impact on the adoption of IFMIS; as a result, IFMIS met users' expectations (Izang et al., 2022:224).

4.7 The role of IFMIS in municipalities

Uwiragiye (2018:17) mentions that the IFMIS's role and functions go beyond just proving services and information; they also enable direct public interaction regardless of a person's physical location, and improve municipalities performance by integrating principles of democracy, transparency, accountability, and effectiveness. All of these are essential to the mission of good governance. There is general consensus that an optimally operating IFMIS can improve administration by generating optimal financial data that bookkeeping and budgeting chiefs, along with other clients, can use regularly to establish spending plans and effectively manage public assets through coordinated depository activities (Muriithi and Wamiori, 2020:56).

4.7.1 Introduction to IFMIS

The efficient use of IFMIS is essential for enhancing institutional productivity and driving economic growth. Ngetich (2018:12) defines IFMIS as a technology that offers financial support control, planning, management, and interpretation of basic financial data sets for management use to governments. Ngetich (2018:12) further states that IFMIS refers to a system that integrates important financial operations, including accounting and budgeting, with the goal of enhancing data management security and efficiency to provide thorough financial information reporting. According to Ndegwa and Mungai (2019:268), IFMIS is one of the financial management reforms implemented by the government of South Africa (SA); it started in 1994 when the nation institutionalised democracy.

In order to ensure that service delivery is effective, the project aimed to improve the integrity and efficacy of managing expenditure and reporting results (Ndegwa and Mungai, 2019:268). The IFMIS emphasises uniform data classification for recording as well as internal control over transaction processing, data entry, and reporting since it is intended to eliminate needless duplication of data entry in cash management (Uwiragiye, 2018:18). Ngetich (2018:12) defines IFMIS as a technology that offers financial help to governments for planning, controlling, and maintaining essential financial data sets as well as for managing and interpreting the results for use by management. Simiyu (2018:17) proclaim that in addition to being an accounting framework, IFMIS is a data framework that tracks financial events and summarizes financial data in accordance with the rules and regulations of the environment in which it is implemented.

Uwiragiye (2018:16) adds that an information system known as IFMIS is the one that tracks financial developments and compiles financial data to assist management and budgetary decisions, fiduciary duties, and the creation of financial reports and statements. This study will adopt this definition by Amukhuma (2018:12), where he believes that by using integrated financial management information systems, governments may plan and manage their key financial data sets, regulate their spending, and analyse the results for management use. Furthermore, IFMIS can also refer to a system that integrates important financial operations like budgeting and accounting.

Next is a detailed discussion of the role of IFMIS in municipalities

4.7.2 Benefits and advantages of IFMIS

IFMIS has a number of benefits, such as enhancing cash, debt, and liability management; allowing a central authority to control security access, thereby enhancing overall data integrity and security; putting all information in one place, making financial fraud more difficult to commit and easier to identify; and utilising historical data to improve budget modelling procedures and decision-making efficiency (Richmond et al., 2020:1661). Accounting-related information, as well as bigger corporate data management systems, can be integrated using IFMIS. Furthermore, it allows the standardisation of data categories for financial events; the minimisation of redundant data entry; the implementation of transactional internal controls, and the compilation of a report and a plethora of reports (Richmond et al., 2020:1661).

Amukhuma (2018:5) claims that the adoption of the IFMIS system was due to the many advantages anticipated from its efficient use, including better governance, improved fiscal transparency, a disincentive to corruption and fraud, and accountability of public funds. An information system called IFMIS encourages policy decisions, appropriate management reporting, the creation of auditable financial reports by tracking financial events, fiduciary duties, summarising financial data, and monitoring financial information (Attiogbe, 2019:16). Additionally, IFMIS assists state organisations in recording the pertinent data about public funding and keep track of all government revenue and expenditures through the usage of IFMIS. The information system is made up of people, processes, hardware, and software and, information system for financial management called IFMIS tracks financial events and compiles financial data (Attiogbe, 2019:15). Strong financial management tools like the IFMIS have been found to be helpful in many different contexts all around the world (Izang et al., 2022:226).

- **Enhanced Financial Transparency**

In practice, an information system that tracks financial events and delivers financial data through an automated accounting system is known as an IFMIS (Chalu, 2019:2). Additionally, IFMIS is an information and communication technology program that promotes good governance principles such as openness and accountability (Chalu, 2019:2). Adoption of IFMIS improves transparency and accountability, resulting in less fraud and corruption in financial concerns (Ngala and Musau, 2022:459). IFMIS improved the automation of record keeping, communication, customisation, and integration of government procedures and reporting systems, among other benefits (Mugenyi et al., 2020:1440). Moreover, IFMIS assist in gaining control over public finances, with increased openness and accountability; it is a deterrent to fraudulent activities, another benefit (Mugenyi et al. 2020:1440). The recording process is automated, making it easier to store financial data relating to a specific institution; the IFMIS recording method has been found to improve the completeness and transparency of information (Ngala and Musau, 2022:461).

- **Enhanced Decision-making**

The implementation of the IFMIS within an organisation enhances productivity and turns it into a tool that managers can use to produce trustworthy reports, aids in cost reductions, and

allows the organisation to produce accurate projections in support of these results (Mugenyi et al., 2020:1440). Moreover, a robust financial management system facilitates accountability to project beneficiaries and donors, boosting their regard, trust in the organisation and making it more competitive and leads to significant improvement in its financial health (Mugenyi et al., 2020:1440). The establishment of a web-based system makes it simple to access data anywhere and IFMIS can improve public sector management by giving managers access to real-time financial information to improve their decision-making skills (Sugiyantari and Titisari, 2018:94). Additionally, by providing managers with access to real-time financial data, an IFMIS that is fully operational can improve governance by enabling them to monitor programs, set budgets, and manage resources more effectively (Muriithi and Wamiori, 2020:58).

- **Improved Financial Planning and Budgeting**

Managers can use real-time financial data from an integrated financial management information system to plan budgets, allocate resources, oversee initiatives in a complete, transparent, and secure manner (Yaokumah, 2020:18). Because of its ability to deliver complete financial reporting, IFMIS can increase the quality of accounting information (Chalu, 2019:2). Mugenyi et al. (2020:1440) point out that decision-makers can access the data they require from IFMIS to carry out their managerial duties. Furthermore, the entrepreneurs' adoption of ICT practices for budgeting and purchasing for financial management within the organisation provides a solid foundation for increased overall financial sustainability (Mugenyi et al., 2020:1440).

Through better forecasting of future funding requirements, better management of crucial cash flow projections that steer the organisation toward future cash availability, improved budget compliance, and enhanced growth stability within the micro and macroeconomic environment, IFMIS has had a significant impact on the budgeting process (Mugenyi et al., 2020:1440). IFMIS budgeting and IFMIS procurement improved financial reporting quality, while IFMIS recording had a considerable positive effect on financial reporting quality (Ngala and Musau, 2022:454). Furthermore, IFMIS budgeting enhances financial reporting quality by increasing certainty and credibility. A study was conducted on the effects of IFMIS on cash management in Kenya and according to the survey user responses, the system is always available and dependable, from budgeting to reporting (Ngala and Musau, 2022:459). Furthermore, by

ensuring that it is comprehensive and transparent and that all financial reports are duly created, IFMIS increases the budget's credibility and confidence.

Through an integrated financial management and accounting system, IFMIS plays a crucial part in improving the effectiveness of financial controls by creating thorough, trustworthy, pertinent, and timely financial information (Muriithi and Wamiori, 2020:58). Furthermore, an IFMIS-based budgeting assures collective, pro-organisational conduct, where goal convergence is valued more than agent self-interest. It guarantees efficient distribution and use of public resources in a way that advances the general welfare of the populace (Muriithi and Wamiori, 2020:60).

- **Integration with other Municipal System**

IFMIS is built on ERP solutions such as Free Balance, SAP, EPICOR, Microsoft Navision, ORACLE, and others. Integration was required because most ERP solutions were thought to lack all of the requisite modules for public sector finance management because they were developed for corporate enterprises (Chalu, 2019:2). IFMIS is beneficial to organisations that operate in remote places since the information is easily accessible by people in different geographical regions (Mugenyi et al., 2020:1440). The speed at which information systems are processed is another advantage of using information technology and there is no doubt that the local government's accounting system handles sophisticated and numerous transactions (Anggriawan and Yudianto, 2018:34).

- **Effective expenditure control and monitoring**

IFMIS has enabled government entities to interconnect internal control systems, monitor and regulate all expenses, and conduct accurate audits by tracing and identifying all transactions undertaken (Njau, 2020:13). Adoption of IFMIS ensures greater budget trust and credibility due to its capacity to deliver more comprehensive and transparent outcomes, where more information can be obtained in a shorter time period. Adoption of IFMIS has reduced the likelihood of fund theft, contributed to project monitoring and assessment, lowered data processing and report creation expenses, and offered an audit trail that can be accessed remotely by users (Mugenyi et al., 2020:1447). IFMIS improves financial performance and efficiency

by coordinating resources (Ngala and Musau, 2022:461). It has been found that an IFMIS for public funds management is a crucial tool for economic growth and development because it guarantees that the government can effectively and efficiently mobilize revenue, manage, and allocate limited public resources with the main objective of enhancing citizen service delivery (Muriithi and Wamiori, 2020:55).

- **Security and data privacy**

Amukhuma (2018:12) asserts that it is a system designed to increase data management security and efficiency while assisting in the provision of thorough reports on financial data. A system that monitors financial transactions and records financial occurrences is called an integrated financial information system and it offers adequate management reporting, decision-making authority over policy, fiduciary duties, and the creation of auditable financial accounts (Safo, 2020:26). In order to promote transparency, efficiency, accountability, effectiveness, comprehensive financial reporting and secure data management, the IFMIS has been introduced over time as one of the most popular financial management reform practices (Amukhuma, 2018:15). One of the most widely used financial management reform strategies is IFMIS, it aims to promote final reporting, efficacy, accountability, openness, and data security (Mugenyi, 2020:1439).

- **Facilitating Accountability and Auditability**

One of the main benefits of adopting IFMIS is that it would facilitate uniform data sets which would enable Treasury to draw standard reports promoting accountability and transparency (Kwetana, 2019:16). Moreover, Hendriks (2012:1) adds that attempts to modernise and enhance public finance management are being made by governments in emerging nations more often. For instance, one of the most popular financial management reform strategies over the years has been the implementation of IFMIS, which aims to promote accountability, efficiency, effectiveness, transparency, security, and thorough financial reporting.

South African municipalities are now having difficulty using IFMIS as a tool to accomplish and improve financial management. All South African municipalities and provinces are expected to have financial information systems that are set up to operate in accordance with

the guidelines established for the Standard Chart of Accounts chart by the country's National Treasury, (Gcora-Vumazonke, 2021:50). Moreover, the Municipal Charts of Accounts enable the provincial and national levels to evaluate municipalities' operational and financial performance in relation to strategic planning and national goals.

4.8 Best practices of IFMIS in municipalities

In practice, IFMIS is perceived as an information system that monitors financial events and distributes financial data through an automated accounting system (Chalu, 2019:2). One of the keystones of financial reforms aimed at promoting an effective and dependable system for managing and controlling spending is the implementation of IFMIS. The integrated computerized financial package that IFMIS offers is essentially an accounting system that is set up to function in accordance with the requirements and specifications of the environment in which it is placed (Safo, 2020:27). An effective financial management system increases resource efficiency, ensuring high levels of transparency and accountability in the organisation's finances, and long-term economic success (Murigi and Musau, 2023:1). A practice that is essential to an organisation's expansion and sustainability, the adoption of integrated financial management systems appears to be increasing prominence within firms planning to increase their financial management effectiveness (Mugenyi, 2020:1438).

Amukhuma (2018:17) points out that according to some arguments, developed countries are more likely than developing countries to successfully deploy and utilise IFMIS systems because of different factors like the digital divide between wealthy and poor nations. Attiogbe (2019:14) believes that IFMIS systems are thought to increase efficiency and fairness in government operations, as well as enable the government run in accordance with domestic law and international financial reporting standards. IFMIS is a widely used financial management reform strategy in South Africa, with municipalities utilising these systems to improve their efficiency, effectiveness, accountability, transparency, data security, and thorough financial reporting (Gcora and Chigona, 2019:3). Sound financial management practices are the foundation of successful companies, and the goal of a Public Financial Management (PFM) system is to encourage financial responsibility, value for money, effective and strategic funding allocation, and public funds use accountability (Mbogho et al., 2023:156).

Furthermore, automated accounting methods and revenue mobilisation help the decentralised operations through centralised web-based platforms that provide accounting and other associated solutions by permitting a large number of authorised budget users at every level required (Attiogbe, 2019:14). Efficiency and effectiveness are the determinants of a system's success, and a successful system will boost individual performance (Sugiyantari and Titisari, 2018:95). Furthermore, Chalu (2019:2) argues that despite being built on an IT platform, IFMIS is seen as going beyond an IT application because it promotes good governance principles like accountability and transparency. Because it can deliver thorough financial reporting, IFMIS can enhance the quality of accounting information (Chalu, 2019:2).

Gcora and Chigona (2019:2) add that, generally, the municipalities' IFMIS refers to the use of ICTs in financial operations to support fiduciary duties, management and budget decisions, and the creation of financial reports and statements in South African municipalities. Ndegwa and Mungai (2019:269) argue that the key to any IFMIS success is integration, which means that the system must include the essential elements of standard data classification to record financial events, internal control over data entry, processing of transactions, reporting, similar processes for transacting, and system design that prevents duplicate data entry.

4.9 Critical factors influencing the successful implementation of IFMIS

Municipalities have begun implementing the IFMIS, but only a small number of them have achieved universal adoption, and implementation remains difficult in other municipalities. Gcora and Chigora (2019:2) indicate that to have a high success rate, the implementation needs to have a dynamic change management procedure in place, and municipalities are still having trouble with this. Efficiency and effectiveness are used to determine a system's success, the degree to which a system can accomplish its goals serves as a gauge of its effectiveness and efficiency is a comparison of resources used, inputs, and outputs (Sugiyantari and Titisari, 2018:95).

One argument for the development of ICT tools is that certain characteristics of government capacity, which are largely fixed and permanent, encourage the acceptance of innovations. They are either internal resources like income or technology, or external environmental

resources like citizen acceptance of ICT systems, (Manoharan and Ingrams, 2018:57). Putra et al. (2018:2251) suggest that one of the technologies with the quickest growth is information and communication technology. ICT's quick development will present both opportunities and difficulties for those who want to produce, obtain, process, and use reliable information and in the era of globalisation, information is a very precious resource that must be mastered in order to continuously boost an organisation's competitiveness, especially local government (Putra et al., 2018:2251). The idea of a key strategic factor in the adoption and upkeep of financial management systems is the flow of sufficient financial resources for efficient IFMIS maintenance, including upgrades and updates, to also support a technical team paid at market rates (Mbogho, 2023:156). Moreover, the management support is the primary strategic driver for IFMIS implementation, hence leading to good organisational culture. Another crucial strategic driver is having sufficient human resources, a maintenance budget, and complete managerial support. (Mbogho, 2023:156).

Njuguna (2020:102) points out that the following set of challenges influence the successful implementation of IFMIS: lack of interoperability of financial systems; limited resources; technological constraints; governing body reluctance; compatibility with other systems; supplier resistance; finance department resistance, and concern about local business competitiveness a lack of capacity or abilities throughout the organisation (Njuguna, 2020:102).

Several crucial internal and external elements influence the effective adoption of IFMIS in municipalities. These elements can have a substantial impact on the efficacy and outcomes of IFMIS deployment.

4.9.1 Critical internal factors

Internal factors influencing the effective adoption of IFMIS in municipalities are discussed next.

- **Financial resources**

Before the implementation of IFMIS, government money-related administration measures were hampered by a number of issues. The National Treasury's budgetary oversight team

identified a lack of accessible and crucial financial data as one of the major roadblocks (Muriithi and Wamiori, 2020:55). Another issue is the system's financial ramifications and some organisations believe that implementing the system will be prohibitively expensive (Njuguna, 2020:102). This pertains to budgeting and costs, change management, and the requirement for training and resources, and as a result, the belief that they should continue with their current system (Njuguna, 2020:102). Makiya (2020:5389) points out that the main design issue was related to the chart of accounts that the government had approved, and the expenses connected with rebuilding the system were significant. Consequently, the Uganda IFMIS is underperforming due to fragmentary and ad hoc solutions that reduce system efficiency (Makiya, 2020:5389).

- **Lack of ICT infrastructure**

Lack of IT infrastructure is another recognised obstacle, and in the same vein, when implementing IFMIS, many firms have found that technological integration, data quality, system-to-system integration, and ICT/technical problems are all significant challenges (Njuguna, 2020:102). Makiya (2020:5388) suggests that additional ICT equipment is required to reach a 1:1 computer-to-IFMIS user ratio; continual IFMIS training for both management and IFMIS users; network upgrade, and IFMIS user participation in training needs analysis. Due to ambiguous system specifications on duties to be performed, IFMIS lacked the ability in the public sector to assure proper finance management (Ngala and Musau, 2022:461).

- **Training and capacity building**

Training was also discovered to be required for successful IFMIS installation because it enhances understanding and use of the system. Accounting and ICT skills were discovered to be important in IFMIS deployment (Makiya, 2020:5388). Building capacity is a key factor in IFMIS implementation success, hence early in the requirement assessment process, training should be prioritized (Njuguna, 2020:101). Furthermore, given South Africa's nine provinces and the resulting demand for skills and knowledge, both of which are already in limited supply, this aspect is especially important in that country (Wasihun, 2018:26). The process should involve identifying the various user groups, evaluating knowledge levels, identifying hiring needs, and developing the breadth of training programs to address the various key audiences

(Njuguna, 2020:101). Additionally, the training should begin at the commencement of the reform, with individuals who are likely to be most directly affected by the IFMIS reform, a more extensive and ongoing training program should also be implemented (Njuguna, 2020:101). The adoption of IFMIS necessitates significant human resource requirements as well as capacity building across the whole government. Before such projects can be genuinely viable in developing countries, it is critical to first address the low level of computer literacy, and the paucity of employees with the necessary IT knowledge cannot be solved only through training and hiring (Njuguna, 2020:101).

- **Organisational culture**

IFMIS is a complicated and dangerous system that needs to be motivated to change in order to be adopted successfully and to do this, top management and staff users must be willing and committed to using technology (Amukhuma, 2018:31). IFMIS is an expensive system that frequently fails to deliver the claimed benefits due to implementation issues (Yaokumah, 2020:18). The new system alters how things were previously done, which impacts the organisational culture and a comprehensive functional analysis of the processes, practices, user profiles, and requirements that the system will support should be conducted before implementing IFMIS (Amukhuma, 2018:28). Moreover, an IFMIS typically involves major changes in operating methods; to encourage the personnel to adopt IFMIS, the changes related to its implementation should be explained to them (Amukhuma, 2018:28).

- **Leadership and commitment**

Resistance from involved bureaucracies, lack of good leadership and decision-making; weak personnel; fraud and corruption; complications; the tool being highly expensive; difficulty in maintaining and managing the system; poor communication, and changes in design documents without full consensus, are all challenges to successful IFMIS implementation (Ayoo, 2020:22). The implementation of an IFMIS can be viewed as an organisational change that has a significant impact on the institutional arrangements and work processes that regulate the management of public finances (Wasihun, 2018:21). Top-down deployment of IS in the public sector and thorough planning by top management and authorised vendors are required for the

top-down implementation of IS for the intended end-users (workers) frequently follows a top-down rather than bottom-up approach (Gcora and Chigona, 2019:3).

4.9.2 Critical external factors

The next section identifies and discusses the critical external factors influencing the adoption of IFMIS in municipalities.

- **Technological infrastructure challenges**

Kussy et al. (2018:1) are of the view that there are significant issues with the global financial system, the current global financial system needs to be significantly changed, and possibly even that a new international monetary and financial system needs to be created, in order to accommodate structural changes in the global economy. Amukhuma (2018:30) asserts that the IFMIS's core system operation, which comprises both the hardware and the software, is referred to as the technological infrastructure. According to several researchers, technology influences the effective deployment and acceptance of management information systems (Amukhuma, 2018:30).

Innovations in technology usually require major adaptations for individuals or employees within organisations (Gcora and Chigona, 2019:3). The failure to adopt the IFMIS system successfully is hampered by a number of technical issues, some of which include a lack of IT knowledge and expertise that can work with the system; resistance resulting from the complexity and technical difficulties of the software, and a lack of IT knowledge and expertise (Amukhuma, 2018:30). The business environment of the twenty-first century is marked by fast change as a result of economic, political, social, and technical changes. The main goal of this transition is to successfully adopt new processes and systems in an ongoing organisation; hence resistance management is crucial (Sungu and Aila, 2018:82).

- **Vendor support and expertise**

There is also a shortage of commercial relationships with IFMIS-capable suppliers. The lack of business relationships with suppliers, indicating the necessity for an IFMIS, adds another hurdle to the deployment of IFMIS (Njuguna, 2020:102).

4.10 Summary of the chapter

This chapter provided a thorough discussion of the ideas of FMIS and IFMIS before providing an overview of the development, function, and use of FMIS and IFMIS in municipalities. The acceptance and knowledge of IFMIS in the local domain of government were further analysed. The chapter also identified the financial systems employed by municipalities. Furthermore, it discussed critical internal and external factors influencing the effective adoption of IFMIS by municipalities.

The following chapter presents the theoretical framework for the adoption of IFMIS by municipalities.

CHAPTER FIVE

RESEARCH METHODOLOGY

5.1 Introduction

The groundwork for the theoretical frameworks the study used was established in the preceding chapter. The research methodology used to assess the IFMIS used by particular municipalities is covered in length in this chapter. The research paradigm, research design, and technique that guided this study are discussed in great detail in this chapter. This chapter outlines the sample size, sampling procedure, and target population for this investigation. It also describes the procedures for gathering and evaluating the data. Above all, the chapter ends with an explanation of how this study's validity, bias, and reliability were guaranteed.

5.2 Research Paradigm

Khatri (2020:1435) states that the theoretical or philosophical foundation for a research project is referred to as the research paradigm. It is thought of as a philosophy of research. Furthermore, Barmeyer (2019:221) and Khatri (2020:1435) describe a research paradigm as the model or pattern that determines the way in which researchers access and interpret knowledge. Moreover, it provides the collected outcomes of methods and instruments, enabling the scientific community to more precisely investigate different facets of previous knowledge gained (Barmeyer, 2019:221). One could claim that, while taking the research methodology into account, a research paradigm provides guidance to the researcher regarding every stage of the study. Considering the nature of the study and the qualitative methodology employed, interpretivism emerged as the most suitable research philosophy for this investigation. Adopting the interpretivism paradigm yielded deep insights and distinctive findings. This approach facilitated the collection and interpretation of qualitative data, thereby offering a nuanced understanding of various situations (Alharahsheh and Pius, 2020:42).

Embracing the interpretivist paradigm was further influenced by the following considerations:

5.2.1 The Subjective Nature of the Topic

Interpretivism is more concerned in contextual aspects and in-depth variables since humans interpret physical phenomena with deeper meanings than do physical phenomena. It is based on the assumption that studying humans cannot be done in the same way as studying physical phenomena. Interpretivism works well in areas of study where it is important to comprehend people's subjective experiences and points of view. Furthermore, Alharahsheh and Pius (2020:41) suggest interpretivism is more concerned with in-depth variables and context-related aspects since people give physical phenomena richer meanings than they do. It assumes that studying people cannot be done in the same way that studying physical phenomena can (Alharahsheh and Pius, 2020:41). Since the researcher wants to assess how IFMIS is applied, interpretivism lets the researcher investigate how different municipalities' residents perceive and understand this financial management system.

5.2.2 The Complex Social Reality

Interpretivism is particularly relevant when dealing with complex social phenomena, as the philosophy of interpretivism is grounded in philosophical phenomenology (Bonache and Festing, 2020:104). Additionally, its goal is to understand the subjective desires and perceptions of certain people in a particular setting without imposing any predetermined analytical categories (Bonache and Festing, 2020:104). The study involves exploring the challenges, factors, and experiences related to the adoption of IFMIS in municipalities, which is inherently complex. Interpretivism allowed the researcher to delve into the nuances of this complexity.

5.2.3 Qualitative Data Collection

Interpretivism aligns with the qualitative research method that the researcher used in this study. This method is effective in capturing the rich, context-specific insights that interpretivism values. This is supported by Bonache and Festing (2020:109), who highlighted that since qualitative research methodology is at the forefront of interpretivist research, common methods for gathering data include focus groups, interviews, participant observation, document and archival data analysis, and ethnography, frequently with the aim of developing grounded theories.

5.2.4 Contextual Understanding

Interpretivism emphasises understanding phenomena within their social and cultural context. Since the study focuses on selected municipalities in KZN, interpretivism enabled the researcher to explore the unique context and interpret the data within the specific social and organisational settings. Bonache and Festing (2020:115) assert that interpretivist research emphasises the idea of theories in context in order to contribute contextualized knowledge, or localized knowledge, and views context as more than just a control variable. This calls into question the supremacy of context-free information produced in the broad paradigm and emphasises the need for more qualitative study context-oriented as an example and a higher level of acceptance of interpretive studies in the academic community (Bonache and Festing, 2020:115).

5.3 Research Design

Strategies to be employed in data collection and analysis are represented by the research design (Muriithi and Wamiori, 2020:64). Additionally, an outline of what needs to be done, from formulating the research questions to doing the final data analysis, is included in the research design, which serves as the guide for data collection, measurement, and analysis (Muriithi and Wamiori, 2020:64). The research design describes how the goals of the research were met and how the issues that arose during the investigation were resolved (Muriithi and Wamiori, 2020:64). Given the nature of this study, as guided by the research aim, objectives, and questions, a qualitative approach was adopted. This approach allowed the researcher to explore and understand the complexities surrounding the adoption of IFMIS in selected municipalities in KwaZulu-Natal (Kalman, 2019:343), as already explained in the previous section. The discussion below provides a comprehensive explanation of the selected research design.

5.3.1 Determining the type of case study

The research design used in the study was exploratory-descriptive. Exploratory-descriptive research design, according to Maina (2019:63), is employed when the problem is well-defined and well-designed. This research involves exploring the current FMIS used by municipalities, examining the extent of IFMIS usage, determining factors affecting successful implementation, and developing a framework. As such, an exploratory descriptive design is appropriate, as it allows for a detailed investigation into these multifaceted aspects. Using questions about

people's perceptions, attitudes, behaviours, or values, descriptive research aims to characterize the state of the phenomenon and the factors present in a given scenario (Muriithi and Wamiori, 2020:64). The descriptive research design focused on characterizing the traits of certain people as per the recommendations by Maina (2019:63). Because this method allows for variable data collection procedures and ensures that respondents are not manipulated, it was deemed appropriate for the evaluation of the IFMIS used by the selected municipalities in KZN. The study chose to explore multiple case studies as the interviews were done with three selected municipalities in KZN. The rationale for choosing to do multiple case studies was that the researcher needed to ensure a stronger outcome for the study.

5.3.2 Reporting case study findings

This study employed the linear-analytic type of structure as it is appropriate and applicable to exploratory case studies (Fabregues and Fettes, 2019:7). The linear-analytic framework was employed since this is how research reports are typically prepared and put together (Nyide, 2016:124). Problem statements are the first step in this process, which then proceeds to the assessment of prior studies, the research technique, the findings, and the conclusion (Nyide, 2016:124).

5.4 Target Population

Muriithi and Wamiori (2020:65) state that all of the individuals, things, or events that share a particular observable characteristic are considered to be part of a population. It is described as the entire set of elements from which we hope to derive some conclusions (Muriithi and Wamiori, 2020:65). AGSA (2020:22) mention that there are 54 municipalities in KZN, which are made out of 1 metro, 10 districts and 43 local municipalities. The population size for this study will be all employees working in the Finance and IT departments for the 54 municipalities in KZN; however, the staff population (the total number of employees for all 54 municipalities) is unknown. The researcher was unable to determine the exact number of employees per municipality due to the difficulties for human resources (HR) employees to release such information and they keep certain information confidential. The target population were therefore the officials in the finance and IT departments in these municipalities in KZN who occupy strategic positions and who fully understand the whole financial management system

and have a vast number of years of experience working in the finance and IT department of the local government. The target population for this study has the necessary and suitable expertise.

5.5 Sampling Method

This study adopted the non-probability sampling technique known as purposive sampling also known as judgmental sampling. Purposive sampling is the process by which researchers actively select study participants based on the attributes they have (Rivera, 2019:5). In general, the researcher ascertains the necessary data and deliberately seeks out people who are capable and willing to furnish information on the subject of the researcher's interest (Ebenezer and Piate, 2023:65). This method of strategy was used to choose the instances based on how well they would help us address the objectives and research questions. The researcher was able to gather information using the purposeful sampling in order to characterize and clarify the major themes that were discernible. Using purposive sampling, the researchers carefully chose the municipalities and the people who formed part of the sample (Ebenezer and Piate, 2023:65).

Because there are so few municipalities that have started the process of integrating their financial systems and who will also be easily accessible by the researcher, the study focused on those that have started the process of integrating their financial systems and also on those that have not yet started the process of integrating their financial systems. Choosing a local, district, and city municipality was one of the criteria the researcher utilized to choose the selected municipalities. Within their respective municipal categories, the chosen municipalities differ from one another. Additionally, these municipalities acquired different audit opinions for the previous three years of municipal audits by AGSA. Finance and IT sections are of particular importance and are mostly of interest for this study since these two areas are the primary users of the IFMIS and have been recognized as the most eligible and pertinent candidates to supply the full range of data needed for the study.

There are a number of authors investigating similar fields of study who have employed this type of sampling technique. Among others, Ibrahim et al. (2022:97) adopted the purposive sampling technique to select their respondents in the study that examined the influence of IFMIS on the performance of government entities in Nigeria. Moreover, in a study conducted by Yaokumah (2020:17), a similar technique was employed to collect data from the respondents in the selected government departments to evaluate the IFMIS project implementation in

Ghanaian government ministries. Additionally, Safo (2020:29) mentions that the respondents for his study were selected through the purposive sampling technique, where the study was evaluating the “effectiveness of IFMIS as a tool to control expenditure in metropolitan, municipal, and district assemblies.” Comparatively, Mugendi (2023:41) mentions that from the total population, purposive sampling was used to determine the sample used in the study of “determinants of effectiveness of IFMIS of selected county governments in the Mount Kenya region.”

5.6 Sample Size

As previously mentioned, the study was restricted to municipalities that have started the process of integrating their financial systems and those that have not yet started this process. As a result, one municipality that has fully integrated its systems participated in this study. Additionally, one municipality that has partially integrated their systems and one municipality that has not started with these processes were also selected. In total, three municipalities formed part of the sample size. Furthermore, the sample size consisted of individuals who were deemed appropriate to provide the relevant information, and they were from the finance and IT departments of the selected municipalities. The participants for this research consisted of the Chief Financial Officers (CFO), Manager: Information Systems and Technology (IST), Manager: Budget and Reporting, and Manager: Expenditure. The participants who occupy these senior positions will be selected for the three municipalities. Table 5.1 shows this study’s sample size.

Table 5.1 Sample size

Name of municipality	CFO	Manager (IST)	Manager Budget and Reporting	Manager Expenditure	Total
uMkhanyakude District Municipality	1	1	1	1	4
City of uMhlathuze Municipality	1	1	1	1	4
Jozini Local Municipality	1	1	1	1	4
Total sample size	3	3	3	3	12

The number of participants in qualitative research is not determined by a simple formula or set of rules; instead, a multitude of factors influence the sampling (Subedi, 2021:3). The deeper

knowledge is not supported by the larger samples. Furthermore, the surficial data is the result of a larger sample size. The majority of qualitative researchers use open-ended interviews to gather data. For example, a conversation "typically seeks a sample size that is sufficiently small for individual cases to have a locatable voice within the study and for an intensive analysis of each case to be conducted." Similarly, the previously stated author proposes that the primary means of gathering data for his PhD is through interviews (Subedi, 2021:8).

The study included twelve municipal officials as respondents. Braun and Clarke (2021:204) suggest that recruiting typically ceases when 12 respondents are engaged, aligning with data saturation in thematic analysis, which often occurs around 12 interviews. This notion is corroborated by Sarfraz et al. (2022:265), who also halted interviews upon reaching a total of 12 when data saturation was achieved. Despite these guidelines, recent PhD scholars have utilised qualitative research with participant counts below ten (Subedi, 2021:9). This highlights the variability in participant selection methodologies within qualitative research. Numerous doctoral studies employed qualitative methods with sample sizes smaller than twelve. Notably, narrative inquiries by Wise (2020:57), Bentley (2021:41), Gao (2021:60), Bryant (2021:262), Tiffany-Kinder (2020:26), and Crawford (2021:62) engaged only three, four, five, seven, eight, and ten participants, respectively.

Saturation is now generally accepted as a methodological best practice in qualitative research. It usually means that, given the data that has already been obtained or examined, more data collection and/or analysis is not necessary. The investigation reached a saturation stage when no new data could be produced, similar cases were found repeatedly, and the researcher could conclude with empirical confidence that a category was saturated (Sarfraz et al., 2022:265). From the more strictly defined idea of theoretical saturation in grounded theory, the concept of saturation evolved. Moreover, it is commonly and loosely characterized as information redundancy, the point at which no new information, codes, or themes are determined from data. Therefore, the point at which all of the characteristics of categories and the connections between them are fully described, allowing for the emergence of a theory, is known as theoretical saturation (Braun and Clarke, 2021:202).

5.7 Data Collection

Data collection is the process of acquiring information with the aim of understanding more about the research issue (Taherdoost, 2021:10). Additionally, there are three main categories of qualitative methods: document reviews, in-depth interviews, and observations, while qualitative data can also be obtained in less conventional ways (Taherdoost, 2021:11). For this study, in-depth interviews were used to gather data. The researcher wrote to all the selected municipalities, requesting permission to perform a study. The selected municipalities sent letters of approval before the data was gathered. The initial option offered to each participant was a face-to-face interview, which the researcher scheduled appointments for. Additionally, participants were provided with alternatives to virtual interviews. The researcher went into the field to gather data using an interview schedule that included a set of interview questions and audio recording equipment for the duration of the interview.

When conducting interviews, the researcher employed both closed-ended and open-ended questions. All of the interviews were recorded, and the audio that was recorded during the process was transcribed and recreated in written form. The data was checked for accuracy and completeness. The best way to gather data and guarantee content quality is through direct interaction with the target group through qualitative research (Ricci et al., 2019:149). Data triangulation: Using several sampling techniques, such as distinct times and/or situations for the same or different people, the researcher encourages the gathering of data (Amin et al., 2020:1475). To guarantee data accuracy, the field notes and the transcription were compared. After the data was gathered and the interviews were finished, it was analysed.

5.7.1 Interview schedule

The primary tool for gathering data was the interview schedule. The interview schedule assisted the researcher in gathering data on the knowledge, attitudes, and opinions of respondents towards the introduction of the IFMIS in municipalities. The interview schedule was split into two sections: the first segment asked questions about demographics, and the second section included theme questions that addressed the objectives of the research. The majority of research investigations regularly create and employ interview schedules, and generating items for the interview schedule through qualitative approaches enhances their quality and is thought to be one of the most important aspects of their validity (Ricci et al., 2019:149). Taherdoost

(2021:14) regards the interview schedule as a form or instrument with a set of questions and secure answers that respondents (from a given demographic) fill out to give the researcher the data they need for the study, to be one preferred technique for data collection.

5.7.2 Interview Schedule Design

In order to guarantee that the interview schedule accurately represents the viewpoint of the population of interest and that the items are appropriate, thorough, and pertinent to their condition, experts advise including members of the population of interest in the qualitative procedures used to generate the interview schedule items (Ricci et al., 2019:149). Aspects like question types and methods of administration are used to classify interview schedules. The researcher prepared and designed structured questions to be used during the interviews in the form of an interview schedule. Taherdoost (2021:15) proclaims that there are various approaches to implementing interview schedules. The author further suggests that one can employ automated interview schedules for data collection, paper-and-pencil forms with the items delivered on paper, or face-to-face interview schedule modes, which offer the opportunity to present the questions verbally. This study used the aforementioned type of interview process.

5.7.3 Pilot Test

It is widely acknowledged that pilot studies, also referred to as feasibility studies, precede larger investigations, aiding researchers in refining their methodologies (Williams-McBean, 2019:1055). In this study, the researcher conducted a pilot study involving one accounting officer from each municipality in KZN. These participants were actively engaged in enhancing interview questions, ensuring the success of the pilot testing phase. The choice of accounting officers from the selected municipalities was deliberate. They possess the requisite qualifications for municipal leadership roles, along with comprehensive knowledge and experience in municipal processes and procedures. Their extensive managerial experience within local government rendered them capable of providing meaningful contributions to the study. Their valuable input was seamlessly integrated before commencing interviews with the broader participant pool.

5.8 Data Analysis

Kalpokaite and Radivojevic (2019:44) point out that there are many options for analysing qualitative data, and selecting the best set of research techniques, tools for gathering data, and analytic techniques can be challenging, particularly for those who are new to the field of qualitative research. Thematic analysis or coding was used to analyse the data that was collected from the selected municipalities. The use of theme analysis is common in qualitative studies because it can help with the steps needed to find out the "accuracy" or "reliability" of the data coding (Braun and Clarke, 2022:6). Given that the approach used in this study was the multiple case studies, cross-case analysis was used for the analysis of data gathered. In order to explain unexpected findings, locate commonalities between cases, find contradictions, and corroborate the conclusions of multiple cases within municipalities, a cross-case analysis is utilised to enlighten the research (McGrath and Hughes, 2018:136). Additionally, as a result, a comparison study encompassing all interview themes was carried out across cases.

When carefully examined, data can provide insight into the nuances of human behaviour, direct actions, and give voice to people's actual experiences (Raskind et al., 2019:32). Although there is much promise for qualitative research, it also depends on researchers being able to conduct comprehensive, grounded analyses and, more generally, understanding what qualitative analysis is (Lester et al., 2020:95). Moreover, when used broadly, qualitative data analysis gives context to a data set that contains a variety of qualitative data, including a wide range of materials. Qualitative data analysis can mean multiple things since it is often linked to a particular methodology, theoretical perspective, research tradition, and/or topic (Lester et al., 2020:96).

5.9 Ensuring Rigor and Trustworthiness

The researcher ensured the principles of rigor throughout this study. Daniel (2019:1) suggests that qualitative studies must be conducted using a rigorous approach and that the findings need to be comprehensively reported. Hamilton (2020:196) outlines that to achieve rigor when using qualitative methods with participants in rural communities, it takes time to build trusting relationships, focus on the quality rather than the quantity of time spent in interviews, be aware of interviewer biases and assumptions, and properly evaluate strategies that enhance validity. Moreover, it must be noted that a one-size-fits-all approach to achieving rigor in qualitative

approaches should not be adopted since it may actually reduce rigor (Hamilton, 2020:196). Triangulation, member checking, audit trials, reflexivity, peer debriefing, and achieving data saturation are some of the tactics used to guarantee the rigor of the work and data saturation (Aguboshim, 2021:182). Moreover, the usage of several data sources is typically required when using a qualitative case study approach, and the technique of studying a phenomenon using two or more methodologies is known as triangulation (Aguboshim, 2021:182).

Rigor and trustworthiness were ensured in this study by collecting data from different participants and from multiple case studies. Research has demonstrated that the attainment of rigor in a qualitative study necessitates the application of findings to address issues. The phrase "trustworthiness" in qualitative research refers to the use of research methodology, the researcher's reputation, the methodological rigor of the research design, and the plausibility of the findings (Rose and Johnson, 2020:434). The rigorousness and trustworthiness of the study were further achieved by ensuring the reliability and veracity of the information gathered. Triangulation improves the validity of qualitative research, but under some circumstances, it can be difficult to conduct interviews and observations (Morgan, 2022:65). The degree of accuracy and objectivity of the source determines its credibility. In order to determine the credibility of documents, researchers must determine whether the people who produced them are trustworthy sources (Morgan, 2022:71). The benefits of triangulation include a deeper and more comprehensive understanding of the phenomenon being studied as well as an increase in the trustworthiness of the findings (Amin et al., 2020:1475). Additionally, triangulation enhances credibility when a researcher is trying to compile facts into a single conclusion by overlapping data sources, verifying, and confirming.

5.10 Bias

When it comes to research, bias refers to a discrepancy between how participants truly create reality and how they present it to researchers (Bergen and Labonte, 2020:783). Furthermore, bias is challenging because it can cause responses to appear less heterogeneous and overestimated in the positive direction, giving the perception of consensus a dubious appearance. Scholars have proposed many methods to reduce or explain the prejudice. A competent qualitative researcher should "not only examine what people say but also consider how they structured their responses and how they talked about the subject being discussed; for

example, the person's emotions, tone, non-verbal communication, and other factors" in order to lessen the effects of biased qualitative data (Crick, 2021:416).

The primary method of addressing biasness in this study was data triangulation. Amin et al. (2020:1475) assert that triangulation is a general method that entails looking at a research question from several perspectives to confirm and validate the accuracy of data derived from qualitative research. The researcher ensured that information was gathered from various sources and at various times. The researcher had to adjust their theories to take into account any new information if any of their preconceived notions, presumptions, or concepts proved to be incorrect. The researcher was open to differing conclusions. The researcher also shared preliminary results with two pertinent academics for their critical assessment in order to address bias. Their recommendations and opinions were added to this study and this guaranteed that bias was reduced.

5.11 Ethical Considerations

Ethics are seen as a crucial component of any research effort in order to collect data and develop conclusions. The researcher ensured that the Durban University of Technology's ethical considerations were adhered to and ethical clearance was granted by the university. Furthermore, the researcher gathered the gatekeepers' letters from all the selected municipalities prior to commencing the field work.

The following ethical guidelines were followed for conducting this study: getting consent from informants and the municipalities to perform in-person interviews. The moral precepts of beneficence, justice, and respect were upheld. Data from the informants and the municipalities was handled in complete secrecy and utilized exclusively to inform the study's conclusions. The informants' secrecy and anonymity were ensured. The informants' and the municipality's dignity and autonomy were respected by the researcher. Following approval of the plan, requests for authorization to interview informants and access to the secondary documentation were made.

It is critical to protect moral considerations like participant confidentiality (Taherdoost, 2021:15). The study's subjects and participating organizations were treated with respect by the researcher. Every participant's rights and dignity are acknowledged by the researcher. Additionally, the researcher aspires to be truthful in all facets of the study and in the responses

and data from each participant. The investigator guarantees that the subjects will not suffer any damage. The researcher guarantees the absence of prejudice during the interview process, data analysis, and interpretation. Interview requests were required because this is a qualitative study, which is often carried out in environments where participants engage in their daily activities and surroundings. This meant that any ethical questions that might arise from this kind of interaction had to be considered by the researcher.

5.12. Summary of the Chapter

The choices made about the best research methodologies and data collection strategies were covered in this chapter. Qualitative research methods were selected for this research. Following a discussion of the paradigm and research design, the exploratory descriptive research design was selected as the best option. In order to gather qualitative data, senior members from the finance and IT departments of the selected municipalities were interviewed orally. This chapter touched on the topic of ensuring rigor and trustworthiness.

The following chapter will present the findings and analyses deriving from the data collected in compliance with the research methodology.

CHAPTER SIX

DATA ANALYSIS AND DISCUSSION

6.1 Introduction

This chapter provides the research analysis of the data that was gathered, whereas the preceding chapter concentrated on the research technique and study design. The collected data was analysed and is presented in a way that supports the study's objectives and research questions. The primary outcome of this research consists of in-depth interviews conducted with specific senior officials from each selected municipality. Additionally, to ensure data triangulation, the notes from the direct observation and the relevant documents and websites of the municipalities were also incorporated into the data analysis. This exercise was carried out to address the bias, rigour, and trustworthiness of this study. The cross-case analysis was applied and tables are utilised to display the data; this is followed by the discussion of the results. The interview questions were subdivided into two sections” demographic information and theme questions addressing the objectives and the study’s research questions.

The following themes, objectives, and research questions are examined in relation to the findings:

Theme 1: Current Financial Management Information Systems (FMIS)

Objective 1: To examine the current financial management information systems (FMIS) used by the selected municipalities in KZN.

Research question: What are the current FMIS used by the selected municipalities in KZN?

Theme 2: Extent to which financial management information systems are used

Objective 2: To establish the extent to which financial management information systems are used by the selected municipalities in KZN.

Research question: How extensively are FMIS used in the selected municipalities in KZN?

Theme 3: Factors affecting the successful implementation of IFMIS

Objective 3: To determine factors that affect the successful implementation of IFMIS by selected municipalities.

Research question: Which factors influence the successful implementation of IFMIS by municipalities?

Theme 4: Best practices of FMIS for the municipalities

Objective 4: To explore best practices of FMIS for the municipalities in KZN.

Research question: What are the best FMIS practices that can be adopted by municipalities in KZN?

6.2 General description of the selected municipalities

The study selected three municipalities located in KwaZulu-Natal province. The selected municipalities comprise one district municipality and two local municipalities, of which one is classified as a city municipality which is the non-delegated municipality that reports directly to the national government. The municipalities selected are uMkhanyakude District (UKDM), Jozini Local Municipality (JLM), and the City of uMhlathuze Local Municipality (ULM).

6.2.1 General overview of Jozini Local Municipality

One of the four municipalities that make up the uMkhanyakude District Municipality is Jozini Local Municipality. Situated in the northern part of KwaZulu-Natal, it shares borders with Mozambique to the north, the Big Five/Hlabisa to the south, Nongoma and Jozini to the west, and Swaziland to the west. Jozini, Mkhuze, Ingwavuma, UBombo, Bhambanana, and Ndumo are its six semi-formalized towns. Based on statistical calculations, the total population was determined to be 199633. The remaining portions of the municipality are classified as rural. The Jozini Municipality occupies 3057 square kilometres, or 32%, of the 13859 square kilometres that make up the uMkhanyakude District Municipality.

6.2.2 General overview of uMkhanyakude District Municipality

The far northern part of KwaZulu-Natal Province, South Africa, is home to the uMkhanyakude District Municipality). The largest district in KwaZulu-Natal is the neighboring Zululand District Municipality, at 12 818 square km and 625,846 people. The district is the second largest in terms of area. Along with the entire 200 km of shoreline, the uMkhanyakude District is home to the Isimangaliso Wetland Park, a World Heritage Site. uMhlabuyalingana Municipality (KZ271), Jozini Municipality (KZ272), The Big 5 Hlabisa Municipality (KZ276), and Mtubatuba Municipality (KZ275) are the four local municipalities that make up the District Municipality.

6.2.3 General Overview of City of uMhlathuze Local Municipality

Situated around 180 kilometres northeast of Durban, on the north-eastern coast of KwaZulu-Natal province, is the City of uMhlathuze (KZ282). Richards Bay, Empangeni, eSikhaleni, Ngwelezane, eNseleni, Felixton, Vulindlela, Bhucanana, and Heatonville are all included in the 123,359 ha uMhlathuze land area. Other rural areas under Traditional Councils include Dube, Mkhwanazi, Khoza (Bhejane), Zungu (Madlebe), Somopho (Mthembu), Obuka (Biyela), and Obizo (Cebekhulu). The community survey estimates the population at 410,456. The municipality is surrounded by a 45-kilometer stretch of shoreline. The N2 highway passes through the uMhlathuze Municipality in two directions, southeast toward the border with Swaziland and southwest toward Durban. It divides Empangeni and Richards Bay in a practical sense. Empangeni is on the R34 Provincial Main Road, which leads to Melmoth.

6.2.4 A brief summary about the respondents

In-depth interviews were conducted with the senior manager in the finance section at the City of uMhlathuze Local Municipality (ULM). Responsible for the asset management, annual financial statements, and creditor management sections, he formed part of this study because of his vast experience in finance management and his work with the financial management information systems within the municipality. Additionally, the selected municipalities allowed four relevant management officials to participate in this study. These include senior finance officials, finance managers, and heads of sections within the finance and ICT sections of the

selected municipalities. For each selected municipality, face-to-face interviews were held individually at different times with each respondent, as reflected in Table 6.1. All the respondents selected for the study are actively involved and work with the FMIS in their daily operations and are deemed to have the valuable information needed by this study. Table 6.1 shows respondents' information and interview codes.

Table 6.1 Respondents' information and interview information codes

Municipality	Respondent	Position	Interview mode
Jozini Local Municipality (JLM)	Respondent 1 (R1)	Manager Financial Planning and Reporting	Face-to-face
	Respondent 2 (R2)	Manager Assets and AFS	Face-to-face
	Respondent 3 (R3)	Assistant Manager Revenue	Face-to-face
	Respondent 4 (R4)	Assistant Manager Expenditure	Face-to-face
uMkhanyakude District Municipality (UKDM)	Respondent 5 (R5)	Manager Budget and Financial Reporting	Face-to-face
	Respondent 6 (R6)	Senior Accountant and Acting Manager Assets and PPE	Face-to-face
City of uMhlathuze Local Municipality (ULM)	Respondent 7 (R7)	Manager ICT	Face-to-face
	Respondent 8 (R8)	Senior ICT Technician	Face-to-face
	Respondent 9 (R9)	Senior Manager: Assets, AFS and Creditors Management	Face-to-face
	Respondent 10 (R10)	Head: SCM unit	Face-to-face
	Respondent 11 (R11)	Manager: ICT	Face-to-face
	Respondent 12 (R12)	Deputy Manager ICT: Governance	Face-to-face

6.3 Presentation of demographic information of respondents

Respondents' demographic information and analysis based on the number of years of experience, period using the FMIS, age group, qualification and gender, are presented next.

6.3.1 Number of years of experience

Table 6.2 indicates the respondents' demographic information. The respondents consisted of individuals who have a vast number of years of experience within the selected municipalities. The results indicate that 41% of respondents possess between 10 and 15 years of experience, while 25% possess over 15 years of experience. The findings reveal that 34% of the respondents possess work experience of 1 – 10 years. The study findings further suggest that the higher the number of years of experience, the higher are the skills that are acquired. The study confirms and reveals that respondents were suitable to provide valid and insights information about IFMIS: they have worked for the municipalities, and in particular finance and ICT, for many years where they accumulated great experience which made them suitable to provide reliable information needed by this study to address the research questions. Overall, the respondents offered valuable experience in understanding the use or adoption of IFMIS within the selected municipalities.

Table 6.2 Number of years of experience

Demographics	JLM	UKDM	ULM	Participants (n, %)
	<i>Years of experience</i>			
1-5 years	1 (25%)		1 (25%)	2 (17%)
5-10years	1 (25%)		1 (25%)	2 (17%)
10-15years	2 (50%)	3 (75%)		5 ((41%)
15 or more years		1 (25%)	2 (50%)	3 (25%)

6.3.2 Period using FMIS

Table 6.3 demonstrates that 92% of the participants had utilised the FMIS for more than five years, whereas 8% used it for a duration of 1 to 5 years. The findings demonstrate that the majority of the respondents had a high level of understanding of the FMIS, as they had been using the system for the period exceeding 5 years. This also indicates that they have accumulated the skills and knowledge needed to address the research questions for this study. However, the study also noted that the minority of the respondents have been using the FMIS for a period of less than 5 years.

Table 6.3 Period using FMIS

Demographics	JLM	UKDM	ULM	Participants (n, %)
	<i>Period using the FMIS</i>			
1-5 years	1 (25%)			1 (8%)
More than 5 years	3 (75%)	4 (100%)	4 (100%)	11 (92%)

6.3.3 Age group

Table 6.4 indicates the age group for all respondents which ranges from 30 to 49 years, where 50% were between the age of 30-39 and 50% between the age of 40-49 years. These age group findings indicate an equal or even split of numbers within the broader range of 30 – 49 years. This also means that the respondents’ age groups proved that they had been in the municipalities for several years, allowing them to attain management positions as well as valuable experience needed for this study. This also aligns with the age range reported by Statistics SA (Stats SA, 2023) for labour force participation during 2019-2023, which stated the age range to be 35-45 years.

Table 6.4 Age group

Demographics	JLM	UKDM	ULM	Participants (n, %)
	<i>Age Group</i>			
20-29 years	-	-	-	(0) 0%
30-39 years	3 (75%)	2 (50%)	1 (25%)	6 (50%)
40-49 years	1 (25%)	2 (50%)	3 (75%)	6 (50%)

6.3.4 Qualifications

Table 6.5 indicates from the respondents’ data that the highest qualification held a Bachelor degree, at 42%, followed by national diplomas at 33%. 17% of respondents held postgraduate degrees, with 8% having a Masters degrees. This is the proportion of respondents with the highest level of qualifications. The study findings illustrate a diverse range of educational qualification backgrounds amongst the respondents, with Bachelor degrees being the most or highest number. This indicates that all the respondents had the relevant skills and qualifications for the positions they occupy.

Table 6.5 Qualifications

Demographics	JLM	UKDM	ULM	Participants (n, %)
	<i>Qualification</i>			
National Diploma	1 (25%)	1 (25%)	2 (50%)	4 (33%)
Bachelor's Degree	3 (75%)	2 (50%)		5 (42%)
Post Graduate Degree			2 (50%)	2 (17%)
Master's Degree		1 (25%)		1 (8%)

6.3.5 Gender

Out of the 12 respondents, 67% represented males and 33% represented females, as shown in Table 6.6. The study findings indicate that there was a gender disparity amongst the participants interviewed, with a higher representation of males in the management positions in the selected municipalities compared to women within the sample group. This corroborates the literature as cited by Adisa et al. (2020:176), who indicated that women in management positions are less represented than the male group in the same positions.

Table 6.6 Gender

Demographics	JLM	UKDM	ULM	Participants (n, %)
	<i>Gender</i>			
Male	2 (50%)	2 (50%)	4 (100)	8 (67%)
Female	2 (50%)	2 (50%)		4 (33%)

6.4 Data Analysis per research themes and research objectives

The findings are presented in this section in accordance with the research objectives and the topics that arose to fulfil those objectives.

6.4.1 Theme 1: Current FMIS adopted by municipalities

This theme emerged while addressing the first objective of this study, which sought to identify the current financial management information systems in the selected municipalities of KZN. The first objective and its research question were addressed by questions six to fourteen of the interview schedule.

6.4.1.1 UIFW expenditure linked to FMIS

The respondents were asked whether their respective municipalities have incurred unauthorised, irregular, or fruitless and wasteful expenditure (UIFW) for the past three years. Furthermore, they were requested to provide the causes for incurring such expenditure. The majority of the respondents (7 out of 12), as shown in Table 6.7, conceded that all of the expenditure relating to UIFW was incurred in their municipalities. R10 mentioned that only irregular expenditure was incurred, while R12 stated that unauthorised expenditure was incurred. R1 stated that *"...the reason for incurring unauthorised expenditure is that the municipality had more than anticipated demands from the public, hence, we had to overcommit ourselves."* Additionally, R2 mentioned that *"...unauthorised expenditure was due to overspend on some votes, but the majority of it was due to non-cash items, which are the things that we didn't have control over, including impairment of assets."* R3 and R4 corroborated that one of the causes of such expenditure was that SCM processes were not being followed and the lack of internal controls. R10, however, highlighted that *"...when the AGSA comes to evaluating deviation, they may conclude in a different method that we have approached the occurrence of the expenditure...sometimes they can differ with their reason, but as municipalities, we still retain our thinking to say this is... categorised as irregular, but we always follow Section 32 of the MFMA"*.

The findings for this study further discovered that such expenditure is incurred due to the municipalities paying for the modules on their financial management information system that are not being utilised, thus contributing to the UIFW expenditure. R5 mentioned: *"...we've encountered that because in our system there are some of the modules that we are currently paying for but we are not using, so in that case that's a fruitless and wasteful expenditure we are incurring as a municipality."* These study findings accentuate the challenges faced by the municipalities with regard to the UIFW which are a result of the weaknesses of internal control, inability to follow SCM processes, lack of oversight and not complying with budget regulations. Additionally, the municipalities are not fully compliant with the requirements of Section 32 of the MFMA which deals with the UIFW expenditure. The literature confirms that issues like a lack of adequate internal controls and poor financial management have a negative impact on the financial performance of municipalities (Nzama, 2019:1514). Moreover, municipalities become contributors in the three categories of inadequate financial management,

which are irregular expenditure, unauthorised expenditure, and fruitless and wasteful expenditure (Nzama, 2019:1514).

Table 6.7 UIFW expenditure incurred in the past three years

<i>Question</i>	<i>Has your municipality incurred the UIFW expenditure in the last 3 years which relates to the FMIS?</i>			
	JLM	UKDM	ULM	Total Responses
R1-Yes all expenditure mentioned UIFW		R5-Yes all expenditure mentioned UIFW	R9- None	
R2-Yes all expenditure mentioned UIFW		R6-Yes all expenditure mentioned UIFW	R10-Irregular expenditure	
R3-Yes all expenditure mentioned UIFW		R7-Not too sure	R11- None	
R4-Yes all expenditure mentioned UIFW		R4-Yes all expenditure mentioned UIFW	R12-Unauthorised expenditure	
	4	4	4	12

6.4.1.2 FMIS policies

The respondents were asked what the FMIS policies their municipalities have that cover the financial management sectors or portfolios. Table 6.8 reflects the responses from all 12 informants, where there is consensus that their municipalities do have FMIS policies that cover all the financial management sectors. These include Supply Chain Management, Budgeting and Financial Reporting, Revenue and Debtors management, Expenditure and Creditors Management, and Assets and Liabilities management. R5 stated that “...*the policy that talks to all these aspects of financial management is an IT Policy. This policy applies to all the sections such as Revenue, Expenditure, Supply Chain. Since these sections fall under financial management, they are all covered by that policy*”. It is also alluded by R7 that “...*SCM Policy is implemented and assisted since we do need to make a lot of procurements in terms of infrastructure, the software that we use in ICT, as well as all the personnel in the municipality...[and] ... assets and liability management; in terms of assets, we need to take stock of what we have in terms of assets that we issue to the personnel within the municipality*”. In addition, R10 stated that “...*on revenue and debtors’ management, we have a Credit Control Policy; on expenditure and creditors, we have an Investment and Cash Management Policy; and Supply Chain Management is also governed by the Supply Chain Management Policy that is in place. We also have an Asset Policy. On the budget, we are also using the Budget Policy and budget regulations that govern the budget.*”

Generally, the findings of this study revealed that municipalities had FMIS policies in place. These policies include all the budget related policies which are Budget Policy, Property rates Policy, SCM Policy, Credit control and Debt Management Policy, Expenditure and Creditors policy, Investment and Cash Management Policy, Assets and Liability Policy, Tariffs Policy and ICT Policy. This study's findings further indicate that municipalities recognised the importance of having FMIS policies in place to govern the financial management activities effectively. Additionally, the findings view these policies as the foundational framework for promoting good governance, transparency, accountability and efficiency within the municipal finance.

Table 6.8 FMIS policies which cover finance sectors or portfolios

<i>What are the Financial Management Information Systems (FMIS) policies your municipality have which cover the following financial management sectors or portfolios?</i>				
<i>Question</i>	JLM	UKDM	ULM	Total Responses
R1 - Credit control Policy, SCM Policy, Budget Policy, Assets Policy, Expenditure Creditors Policy		R5 -ICT Policy which involves, Expenditure, Budget, SCM and Revenue policies	R9 - Credit control Policy, Investment and Cash management Policy, SCM Policy, Budget policy and ICT Policy	
R2 - Debt and Credit Control Policy, Assets and Liability Policy, SCM policy		R6 - All Finance related policies for all finance sectors mentioned	R10 - All Finance related policies including SCM Policy and ICT Policy	
R3 - Property Rates Policy, Credit Control and Debt Collection Policy, Tariffs Policy		R7 - All Finance related policies including ICT Policy, SCM Policy, Assets Policy	R11 - All Finance related policies (could not recall each of them) and ICT Policy	
R4 - All Finance related policies, (could not recall each of them)		R8 - All Finance related policies for all five sectors mentioned	R12 - Assets Management Policy, SCM Policy, Revenue Policies, Budget Policy and ICT Policy, framework and cyber security	
	4	4	4	12

6.4.1.3 Implementation status of policies

The respondents were asked a follow-up question on whether the above-mentioned policies were implemented and yielded any positive results. Again, all respondents (R1 - R12) were in

accord that indeed the policies were implemented and have yielded positive results. Furthermore, R1 pointed out that “...*there is room for review depending on the legislation as it changes over time; you have to make it a point that you align your policies with the legislation that is currently implemented.*” The majority of respondents further concurred that the policies have yielded positive results. Moreover, R7 elaborated: “...*I think the policies have yielded good results since they enhance controls. As the municipality, we need to work toward one common goal in terms of procedures for doing things so that we have one uniform way of doing things.*” It was further indicated by R10: “*Yes, they yielded positive results. As a result, the municipality is always getting clean audits, which means we are able to implement these policies effectively.*”

The study finding indicate that the selected municipalities were implementing FMIS aligned policies, and they have been effective in promoting monitoring compliance, enhancing financial control and improving financial performance. This notion is supported by Mbatha and Mutereko (2022:286), who point out that good financial management processes are always achieved by establishing good financial systems and policies.

6.4.1.4 FMIS used by the selected municipalities

In this sub-theme, the respondents were asked which FMIS is used by their respective municipalities to record all the financial-related transactions. Eight (R1–R8) out of the total of twelve respondents mentioned that the financial system used by their municipalities was the SAGE evolution system. The other four respondents (R9–R12) mentioned SAP ERP as their financial system. R1 highlighted that “...*there are other financial systems that are integrated into SAGE that the municipality is also using. We have other financial management systems that are integrated into the main financial system, like CaseWare, the asset management system, and stuff*”. It was also added by R6 and R7 that the Payday system was used for payroll purposes.

The study observed that the SAGE evolution system emerged as the predominant financial system used by the majority of the selected municipalities, while a minority are using the SAP ERP system. The study findings further highlighted the importance of the integration and implementation of financial systems that are flexible within the municipalities, which will

assist the municipalities in effectively meeting their various financial management desires while maximising efficiency and functionality. The findings of this study revealed that, although certain municipalities might have a common type of FMIS in use, other municipalities use different FMIS and have more than one financial system that they are using at a time.

6.4.1.5 FMIS updates

In this sub-theme, the respondents were questioned about how old their system was and how often it had been updated since its initial installation. The majority of respondents proclaimed that their FMIS was old and had been installed for over 12 years. The minority of respondents mentioned that the FMIS has been upgraded and they went live with the new system in the last 4 years. R1 mentioned that “...*the initial installation was around 2010*”. However, R4 added that “*the version is updated every year*”. In one of the selected municipalities, it was indicated that “*SAGE was installed in 2012. Therefore, it’s over 11 years, and updates has been ongoing*” (R6). The other selected municipality that recently implemented the FMIS pointed out that “...*we first went live in the system in July 2019. But obviously, not all modules went live. So, it was done in a phased-in approach, so certain modules were live and some were added as we went. The latest one that went live in July 2023 is the payroll module*” (R9). This claim was confirmed by R12.

The findings of this study indicated that there are various approaches to FMIS management among municipalities. Some municipalities prioritised continuity and stability with older systems, while others pursued modernisation and innovation through their recent system upgrades. Chalu (2019:2) points out that ERP systems, such as Free Balance, EPICOR, Oracle, SAP, Microsoft Navision and others, provide the foundation upon which IFMIS is built. Therefore, the overall findings of this study indicate that municipalities use different FMIS and update these systems at different times, such as annually, biannually, or as and when a new version is introduced.

6.4.1.6 Issues raised by AGSA relating to FMIS

This sub-theme examined if the municipalities experienced any issues with the FMIS that were raised by the AGSA in their last three years of audit and if they related to any of the finance

sectors. Table 6.9 illustrates that the majority of the respondents concurred that there were issues raised by the AGSA relating to FMIS. It was mentioned by R1 that *“Sometimes AGSA has what is called implementing procedures which are going to find or detect faults or errors in the circles there are auditing. Under Revenue, yes, there are issues identified: expenditure yes, SCM yes, assets yes, budgets yes, and reporting, although minimal but yes, there are also issues identified.”* R5 also pointed out that *“...there were modules on the FMIS that were not used by the municipality. These include the grants module, which relates to the expenditure sector; the depreciation calculation module, which relates to the assets and liabilities sector; and the goods received note, which relates to the SCM”*. Consequently, the AGSA has raised concerns regarding the underutilisation of modules by the municipality, leading to the identification of avoidable audit findings. It was also added by R3 that *“...under the revenue section, it was the issue of calculating interest on the system.”* R6 concurred and mentioned that *“...the inability to bill all the customers on the FMIS is one of the issues raised by the AGSA in all three years of auditing”*. R12 added that *“...the issues raised by AGSA relate to security and access management, managing access for all the users.”*

The findings reveal several issues raised by the AGSA regarding the FMIS and its usage in municipalities. These findings discover that amongst the issues raised by the AGSA, there are systematic and operational gaps within the municipalities’ use of FMIS. The underutilisation of available modules indicates a lack of comprehensive engagement with the system’s full capabilities, leading to inefficiencies and audit concerns. The findings further reveal that the repeated findings by AGSA highlight the need for municipalities to address the identified issues promptly, ensure compliance with audit recommendations, and improve FMIS usage, which can help in achieving more accurate and reliable financial management and reporting. Amukhuma (2018:15) says that over time, IFMIS has emerged as one of the most well-liked approaches to financial management reform. Its goals are to support complete financial reporting, accountability, openness, efficiency, and effectiveness as well as security in data management. Therefore, the study findings noted that the municipalities are faced with a variety of issues raised by the AGSA, of which the FMIS is a huge contributing factor.

Table 6.9 Financial issues raised by AGSA relating to FMIS in last 3 years

<i>Question</i>	<i>Are there any issues on the FMIS raised by the Auditor-General in their last 3 years of audit and do they relate to any of the finance sectors?</i>		
JLM	UKDM	ULM	Total Responses
R1 - Yes	R5 - Yes	R9 – No	
R2 - Yes	R6 - Yes	R10 – No	
R3 - Yes	R7 - Yes	R11 – Yes	
R4 - Yes	R8 - Yes	R12 – Yes	
4	4	4	12

6.4.1.7 Preparation and implementation of an audit action plan

This sub-theme emerged when the researcher sought to find out how the municipalities prepare and implement an audit action plan to address the issues raised by the AGSA. Respondents specified how their municipalities prepare the audit action plan and were all in consensus on the process they follow in the preparation and implementation of the audit action plan. The researcher noted that the processes are similar, as per the responses received from all respondents. For example, R9 explicitly stated that “...after we receive our audit report, we then zoom in to see what are the issues raised by the AGSA, and then, but not only look into the audit report itself, we actually zoom into the management report, where it details your other not-so-important matters but matters that might actually, if not attended to, escalate to be serious issues that affect the audit report. So from there, we draw our audit action plan, allocate time frames, and allocate the responsible department.” Additionally, R2 pointed out that “..., once we receive the final management report, we allocate it according to those specific sections responsible for that finding. Then, they develop an action plan to address each and every finding.” In essence, the process to develop the audit action plan is similar for all municipalities.

The study further noted that the implementation and monitoring parts slightly differ from one municipality to another. Other respondents mentioned that the internal audit team is involved and drives the process. It was alluded to by R11 that “...there is an internal auditor that we deal with to fix all those issues before AG comes and audits us. We use a company called

KPMG and PWC; those are our internal audits." Moreover, R7 asserts that "...normally, the internal audit section will have some engagements with all relevant departments to check or rate findings in terms of high, medium, or low that will inform an action plan that needs to be developed for the entire municipality in terms of who is responsible for what and when that will be achieved."

Based on the findings presented, the analysis suggests a consistent approach among municipalities in preparing and implementing audit action plans to address issues raised by the AGSA. Respondents unanimously outlined a systematic process involving a detailed review of audit reports and management reports to identify key areas requiring attention. This process includes the allocation of responsibilities, the establishment of timeframes, and the development of action plans tailored to address specific findings. Some municipalities involve their internal audit teams to drive the process, leveraging external audit firms such as KPMG and PWC for additional support. Internal audit sections play a crucial role in assessing the severity of findings and coordinating engagements with relevant departments to ensure accountability and progress tracking. These findings are coherent with Seitheisho (2019:10), who maintains that internal auditors are essential in offering unbiased assurance and giving advice on risk management, governance procedures, and internal control.

6.4.1.8 Addressing FMIS issues timeously

The respondents were requested to explain how the municipalities ensure that all the issues raised by the AGSA relating to FMIS are covered and attended to promptly. The respondents had different points to raise when it comes to the process the municipalities follow. Some of the respondents mentioned that the process is driven by the management committees established within the municipalities. Some respondents pointed out that such committees are regarded as the audit steering committee, where the process of attending to AGSA-related issues is maintained. It was highlighted by R1 that "...the management committee meetings that sits every week...the AG action plan becomes a standing item for those management committee seats". Additionally, R3 proclaimed that "...there is a committee that usually deals with the...audit steering committee; they follow to all those that they have not attended to their issues".

The process was further indicated by R9 that “...after the engagement letter has been signed and discussed, then timeliness was agreed upon, for example, any request for information that was required by AG and given a deadline of three days. So, we have got a dedicated official that attends and receives the requests or any findings and instantly allocates them to the department; those are allocated into a spreadsheet and start aging to say this request was received on so and so date”. Another view by R10 was that “...issues by AGSA are always part of the internal audit plan. So, whenever our internal audit does the follow-ups, they cover those issues on an ongoing basis to assist us in ensuring that on the arrival of AGSA, those issues will be resolved.”.

The findings reveal that several respondents indicated that management committees play a significant role in the process of addressing AGSA-related issues within municipalities. The establishment and regular meetings of management committees, particularly audit steering committees, are crucial for maintaining a consistent focus on addressing AGSA-related issues. This ensures that audit findings are given ongoing attention and that audit action plans are actively monitored and updated. It is further noted in this study that the emphasis on coordination and timely communication between departments and the audit steering committee highlights the importance of collaborative efforts in addressing audit findings. Therefore, the findings reveal that these practices are essential for ensuring audit compliance, improving financial management, and enhancing accountability within municipalities. Internal auditors are essential in assessing an organization's risk profile and suggesting areas for better risk management. The goal of internal audit is to enhance organizational competency and effectiveness through perceptive analysis (Eugene, 2019:26).

6.4.1.9 Compliance of FMIS with the MFMA

The respondents were also asked about compliance of the FMIS with the MFMA governing municipal finance. All respondents were in consensus that the FMIS used by the municipalities complies with the requirements of the MFMA. However, some respondents highlighted that there are a few gaps that still need to be improved or filled for the FMIS to fully comply with the requirements of the mSCOA. R9 alluded to the fact that “...systems are now bench-marked against the mSCOA. So, to be 100% correct, there is no system currently that meets mSCOA standards fully. R2 also stated that “Yes, it does comply because we are complying with all the

requirements of Treasury. It is just a few items that are not yet implemented with regards to mSCOA.”.

The study findings recognise that the FMIS employed by municipalities aligns with the requirements set forth by the MFMA. mSCOA standards are used as a benchmark for the FMIS adopted by the selected municipalities. This indicates a progressive approach to achieving compliance with standardised financial reporting practices. However, a notable revelation emerged indicating that the FMIS systems do not entirely conform to the mSCOA mandated by the National Treasury. As already mentioned in the literature section, the mSCOA framework was introduced to ensure uniformity in financial reporting across all municipalities. Therefore, by addressing the gaps in compliance with frameworks such as mSCOA, municipalities can strengthen their financial reporting and enhance accountability.

6.4.1.10 Conclusion of Theme 1

The analysis of the current FMIS adopted by municipalities reveals several key insights regarding their functionality, policies, implementation status, and compliance with regulatory frameworks. Firstly, the findings indicate that municipalities have incurred UIFW expenditure within the past three years, largely attributed to weaknesses in internal controls, non-compliance with SCM processes, and the underutilisation of FMIS modules. This expenditure underscores the importance of enhancing financial management practices and adhering to budget regulations outlined in the MFMA. Secondly, municipalities have established FMIS policies covering various financial management sectors, demonstrating a commitment to governance, transparency, and accountability. These policies serve as foundational frameworks for promoting good financial management practices and ensuring compliance with regulatory requirements. Thirdly, while the majority of municipalities utilise the SAGE Evolution system as their primary FMIS, others employ SAP ERP, indicating a diverse landscape of FMIS platforms. Additionally, the age and update frequency of FMIS systems vary among municipalities, reflecting different approaches to system management and modernisation. Fourthly, issues raised by the AGSA relating to FMIS highlight the importance of addressing system deficiencies and enhancing internal controls to mitigate audit findings and promote financial accountability. Fifthly, the preparation and implementation of audit action plans vary among municipalities, with some leveraging internal audit teams or management committees

to drive the process. However, the lack of uniformity in these processes underscores the need for structured approaches to address audit findings effectively. Lastly, while FMIS systems generally comply with MFMA requirements, there are gaps in alignment with the mSCOA mandated by the National Treasury. Addressing these gaps can strengthen financial reporting practises and enhance accountability within municipalities. Overall, the findings underscore the importance of continuous improvement in FMIS functionality, policy development, implementation, and compliance to support effective financial management practices and promote transparency and accountability in municipal finance.

6.4.2 Theme 2: Extent to which financial management information systems are used

This theme developed while addressing the second objective of this study, which sought to establish the extent to which financial management information systems are used by the selected municipalities in KZN. The second objective and its research question will be addressed by question fifteen to nineteen of the interview schedules.

6.4.2.1 Integration of FMIS with other systems

The respondents were asked what the level of use or extent to which the FMIS used by their municipality was integrated into the payroll system, SCM, and expenditure payment system. The majority of respondents indicated that their FMIS is partially integrated with their payroll, SCM, and expenditure payments systems. The minority of respondents indicated that, as was alluded to in the previous questions, they have recently migrated to the new SAP ERP system, where they did phases implementation. The last phase they did was Payroll. Currently, their system is fully integrated with their payroll, SCM, and banking systems. However, R5 mentioned that *"...so, what happens is that we get a report from the payroll and then we do the imports into our financial system, and then again for SCM. In some instances, there is integration in some of the modules within procurement, but contract management is a separate module within the system. With the payment expenditure even on that one, it's not like 100% integrated with the bank as we pay directly from the bank"*.

R7 added that *"Currently, the system is not yet fully integrated, but we are looking at improving the integration part because currently we are busy with the deployment of the new servers."*

The response from R3 was that *"...it's integrated into SCM and expenditure. But with payroll*

for now, I can say it's not because they usually do journals every month." Some of the responses from the minority of informants where their system was fully integrated, were: "...so, looking at the degree now, we currently have a seamless integration between or in the ERP because they all now reside in the ERP system. So, it is fully integrated now. From SCM to the creditors for payments and vice versa, from payroll fully integrated to the payments system, and on our payment system now with the bank we are using a host-to-host banking platform, so, there is no manual intervention or manipulation of data to the defects" (R9). The responses from R10 and R11 were the same.

The findings of this study discovered that the majority of municipalities faced challenges in achieving full integration of their FMIS which might be due to legacy systems and complex processes where partial integration may result in data discrepancies and increased numbers of errors due to manual data processes. The study findings further noted that the minority reported having fully integrated FMIS where all the components including SCM, Payroll and banking systems, seamlessly interact within the ERP system. These study findings outlined the significance of integration in optimising the performance of FMIS and that efforts to enhance integration of the FMIS to all municipalities should be prioritised to capitalise on the full potential of FMIS in supporting financial management processes. These findings corroborate the literature, as Sugiyantari and Titisari (2018:95) assert that the advancement of FMIS can enhance performance and enable tasks to be completed more quickly, precisely, and accurately, ultimately leading to an improvement in productivity. Moreover, it was also pointed out that ERP systems like SAP, Free Balance, ORACLE, Microsoft Navision, EPICOR, and others form the foundation of IFMIS. Because most ERP solutions were believed to be created for corporate organizations and to lack all of the necessary modules for public sector finance management, integration was necessary (Chalu, 2019:2)

6.4.2.2 Knowledge of FMIS within the finance department

The respondents were questioned about whether the FMIS was understood by all the relevant people working within the finance department. All respondents, as per Table 6.10, were in consensus that the FMIS is understood by all the relevant staff members working in all the finance sectors of their respective municipalities. Some respondents went so far as to say that there were training sessions for FMIS that were provided to all the relevant officials. However,

they felt that more training needed to be provided as there are always innovations with technology and systems. R2 mentioned that "Yes, *I believe so, because we are required to attend the course, which covers all these sections. It is called MFMP, so we all attended it, or we are obliged to attend it if you are working within finance.*" On the other hand, it was mentioned by R6 that "*FMIS is well understood by all personnel. Municipality does not timeously train employees, especially as mSCOA changes from time to time, but employees are not regularly trained.*" R10 was also in agreement and highlighted that "*Yes, definitely, I think that's where we also eliminate the issue of errors and omissions. So, everyone does understand what to do, when, and how to use the system.*"

These study findings indicate that there is a general agreement among respondents that the FMIS is indeed understood by all the relevant personnel within the finance department at their respective municipalities. It was further revealed that FMIS is supported by training such as MFMP, which covers various sections of the FMIS. However, a contrasting viewpoint emerged where some respondents expressed concerns with regards to the adequacy and regularity of FMIS training provided, such as mSCOA, where versions are regularly updated and technology evolves from time to time. Therefore, the study discovered that ongoing training relating to the FMIS needs to be prioritised and provided to mitigate potential errors and improve the skills of all the relevant personnel within the finance department. This study finding substantiates the literature where it was suggesting that training should be prioritized early in the requirement assessment process and that capacity building plays a major role in the success of IFMIS implementation. (Njuguna, 2020:101).

Table 6.10 Knowledge of FMIS within the finance department

<i>Question</i>	<i>Is the FMIS understood by all the relevant people working within the finance department?</i>		
JLM	UKDM	ULM	Total Responses
R1 – Yes	R5 – Yes	R9 – Yes	
R2 – Yes	R6 – Yes	R10 – Yes	
R3 - Yes	R7 – Yes	R11 – Yes	
R4 - Yes	R8 – Yes	R12 – Yes	
4	4	4	12

6.4.2.3 FMIS and general ledger modules

The respondents were asked whether the FMIS used by the municipalities provided all the general ledger (GL) modules. There was agreement by the majority of respondents that the FMIS used by their municipalities does provide for all the GL modules. R1, R3, and R4 were among those who indicated that the FMIS used in their municipality provide for all GL modules. R9 elaborated that *“Yes, general ledger is the core. Then we have got the sub-modules that are integrated to the general ledger, like payroll ledger, creditors ledger, assets module, or assets revenue ledger. So, they are all integrating. Whatever you do within the sub-module feeds instantly to the general ledger.”* R10 also emphasised that *“Yes, we have all the modules of general ledger. All accounts are there in terms of different line items in compliance with the mSCOA as well”*. The responses from two respondents were also noted, where they were unsure whether all the GL modules were covered by their FMIS. R8 also stated that *“I am not too sure whether it provides for all the GL modules.”*

The findings of this study acknowledged that the majority of the respondents confirmed that the FMIS used by their municipalities covered all the GL modules, with some respondents elaborating on the seamless integration of sub-modules with the GL. The study findings further discovered that it is among the mSCOA regulations that all GL modules be provided by the FMIS used by municipalities to be regarded as compliant. However, it was also noted by this study that a minority of respondents expressed uncertainty regarding whether their FMIS covered all the GL modules. This indicated a potential gap in understanding or awareness regarding the capabilities of their FMIS in relation to GL modules. Therefore, the study findings noted a generally positive perception among the majority of respondents regarding the coverage of GL modules by their FMIS, with a few exceptions where uncertainty exists. The study findings are also supported by the literature that, through an integrated financial management and accounting system, IFMIS plays a crucial role in improving the effectiveness of financial controls by creating thorough, trustworthy, pertinent, and timely financial information (Muriithi and Wamiori, 2020:58).

6.4.2.4 Frequency of FMIS updates

In this sub-theme, the respondents were asked how often their FMIS was updated. They were requested to indicate whether the updates conducted annually or bi-annually. Table 6.11

indicates that the majority of respondents (7 out of 12) pointed out that their FMIS was updated annually. Two responded that their FMIS was updated bi-annually. Two other respondents added that their FMIS was updated as and when needed, while one respondent mentioned that the updates were done every two years. R10 mentioned that “*I think it is annually and also as and when needed or required.*” R12 added that “*I think as soon as there are any updates that are available, we update. But we follow a due change request or change process. So, I cannot say it's annually, but as and when it is required to follow a due process of update.*” On the other hand, R7 and R8 both stated the updates are “*bi-annually.*” The response from R6 was that updates were done every 2 years.

The study findings noted that the majority reported their updates to be done annually, while a minority suggested that updates were done bi-annually as and when needed, and one responded that it was done every 2 years. The findings discovered that there is a mixture of schedules, inconsistency, and ad hoc update practices in the FMIS. Sugiyantari and Titisari (2018:95) argue that the advancement of FMIS can enhance performance and enable tasks to be completed more quickly, precisely, and accurately, ultimately leading to an improvement in productivity. This study, thus, perceived that this variation may reflect different organisational needs, resources, and approaches to system maintenance.

Table 6.11 Frequency of updates on FMIS

<i>Question</i>	<i>How often is the FMIS updated e.g. annually or bi-annually?</i>		
JLM	UKDM	ULM	Total Responses
R1 - As and when needed	R5 – Annually	R9 - Annually	
R2 – Annually	R6 - 2 years	R10 - Annually or when needed	
R3 – Annually	R7 - Bi-annually	R11 - Annually	
R4 – Annually	R8 - Bi-annually or when needed	R12 - As and when needed	
4	4	4	12

6.4.2.5 Type of reports from FMIS and frequency

The respondents were asked whether they had been requested to provide any reports using the FMIS, and to indicate the type of reports requested, and how frequently they were requested.

All the respondents were in consensus that they had all been requested to provide reports using their FMIS. The reports are different depending on the type of work each respondent does. R1 responded that *"Yes, we normally get requests from the Treasury on a monthly basis. We also get requests from the Council on a monthly basis, and even the accounting officer can request any report tailor-made in any form. So yeah, we get requests now and again."* R5 added that *"I'm in the budget and reporting section. So, from my side, I report using the system on my monthly. I also so quarterly reports on a quarterly basis, and then the mid-year reports. That's bi-annual, as well as the annual information for the preparation of the AFS, whereby we extract the trial balance and the general ledger from the system. So that's how often I use the system."* R10 added *"Yes, I think one report is for requisitions that are on the system, another one is for orders issued, a report for contracts, and our contract management system is also integrated with SAP. Reports are produced on a monthly basis."* On the other hand, R7 mentioned that *"...this year we received a request from the AG requesting an audit trail; in fact, every time there is an audit, they will request the audit trail, and the system is able to produce that report."*

The study findings indicate that all respondents were regularly requested to provide reports using the FMIS. The type of reports and frequency vary depending on the nature of their roles within the municipalities. As indicated by Van Helden and Reichard (2019:7), an oversight body mostly requires specific reports for accountability purposes, which not only entail financial information but also information as to whether the municipality delivers the services mandated to them. The findings of this study, therefore, reveal that FMIS plays a significant and crucial role in generating reports for various stakeholders within the municipalities. It was also noted that the FMIS is capable of producing different types of reports on a regular basis whenever they are needed for reporting purposes or compliance requirements.

6.4.2.6 Conclusion on Theme 2

The analysis of the extent to which FMIS are used within the municipalities reveals a number of important insights about whether municipal systems are fully integrated, the training and development of the system users, regular updates of the system, or whether all GL modules are covered. Firstly, the findings indicate that the majority of municipalities struggle with fully integrating their FMIS, primarily due to legacy systems and complex processes. Partial integration leads to data discrepancies and increased errors because of manual data capture. Only a few municipalities have achieved full integration where systems such as payroll, SCM,

and banking interact seamlessly within the ERP system. The findings indicate that integration is crucial for optimising FMIS performance, and efforts to enhance FMIS integration should be prioritised to fully realise its potential in supporting financial management processes.

Secondly, the findings revealed a general understanding: most respondents agreed that FMIS is understood by relevant personnel. Some respondents expressed concerns about the adequacy and frequency of FMIS training, especially regular updated systems like mSCOA. It is therefore recommended that there be ongoing and prioritised FMIS trainings to mitigate errors and improve the skills of the finance department personnel.

Thirdly, the findings indicate that the FMIS is compliant with mSCOA and that all GL modules were covered by their FMIS. It was indicated that there is seamless integration between sub-modules and GL. However, a few respondents were uncertain whether their FMIS covered all the GL modules, indicating gaps in understanding and awareness.

Fourthly, most municipalities indicated that their system is updated annually, while a few respondents reported their system being updated bi-annually or as and when needed. Lastly, the findings indicate that respondents regularly provide reports using FMIS, with the type and frequency of reports varying by role. FMIS plays a significant role in generating reports for various stakeholders within municipalities. Therefore, the findings under this theme conclude that municipalities are at various stages of FMIS implementation and integration. The study underscores the importance of system integration, continuous training, clear communication about system capabilities, standardised update practices, and robust reporting functionalities. Addressing these areas can significantly enhance the effectiveness and efficiency of financial management within municipalities.

6.4.3 Theme 3: Factors affecting the successful implementation of IFMIS

This theme emerged while trying to address the third objective of this study, which sought to determine the factors that affect the successful implementation of IFMIS by the selected municipalities in KZN. The third objective and its research question were addressed by questions twenty to twenty-eight of the interview schedules.

6.4.3.1 Frequency of training of officials on financial management practices

The respondents were asked how often and when last were the staff members trained on financial management practices such as GRAP, mSCOA, and MBRR. The majority of respondents were in agreement that there are training sessions provided at least once a year with reference to the mSCOA, MBRR, and GRAP. Some of the responses from respondents were that *“Staff get trained at least once a year on GRAP. The staff get trained normally once a year on MBRR, and for mSCOA, they get trained at least 3 or 4 times a year because mSCOA is a very new reform that the municipality needs to comply with”* (R1). R9 pointed out that *“...well, we get trained. As we speak, we were in Durban (Monday and Tuesday) on the National mSCOA workshop where a number of officials were sent representing the sections that you are enquiring about. There was revenue, expenditure, budget, and payroll. So yeah, there’s constant training right through on GRAP, mSCOA, and budget regulations.”* R4 also shared that *“...we had mSCOA training last year in July, and we were supposed to attend another one recently, but it got cancelled. But I would say once a year.”*

The minority of respondents indicated that they did not recall when last was the training of staff and that not all staff members get an opportunity to be trained. Sometimes the training is attended by certain individuals from one section, especially the budget and reporting section. R6 stated that *“...municipality lacks in training of staff and does not recall when last was the training provided.”* It was also pointed out by R5 that *“...for the whole of the finance section, I think it's been a long time. That’s what I can say, because in some instances, you'll find that few people do attend these trainings. Sometimes it will only be attended by the Budget and Reporting section, while other sections are not.”*

The findings from respondents revealed different views regarding the provision of training within municipalities, with the majority acknowledging that training does take place. However, the frequency of these training sessions was noted to vary, with some occurring annually and others more frequently, in particular mSCOA training. The findings for this study also noted a minority that indicated that there are gaps in the provision of training and that there were certain individuals who normally benefit whenever training was provided within the municipalities. These study findings, therefore, discovered that, while there seems to be consensus on the importance of training, there are discrepancies in the frequency of these training sessions and who gets selected to attend them. Amukhuma (2018:34) contends that system improvements

are typically hampered by the government's inability to solve issues relating to human resources, such as manpower planning, hiring qualified personnel, providing alluring incentives, and staff training. These study findings suggest that there are areas that need improvements in ensuring that all staff members have access to the necessary training opportunities.

6.4.3.2 Cash flow management strategy and FMIS

The respondents were questioned under this sub-theme about whether their municipalities do have a cash flow management strategy and plan that cover the FMIS and were further requested to elaborate on its role within the municipality. The majority of responses from respondents were in agreement that the municipalities had a cash flow management strategy and plans; however, it was noted that the said strategies and plans were not the same and the preparation of them differed for most of the municipalities. It was mentioned by R10 that *"I think the municipality does have the cash flow strategy, but I think it's covered in the budget and reporting section and also at the office of the CFO."* R4 added that *"Yes, we do have a cash flow strategy. There is an accountant who deals with it and reports on it monthly."* This is what R1 had to say: *"Yes, the municipality prepares Section 71 every month, and part of the Section 71 reports that there is cash flow. So, it gives direction. There are also cash flow projections on a daily basis, which have effects. Every afternoon, we produce the cash flow projection report that the CFO is going to look at to decide upon the inflow and outflow of cash on a regular basis."* It was also added by R9 that *"...the cash flow management strategy and plan, which is adopted in line with the cost containment regulation, which talks about how and how much we are spending on financial management systems."* Based on the responses from the participants, this study acknowledged that the municipalities prepare the cash management strategy and plan; however, there is no uniformity or procedure to follow on what needs to be contained in this strategy and plan. It was also not clear whether they all covered the FMIS in their strategies and plans.

The findings of this study outlined that although the municipalities do have cash flow management strategies and plans in place, there are inconsistencies in their preparation, content, and integration with other financial management policies and systems. These study findings are consistent with the literature as Mugenyi *et al.* (2020:1440) intimate that IFMIS has greatly influenced and impacted the budgeting process. Specifically, IFMIS improves the

efficiency of forecasting future funding requirements, and it enhances better management of the cash flow projections that guide the organisation into the future in terms of cash availability. Moreover, IFMIS improves budget compliance, and enhancing the stability of growth within the micro and macro-economic environment.

6.4.3.3 Timeous payment of creditors

The respondents were asked whether the municipality's financial system could detect when an invoice is due for payment, in order to maintain the 30-day payment terms for service providers, as mandated by the MFMA. Where the answers were no, they were further requested to explain the reasons for non-adherence. There were different views from the respondents; however, the majority were in agreement that the system does detect when an invoice is due for payment. However, they had various responses on how their FMIS detected when the invoice was due. Some of the respondents mentioned that “...*the financial system does detect the due date of the invoices because it got the age analysis whereby it can indicate when the invoice was captured. It would indicate that it falls under 30, 60, or 90 days, but the only problem is that the municipality is not complying with Section 65 of the MFMA, whereby it says we should maintain paying within 30 days*” (R5).

It was also added by R9 that “...*Definitely the system does. Once the invoice has been captured and approved, it looks at the invoice date or document date, and it will tell you or show that it is not yet due. If that date has passed, if you capture the invoice that is not yet paid, it will show a red mark that it is overdue. So, it has that functionality, but obviously, that is as far as the system is concerned. But the 30 days' story can be determined by the number of factors before the invoice gets into the system*”. R2 stipulated that “...*it does detect because even if you are recording invoices late, it does indicate that it is beyond the credit terms.*” R10 was also in consensus with the majority of respondents and stated that “*Yes, we are paying our service providers within 30 days, and our system does detect when the payment is due. If ever there are challenges with the contract, then we usually deal with those challenges prior to recognizing the invoice as a valid invoice. Hence, you know that at some point there will be a dispute between the municipality and service providers.*” The researcher also noted that there were some respondents with different views. R3 stated that “*No, the system does not detect when the invoice is due for payment.*” R1 added: “*No, the system does not detect when the*

invoice is due, but when the invoice is captured on the system, it starts the aging and gets paid when there are no issues. The main aim of capturing it on the system once it's valid is to make payment.”.

The findings of the study indicate mixed perceptions among respondents regarding whether the FMIS effectively detects when the invoice is due for payment. The majority of respondents were in agreement that the system does have the capacity to detect the due date of the invoice, and they generally expressed that the system is equipped to identify overdue invoices and alerts for payments. However, some respondents held contrary views. Therefore, this study discovered that while the FMIS possesses certain functionalities for detecting invoice due dates, the discrepancies between the system's capabilities and practical implementation raise major questions about the efficiency and compliance of payment processes within municipalities.

6.4.3.4 Changes influenced by IFMIS implementation

The respondents were asked how the system users receive the changes that come with the development and implementation of the new IFMIS in their municipalities. The respondents had mixed and complex responses, but the majority indicated that the users accept and adapt to change whenever it comes. The response from R6 was that “...*the employees are flexible and appreciate any new development and adapt quickly where there is change; they are flexible to learn.*” It was added by R10 that “...*by the looks of things, the users are complying, and they also have that momentum to push and adapt to those changes instead of being reluctant or defying to comply. I think they are a very positive and good team that is supportive of the changes in the changes in the municipality.*” Others responded by highlighting the process that the municipality follows whenever there is change. R1, for example, stated that “...*changes come through every month because there is system support and system maintenance each and every month that take effect from the system support. If there are changes, especially with the changing versions, we engage the ICT section to test it before and after changes to match the two and also test the system after changes if it is up and running according to the norms and standards”.*

R9 also clarified the process that comes with change and indicated that “*the development gets communicated, particularly to what we call business process owners. There is a budget*

manager named as the business process owner for any budget-related issues on the system. So, if there are changes, they need to be signed off by the users, the business process owner, the super users, and all the users to confirm that they are happy with the changes and that they accept the changes. For instance, on the budget side, there are constant changes and updates around mSCOA versions, and they need to update the chart now residing on the system; it all follows the normal work approval process, so everyone is on board, even the ICT, because it goes up to ICT". However, other respondents indicated that whenever there is change, there is some resistance at the beginning, and the employees eventually accept and adapt to the change. R5 mentioned that *"I would say there is a lot of resistance sometimes. You know, when people are used to doing things their own way, sometimes they'll resist change. For example, there is a module for grants, but we are currently not using it, not because there is something wrong with it. It is just that people are resistant to using it."* R4 was also in agreement and mentioned that *"...at first we usually have a problem. I think it is based on how the changes come. If they come maybe with the training before they ask us to use the system, it can be simpler. So, there is resistance at first because people are not sure what is coming with the change."* R12 stated: *"I think it's normal that there would be resistance, but over and above that resistance, the question would be 'how do you then implement strategies so that change gets embraced in the institution?'"*

The study findings noted that there were positive responses indicating that users generally are accepting, adapting, and proactive in embracing new changes, which could be indicative of a well-communicated change management process and supportive work culture. Additionally, it was further noted in this study that initial resistance to change is natural and is often driven by the uncertainty of the unknown, which indicated the need for effective training and communication strategies to assist the users in transitioning smoothly. Therefore, by continuing to refine these processes, the municipalities can further enhance their ability to manage change efficiently and effectively. Local government continues to struggle with the installation of information systems, which requires a clear change management approach to achieve a high rate of success (Gcora and Chigona, 2019:3). Furthermore, the lack of employee participation in the development of strategic planning for the implementation of information systems in the workplace contributes to the lack of end-user ownership of information systems in public sector organisations like municipalities (Gcora-Vumazonke, 2021:26).

6.4.3.5 Behaviour and attitude on IFMIS development and implementation

The respondents were questioned about the behaviour and attitude of the system users toward the development and implementation of the IFMIS in their municipalities. Respondents were in consensus that the development and implementation of any new system come with resistance from the users. It was mentioned by R1 that *"...there is that resistance because if you are used to something, you get comfortable. So, I think change management needs to take effect before we say we are admitting those changes."* R3 had a similar view that *"...behaviour at first is not positive. I think because we are used to the old system, if there is a new system to be implemented, then it becomes a problem for people to accept change."* R9 added that *"...when we were implementing the systems, well, obviously, with change there is always going to be resistance; there is also always going to be cooperation. People embrace change differently; some look forward to change, some resist it."* It was also mentioned by R10 that *"I will say now they are fine because they are used to changes. There was resistance before, but now they are fine. Before, yes, but now they are fine. Obviously, resistance is always there."* Other respondents, such as R2, R4, and R12, were also in agreement with the aforementioned respondents and indicated that any developments or changes in the system come with resistance from the users. It was also noted that a few respondents mentioned that the behaviour and attitude of users are always positive. R7 indicated that *"I think the system users welcomed it so well; where there are gaps, they seek clarity of how to go about using the system."* R6 added, *"I would say the attitude is positive."*

The study findings noted that there was consensus among respondents that the development of a new system comes with resistance from users because of their fear of the unknown and their comfort with the existing processes. Effective change management strategies, which include clear communication, training, and support, users can change from resistance to acceptance and even develop a positive attitude towards the new systems. Therefore, to ensure successful implementation of new systems, it is crucial to address resistance proactively and provide continuous support to all users. Implementing any system in the organisation brings about changes in processes, roles, policies, and functions, and with these changes comes resistance from some of those affected (Wasihun, 2018:20).

6.4.3.6 Support from other organs of state

The respondents were asked whether there was any kind of support their municipalities received from other organs of state, such as national and provincial governments, on the development and implementation of IFMIS. The respondents were all in agreement that they received support from other organs of the state, in particular national and provincial treasuries. It was mentioned by R5 that *“I will mention mSCOA implementation because that one was introduced by the national and provincial governments, and they were very supportive because we were attending trainings. They were giving us details on how mSCOA works, ensuring that municipalities implement on time because there was a deadline for all municipalities to be mSCOA compliant by the 1st of July 2017.”* It was added by R3 that *“...when there are any new developments on the system relating to mSCOA, the National or Provincial Treasury provides training or workshops relating to any developments that need to happen.”* R10 mentioned that *“I think one would say we are getting support from National Treasury; hence, the City of uMhlathuze is a non-delegated municipality that reports directly to National Treasury. So, as and when we were doing the implementation, we engaged the National Treasury to get advice and also to get support to ensure that we would be able to accomplish whatever objectives we may want to accomplish.”* R9 was supported by R10, that *“I think we mainly receive support from the national treasury. We are actually the non-delegated municipality that reports directly to the national treasury. So, most of our support comes from the national treasury, and I think there is nothing that we did without their involvement and their consultation, from the initial stage of us going up to planning to get a new ERP system up to the stage where we are now implementing.”*

The findings of this study noted that all respondents were in agreement that there is substantial support from national and provincial treasuries, particularly concerning the implementation and updates of systems such as mSCOA. It was further noted in this study that the direct engagements with the National Treasury and support received indicate a high level of oversight and assistance in achieving municipal goals. This support will further ensure that municipalities meet all their compliance requirements and effectively implement new systems. The National Treasury established FMIS to be applied across all municipalities in the nation, and this was done in order to address poor financial management in municipalities (National Treasury, 2018).

6.4.3.7 Recommendations by AGSA

The respondents were asked whether there were any recommendations made by the AGSA in their management report to address the audit findings relating to the FMIS in their municipalities. The majority of respondents stated that there are recommendations made by AGSA in relation to FMIS that are different from one municipality to another. R5 mentioned that *"...the one main issue AGSA raised was off-site backup. It was recommended that the municipality have the backup outside of the office premises, so that if anything happens within the premises or to the server, at least we will have the satellite backup where we will be able to retrieve all the information on our system. Another one was the security codes as well as the security within the system itself, whereby it will protect data and not be easy for hackers to hack the system, so the municipality needs to have such security measures. So, the recommendation was that we must buy software that can limit the users or external users from getting into our server"*.

R7 stated that *"...the recommendation was for the municipality to have the integration of their systems as well as the monitoring of the audit trail of the systems."* R9 indicated that *"...with the functionality of the system, there were quite a number of recommendations. It is safe to say the bulk of them were residing within the ICT department. There are implementers of those recommendations. But looking at where we were and where we are now, the reports show that the issues have been reduced, showing that indeed the municipality is addressing those findings."* R8 added that *"...there are always recommendations regarding the system integration that the municipality needs to do."* Additionally, R12 mentioned quite a number of recommendations and stated that *"...there are a number of them. One of the recommendations was that we must have policies that are aligned with SAP ERP. So AGSA recommended that we need to go and review all our policies and make sure that we align our policies with the ERP system. So, we did that, which is why this financial year we did not have any findings relating to that. Two, there were issues related to access management, and AGSA recommended that we implement GRC or do user management access scans. We implemented the GRC module, and it reduced the number of findings that we had previously, and we addressed all the violations that were picked up by the GRC because you implement the GRC module and then you run it. Once you've run that GRC, it will give you all the violations, and then you go and fix those violations. When AGSA came, we were already in the process of*

fixing; they ran a scan of the entire system and confirmed that all was in order. So, ensure that we implement recommendations by AGSA.”.

The study findings noted that AGSA provides various recommendations to municipalities regarding their FMIS; the recommendations differ across municipalities but generally focus on enhancing data security, system integration, and policy alignment. The study findings noted that the successful implementation of AGSA recommendations demonstrates the municipalities commitment to enhancing their financial management practices. AGSA plays an important role in enabling accountability and, thus, promoting sound financial governance practices in South Africa. It does this by providing independent assurance to the various legislatures on whether entities that use public funds have managed their financial affairs in line with sound financial principles. Moreover, verify whether they have complied with the relevant legal framework, and have provided credible information on the achievement of their financial and performance objectives (AGSA, 2021).

6.4.3.8 Communication channels

The respondents were requested under this sub-theme to indicate how the management of their municipalities communicates the changes on the FMIS to all the system users and whether they adhere to the proper communication channels within the organisation. The majority of respondents were in agreement that the management adheres to the communication channels within the municipalities, with emails being the most common mode of communication used by the municipalities. It was mentioned by R5 that “*...for our municipality, we currently use the form of emails as the means of communication when it comes to system-related issues.*” It was added by R9 that “*...the platform that the municipality is using is our emailing system. Where we circulate any update or any changes in what we call all users, whether there is something that has changed, be it a new login screen has been done on SAP or a new process has changed that mainly affects all users to be circulated, but where it only affects a certain section again, it will be communicated with that section looking at the business process owners and then ultimately inform the users as well. So, it’s done properly and handled by our ICT.*” R10 indicated that “*Yes, we do adhere to proper communication channels. Firstly, we engage each other as management and devise strategies on how the changes will be made and cascade them to our subordinates to ensure that all moves will be supported from all angles.*” R7 also

added that "Yes, *municipalities comply with communication channels, which are currently done through emails.*".

The study findings noted that there is a consistent and structured approach to communication channels within municipalities, primarily utilising emails. It was further noted in this study that adherence to communication channels and strategic dissemination of information ensures that updates and changes are effectively and efficiently communicated to all the relevant officials. The most practical way to overcome change resistance is to make sure there is clear communication, education, and training, as well as "quick wins" that show the advantages of the change (Amukhuma, 2018:30).

6.4.3.9 Comparison of reports with other municipalities

The respondents were asked whether there is any external pressure or comparison from other municipalities with regards to the reports produced by the current FMIS and how the municipality deals with the pressure. On this question, respondents had mixed responses. A few respondents agreed that there is a comparison of reports that is normally done by other organs of the state, such as the provincial and national treasury. Other respondents indicated that they were not aware of any pressure or comparisons between their systems. A few agreed that there is comparison, and it helps as the goal of any municipality is to do well. R5 outlined that "*...there is a comparison, but the comparison is not done by us as the municipality. It is done by the provincial treasury, whereby they will assess in our report whether our municipality is able to submit reports on time, because there is a portal that is used by the treasury whereby as municipalities we upload all our reports, so they check whether we have submitted on time, are we using the correct management information system to upload the reports due, and that comparison is only done externally by the provincial treasury, so it is not like we are comparing ourselves with other municipalities*".

R9 also mentioned that "*I wouldn't say there are pressures; the only pressure normally comes from the national treasury, where they are looking at the capabilities of what the system is doing in comparison with what is required. So now and then they would come to do the system audit and see what the system could or could not do. If there are any municipalities that perform better as far as the system is concerned, they would make reference to those. Other than the National Treasury, there wouldn't be any other external pressures per se on our side.*" On the

other hand, R2 stated that "No, we are usually guided by GRAP, and we don't have to compare ourselves to other municipalities, but we do benchmarking, but it is not something we usually do." It was also mentioned by R11 that "...so far, in terms of using SAP, we are the best; we don't have any external pressure. They actually come to us instead." R1 also indicated that "Yes, the municipalities are unique in a manner that they use different financial systems, and the national Treasury has given guidelines around that to say it's fine to use different financial systems from one municipality to another. But when you do a comparison, sometimes you find that there are systems out there that are doing or performing certain functions much better than yours, so those comparisons make the management take some drastic decisions around advocating or gunning for that financial system that will be user-friendly, so we communicate around that with the sister municipalities." It was added by R7 that "I think there will always be external pressure from other municipalities, because we all want to do well. So, if there is a municipality whose performance is really good, one would like to learn from that municipality."

The findings for this study noted that the respondents revealed a variety of perspectives on whether there is a comparison of financial management systems among municipalities and the influence of external pressures. The study noted that the provincial and national treasuries play a crucial role in monitoring and comparing the performance of municipal financial management systems. This external oversight ensures that municipalities adhere to required standards and timelines, indirectly fostering an environment of comparison and improvement. The study findings further indicate that there is an ongoing process of improvement driven by both internal benchmarking and external comparisons.

6.4.3.10 Conclusion of Theme 3

The analysis of the factors influencing the successful implementation of IFIMS in the selected municipalities reveals several crucial perceptions, which include the training gaps, cash flow management strategies used by municipalities, and resistance to change to the new systems. Firstly, the majority of respondents concur that training occurs within municipalities; however, the frequency of training and the selective methods of participants were raised and highlighted by a few respondents, which are the results of the gaps within the training provision. Secondly, the findings reveal that there are inconsistencies in the preparation of cash flow management strategies and plans and suggest a need for standardised guidelines to ensure alignment with

other financial policies and systems. There were mixed views on whether FMIS effectively detects when the invoice is due for payment. Thirdly, the findings revealed that users generally accept and adapt to new changes; however, initial resistance to change is common, as it is driven by uncertainty; new system development faces resistance from users due to the fear of the unknown and comfort with existing systems and processes. Effective training and clear communication strategies are therefore seen as essential to facilitating a smooth transition and can shift resistance to acceptance. Fourthly, the study findings reveal that there is substantial support from national and provincial treasuries, especially on system implementation such as the MSCOA, which indicates strong oversight and assistance in achieving municipal goals. Additionally, the successful implementation of AGSA recommendations demonstrates a commitment to improving financial management practices. Lastly, it was also noted that respondents had varying perspectives on the comparison of FMIS among municipalities, where provincial and national treasuries play a crucial role in monitoring and comparing municipal performance. Therefore, external oversight encourages continuous improvement and adherence to standards, benefiting overall municipal performance.

6.4.4. Theme 4: Best practices of FMIS for the municipalities

This theme emerged while trying to address the fourth objective of this study, which sought to explore the best practices of FMIS for the selected municipalities in KZN. The fourth objective and its research question were addressed by question twenty-nine to thirty-five of the interview schedules.

6.4.4.1 Training and support from system owners

Under this sub-theme, the respondents were asked whether the system owners that are managing their financial systems provide proper training and support to their municipalities and what needed to be improved. There was a consensus from the majority of respondents with regard to the training that is provided by their system vendors. There were a few who believed that there was much more that still needed to be improved, like providing more training and transferring skills. R3 stated that *"Yes, they do provide training and support. But sometimes when they are providing support, they just come and do what is supposed to be done by the officials and not provide any skills transfer."* R5 also added that *"Yes, they do provide the support; I would say there are also some improvements that need to be done by our system*

vendor, because, as I have mentioned, there are modules that we are currently not using, so it is for them to ensure that we use all modules in the system; they should be enforcing that to their users." R10 also concurred: *"Yes, they do provide support; they are always available, even when we need some clarification." They always provide us with all the support that we need."* It was added by R8 that *"...they do provide training and support. But I think they need to add or give more training to the ICT as they give technical support to all sections. Guidelines are also needed from the system owners."*

The findings for this study noted that there was general consensus among respondents regarding training from system vendors; however, some respondents believed that there is room for improvement in the training provided and to ensure the necessary transfer of skills to municipal officials. More training for ICT officials was also indicated as a need for improvement as they provide technical support. It was thus noted that while system vendors are generally providing adequate support and training, there are significant opportunities for improvements, particularly in skill transfer, comprehensive utilisation of system modules, and specialised training for ICT staff. Addressing these areas would greatly enhance the effectiveness and efficiency of municipal operations. Building capacity is a key factor in IFMIS implementation success, thus early in the need assessment process, training should be considered (Njuguna, 2020:101).

6.4.4.2 Training of Key officials on IFMIS implementation

The respondents were questioned about who the key municipal officials to be trained on the introduction and implementation of IFMIS were, and why. The respondents were all in agreement that all system users, such as finance officials, ICT professionals, and secretariats, were the key officials to be trained on the introduction and implementation of IFMIS, as they work with the system on a daily basis. R1 mentioned that *"...key officials are Finance officials, department requisitors, department secretaries, and HODs. So those are the candidates that, in an ideal situation, need to be trained."* R11 stated that *"...it depends, but basically ICT must know everything and be part of all trainings to be able to provide support. Finance to be trained on all finance-related modules because they are going to be using the system. For other modules like requisitions, it will be all officials dealing with requisitions in their departments"*. It was also added by R9 that *"...with our case, it would be all the users: if it's Finance, then all Finance; for instance, it is actually not only finance because there are processes that*

actually require all the departments, for example, if they want to do requisitions, not only Finance who does requisitions, basically all the departments." R8 also added that "...all Finance officials. All secretariats. ICT section. All these people use the system on a daily basis, and ICT provides support when necessary. While the secretary does requisition transactions on the system."

The study findings noted that all respondents agreed that finance officials, ICT staff, and secretaries are essential participants in training for IFMIS due to their daily interactions with the system. Properly trained users across all relevant departments would likely result in more efficient use of IFMIS, reducing errors, improving process flows, and enhancing overall productivity within the municipality. Therefore, ensuring training is provided for key officials will facilitate better system usage, interdepartmental coordination, and overall efficiency. These study findings corroborate the literature that indicates that training should begin at the commencement of the reform, and a more comprehensive and continuous training program ought to be put in place for those who are most likely to be directly impacted by the IFMIS implementation (Njuguna, 2020:101).

6.4.4.3 Project leaders and their roles on IFMIS implementation

Under this sub-theme, the respondents were asked whether their municipalities had a project leader or champion who is an expert or trained upon introduction and implementation of the IFMIS, what role the leader or champion played, and what can be improved. The respondents had mixed responses on whether their municipalities have a project leader or champion who is trained upon the introduction of IFMIS. A few respondents indicated that their municipality does not have a project leader. Others also indicated that the specific person was still going to be appointed by their municipality, while some indicated that the ICT manager was regarded as the champion or project leader. The response from R6 was that *"...the municipality had previously allocated in the organogram the relevant person for the system. But in the absence of that individual, currently the unit heads are regarded as champions."* R6 added that *"...the ICT section is part of the implementation, and the ICT administrator is currently the champion or project leader, but the municipality is in the process of appointing an expert in the system."* R9 indicated that the *"ICT head was the project leader on the implementation of our SAP ERP. But working hand in hand, we had a consultant who was also overseeing the implementation"*

by the service provider. So the consultant was providing expert advice on behalf of the municipality to oversee the project as well.”.

On the other hand, R5 mentioned: *“We don’t have the project leader or a champion; I believe the municipality needs to have the administrative information technology section, whereby there will be someone who focuses only on the financial management system within the municipality. Currently, we do have our IT section, whereby the section focuses on the whole IT of the municipality, but there is no one who deals with the financial management system who, even if we as the users don’t go for training, will come up with new updates, new systems, and new technology.”* R1 also stated that *“...right now, the project leader gets to be selected by the municipal manager. Then his or her role is to develop or establish a project steering committee and to ensure that the implementation of terms of reference around that project gets discussed on that platform, as well as the implementation of fine-tuning the system to make it more user-friendly or as easy as possible.”.*

The findings for this study noted that the mixed responses indicate a lack of a consistent structure or approach to project leadership in the implementation of IFMIS across municipalities. The inconsistency can lead to varying levels of effectiveness in the implementation process. Therefore, the need for a dedicated, consistent, and specialised project leadership structure is evident to ensure the effective and sustainable implementation and management of IFMIS. Technical challenges impede the successful implementation of the IFMIS system. These challenges include inadequate IT knowledge and experience to operate the system, resistance stemming from the software's intricacy and technical challenges, and inadequate IT knowledge and expertise (Amukhuma, 2018:30).

6.4.4.4 Data security, backup and document management system

The respondents were asked which system their municipalities have for proper data security, a backup system, and a proper document management system in the event of data loss or system breakage. The majority of respondents were in agreement that, as much as municipalities have security and backup systems, data is not entirely protected as there are scenarios where data is lost; they also indicated that there is no proper document management system. On the other hand, a few informants indicated that their municipality does have a proper security, backup, and document management system in place. It was indicated by R4 that *“Yes, there is backup*

at the ICT to keep information. But I don't feel like the storage assists us as an expenditure as we deal with payment vouchers because we only have hard copies. We cannot scan and save documents because of the capacity of the server." R7 explained that "I think around June or July 2023, the municipality had a disaster where all the servers crashed. So in October 2023, we started the process of server upgrades. So with that server, the data is currently hosted by the separate company outside the municipality, who are assisting us in terms of security and backup. So once that is fully done, it will also be installed on the cloud; we will be using an independent company as well for our disaster recovery centre and storage site".

R5 added that "...there were a bit of challenges within the municipality whereby there was a system breakdown, we couldn't send our emails, and we couldn't upload the information on the treasury portal, where we normally upload the information. So the municipality did not submit the information because of the system problem that we encountered, and the information remained outstanding. So it shows that the proper security or backup system is not in place within the municipality. A proper document management system is also not in place. Documents are scanned and captured as hard copies, unlike in some areas where once a document is scanned, it goes straight to the archives somewhere and is captured". It was mentioned by R10 that "I think we are using the DMS system. Everything is being saved to ensure that even if hard copies get misplaced or stolen, we will be able to have the information stored on the system. I think the system we are using is the GroupWise system, where we save everything; even if we are doing our monthly report, we save on the system. Like all orders and tenders are saved on the system". R12 added that "...we do have a system that we use for the backup; we are doing the daily, weekly, and monthly backups without fail. We also have off-site backup storage that we use. We have a contract with a service provider. We also have a disaster recovery site, and we have the document management system module on our SAP ERP.".

The findings of this study noted that there was general consensus that proper document management systems were lacking in most municipalities, a significant concern. Municipalities need to invest in digital document management solutions that allow for efficient scanning, storage, and retrieval of documents. This will mitigate the risk of losing hard copies and improve overall operational efficiency. Best practices from municipalities with vigorous systems should be identified and adopted more widely. The study further noted that, while there

are efforts to improve data security and document management within municipalities, significant gaps remain. Therefore, enhanced infrastructure, comprehensive document management systems, regular testing of backup protocols, and leveraging expertise are essential steps to ensure data integrity and operational resilience. One of the most widely used financial management reform strategies, IFMIS aims to promote final reporting, efficacy, accountability, openness, and data security (Mugenyi, 2020:1439).

6.4.4.5 Champion's understanding of environment and systems to be integrated

The respondents were asked to describe the level of understanding that the system champion or relevant person has in understanding the working environment and which financial systems should be integrated. The respondents had mixed responses to this question, as they had previously responded to whether the champion was available or not in their municipalities. Few respondents who had previously mentioned that their municipality did have the relevant person, and he had a vast amount of experience and understanding and possessed the relevant skills for the position. The rest of the respondents had different responses for this sub-theme. R9 outlined that *"I think from the champion, our ICT head was actually knowledgeable and worked with various ERP systems, but obviously there would have been gaps because, for instance, by the time we were doing ERP, the national Treasury also introduced mSCOA to the picture, which was now a new dimension, so obviously that also informed us to get the expert consultant to assist the municipality just to ensure that we are on the right path or that what we want will be covered by the implementation of the system, so the two worked hand in hand, where there were gaps, the expert would come and assist."* R12 added that *"...we do have the relevant person as the champion who understands the system and environment better."* R3 mentioned that *"...the municipality does not have a champion."* R5 stated that *"...as I have mentioned on the other question, we do not have a champion, but I would say the users know what to do; it is just that some of the things are not functioning accordingly. As I have said about integration, we are using the old format where we do things on the other system and then we import to the SAGE system, so in that case, that's not fully integrated systems. Our municipality is in the process of integrating the systems"*. On the other hand, R7 stated that *"...I think understanding the working environment is there, although you will find that one does not like to interact with or use the financial system on a daily basis, so the understanding is there but is not like a*

formal training that one has; you only get to know about the system as and when the system users experience problems, and you are there to give support.”.

The findings of the study indicate a diversity of experience and perspectives regarding the presence and effectiveness of a champion or project leader in the implementation of IFMIS in municipalities. The presence of an experienced and knowledgeable champion is crucial for the successful implementation and management of IFMIS. This study further noted that while some municipalities benefit from experienced champions, others faced significant gaps and challenges. Therefore, continuous training, the involvement of external experts, structured knowledge transfer, and system integration are key to overcoming these challenges and ensuring effective system implementation. Building capacity is a key factor in IFMIS implementation success, thus early in the need assessment process, training should be considered. (Njuguna, 2020:101).

6.4.4.6 Capacity of the ICT servers

The respondents were questioned about the capacity of their municipalities ICT servers and whether they would be sufficient to meet the requirements for the project of IFMIS implementation and be successful. The majority of the informants indicated that they believed their servers have the capacity to cater for any IFMIS implementation; others indicated that they were already done with the IFMIS implementation in their municipality, and that the servers were a success. A few respondents mentioned that their servers needed to be upgraded before any IFMIS implementation. R1 mentioned that *“Yes, you know, since the implementation of mSCOA. The capacity of our IT server has been broadened to a very large capacity because it has been able to accommodate the municipal chart of accounts together with the integrated sub-systems that are there, and it’s successful.”* R3 added, *“I think our server is enough because it was upgraded. So it can be a successful implementation.”*

R9 also indicated that *“I wouldn’t know how big our server or capacity is, but it managed to cover through the implementation process and was a success. I knew it was twofold: software and hardware were needed; they were procured because we were told that for this system, the hardware was required, as were the servers. So I would say it is actually capable because, ever since we implemented it, I do not recall where there was a project we were upgrading or adding servers. So the first step was to get the required servers to deal with the implementation of the*

system software." It was added by R11 that "...since we have already implemented IFMIS, the capacity was fine. There were no challenges; we planned accordingly and procured new infrastructure before implementation started." It was, however, mentioned by R6 that "...the municipality's ICT server is old, and there are plans to procure the new server. Therefore, the current server requires upgrades and does not have the capacity to implement any new project and be successful." It was also shared by R8 that "...the current server would not be able to implement any project, and there is a process for the new project to acquire new infrastructure that will be sufficient to start any new project because currently it is not sufficient."

The findings for this study noted that the positive outcomes reported by the majority highlight the importance of having adequate server capacity and infrastructure readiness before undertaking IFMIS implementation. It was further noted in this study that the success of IFMIS implementation in some municipalities was attributed to careful planning and procurement of necessary hardware and software. Therefore, while other municipalities have upgraded their servers and achieved successful outcomes, others face challenges due to outdated systems. Proper planning, procurement, and modernisation of ICT infrastructure are essential for the effective implementation of IFMIS. This requires the municipalities to continuously assess and enhance their ICT capabilities to support current and future projects. In a similar vein, technological integration, data quality, system-to-system integration, and ICT/technical problems have all been cited as significant hurdles for many firms when implementing IFMIS. Another acknowledged barrier is a lack of IT infrastructure (Njuguna, 2020:102).

6.4.4.7 Relevant skills for Finance and ICT officials

The respondents were asked under this sub-theme whether all staff members within the Finance and ICT departments had the relevant skills and met all the requirements for the positions they occupied. The respondents all agreed that all officials from Finance and ICT did meet the requirements for the positions they occupied, and they provided reasons to support their responses. R4 mentioned that "Yes, they do have, and everyone is a graduate in Finance. I also believe that ICT also has the relevant qualifications for their positions and the necessary skills." R6 indicated that "...the Finance section has some of the best people with good qualifications and are occupying key positions. The ICT manager has recently been appointed as well". It was also added by R9 that "I would say with Finance, definitely with Finance, you cannot just take anyone without skills, especially in critical areas. Definitely, we do, and with

ICT as well, I am sure they follow the same approach; they cannot just take anyone." R3 stated that *"Yes, according to my understanding, we all meet the requirements, which is why we are able to produce all the reports needed from us."* R10 also added that *"Yes, they have the required skills; they do have the minimum requirements for their positions."*

The findings of this study noted that the presence of well-qualified individuals in key positions contributes to the effective functioning of both Finance and ICT departments. This effectiveness is essential for maintaining the operational integrity and achieving the objectives of these departments. Therefore, the presence of qualified personnel ensures that the departments can perform their duties efficiently, produce necessary reports, and meet their operational objectives. Accounting and ICT skills were discovered to be important in IFMIS deployment (Makiya, 2020:5388).

6.4.4.8 Conclusion on Theme 4

An analysis of the best practices of the FMIS in municipalities reveals several important insights about the key officials involved in the introduction of IFMIS, project leadership during the new development of systems, and document management, security, and backup data. Firstly, the respondents generally agreed that the system vendors provide training; however, there is a need for better skills transfer to municipal officials, comprehensive utilisation of all system modules, and more specialised training to be provided for ICT officials to ensure effective technical support. Secondly, the key participants to be trained for IFMIS were regarded as officials from the Finance and ICT departments, as well as secretaries, given their interactions with the system. Proper training for these officials will improve efficiency, reduce errors, and enhance interdepartmental coordination and productivity. Thirdly, the findings revealed that there is a lack of consistent approach to project leadership in IFMIS implementation across municipalities. A dedicated, consistent, and specialised project leadership structure is necessary for effective and sustainable IFMIS implementation and management.

Fourthly, the findings revealed that most municipalities lack proper document management systems. Investment in digital document management solutions for efficient scanning, storage, and retrieval is essential to mitigate risks and improve operational efficiency. Therefore, identifying and adopting best practices from municipalities with robust systems is

recommended. Fifthly, the findings showed that despite the efforts to improve, significant gaps in data security remain a huge challenge, and adequate server capacity and infrastructure readiness are important for the successful implementation of IFMIS. It was noted that success in some municipalities was attributed to careful planning and procurement of hardware and software before the implementation of IFMIS. However, the findings indicated that some municipalities faced challenges due to outdated systems, highlighting the need for continuous assessment and enhancement of ICT capabilities. Lastly, the presence of well-qualified individuals in key positions in the Finance and ICT departments is crucial to ensuring effective performance of duties, the production of necessary reports, the achievement of departmental objectives, and the successful implementation and management of IFMIS in municipalities.

6.4 Summary of the chapter

The data analysis and result interpretation were the main topics of this chapter. Table-based cross-case synthesis was used to accomplish this. Based on the sub-objectives, or sub-themes, of the major objectives, the data was analysed. In addition, this chapter thoroughly addressed each of the study's themes, objectives, and questions. The first theme and objective were to examine the current FMIS used by the selected municipalities. The second theme and objective were to establish the extent to which FMIS were used by selected municipalities. The third objective and theme were to determine the factors that affect the successful implementation of IFMIS and, lastly, the fourth objective and theme were to explore the best practices of FMIS in selected municipalities in KZN.

The following chapter will present the discussion and interpretation of the results of this study.

CHAPTER SEVEN

DISCUSSION AND INTERPRETATION OF RESULTS

7.1 Introduction

The research interviews that were conducted with the senior officials from each of the chosen municipalities produced the study's conclusions, which were reported in the preceding chapter. This chapter's main focus is on discussing and interpreting the research's primary findings in light of the study's topics and goals. The study's results are examined in relation to the review of the literature. This is to determine whether the study's research objectives and questions are addressed. As indicated in Chapter One, the main aim of this study was to evaluate the application of the IFMIS in selected municipalities in KZN and to develop an IFMIS framework that is suitable for implementation by municipalities.

7.2 Discussion of findings as per research objectives and themes

This section presents the findings of the study, focusing on the themes that were identified during the study and how they relate to the study's objectives.

7.2.1 Current FMIS adopted by municipalities

The study findings indicate that the municipalities are using different FMIS, which are SAGE Evolution, SAP ERP, Payday, and VIP systems for payroll. It was also noted that, in addition, other municipalities use the Case Ware system. Ayoo (2020:35) argues that the fundamental components of a reliable and effective IFMIS are sound systems, robust legal frameworks, and a productive and capable civil service. This study found that the municipalities are not fully compliant with the requirements of Section 32 of the MFMA, which deals with UIFW expenditures. The findings of this study reveal that UIFW expenditures are incurred due to the municipalities paying for the modules on their financial management information system that are not being utilised, therefore contributing to the UIFW expenditures. These study findings underscore the challenges faced by municipalities with regard to the UIFW, which are a result of the weaknesses of internal control, the inability to follow SCM processes, a lack of oversight,

and not complying with budget regulations. These findings corroborate the literature by Gcora-Vumazonke (2021:49), which indicates that UIFW expenditure in South African municipalities across all provinces totalled sixteen billion rands in the 2018–2019 budget year, which is a fifty percent increase over the previous six years. Furthermore, all provinces' municipal spending exceeded the funds allocated in the budget (Gcora-Vumazonke, 2021:49).

The literature confirms that issues such as a lack of adequate internal controls and poor financial management, have a negative impact on the financial performance of municipalities (Nzama, 2019:1514). Municipalities become contributors in the three categories of inadequate financial management: irregular expenditure, unauthorised expenditure, and fruitless and wasteful expenditure (Nzama, 2019:1514). This emphasises the need for improved financial management practices and adherence to MFMA and budget regulations. Consistent instances of UIFW expenditures necessitate strengthening compliance with SCM policies, rules, and legal frameworks (Sibanda et al., 2020:1). Beda (2019:80) proclaims that a contributing factor to inadequate service delivery is a lack of financial control. According to AG, UIFW expenditures by municipalities increased by 75% during the 2026–2017 financial year compared to prior years.

The study findings further noted that policies covering various financial sectors are established by municipalities. However, emphasis is needed to ensure policies reflect a commitment to governance, transparency, and accountability. The literature corroborates that sound financial management practices must be in place for the long-term sustainability of municipalities (Gcora-Vumazonke, 2021:44). On the other hand, Ncamphalala (2019:131) proclaims that municipalities are prevented from being smart not because there are no policies, but because officials interpret the policies incorrectly, which leads to inadequate service delivery. Promoting adherence to the policies controlling the system is necessary to improve the county's financial reporting process (Muriithi and Wamiori, 2020:55).

The study emphasises the importance of these policies as the foundational framework for promoting good governance, transparency, accountability, and efficiency within municipal finance. The literature by Ncamphalala (2019:50) concurs that the several policy objectives are to address the organisation's ICT service accessibility, availability, and affordability challenges. Furthermore, the literature by researchers' highlights that on the AGSA

Consolidated Report for local government audit outcomes of 2018–2019, only 2% of all municipalities were found to be fully compliant with SCM legislation, due to uncompetitive and unfair procurement processes and inadequate contract management (Niekerk and Sebakamotse, 2020:275). Gcora-Vumazonke (2021:49) proclaims that due to these irregularities, there was a continuous rise in public debt, budget deficits, and weak financial performance, which made the implementation of IFMIS for municipalities necessary.

The overall findings of this study under this theme indicate an emphasis on the need for improved financial management practices and adherence to MFMA and budget regulations. The literature reveals that there are several ways in which IFMIS can enhance municipalities financial management, and that it also influences the impact of the systems on internal control over financial performance (Ayoo, 2020:40). One is improving the budget's trustworthiness and confidence by means of substantial transparency and complete information. The policies reflect a commitment to governance, transparency, and accountability, providing a foundational framework for good financial management practices. The literature validates the importance of having a clear understanding of the regulations and policies governing public financial management in order to grasp financial management in the context of the public sector (Gcora-Vumazonke, 2021:44). The findings also corroborate the literature by Ayoo (2020:25), where it indicates that developing policies and legislation that aim to provide guidance that will promote financial accountability; transparency is regarded as a good practice in the local government sphere and to also assist the Treasury and the AGSA. Beda (2019:29) concedes that to optimise resources and demonstrate transparent financial management, municipalities must create institutional policies that include efficient administrative procedures and financial governance frameworks.

Structured approaches are needed to effectively address audit findings. These study findings highlight the need for continuous improvement in FMIS functionality, policy development, implementation, and compliance. This will, therefore, support effective financial management practices and promote transparency and accountability in municipal finance. Gcora-Vumazonke (2021:44) asserts that in South African municipalities, responsible financial management has the ability to support the processes of flexibility and accountability, which might guarantee that municipalities are able to manage and spend public resources in an effective and transparent manner.

7.2.2 Extent to which FMIS are used

The study findings reveal that the majority of municipalities are facing challenges with the full integration of their FMIS due to legacy systems and complex processes, leading to data discrepancies and increased errors from manual data capture. These findings are supported by the literature, as it indicates that despite the fact that FMIS had been introduced, municipalities were still having difficulties implementing it as a tool to achieve and enhance financial management (Gcora-Vumazonke, 2021:212). The study findings also corroborate the literature by Amukhuma (2018:26) that the municipalities encountered challenges with software integration, data management, roll-out strategy, legal and administrative procedures, IT infrastructure, outsourcing contracts, and IT skills during the deployment of IFMIS.

Moreover, only a few municipalities have achieved full integration, enabling seamless interaction between systems like payroll, SCM, and the banking online system. Ndegwa and Mungai (2019:272) elucidate how IFMIS, as a management tool, helps management to better utilise budgeted resources, achieve results at the lowest possible cost, prioritise spending across policies, projects, and programs, and control spending and deficits. This study suggests that enhanced FMIS integration is crucial for optimising performance and supporting financial management processes.

The findings of this study also noted the adequacy and frequency of FMIS training programmes, which were not as regular for the relevant personnel, particularly for updated systems like mSCOA. As per the literature, inadequate incentives, lack of support, reluctance to change, lack of knowledge, education level of system users, and insufficient supply of system training are among the issues faced by FMIS users (Kofahe et al., 2019:33). The literature by Safo (2020:38) also suggests that to ensure that staff members are fully capable of carrying out their administrative duties, training on the new legal and regulatory environment is important. Moreover, in the early stages of IFMIS development, new codes, classifications, business procedures, and practices must all be completely established.

The study findings further noted the seamless integration between sub-modules and GL; however, there were gaps identified with regard to the coverage of all GL modules on the FMIS. The study further noted that there was no standardised practice for updating the system to maintain system efficiency and compliance. FMIS solutions can improve the efficiency and

equity of government procedures, and good FMIS deployment improves financial control and reporting (Pasape and Godson, 2022:522). The study recommends that robust reporting functionalities are essential for effective financial management. The overall findings under this theme point out that municipalities are at different stages of FMIS implementation and integration.

7.2.3 Factors affecting the successful implementation of IFMIS

The study findings reveal that there are several internal and external factors influencing the successful implementation of IFMIS by municipalities. These factors play a crucial role in determining the success of the system's development and integration into municipal operations.

7.2.3.1 Internal factors

Based on the respondents' insights and study findings, the following internal factors were identified:

- **Frequency of training and staff development**

This study found that selective methods were used for training participants, which indicates gaps in the training provision that need to be addressed to ensure effective management of IFMIS. It is clear that there is inconsistency in staff training and development. The study revealed that while some municipalities provide regular training on financial management practices such as GRAP, mSCOA, and MBRR, others lack consistency. Some staff members receive training multiple times a year, particularly on mSCOA, whereas others have not had training for an extended period. The study revealed that training opportunities are often limited to specific individuals or sections, particularly the Budget and Reporting section, leaving other areas undertrained. This selectiveness creates gaps in knowledge and hinders the overall implementation process.

Amukhuma (2018:34) asserts that system improvements are typically hampered by the government's inability to solve issues relating to human resources, such as hiring qualified personnel, manpower planning, providing alluring staff training and incentives. Additionally, Zenebe (2020:24) indicates that human concerns have the biggest influence on the processes and that successful implementation is a result of attention being given to these concerns. Additionally, it was pointed out by Beda (2019:79) that the municipalities have to deal with a

workforce devoid of training, insufficient training, a skills shortage, succession planning, and the transfer of skills. This highlights the reality that most South African municipalities are devoid of the necessary technical expertise.

- **Cash flow management strategies**

The study findings also indicate that there are inconsistencies in the preparation of cash flow management strategies and plans. The study recommends standardised guidelines and procedures to ensure these strategies align with other financial policies and systems. Mugenyi et al. (2020:1440) affirm this finding, asserting that by increasing the accuracy of projecting future financing needs, IFMIS has had a significant impact on the budgeting process and better managing the much-needed cash flow projections.

- **Resistance to change**

Another finding discovered by this study is that users generally adapt to new changes; however, initial resistance is common due to uncertainty and comfort with the existing systems, and resistance stems from the fear of the unknown. The finding is affirmed by the literature by Wasihun (2018:20), which proclaims that various stakeholders in the organisation, including persons with vested interests who profited from earlier approaches, government servants who perceive change as a threat to their careers, and others who are afraid of change, might be the source of opposition to change. These study findings are also corroborated by the literature, which indicates that humans are naturally resistant to change; therefore, given that the system is new, some resistance is inevitable (Ngetich, 2018:29). The literature further indicates that the easiest way to overcome resistance to change is to make sure that there is clear communication, education, and training, as well as “quick wins” that highlight the advantages of the change (Ngetich, 2018:31). Therefore, it is crucial to do a thorough change management exercise or training in order to overcome the resistance (Ngetich, 2018:29). This study discovered that despite initial resistance, most users eventually adapt and accept new systems, particularly when supported by effective change management strategies, including comprehensive training and clear communication.

- **Communication channels**

Effective communication channels ensure that changes associated with IFMIS are clearly communicated to all stakeholders. This includes detailing what the changes are, why they are necessary, and how they will impact the daily operations of the municipality. Regular updates about the progress of the IFMIS implementation, including any issues encountered and resolutions, help keep all stakeholders informed and engaged. This ongoing communication builds trust and fosters a collaborative environment (Gcora and Chigona, 2019:8). Using standardised communication channels, such as official emails and internal newsletters, ensures that the same message is conveyed to all stakeholders. This consistency helps prevent misunderstandings and ensures that everyone has the same information (Amukhuma, 2018:15).

The majority of respondents indicated that emails are the primary mode of communication for disseminating information related to IFMIS. Emails are used to circulate updates, changes, and new procedures to all users, ensuring that everyone is kept informed (R5, R9, R10). Respondents noted that their municipalities adhered to structured communication protocols. This involves management first discussing and devising strategies for changes before cascading the information down to their subordinates (R10). Where changes affect specific sections or roles, the study found that communication is targeted to those areas to ensure that the relevant stakeholders are adequately informed and prepared (R9). Additionally, the findings of this study indicate that not all staff members received the same level of communication, with certain sections being more informed than others. This selective dissemination can create gaps in knowledge and hinder the overall effectiveness of the IFMIS implementation (R6, R5). Clear communication helps reduce resistance to change by providing transparency and reducing uncertainty (Amukhuma, 2018:17).

- **Behaviour and Attitude Towards IFMIS Implementation**

The initial resistance to change among employees is a significant behavioural barrier. This resistance often stems from a comfort with existing systems and a fear of the unknown associated with new technologies (Wasihun, 2018). When employees are accustomed to certain processes and routines, any disruption can lead to apprehension and reluctance. For instance, respondents in the study noted that staff members who are used to the old system display

resistance when asked to adopt new systems like IFMIS, citing concerns over potential complexities and disruptions to their workflow (R3). This resistance is exacerbated by a lack of understanding and familiarity with the new system, which can result in a negative attitude towards its implementation. Effective change management strategies are essential to mitigate these issues. Providing comprehensive training and clear communication about the benefits and functionalities of IFMIS can significantly reduce resistance and foster a more positive attitude towards change (R4).

Moreover, the adaptability and eventual acceptance of IFMIS by employees are crucial for its long-term success. Despite initial resistance, many respondents observed that employees eventually adapt to and accept new systems, especially when they are well-supported throughout the transition process (R6). Continuous support, training, and the involvement of users in the implementation process can facilitate this transition. For example, engaging business process owners and ensuring they are involved in decision-making processes related to system changes can enhance their acceptance and cooperation (R9). Additionally, clear and consistent communication about updates, changes, and the overall benefits of IFMIS can help in building a positive attitude among users. As noted by several respondents, the presence of a supportive work culture where employees are encouraged to learn and adapt plays a significant role in how they perceive and embrace new systems (R10). The successful implementation of IFMIS, therefore, hinges not only on the technical aspects but also on the behavioural and attitudinal responses of its users. Addressing resistance proactively and fostering a culture of continuous learning and adaptation are vital for ensuring the smooth integration and effective utilisation of IFMIS in municipal operations (Gcora and Chigona, 2019:5).

- **Implementation of AGSA Recommendations**

AGSA's recommendations often focus on enhancing data security, system integration, and policy alignment, which are essential for maintaining the integrity and functionality of financial management systems. For instance, one key recommendation is the establishment of off-site backups to ensure data security in case of localised failures. This recommendation highlights the need for municipalities to invest in robust data protection measures to safeguard financial information against potential threats. Additionally, AGSA suggests the integration of systems to streamline operations and improve efficiency. Municipalities that successfully implement these recommendations demonstrate a commitment to strengthening their financial

management practices, as evidenced by reduced audit findings and improved compliance with financial regulations (AGSA, 2021).

The successful adoption of AGSA recommendations facilitates better governance and accountability within municipalities. By aligning policies with advanced financial systems like SAP ERP, municipalities can ensure that their operational frameworks support the sophisticated functionalities of modern IFMIS. This alignment not only helps in achieving regulatory compliance but also enhances transparency in financial reporting. For example, the implementation of Governance, Risk, and Compliance (GRC) modules to manage user access and monitor audit trails significantly reduces the risk of fraud and errors. The proactive approach of municipalities in addressing these recommendations reflects a broader commitment to continuous improvement and adherence to best practices in financial management. Ultimately, the consistent application of AGSA's guidelines fosters a culture of accountability and efficiency, which is pivotal for the sustainable development of municipal financial systems (Gcora-Vumazonke, 2021:114).

7.2.3.2 External factors

External factors influencing the successful implementation of IFMIS in municipalities include:

- **Support from other organs of state**

The study findings further noted that there is substantial support from the national and provincial treasuries, particularly in system implementation such as mSCOA, and the support indicates strong oversight and assistance in achieving municipal goals. Gcora-Vumazonke (2021:50) asserts that to guarantee effective financial management, all municipalities must design and approve a fully compliant budget in addition to implementing their FMIS in accordance with the mSCOA criteria. It was also noted that the successful implementation of AGSA recommendations also shows a commitment to improving financial management practices. The literature validates that the AGSA is in charge of monitoring and assessing financial statements, accounts, the state of financial management, and government department performance (Gcora-Vumazonke, 2021:45). Moreover, the AGSA report's conclusions are essential for figuring out if the municipality has effective or ineffective financial management (Gcora-Vumazonke, 2021:45).

National Treasury (2018:4) proclaims that the higher levels of cooperative government are brought about by mSCOA's improved accountability and transparency, which raises service delivery standards, improving the audit process in municipalities, which creates stability and consistency. This study finds that provincial and national treasuries play a crucial role in monitoring and comparing municipal performance, where external oversight promotes continuous improvement and adherence to standards, benefiting overall municipal performance. The literature validates that the National Treasury of South Africa mandates that all municipalities in provinces are required to have the financial information systems set up to function in accordance with the guidelines established for the Standard Chart of Accounts (Gcora-Vumazonke, 2021:50). Therefore, the general findings under this theme emphasise the importance of addressing gaps, standardising cash flow management strategies, managing resistance to change with effective communication and training, leveraging support from treasuries, and utilising external oversight to enhance municipal financial management practices.

- **External Oversight and Comparison**

External oversight and comparison play a crucial role in the successful implementation of IFMIS in municipalities. This oversight is primarily conducted by provincial and national treasuries, which monitor and compare the performance of municipal financial management systems to ensure compliance with national standards and regulations. According to the study findings, these treasuries provide substantial support, including training and workshops, particularly in the implementation of systems like mSCOA. This support ensures that municipalities not only meet deadlines but also adhere to the best practices in financial management. Mugenyi et al. (2020:1438) highlight that the IFMIS improves the efficiency of forecasting future funding requirements and enhances better management of cash flow projections, which are essential for maintaining fiscal discipline and ensuring the financial stability of municipalities.

Furthermore, the external oversight includes periodic audits and reviews to assess the effectiveness of the systems in place. This process often involves comparing the capabilities and performance of different municipalities' financial systems. Such comparisons, as noted in the study, are typically carried out by the national treasury, which examines whether municipalities are submitting reports on time and using the correct management information

systems. This benchmarking process not only identifies areas for improvement but also fosters a culture of continuous improvement and accountability. For instance, Gcora and Chigona (2019:3) argue that effective oversight and the pressure to conform to best practices can lead to significant enhancements in the implementation and functionality of financial systems. This external pressure encourages municipalities to learn from one another and adopt practices that have been proven effective elsewhere, thereby improving their overall financial management capabilities. Thus, external oversight and comparison are pivotal in driving the successful implementation of IFMIS, ensuring that municipalities maintain high standards of financial governance and accountability.

- **Comparison with Other Municipalities**

Comparison with other municipalities emerges as a critical factor influencing the successful implementation of IFMIS. This comparison, often driven by external oversight from provincial and national treasuries, provides a benchmark for performance and adherence to standards. Provincial and national treasuries monitor and assess municipalities' financial management systems, ensuring they meet required standards and timelines. For instance, as noted by R5, provincial treasuries evaluate municipalities' reports, ensuring timely submission and compliance with the correct management information systems. This external scrutiny creates an environment where municipalities are indirectly compared based on their performance and compliance, fostering a culture of continuous improvement and adherence to best practices. The oversight by national the treasury, as mentioned by R9, includes system audits and references to municipalities performing better, thereby encouraging underperforming municipalities to enhance their systems to meet or exceed the standards set by their peers.

Furthermore, the comparison extends beyond external pressures to include internal benchmarking and learning opportunities among municipalities. Some respondents acknowledged that observing the performance and practices of other municipalities inspires them to adopt similar or improved strategies. As R7 stated, the goal of any municipality is to perform well, and learning from better-performing counterparts is part of that aspiration. This comparative analysis not only highlights areas for improvement but also motivates municipalities to innovate and upgrade their financial management systems to achieve parity or superiority. Additionally, such comparisons can lead to the adoption of user-friendly and efficient financial systems, as noted by R1, where municipalities communicate with sister

municipalities to share insights and strategies. This collaborative approach ensures that municipalities do not operate in isolation but benefit from collective knowledge and experiences, ultimately leading to a more effective implementation of IFMIS.

7.2.4 Best practices of FMIS for the municipalities

The most effective FMIS practices for municipalities were identified by the study's findings.

- **Training and Support from System Owners**

Effective training and continuous support from system owners are critical for the successful implementation of FMIS in municipalities. Respondents in the study indicated that while training is generally provided by system vendors, there is room for improvement, particularly in terms of skill transfer and comprehensive utilisation of all system modules. It was discovered that while system vendors provide training, there is a need for better skills transfer to municipal officials. This highlights the importance of not just offering training but ensuring that it is thorough and enables municipal officials to fully leverage the capabilities of the FMIS.

- **Training of Key Officials on IFMIS Implementation**

This study also notes that officials from finance and ICT departments, as well as secretaries, are regarded as key officials for IFMIS training due to their interactions with the system. Training key municipal officials, including finance officers, ICT professionals, and secretariats, is another best practice for FMIS implementation. The study underscored the necessity of training all system users as they interact with the FMIS on a daily basis. Comprehensive utilisation of all system modules and specialised training for ICT technicians are necessary to ensure effective technical support. These study findings are validated by the literature, which indicates that the system's successful implementation in municipalities is largely due to the focus on capacity building, which was achieved by holding multiple training sessions for different stakeholders (Ngetich, 2018:35). Beda (2019:116) concurs and proposes that managers at all levels within departments should get continual training. Simiyu (2018:32) asserts that it was discovered that the system's hastily implemented nature and lack of training had resulted in poor capacity and specialised competence.

- **Project Leaders and Their Roles in IFMIS Implementation**

Having a dedicated and knowledgeable project leader or champion is vital for the successful implementation of IFMIS. The presence of a project leader ensures that there is a clear vision and direction for the project, along with a structured approach to manage and oversee the implementation process. This leader should have a thorough understanding of the working environment and the technical requirements of the financial systems to be integrated. The study revealed mixed responses regarding the availability and effectiveness of project leaders in municipalities. A consistent and specialised project leadership structure is essential to addressing these gaps (Njuguna, 2020:101). A project leader who collaborates with external experts and facilitates knowledge transfer can significantly enhance the implementation process, ensuring that all stakeholders are aligned and informed about the project's progress and objectives (Amukhuma, 2018:24).

- **Data Security, Backup, and Document Management System**

Ensuring robust data security, reliable backup systems, and efficient document management are essential components of an effective FMIS. Municipalities must invest in comprehensive digital document management solutions that allow for efficient scanning, storage, and retrieval of documents. This practice mitigates the risk of data loss and improves operational efficiency. The study indicated that while some municipalities have adequate data security and backup systems, others face significant challenges. Implementing a rigorous backup protocol and regular testing of these systems can enhance data integrity and operational resilience. Additionally, integrating a proper document management system can streamline processes and ensure that critical information is accessible and secure, thereby supporting the overall effectiveness of the FMIS (Mugenyi, 2020:1440).

- **Champion's Understanding of Environment and Systems Integration**

The system champion or relevant person must have a deep understanding of the working environment and the systems to be integrated. This knowledge is crucial for anticipating challenges and ensuring that the implementation process is smooth and efficient. The presence of an experienced champion can bridge gaps in knowledge and provide valuable insights into optimising the FMIS. Municipalities with knowledgeable and experienced champions reported

more successful implementations of their FMIS. Continuous training and the involvement of external experts can further enhance the champion's effectiveness. Structured knowledge transfer and system integration are key strategies to ensure that the FMIS meets the specific needs of the municipality and supports its financial management goals (Njuguna, 2020).

- **Capacity of the ICT Servers**

Adequate ICT infrastructure, particularly server capacity, is fundamental for the successful implementation of FMIS. Proper planning and procurement of necessary hardware and software are essential to support the system's requirements and ensure its smooth operation. Municipalities must regularly assess and upgrade their ICT capabilities to keep pace with technological advancements and project demands. The study highlighted that municipalities with upgraded servers and robust ICT infrastructure experienced fewer challenges during FMIS implementation. Conversely, those with outdated systems faced significant obstacles. Therefore, investing in modern ICT infrastructure and ensuring it meets the project's requirements is a best practice that can significantly enhance the effectiveness of FMIS implementation (Njuguna, 2020).

- **Relevant Skills for Finance and ICT Officials**

Ensuring that finance and ICT officials possess the relevant skills and qualifications, is crucial for the effective operation of FMIS. Well-qualified individuals in key positions contribute to the efficient functioning of these departments, enabling them to meet their operational objectives and produce necessary reports. The study confirmed that having skilled personnel in finance and ICT departments is essential for the success of FMIS. Continuous professional development and training programmes should be implemented to keep these officials updated on the latest advancements and best practices in financial management and ICT. This approach ensures that the municipality can maintain high standards of performance and adapt to evolving challenges (Makiya, 2020:5390).

7.3 Summary of the chapter

This chapter's main focus was on the discussion and interpretation of the results. This was accomplished by analysing the major conclusions in light of the primary themes that emerged from the investigation. The findings discussion was supported by the review of the existing literature in this area. The findings were discussed in detail, and recommendations for each theme were also highlighted in this chapter.

The next chapter focuses on the conclusions and recommendations of this study, including the framework to be adopted by municipalities.

CHAPTER EIGHT

CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY

8.1 Introduction

Literature indicates that municipalities are faced with challenges without an integrated financial management system, and that these challenges increase the volume of errors, which results in financial losses and the duplication of information. The main aim of this study was to evaluate the application of the integrated financial management information system in the selected municipalities in KZN and to develop an IFMIS framework that is suitable for implementation by municipalities. Therefore, the focus of this chapter is on the summary of the findings of this study; conclusions about the objectives; the implications, limitations and recommendations based on the results of the study; recommendations for further research; a summary of the study and the conclusions of the chapter.

8.2 Summary of findings from the empirical study

This section summarises the key findings of this study in relation to the objectives outlined in Chapter One. The goal is to address the research questions based on these findings, paving the way for recommendations and ultimately achieving the study's main aim.

8.2.1 Objective one: To examine the current FMIS used by the selected municipalities in KZN

This objective was developed in response to a research question that sought to identify the current FMIS used by the selected municipalities in KZN. The analysis of the current FMIS adopted by municipalities in KZN reveals several key insights regarding their functionality, policies, implementation status, and compliance with regulatory frameworks. The findings underscore the importance of continuous improvement in FMIS functionality, policy development, implementation, and compliance. These improvements are crucial to supporting effective financial management practices and promoting transparency and accountability in municipal finance.

- **UIFW Expenditures and Internal Controls**

Over the past three years, municipalities have incurred Unauthorised, Irregular, Fruitless, and Wasteful expenditure. This issue is primarily due to weaknesses in internal controls, non-compliance with SCM processes, and the underutilisation of FMIS modules. This expenditure highlights the need to enhance financial management practices and adhere to budget regulations as outlined in the Municipal Finance Management Act.

- **FMIS Policies**

This study found that municipalities use various policies covering credit control, SCM, budget, assets, expenditure, debt, liability, property rates, tariffs, investment, cash management, ICT, and overall finance-related policies. This demonstrates a comprehensive and varied approach to financial management across the municipalities. This study concludes that municipalities have established FMIS policies covering various financial management aspects, demonstrating a commitment to governance, transparency, and accountability. These policies provide foundational frameworks to promote good financial management practices and ensure compliance with regulatory requirements.

- **Diverse FMIS Platforms**

While the majority of municipalities utilise the SAGE Evolution system as their primary FMIS, others employ SAP ERP. This indicates a diverse landscape of FMIS platforms across municipalities. Additionally, there is variation in the age and update frequency of FMIS systems, reflecting different approaches to system management and modernisation. Certain municipalities are placing a higher importance on maintaining the existing systems to ensure consistency and stability, while others are focusing on upgrading their systems to incorporate modernisation and innovation.

- **Issues Raised by AGSA**

The AGSA has highlighted issues relating to FMIS, emphasising the importance of addressing system deficiencies and enhancing internal controls. These findings discover that amongst the issues raised by the AGSA, there are systematic and operational gaps within the municipalities' use of FMIS. The underutilisation of available modules indicates a lack of comprehensive

engagement with the system's full capabilities, leading to inefficiencies and audit concerns. These measures are necessary to mitigate audit findings and promote financial accountability.

- **Audit Action Plans**

The preparation and implementation of audit action plans vary among municipalities. Certain municipalities engage their internal audit teams to oversee the process, utilising external audit firms like KPMG and PWC for supplementary assistance. Internal audit sections have a vital role in evaluating the seriousness of discoveries and organising interactions with pertinent departments to guarantee responsibility and monitoring of progress. However, the lack of uniformity in these processes underscores the need for structured approaches to effectively address audit findings.

- **Compliance with Regulatory Requirements**

The study findings acknowledge that the FMIS used by municipalities is in accordance with the requirements specified by the MFMA. Additionally, this study found that the selected municipalities use mSCOA standards as a reference point for the FMIS they have implemented. This demonstrates a gradual method of attaining conformity with established financial reporting standards. However, it has been discovered that the FMIS systems do not fully comply with the mSCOA standards mandated by the National Treasury. As previously stated in the literature section, the mSCOA framework was implemented to guarantee consistency in financial reporting across all municipalities. Thus, by rectifying the deficiencies in adherence to frameworks like mSCOA, municipalities can bolster their financial reporting and improve accountability. Although FMIS systems generally comply with MFMA requirements, there are gaps in alignment with the mSCOA mandated by the National Treasury. Addressing these gaps can strengthen financial reporting practices and enhance accountability within municipalities.

8.2.2 Objective two: To establish the extent to which financial management information systems are used by the selected municipalities in KZN

The objective was developed in response to a research question that sought to establish the extent to which FMIS are used by the selected municipalities in KZN. The analysis of the extent to which FMIS are used by municipalities discovers number of key insights regarding the level

of use of FMIS by municipalities, whether the FMIS used is fully integrated with all other systems used such as the banking system, payroll system and SCM system. The reports produced by the FMIS, the level of understanding by the users, frequency of system updates and modules covered by the FMIS were also evaluated. The study findings underscore the importance of integration; continuous training, standardised update practices; clear communication about system capabilities and robust reporting functionalities. Addressing these gaps can significantly enhance the effectiveness and efficiency of financial management within municipalities.

- **Level of use of FMIS and integration with other systems**

The study acknowledged that the FMIS is used by the relevant officials; however, it was revealed in this study that the modules provided by the FMIS are not fully utilised by the users. Therefore, there are gaps that were noted by this study in the data from the municipalities that have not fully integrated their FMIS yet. The study discovered that in the majority of municipalities, the FMIS are not fully integrated, and are hence impacted by complex processes and are facing several issues with their legacy systems. However, the study acknowledged that a few municipalities have started integrating their FMIS and the integration is revealed as being seamless.

- **FMIS understood by relevant officials**

The findings of the study acknowledged that the FMIS is understood by all the relevant officials working within the Finance and ICT sections, who are working with the system in their daily operations. The study further found that the shortfall was in the consistent improvement on the level of knowledge, innovations and training provided to the relevant officials.

- **FMIS updates and modules provided by the system**

The study findings acknowledged that the updates on the FMIS are done; however, there is no consistency on the updates of FMIS as some municipalities update annually, others bi-annually and yet others as and when required by the system versions. The study found that the modules of the FMIS used by municipalities provide for all the general ledger accounts; however,

potential gaps in understanding the system capabilities in relation to the GL modules were also noted on this study.

- **Reports produced by the FMIS**

The findings of the study acknowledged that the FMIS used by municipalities is capable of producing various reports and that these were produced regularly, and as frequently as required. The types of report provided by the FMIS vary and depend on the nature of the roles of the officials producing the reports. The study discovered that the FMIS is capable of producing different types of reports on a regular basis and whenever they are needed for compliance purposes.

8.2.3 Objective three: To determine factors that affect the successful implementation of IFMIS by municipalities

This objective was created in response to a research question that sought to determine the factors that affect the successful implementation of IFMIS by municipalities. The determination of the factors that affect the successful implementation of IFMIS reveals several insights regarding the frequency of training for the relevant officials; inconsistency of the compilation of cash management strategies by municipalities; inadequate process on the payment of creditors; support received from other organs of state; how municipalities attend to the AGSA recommendations, and how the users of the system receive change that comes with the system. The study findings underscore the importance of addressing the training gaps, standardised cash flow management strategies and effectively managing resistance to new innovations for the successful implementation of IFMIS and continuous improvement of financial management practices

- **Staff training**

The study findings acknowledged that there are training sessions provided on the system, particularly mSCOA. However, it is only selective individuals from the Budget section that attended these trainings. The study found gaps in terms of the frequency of training provided and the selection process of the individuals for training. It also did not cater for all the relevant

users. The study revealed some deficiencies on the system training and the need for more frequency of training was identified and noted on this study.

- **Cash flow management strategy**

The study findings outlined that the municipalities have cash flow management strategies in place; however, the study noted some inconsistencies in the preparation and integration of the strategy to policies and systems of the municipalities. The study noted that having proper cash flow management strategies that are linked to policies will enhance better management of cash flow projections, improve budget compliance and guide municipalities in terms of cash availability.

- **Timeous payment of creditors**

The study findings discovered that most versions of FMIS used by the municipalities do not detect when an invoice is due for the payment. However, it was noted that FMIS have the capabilities to detect this but that the municipalities are not fully utilising the functions of the FMIS. The study further discovered that the municipalities that have fully integrated their systems were able to detect when the invoice is due for payment. These discrepancies amongst the FMIS raises significant concerns about the efficient and compliance of the payments processes within municipalities.

- **Support received from other organs of state**

The study findings acknowledged that there was substantial support received from NT and PT treasuries, particularly in the implementation and updates of mSCOA. This support was noted by the study as an indication of direct oversight and assistance in achieving the municipal goals. The study found that this support is expected to enhance municipalities' ability to meet compliance requirements and effectively implement new systems, thereby fostering improved financial management and governance practices across various levels of government in SA.

- **AGSA recommendations**

The study findings revealed several issues and recommendations raised by the AGSA on the FMIS usage and implementation in municipalities. Amongst other issues raised by the AGSA,

was the systematic and operational gaps within the use of FMIS; the focus on improving aspects such as data security, system integration, and policy alignment within FMIS frameworks. It was noted that the AGSA highlighted the need for municipalities to address the identified issues and repeated findings promptly and to ensure compliance with audit recommendations and improvement with the usage of FMIS. The study further found that the establishment of management committees such as an audit steering committee are crucial for maintaining a consistent focus on addressing AGSA recommendations. Adherence to the AGSA is necessary as they play a significant role in promoting accountability and fostering sound financial governance practices throughout SA by providing independent assurance to legislatures on whether entities managing public funds have adhered to established financial principles.

- **Changes influenced by implementation of IFMIS**

The study findings acknowledged the positive responses from the users who are generally accepting of change, adapting to the change and proactive in embracing new changes. However, it was also discovered by this study that effective change management processes and a supportive work culture are needed within the municipalities. The study further found that initial resistance to change is natural and often stems from uncertainty about the unknown. The study findings stress the importance of implementing effective training and communication strategies to facilitate the smooth transition for users. Therefore, by addressing these factors, the municipalities can further enhance user acceptance and ensure successful implementation of new initiatives or systems.

8.2.4 Objective four: To explore best practices of FMIS for the municipalities in KZN

This objective was initiated in answering the research question that sought to explore the best practices of FMIS for the municipalities in KZN. The analysis of the best practices of FMIS for the municipalities revealed a number of key insights concerning the communication channels on change management the support received from the system owners, the competency of the project champion; the data security; system backup; document management system, and the capabilities of the ICT server in the selected municipalities which were evaluated and analysed. The study findings underscore the necessity of robust training, specialised project leadership, effective document management system, and strong data security for the successful implementation of IFMIS in municipalities. The success of IFMIS implementation in

municipalities is linked to careful planning and procurement of necessary hardware and software, and the need for continuous ICT capabilities assessment and enhancement.

- **Communication channels on change management**

The study findings acknowledged that there is a structured approach to communication channels within municipalities, primarily utilising emails. The study further discovered that more and different kinds of communication channels could still be utilised. It was noted that adherence to the strategic communication channels ensures that updates and changes are effectively and efficiently communicated to all the relevant users of the systems. The structured approach helps maintain clarity, consistency, and accountability in communication processes, thereby facilitating smoother coordination and implementation of initiatives such as IFMIS.

- **System vendors support**

The study findings acknowledged that there is support received from the system owners or vendors; however, there was a notable perception from the users that improvements were needed to ensure skills transfer to municipal officials. Additionally, the study found that there was a need for enhanced training for the ICT officials who provide technical support. Therefore, the study findings noted that, while system vendors generally offer adequate support and training, there are significant opportunities for improvement which were identified. The study further highlighted that addressing these gaps would lead to more effective utilisation of IFMIS systems and better support for municipal operations.

- **Project leader or champion**

The study findings highlighted a notable inconsistency in the project leadership approach during the implementation of IFMIS in the municipalities that have started the implementation stages. The study findings further revealed that the variability in leadership had resulted in different levels of effectiveness throughout the implementation process. Consequently, the study underscores the critical necessity for a dedicated, consistent, and specialised project leadership structure to ensure the successful and sustainable implementation and management of IFMIS moving forward.

- **Data security, backup and document management system**

The study findings identified the widespread consensus regarding the inadequate document management systems in most municipalities, highlighting it as a major area of concern. The study found that there is a pressing need for municipalities to invest in digital solutions that facilitate efficient scanning, storage, and retrieval of documents to mitigate risks associated with physical document loss and enhance overall operational efficiency. The study further emphasised the importance of adopting best practices from municipalities with robust systems. It underscored the ongoing efforts to improve data security and document management despite significant gaps. The study suggests prioritising enhanced infrastructure; comprehensive document management systems; regular testing of backup protocols, and leveraging specialised expertise as crucial steps towards ensuring both data integrity and operational resilience within municipal contexts.

- **ICT capacity**

The study findings underscore the critical role of adequate server capacity and infrastructure readiness in the successful implementation of IFMIS. The study further acknowledged that this was highlighted as the positive outcome as reported by the major municipalities. Careful planning and proactive procurement of necessary hardware and software were identified in this study as the key factors contributing to the success observed by some municipalities. Conversely, challenges were noted by this study in the municipalities with outdated systems. This study placed emphasis on the importance of proper planning, procurement, and upgrading of ICT infrastructure. The study further advocates for continuous assessment and enhancement of ICT capabilities within the municipalities to effectively support ongoing and future projects, ensuring sustained success in IFMIS implementation efforts.

8.3 A suggested framework for Implementing Full Integration of FMIS in Municipalities

To achieve full integration of FMIS across municipalities based on the results of this study, several strategic actions are recommended based on the analysis of current practices, usage extent, factors affecting implementation, and best practices.

8.3.1 Achieving Full System Integration

Achieving and measuring the promotion of system integration in municipalities involves a structured approach with clear steps and metrics. This study proposes an eight-step approach, as explained below.

Step 1: Assessment of Current Systems

Defining clear integration objectives is the first step. These objectives should focus on achieving seamless data flow, real-time data access, and eliminating manual data entry errors. A detailed integration plan outlining steps, timelines, resources, and responsibilities ensures that the project progresses methodically. Milestones and deliverables within the plan provide benchmarks to track progress.

Step 2: Define Integration Objectives

Defining clear objectives for system integration is a crucial next step. These objectives should outline what the integration aims to achieve, such as seamless data flow, real-time data access, and the elimination of manual data entry errors. Clear objectives help guide the project and ensure all stakeholders are aligned with the desired outcomes.

Step 3: Develop an Integration Plan

Creating a detailed integration plan is essential for the successful implementation of FMIS. This plan should outline the steps, timelines, resources, and responsibilities required to achieve system integration. Including milestones and deliverables in the plan helps track progress and ensures that the project stays on schedule. A well-structured plan provides a roadmap that guides the integration process from start to finish.

Step 4: Select and Upgrade Systems

The selection and upgrade of systems are pivotal. Choosing modern FMIS platforms like SAP ERP or SAGE Evolution is essential due to their robust integration capabilities. Upgrading legacy systems to these platforms must be planned and executed meticulously to minimise operational disruptions.

Step 5: Implementation of Integration Solutions

The implementation phase involves utilising middleware and integration tools to enable seamless data exchange between different modules. It is crucial to configure the ERP system so that all relevant data from various modules is correctly mapped and synchronised. This step ensures that the integrated system functions as a cohesive unit, enhancing data accuracy and operational efficiency.

Step 6: Training and Change Management

Providing extensive training to all relevant personnel on the new integrated system is vital for successful adoption. Change management strategies should be implemented to address resistance and ensure a smooth transition. Training programmes should focus on familiarising users with the new system's functionalities and benefits, thereby reducing apprehension and promoting acceptance.

Step 7: Testing and Quality Assurance

Rigorous testing is necessary to ensure that all modules interact seamlessly and that data integrity is maintained. Testing should involve scenarios that mimic real-world operations to validate system performance. Quality assurance measures help identify and resolve issues before the system goes live, ensuring a robust and reliable integration.

Step 8: Continuous Monitoring and Improvement

After implementation, it is important to establish mechanisms for ongoing monitoring of the integrated system's performance. Gathering feedback from users can help identify any issues and areas for improvement. Continuous monitoring ensures that the system remains efficient and effective, adapting to any changes or challenges that arise over time.

8.3.2 Measuring Integration Success

Measuring success involves various metrics that provide a comprehensive view of the integration's effectiveness, ultimately enhancing financial management practices, operational efficiency, and compliance within municipalities. By focusing on these aspects, municipalities

can enhance their financial management practices, reduce errors, and improve operational efficiency, ultimately promoting transparency and accountability in municipal finance.

- **Integration Coverage**

One of the primary metrics for measuring integration success is the coverage of integrated modules. This involves measuring the percentage of critical modules successfully integrated into the ERP system. Assessing whether all intended modules, such as payroll, SCM, and banking, are interacting as planned, is essential. Full integration coverage indicates that the system is functioning cohesively.

- **Data Accuracy and Consistency**

Monitoring data discrepancies and errors before and after integration provides insights into the system's effectiveness. A reduction in manual data entry errors and data discrepancies indicates successful integration. Regular data reconciliation ensures data consistency across modules, which is crucial for accurate financial management and reporting.

- **System Downtime and Performance**

Tracking system downtime and performance metrics is another important measure. Successful integration should result in improved system uptime and faster data processing times. Measuring the response time for data retrieval and transaction processing can highlight improvements in system performance, contributing to operational efficiency.

- **User Satisfaction and Adoption**

User satisfaction and adoption rates are critical indicators of integration success. Conducting user surveys and feedback sessions helps gauge satisfaction with the integrated system. Monitoring user adoption rates and the number of support tickets or issues reported post-integration provides insights into how well users are adapting to the new system.

- **Operational Efficiency**

Improvements in operational efficiency can be measured by reduced time to complete financial processes, faster report generation, and streamlined workflows. Assessing the impact on key

performance indicators (KPIs) related to financial management, such as budget adherence and audit findings, helps determine the integration's effectiveness in enhancing operational efficiency.

- **Compliance and Reporting:**

Evaluating the system's ability to comply with regulatory requirements, including the mSCOA, is essential. Tracking the accuracy and timeliness of financial reporting post-integration ensures that the system meets compliance standards and supports effective financial management.

8.4 Implications of this study

This study has theoretical and practical implications from integrating IDT and TOE theories and provides a comprehensive roadmap for municipalities aiming to adopt and optimise IFMIS. This dual-theory approach not only advances the academic understanding of information systems adoption but also offers practical guidance for policymakers and practitioners seeking to improve financial management systems in the public sector.

8.4.1 Theoretical Implications

The adoption of both IDT and TOE framework in this study provides a comprehensive theoretical foundation for understanding the complexities of IFMIS adoption in municipalities. IDT studies innovations by looking at things like their relative advantage, compatibility, complexity, trialability, and observability. This helps us understand how these qualities affect how well municipal staff accept and use FMIS. The findings of this study underscore the importance of enhancing the perceived benefits of FMIS, simplifying its use, and increasing its visibility and trialability to facilitate broader acceptance. For instance, IDT can help us understand why FMIS modules are not used more and why people do not want to use new systems. This is because IDT stresses that innovations need to be seen as helpful and able to work with current workflows.

On the other hand, the TOE framework extends this understanding by considering the broader organisational and environmental context in which FMIS adoption occurs. This includes organisational factors such as internal policies, leadership support, and the readiness of IT infrastructure, as well as environmental factors like regulatory requirements and external support from national and provincial treasuries. According to the study, there are problems like inadequate training, inconsistent cash flow management strategies, and a need for better FMIS module integration. These findings are in line with the TOE framework's focus on how technological, organisational, and environmental factors interact with each other. By integrating both IDT and TOE, the study presents a robust theoretical model that captures the multifaceted nature of IFMIS adoption, offering valuable insights for future research in the field of information systems implementation.

8.4.2 Practical Implications

From a practical standpoint, the combined application of IDT and TOE theories in this study offers actionable insights for enhancing the adoption and effectiveness of IFMIS in municipalities. The study reveals that many municipalities struggle with fully integrating their FMIS due to legacy systems and complex processes. Addressing these issues requires a strategic approach that considers both the innovative characteristics of new systems (as highlighted by IDT) and broader organisational and environmental factors (as emphasised by TOE). Municipalities should focus on demonstrating the relative advantages of integrated FMIS solutions, ensuring compatibility with existing processes, and providing ample opportunities for trial and feedback to reduce perceived complexity and resistance.

Moreover, the findings suggest that continuous training and clear communication are crucial for successful IFMIS implementation. Practical steps should include regular, comprehensive training programmes tailored to the specific needs of finance and ICT personnel, as well as other relevant staff. These programmes should emphasise not only the technical aspects of FMIS but also its strategic benefits, thereby aligning with both IDT's focus on innovation characteristics and TOE's organisational readiness component. Additionally, the establishment of a consistent project leadership structure can help address the lack of uniformity in audit action plans and the management of FMIS upgrades, ensuring that changes are effectively coordinated and supported across departments.

Environmental factors, such as support from national and provincial treasuries and compliance with regulatory frameworks like mSCOA, also play a critical role in the successful adoption of IFMIS. Municipalities should leverage this external support to enhance their internal capabilities and ensure that their FMIS practices align with national standards. This study highlights the importance of continuous improvement and adaptation, suggesting that municipalities regularly update their systems and practices to keep pace with technological advancements and regulatory changes. By doing so, they can improve financial reporting, enhance accountability, and ultimately achieve better governance and service delivery outcomes.

8.5 Recommendations to municipalities

- **Usage of all modules of the FMIS**

This study recommends that municipalities should ensure that all purchased FMIS modules are effectively utilised. This involves regular assessments of module usage and needs; training staff to use the full capacities of the system to eliminate unnecessary expenditure that contributes to UIFW, and strengthening internal controls to prevent UIFW expenditures. It includes establishing clear procedures, providing regular audits, and ensuring compliance with established financial management practices.

- **Adherence to SCM processes and reduce UIFW**

This study also recommends that municipalities ensure strict adherence to SCM processes. This can be achieved through strict segregation of duties, regular training, monitoring, and evaluation of SCM activities to ensure compliance with policy, framework, and regulatory requirements. It involves increasing oversight to ensure compliance with budget regulations and Section 32 of the MFMA, where regular and thorough internal audits are performed to identify and address non-compliance issues promptly.

- **Implementation of AGSA recommendations**

This study recommends that municipalities regularly address the issues raised by the AGSA to mitigate audit findings and promote financial accountability. The study also recommends that municipalities ensure they implement recommendations from the AGSA to improve financial

management practices through accountability and regular monitoring to assess and identify areas for improvement and share best practices. Moreover, they should develop and implement structured approaches to address audit findings, enhance financial control, and foster a culture of continuous improvement within the municipality, to maintain high standards of financial management.

- **Training of personnel and transfer of skills by system vendors**

Continuous training and capacity building for municipal officials, particularly in the Finance and ICT departments, must be provided to improve skills. Training should cover the effective use of FMIS, adherence to SCM processes, and compliance with finance regulations. This study recommends that municipalities must ensure better skills transfer from system vendors to municipal officials to facilitate the comprehensive utilisation of all FMIS modules and provide specialised training for ICT technicians to ensure they can offer effective technical support. This includes developing tailored training programs for key officials from finance, ICT, and secretaries to enhance their interactions with the system. The study recommends effective training and clear communication strategies to facilitate a successful transformation and change resistance to acceptance.

- **Cash flow management strategies and implementation of FMIS policies**

It is also recommended that municipalities develop and implement standardised guidelines for cash flow management strategies to ensure consistency and alignment with finance policies and systems. It is recommended that they continue to develop and implement policies that reflect a commitment to governance, transparency, and accountability, and that these policies serve as a foundation for promoting good financial management practices.

- **Document management system**

Municipalities should invest in digital document management solutions, which will enhance operational efficiency and mitigate the risks associated with document mismanagement. This study further recommends that municipalities invest in innovative digital management systems for efficient scanning, storage, and retrieval of documents. Municipalities may also identify and adopt best practices from other municipalities with robust document management systems

to mitigate risks and improve operational efficiency. This includes implementing an electronic document management system to enhance procurement processes and access to contract and bid documents.

- **Data security and ICT server upgrades**

The study recommends that municipalities address significant gaps in data security and ensure adequate server capacity and infrastructure readiness, which involves careful planning and procurement of necessary hardware and software before implementing FMIS. This study recommends that the continuous assessment and enhancement of ICT capabilities are necessary, especially for municipalities facing challenges due to outdated systems.

- **Integration of FMIS in municipalities**

The study recommends and accentuates the importance of FMIS integration; continuous training for the relevant personnel; clear communication about the capabilities of the system; standardised system update practices, and robust reporting functionalities. Moreover, it stresses that addressing these areas can significantly enhance the effectiveness of financial management and efficiency within municipalities. This study recommends that municipalities prioritise the full integration of FMIS to enable seamless interaction between systems such as payroll, SCM, and banking systems. This involves updating legacy systems and simplifying complex processes to reduce data discrepancies and errors from manual data capture. The study also recommends that the municipalities focus on technological integration, data quality, and system-to-system compatibility to overcome recognised obstacles in IFMIS implementation

- **Standardised FMIS practices used by municipalities**

The study recommends implementing standardised practices for updating FMIS to maintain system efficiency and compliance, where regular updates are scheduled to ensure the system remains current and functional. It also recommends that municipalities develop and enhance robust reporting functionalities within FMIS to improve financial management and ensure comprehensive coverage of all GL modules, facilitating accurate and timely financial reporting. Additionally, regular assessments of FMIS implementation and integration progress should be conducted and these assessments used to identify areas for improvement and implement

necessary changes promptly. This study further recommends the implementation of comprehensive financial management practices that emphasise governance, transparency, and accountability, which includes developing and enforcing policies that align with the principles of good governance. It is also recommended that municipalities identify and adopt best practices from other municipalities that have successfully integrated their FMIS, as learning from these examples can provide valuable insights to enable strategies for effective implementation.

- **Improvements of internal controls**

Municipalities should improve internal controls related to FMIS to ensure data integrity and accuracy and ensure that practices related to FMIS reflect a commitment to good governance and transparency, which will provide a solid foundation for effective financial management. By implementing these recommendations, the municipalities can enhance the effectiveness and efficiency of their financial management processes, reducing errors and improving overall performance.

- **Development of effective communication strategies**

This study recommends that municipalities implement effective communication strategies to inform and educate relevant personnel about the benefits and necessity of new systems. This includes providing clear and transparent information about the changes, on how they will impact processes and roles within municipalities, and offering support to help staff transition smoothly to new systems, addressing fears and uncertainties.

- **Support from other organs of state**

This study further recommends that municipalities continue to utilise the support from national and provincial treasuries for system implementation and improvements and engage with treasuries to gain insights, resources, and assistance in achieving municipal financial management goals. It is also recommended that they encourage external oversight to promote continuous improvement and adherence to standards of financial management.

- **Dedicated project leader or champion**

It is also recommended by this study that municipalities establish a dedicated, consistent, and specialised project leadership structure to oversee IFMIS implementation and management. Moreover, ensuring that project leaders are well trained and equipped to handle the complexities of IFMIS integration, including managing infrastructure, resources, and data systems, and addressing compatibility problems and skills gaps, are essential. The recommendation from this study is a dedicated, consistent, and specialised project leadership structure as necessary for effective and sustainable IFMIS implementation and management.

- **Hiring of qualified personnel**

It is further recommended for municipalities to hire and retain well-qualified individuals in key positions within the Finance and ICT departments and provide incentives and support to encourage continuous professional development, which will also ensure effective performance and successful FMIS management. Additionally, they should identify various groups within the municipality and assess their degree of knowledge; develop and implement training curricula that target these important audiences to improve efficiency, reduce errors, and enhance interdepartmental coordination and productivity.

By implementing these recommendations, the municipalities can significantly enhance their financial management practices, reduce errors, and improve their overall performance, leading to more efficient and effective management of municipal finance systems. Therefore, adopting best practices from municipalities with robust systems is recommended. The researcher believes that by implementing these recommendations, municipalities can improve the management and implementation of IFMIS, leading to more efficient and effective financial management practices. This will ultimately enhance transparency, accountability, and performance within municipal finance. The researcher believes that by addressing these recommendations, the municipalities can improve their financial management practices, reduce UIFW expenditure, and promote transparency and accountability in municipal finance.

8.6 Limitations and suggestions for future research

8.6.1 Limitations of the study

- Qualitative research studies can have potential bias on the primary data collection methods such as interviews or focus groups are inherently subjective. The way interview questions are framed and how respondents interpret them, can vary significantly. This type of research is also subject to criticism because of limitations such as researcher-related problems and fundamental design limitations. The sample of participants was not representative of the entire population.
- The researcher may unintentionally influence respondents through body language, tone of voice or follow-up questions. The researcher's interpretation and judgment were needed to classify the interview data during the coding phase. Therefore, subjectivity was inevitable and could result in bias in the findings. In order to mitigate subjectivity, measures were implemented to guarantee uniformity throughout interviewing, and the analytical protocols employed in this investigation.
- The sample of participants was not representative of the entire population and this is particularly relevant in qualitative research where purposive sampling is used. The interpretation of the qualitative data relies heavily on the researcher's perspective, which can introduce personal biases.
- There is a lack of comprehensive and publicly available data on IFMIS implementation, which hampers empirical research. Many studies focus on specific countries, making it difficult to generalise findings across different contexts. The fast-paced evolution of technology can quickly render existing research outdated, necessitating continuous updates and new studies. There is limited research on how well current IFMIS frameworks adapt to new technological advancements and emerging threats.

8.6.2 Suggestions for future research on IFMIS

- It is suggested that future researchers study the implementation and outcomes of IFMIS in different countries to identify best practices and common pitfalls. Furthermore, the

researchers can observe the IFMIS implementation in various sectors to understand sector-specific challenges and solutions.

- This study used a qualitative approach. It is recommended that researchers use mixed methods for any future IFMIS research in municipalities to provide a comprehensive understanding of the system's implementation and impact. By combining the depth of qualitative insights with the breadth of quantitative data, researchers can develop robust, well-rounded conclusions and recommendations that address both technical and human factors in IFMIS adoption and usage. This approach can ultimately lead to more effective and sustainable improvements in municipal financial management practices.
- It is recommended for future IFMIS studies that they explore the integration of emerging technologies and big data analytics in IFMIS. It is further recommended that the evolving cybersecurity threats and the effectiveness of current security measure in IFMIS, be researched.
- Future research on IFMIS should aim to address the limitations raised, by leveraging more robust and diverse data sources, employing mixed methods approaches, and focusing on comparative studies that can yield broader insights. By doing so, the researchers can contribute to a deeper understanding of the factors that drive successful IFMIS implementation and assist policymakers and practitioners in their efforts to enhance public financial management.

8.7 Summary of the chapter

The literature review for the IFMIS application in municipalities highlighted critical issues such as insufficient and irregular training for relevant personnel, lack of support, resistance to change, and the absence of standardised practices for system updates, all of which negatively impact system efficiency and compliance. The empirical study underscored the need for improved financial management practices, adherence to MFMA and budget regulations, and continuous FMIS functionality enhancement. It emphasised the importance of developing robust policies and training programs to promote transparency, accountability and efficient

financial management in municipalities. Internal factors such as inconsistent training, poor cash flow management strategies, resistance to change, ineffective communication, and behaviour towards IFMIS implementation were identified as significant barriers. External factors include support from other organs of state, external oversight, and support from system vendors. Best practices for IFMIS implementation involve comprehensive training, support from system owners, strong project leadership, robust data security, and efficient document management systems. The study also noted the importance of continuous improvement and support from external entities in achieving successful IFMIS implementation.

REFERENCES

- Ababneh, R. and Rawabdeh, M. (2018). Factors Affecting the Collection of Revenues as Perceived by Employees of Local Administration in Jordan. *Journal of Management Research and Practice*, 10(4): 46-61.
- Abed, S.S. (2020). Social Commerce Adoption using TOE Framework: An Empirical Investigation of Saudi Arabian SMEs. *International Journal of Information Management*, 53(1): 1-11.
- Aguboshim, F.C. (2021). Adequacy of sample size in a qualitative case study and dilemma of data saturation: A narrative review. *World Journal of Advanced Research and Reviews*, 10(03): 180-187.
- Ajibade Adisa, T., Mordi, C., Simpson, R., and Iwowo, V. (2021). Social dominance, hypermasculinity, and career barriers in Nigeria. *Gender, Work & Organization*, 28(1): 175-194.
- Alharahsheh, H.H. and Pius, A. (2020). A Review of key paradigms: Positivism vs Interpretivism. *Global Academic Journal of Humanities and Social Sciences*, 2(3): 39-43.
- Ali, O., Shrestha, A., Osmanaj, V. and Muhammed, S. (2021). Cloud Computing Technology Adoption: An Evaluation of Key Factors in Local Government. *Journal of Information Technology and People*, 34(2): 666-703.
- Aligargh, F., Sutopo, B. and Widarjo, W. (2023). The Antecedents of Cloud Computing Adoption and its Consequences for MSME's Performance: A Model based on the Technology-Organization Environment (TOE) Framework. *Cogent Business & Management*, 10(2): 1-16.
- AL-Rahmi, W.M., Yahaya, N., Aldraiweesh, A.A., Alamri, M.M., Aljarboa, N.A., Alturki, U. and Aljeraiw, A.A. (2019). Integrating Technology Acceptance Model with Innovation Diffusion Theory: An Empirical Investigation on Students' Intention to Use E-Learning Systems. *IEEE Access*, 7(1): 26797-26809.
- Aliyu, B.B. (2018). Assessment of Financial Management Practices among Secondary school principals Kaduna State. *International Journal of Hospitality & Tourism Management*, 2(2): 22-27.

Alkaraan, F. (2018). Public Financial Management Reforms: An ongoing journey towards good governance. *Journal of Financial Reporting and Accounting*, 16(4): 585-609.

Amin, M.K.A., Norgaardb, L.S., Cavasoc, A.M., Witryd, M.J., Hillmane, I., Cernasevf, A. and Desselle, S.P. (2020). Establishing Trustworthiness and Authenticity in Qualitative Pharmacy Research. *Research in Social and Administrative Pharmacy*, 16(10): 1472-1482.

Amukhuma, C.E. (2018). Challenges Facing the Implementation of Integrated Financial Management Information System in Technical and Vocational Education and Training Institutions in Nairobi County, Kenya. MBA. KCA University. Kenya.

Anggriawan, F.T. and Yudianto, I. (2018). Factors Affecting Information Quality of Local Government Financial Statements. *Journal of Accounting Auditing and Business*, 1(1): 30-42.

Auditor General South Africa. (2019). Consolidated General Report on the local government audit outcomes MFMA 2018-2019. South Africa. Available: <https://www.agsa.co.za/Reporting/MFMAReports/MFMA2018-2019.aspx> (Accessed 15 June 2022).

Auditor General South Africa. (2020). Consolidated General Report on the local government audit outcomes MFMA 2019-2020. South Africa. Available: <https://www.agsa.co.za/Reporting/MFMAReports/MFMA2019-2020.aspx> (Accessed 10 May 2022).

Attigbe, D. A. (2019). Assessment of the implementation of integrated financial management information system on financial accountability among municipal and district assemblies in the Volta region of Ghana. Master of Commerce degree in Accounting. University of Cape Coast. Ghana.

Ayoo, C. O. (2020). Contribution of Integrated Financial Management Systems (IFMIS) on Financial Accountability within Devolved Governments: in Nairobi City County, Kenya. Master of Science in Governance, Peace and Security. Africa Nazarene University. Nairobi, Kenya.

Badi, S., Ochieng, E., Nasaj, M. and Papadaki, M. (2021). Technological, Organizational and Environmental Determinants of Smart Contracts adoption: UK Construction sector viewpoint. *Journal for Construction Management and Economics*, 39(1): 36-54.

- Barmeyer, C., Bausch, M. and Moncayo, D. (2019). Cross-cultural management research: Topics, paradigms, and methods-A Journal based longitudinal analysis between 2001 and 2018. University of Passau. Germany. *International Journal of Cross-Cultural Management*, 19(2): 218-244.
- Baskerville, R. and Grossi, G. (2019). Glocalization of accounting standards: observations on neo-institutionalism of IPSAS. *Journal of Public Money and Management*, 39(2): 95-103.
- Beda, N. (2019). Factors Affecting Financial Sustainability of Water and Sewerage Provision in Cape Town, South Africa. South Africa. Cape Peninsula University of Technology. MBA. South Africa.
- Bentley, H. (2021). "I've come so far it's hard to say it all": A narrative approach to changes in perceptions of student identity in a student success program. PhD. Purdue University.
- Bergen, N. and Labonte, R. (2020). "Everything is perfect, and we have no problems": Detecting and limiting social desirability bias in qualitative research. *Qualitative Health Research*, 30(5): 783-792.
- Bismark, O., Kofi, A. F., Kofi, O. A., and Eric, H. (2018). Impact of Financial Management Practices on the Growth of Small and Medium Scale Enterprises in Ghana: The Case of Birim Central Municipality. *International Journal of Innovation and Research in Educational Sciences*, 5(2): 177-184.
- Bonache, J. and Festing, M. (2020). Research paradigms in international human resource management: An epistemological systematization of the field. *German Journal of Human Resource Management*, 34(2): 99-123.
- Bonthuys, G. J., Van Dijk, M. and Cavazzin, G. (2019). Leveraging Water Infrastructure Asset Management for Energy Recovery and Leakage Reduction. *Sustainable Cities and Society*, 46(1): 1-33.
- Braun, V. and Clarke, V. (2021). To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qualitative Research in Sport, Exercise and Health*, 13(2): 201-216.
- Braun, V. and Clarke, V. (2022). Conceptual and Design Thinking for Thematic Analysis. *Qualitative Psychology*, 9(1): 3-26.

- Brown, B. (2020). mSCOA: Challenges of Intergovernmental Relations within Cooperative Government: A Case Study of Langeberg Municipality in the Western Cape. PhD. Stellenbosch University. South Africa.
- Bryant, L.R. (2021). A Narrative Inquiry on the Experiences of Title IX Coordinators in the Southeastern United States. PhD. The University of Tennessee, Knoxville.
- Chalu, H. (2019). The Effect of IFMIS Adoption on Financial Reporting Quality in Tanzanian Local Governments. *Business management Review*, 22(2): 1-31.
- Changalima, I.A., Mchopa, A.D. and Ismail, I.J. (2022). Supplier Development and Public Procurement Performance: Does Contract Management Difficulty Matter? *Cogent Business and Management*, 9(1): 1-16.
- Chipeta, J. (2018). A Review of E-Government Development in Africa: A Case of Zambia. *Journal of e-Government Studies and Best Practices*, 2018(2018): 1-13.
- Chitimira, H., Sethunyane, T. and Magau, P. (2022). Overview Challenges Affecting the Promotion of Good Corporate Governance Measures in Mahikeng Local Municipality. *JURIDICA*, 18(1): 7-22.
- Crawford, K. (2021). School-Based Leader Stories of Field Experiences Constituting the Teaching Profession. PhD. University of Calgary, Alberta.
- Crick, J.M. (2021). Qualitative research in marketing: What can academics do better? *Journal of Strategic Marketing*, 29(5): 390-429.
- Daniel, B.K. (2019). Using the TACT Framework to learn the Principles of Rigour in Qualitative Research. *The Electronic Journal of Business Research Methods*, 17(3): 118-129.
- Dewi, N.F., Azam, S.M.F., and Yusoff, S.K.M. (2019). Factors Influencing the Information Quality of Local Government Financial Statements and Financial Accountability. *Management Science Letters*, 9(9): 1373-1384.
- Ekayanti, S.M., Rifa, A. and Irwan, M. (2018). Determinants Effectiveness Fixed Asset Management of District Government on the Island of Lombok. *International Journal of Business Management and Economic Research*, 9(1): 1219-1229.

- Enwereji, P. C. (2022). Enhancing Financial Accountability in South African Local Municipalities: A Consequence Management Viewpoint. *Journal for Centre of Financial and Monetary Research*, 26(4): 19-47.
- Enwereji, P.C. and Potgieter, M. (2018). Establishing a Payment Culture for Municipal Services in the North-West Province: A Conceptual Framework. *International Journal of Economics and Financial Issues*, 8(3): 227-234.
- Eugene, E. (2019). Assessment of Effectiveness of Internal Control Systems for Ensuring Accountability in Local Government Authorities in Tanzania: A Case of Moshi District Council. PhD. Mzumbe University.
- Fabregues, S. and Fetters, M.D. (2019). Fundamentals of case study research in family medicine and community health. *Journal of Family medicine and Community Health*, 7(2): 1-8.
- Fourie, D. and Malan, C. (2020). *Public Procurement in the South African economy: Addressing the Systematic Issues. Sustainability*, 12(1): 1-23.
- Gao, F. (2021). Narrative Inquiry into Chinese University ESP Teachers' Transformative learning. PhD. The Purdue University. Indiana.
- Gautam, A. (2020). Performance Assessment of Selected Farmer Managed Irrigation System in Kaski District, Nepal. *Himalayan Journal of Applied Science and Engineering (HiJASE)*, 1(1): 1-10.
- Gcora, N. and Chigona, W. (2019). Post-implementation evaluation and challenges of Integrated Financial Management Information Systems for municipalities in South Africa'. *South African Journal of Information Management*, 21(1): 1-12.
- Gcora-Vumazonke, N.P. (2021). How end-user participation in Financial Management Information Systems development engenders a sense of system ownership in municipalities: A case in South Africa. PhD. University of Cape Town. South Africa.
- Gharaibeh, M.K., Gharaibeh, N.K. and De Villiers, M. (2020). A Qualitative Method to explain Acceptance of Mobile Health Application: Using Innovation Diffusion Theory. *International Journal of Advanced Science and Technology*, 29(4): 3426-3432.

- Gislar, L.B. (2019). Efficiency of Monitoring and Evaluation in Road Sectors Performance: Case of Tarura Road Projects in Dodoma Municipal. PhD. Open University of Tanzania. Tanzania.
- Goh, E. and Sigala, M. (2020). Integrating Information & Communication (ICT) into classroom instruction: Teaching tips for hospitality educators from a diffusion of innovation approach. *Journal of Teaching in Travel and Tourism*, 20(2): 156-165.
- Gomes, P., Brusca, I. and Fernandes, M.J. (2019). Implementing the international Public Sector Accounting Standards for Consolidated Financial Statements: Facilitators, Benefits and challenges. *Public Money & Management*, 39(8): 544-552.
- Govender, N. and Reddy, P.S. (2019). Urban Regeneration in South Africa: The Apartheid Legacy and Legislative Framework Re-examined - The Case of eThekweni Municipality. *African Journal of Public Affairs*, 11(2): 83-103.
- Hamilton, J.B. (2020). Rigor in Qualitative Methods: An Evaluation of Strategies Among Underrepresented Rural Communities. Emory University. *Qualitative Health Research*, 30(2): 196-204.
- Halijou, M., Mirehei, M., Amirian, S. and Pilehvar, M. (2018). Financial Sustainability of Municipalities and Local Governments in Small-Sized Cities: A Case of Shabestar Municipality. *Journal of Local Self-Government*, 16(1): 77-106.
- Hettiarachchi, H., Ryu, S., Caucci, S. and Silva, R. (2018). Municipal Solid Waste Management in Latin America and the Caribbean: Issues and Potential Solutions from the Governance Perspective. *Recycling*, 3(19): 1-15.
- Ibrahim, S., Shuaib, A., Mustapha, M.B., Idris, B.A. and Abdulsalam, T.S. (2022). Influence of Integrated Financial Management Information System (IFMIS) on the Performance of Government Entities in Nigeria. *Malet Journal of Accounting and Finance*, 3(2): 88-108.
- Izang, J.U., Owalabi, S.A. and Odunlade, O.A. (2022). Integrated Financial Management Information System and Fraud Investigation in Nigerian Public Sector. *International Journal of Research Publications (IJRP)*, 99(1): 222-236.
- Jeriansyah, W. and Mappanyukki, R. (2018). The effect of Accountability and Transparency of Regional Financial Management on Local Government Performance. *International Journal of Asian Social Science*, 10(2): 721-729.

- Kaganova, O. and Telgarsky, J. (2018). Management of Capital Assets by Local Governments: An Assessment and Benchmarking Survey. *International Journal of Strategic Property Management*, 22(2): 143-156.
- Kalman, M. (2019). “It Requires Interest, Time, Patience and Struggle”: Novice Researchers’ Perspectives on and Experiences of the Qualitative Research Journey. *Qualitative Research in Education*, 8(3): 341-377.
- Kalpokaite, N. and Radivojevic, I. (2019). Demystifying qualitative data analysis for novice qualitative researchers, *The qualitative Report*, 24(13): 44-57.
- Kalonda, J.K. and Govender, K. (2021). Factors Affecting Municipal Service Delivery: A Case Study of Katima Mulilo Town Council, Namibia. *African Journal of Public Affairs*, 12(2): 1-26.
- Khatri, K.K. (2020). Research Paradigm: A Philosophy of Educational Research. Tribhuvan University. Nepal. *International journal of English Literature and Social Sciences*, 5(5): 1435-1440.
- Kofahe, M.K., Hassan, H. and Mohamad, R. (2019). Factors Affecting Successful Implementation of Government Financial Management Information System (GFMS) in Jordan Public Sector: A Proposed Framework. *International Journal of Accounting, Finance and Business (IJAFB)*, 4(20): 32-44.
- Kroukamp, H. and Cloete, F. (2018). Improving professionalism in South African local government. *Acta Academica*, 50(1): 61-80.
- Kwabena, G.Y., Mei, Q., Ghumro, T.H., Li, W. and Erusalkina, D. (2021). Effects of a Technological-Organizational-Environmental Factors on the Adoption of the Mobile Payment System. *Journal of Asian Finance, Economic and Business*, 8(2): 329-338.
- Kwetana, B. (2019). Assessing the readiness for the implementation of Municipal Standard Chart of Accounts (mSCOA). MBA. Nelson Mandela University. South Africa.
- Lester, J. N., Cho, Y. and Lochmiller, C. R. (2020). Learning to do qualitative data analysis: A starting point. *Human Resource Development Review*, 19(1): 96-106.

- Mackieson, P., Shlonsky, A. and Connolly, M. (2019). Increasing rigor and reducing bias in qualitative research: A document analysis of parliamentary debates using applied thematic analysis. *Qualitative Social Work*, 18(6): 965-980.
- Magagula, D.N., Mukonza, R.M., Manyaka, R.K. and Moeti, K.B. (2019). Corrigendum: Towards strengthening collaboration between district and local municipalities in South Africa: Insights from Ehlanzeni District Municipality. *The Journal for Transdisciplinary Research in Southern Africa*, 16(1): 1-10.
- Maina, P.W. (2019). Determinants of Integrated Financial Management Information System Implementation, in the National Government in Meru County. PhD. Kenya Methodist University. Kenya.
- Makiya, R.C. (2020). Analysis of Factors Influencing Implementation of Integrated Financial Management Information System. *International Research Journals of Engineering and Technology (IRJET)*, 7(7): 5388-5393.
- Manoharan, A.P. and Ingrams, I. (2018). Conceptualizing E-Government from Local Government Perspectives. *State and Local Government Review*, 50(1): 56-66.
- Maramura, T.C. and Shava. E. (2021). Ethics and Accountability in Municipal Supply Chain Management in Zimbabwe. *International Journal of Management Practice*, 14(5): 621-635.
- Masuku, M.M. and Jili, N.N. (2019). Public service delivery in South Africa: The political influence at local government level. *Journal of Public Affairs*, 19(4): 1-7.
- Matsiliza, N.S. (2019). Strategies to Improve Capacity for Policy Monitoring and evaluation in the Public Sector. *Journal of Reviews of Global Economics*, 8(1): 490-499.
- Matlala, L.S. and Uwizeyimana, D.E. (2020). Factors influencing the implementation of the Auditor General's recommendations in South African municipalities. *African Evaluation Journal*, 8(1): 1-11.
- Mbandlwa, Z., Dorasamy, N. and Fagbadebo, O. (2020). Ethical Leadership and the Challenge of Service Delivery in South Africa: A Discourse. *Journal of Test Engineering and Management*, 83(1): 24986-24998.

- Mbatha, N.P. and Mutereko, S. (2022). Examining Financial Management of Local Government in South Africa: A Case Study of a Local Municipality in KwaZulu-Natal. *Interdisciplinary Journal of Economics and Business Law*, 11(4): 285-308.
- Mbogho, P.K., Mjomba, M and Mwangandi, S.M. (2023). Strategic Drivers and Adoption Rate of Integrated Financial Management Information System: A Case of Kenyan Coastal Counties. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, 7(1): 155-171.
- McGrath, A. L. and Hughes, M.T. (2018). Students with Learning Disabilities in Inquiry-Based Science Classrooms: A Cross-Case Analysis. *Learning Disabilities Quarterly*, 41(3): 131-143.
- Mello, D.M. (2018). Monitoring and Evaluation: The missing link in South African municipalities. *The Journal for Transdisciplinary Research in Southern Africa*, 14(1): 1-6.
- Mensah, R.O., Agyemang, F., Acquah, A., Babah, P.A. and Dontoh, J. (2020). Discourses on Conceptual and Theoretical Frameworks in Research: Meaning and Implications for Researchers. *Journal of African Interdisciplinary Studies*, 4(5): 53-64.
- Micheni, E.M. (2017). Analysis of the Critical Success Factors of Integrated Financial Management Information Systems in selected Kenyan Counties. *Journal of Finance and Accounting*, 5(5): 185-192.
- Meihami, H. (2020). Research Methodology and Orientation of Papers Published from 1980 to 2019 in Applied Linguistics Journals. *Journal issues in Language Teaching*, 9(2): 59-88.
- Min, S., So, F.K.K. and Jeong, M. (2018). Consumer Adoption of the Uber Mobile Application: Insights from Diffusion of Innovation Theory and Technology Acceptance Model. *Journal of Travel & Tourism Marketing*: 2-15.
- Mishi, S., Mbaleki, N. and Mushonga, F.B. (2022). Financial Mismanagement and Efficiency trade-off in local municipalities: Lessons from Eastern Cape, South Africa. *Journal of Local Government Research and Innovation*, 3(1): 1-16.
- Mndaweni, S. (2018). Analysis of the Impact of Supply Chain Management Challenges on Supply Chain Management Performance at the Department of Social Development in Gauteng Province. PhD. University of KwaZulu-Natal. South Africa.

- Moloto, K.A. and Lethoko, M.X. (2018). Municipal Financial Viability and Sustainability in South Africa: A Case of Molemole Local Municipality, Limpopo Province, South Africa. Stellenbosch University. 04-06 July 2018: 749-760.
- Molepo, J.N. and Maleka, C.M, (2018). Community Participation and Budgetary Process in Local Government: The Case of Moses Kotane Local Municipality. *Journal of Public Administration*, 53(3): 759-771.
- Morgan, H. (2022). Conducting a Qualitative Document Analysis. *The Qualitative Report*, 27(1): 64-77.
- Mubangizi, B.C. (2019). Monitoring and Evaluation Processes Critical to Service Provision in South Africa's Rural-Based Municipalities. *Journal of Reviews on Global Economics*, 8(1): 555-565.
- Muda. I., Harahap, A.H., Ginting, S., Maksum, A. and Abubakar, E. (2018). Factors of Quality of Financial Report of Local Government in Indonesia. *IOP Conference. Series: Earth and Environmental Science*, 126(1): 1-7.
- Mugendi, K.J. (2023). Determinants of Effectiveness of Integrated Financial Management Information System of selected County Governments in Mount Kenya Region. MBA. Kirinyaga University. Kenya.
- Mugenyi, L.N., Kibati, P. and Nzioki, P.M. (2020). The Effect of Adoption of Integrated Financial Management Information Systems on the Sustainability of NGOs in Nairobi County. *The Strategic Journal of Business and Change Management*, 7(4): 1437-1450.
- Muriithi, J. and Wamiori, G.M. (2020). Effect of Integrated Financial Management Information System (IFMIS) on Financial Performance of County Government in Kenya. *International Journal of advanced Research and Review*, 5(11): 54-79.
- Nama, K., Daweti, B., Lourens, M. and Chikukwa, T. (2022). The Impact of Training and Development on Employee Performance and service Delivery at a Local Municipality in South Africa. *Journal in Problems and Perspectives in Management*, 20(4): 42-51.
- Ndegwa, R.W. and Mungai, J.N. (2019). Influence of Internal Control System of Financial Management in Ministry of Finance, Kenya. *International Academic Journal of Economics and Finance*, 3(3): 266-278.

- Ngala, B.M. and Musau, S. (2022). Integrated Financial Management Information System and Quality of Financial Reporting in Nairobi City County Government, Kenya. *International Academic Journal of Economics and Finance*, 3(7): 453-473.
- Ngetich, B.K. (2018). Determinants Affecting the Implementation of the Integrated Financial Management Information System by the Nairobi City Country. Master's degree. University of Africa. Kenya.
- Niekerk, T. and Sebakamotse, J.K.T. (2020). A few critical observations of current oversight and accountability challenges of financial management of municipalities in the Free State province: An ethical dilemma. *Journal for Christian Scholarship*, 56(3-4): 269-293.
- Njau, C.J and Kinoti, K. (2020). Adoption of Integrated Financial Management Information System and Performance of National Treasury of Kenya. *International Journal of Information Systems and Technology*, 2(1): 262-281.
- Njuguna, S.M. (2020). Effects of Integrated Financial Management Information System in State Corporations in Murag, A County: A case Study of Kangema New Kenya Co-operative Creameries. *International Journal of Recent Research in Commerce Economics and management (IJRRCEM)*, 7(1): 99-111.
- Ngqwala, N. S. (2019). Leadership Imperatives for Local Government Service Delivery: Case of a Selected Local Municipality in the Eastern Cape, South Africa. Cape Peninsula University of Technology. South Africa.
- Nonyane, P.C. (2019). Exploring the implementation of the Monitoring and Evaluation System in Local Government: A Case of eThekweni Municipality. MBA. UKZN. South Africa.
- Nyide, C.J. (2016). A critical Evaluation of Environmental Management Accounting (EMA) Tools used by 3–5-star hotels in KwaZulu Natal. DBA Thesis. UKZN. South Africa.
- Nzama, L. (2019). Do Poor Financial Performance Indicators Affect Municipal Grants Budget Allocation in South Africa? *Journal of Reviews on Global Economics*, 8(1): 1514-1528.
- Pasape, L. and Godson, E. (2022). Challenges Affecting Effective Implementation of Financial Management Information Systems in Local Government Authorities in Tanzania as part of the Digital Ecosystem. *Journal of Financial Risk Management*, 11(1): 522-548.
- Patel, M. and Patel, N. (2019). Exploring Research Methodology: Review Article. *International Journals of Research and Review*, 6(3): 48-55.

- Patrucco, A.S., Agasisti, T. and Glas, A.H. (2020). Structuring Public Procurement in Local Governments: The effect of Centralization, Standardization and Digitalization on Performance. *Public Performance and Management Review*, 44(3): 630-656.
- Priono, H., Yuhertiana, I., Sundari, S. and Puspitasari, D.S. (2019). Role of Financial Management in the Improvement of Local Government Performance. *Humanities and Social Sciences Reviews*, 7(1): 77-86.
- Putra, D.A., Jasmi, K.A., Basiron, B., Huda, M., Maselena, A., Shankar, K. and Aminudin, N. (2018). Tactical steps for E-Government Development. *International Journal of Pure and Applied Mathematics*, 119(15): 2251-2258.
- Raskind, I.G., Shelton, I.C., Comeau, D.L., Cooper, H.L.F., Griffith, D.M. and Kegler, M.C. A Review of Qualitative Data Analysis Practices in Health Education and Health Behavior Research. *Qualitative Inquiry in Health Education & Behavior*, 46(1): 32-39.
- Ricci, L., Lanfranchi, J.B., Lemetayer, F., Rotonda, C., Guillemin, F., Coste, J. and Spitz, E. (2019). Qualitative Methods Used to Generate Questionnaire Items: A Systematic Review. *Qualitative Health Research*, 29(1): 149-156.
- Richmond, S.Q., Rosemond, S.Q. and Richmond, S.Q. (2020). The Ramifications of the Treasury Single Account, the IFMIS Platform, and Government Cash Management in Developing Economies in the Wake of the Covid-19 Pandemic: Ghana's Empirical Example, *Journal of Economics and Business*, 3(4): 1654-1672.
- Rivera, J.D. (2019). When attaining the best sample is out of reach: Non-probability alternatives when engaging in public administrative research. *Journal of Public Affairs Education*, 25(3): 314-342.
- Rose, J. and Johnson, C.W. (2020). Contextualizing reliability and validity in qualitative research: toward more rigorous and trustworthy qualitative social science in leisure research. *Journal of Leisure Research*, 51(4): 432-451.
- Rusly, F.H., Ahmi, A., Talib, Y.Y.A. and Rosli, K. (2019). Global Perspective on Payroll System Patent and Research: A Bibliometric Performance. *International Journal of Recent Technology and Engineering*, 8(2): 148-157.

Safo, C.K. (2020). The Effectiveness of Integrated Financial Management Information Systems (IFMIS) as a tool to control expenditure in the Metropolitan, Municipal and District Assemblies (MMDAS). MBA. Catholic University College of Ghana.

Saputra, K.A.K., Subroto, B., Rahman, A.F. and Saraswati, E. (2021). Financial Management Information System, Human Resource Competency and Financial Statement Accountability: A Case Study in Indonesia. *Journal of Asian Finance, Economics and Business*, 8(5): 277-285.

Sarfraz, S., Ghani, M. and Kausar, S. (2022). Psychological Challenges and Coping Strategies adopted by ICU nursing during COVID-19 pandemic in Lahore, Pakistan. *Pakistan Journal of Medical & Health Sciences*, 16 (9): 265-265.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H. and Jinks, C. (2017). Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality & quantity*, 52(1): 1893-1907.

Sayginer, C. and Ercan, T. (2020). *Understanding Determinants of Cloud Computing Adoption using an Integrated Diffusion Innovation (DOI), Technological, Organizational and Environmental (TOE) model*, 8(1): 91-102.

Seitheisho, J. (2019). Assessment of Factors That Relate to Qualified Audit Reports in the Two Municipalities. MBA. North-West University. South Africa.

Sharma, S. K., Sengupta, A., & Panja, S. C. (2019). Mapping corruption risks in public procurement: Uncovering improvement opportunities and strengthening controls. *Public Performance and Management. Review*, 42(4): 947–975.

Shava, E. and Chamisa, S. F. (2018). Cadre Deployment Policy and its Effects on Performance in South African Local Government: A Critical Review. *Politeia*, 37(1): 1-18.

Sibanda, M.M., Zindi, B. and Maramura, T.C. (2020). Control and Accountability in Supply Chain Management: Evidence from a South African Metropolitan Municipality. *Cogent Business and Management*, 7(1): 1-15.

Simiyu, S.N. (2018). Integrated Financial Management Information System Implementation and Public Finance Management in Kilifi Country, Kenya. *Strategic Journal of Business and Change Management*, 12(2): 1-68.

South Africa, National Treasury. (2015). Municipal SCOA Circular No.1. Pretoria. National Treasury.

- South Africa, National Treasury. (2018). Provincial Budget Formats Guide for the preparation of the Estimates of Provincial Revenue and Expenditure. Pretoria. National Treasury.
- South Africa, National Treasury. (2019). Provincial Budget Formats Guide for the preparation of the Estimates of Provincial Revenue and Expenditure. Pretoria. National Treasury.
- South Africa, National Treasury. (2021). National Treasury Annual Report 2020/2021. Pretoria. National Treasury.
- South Africa. (Republic). 2003. Local Government: Municipal Finance Management Act (MFMA, 2003). Act 56 of 2003. Pretoria. Government Printers.
- South Africa. (Republic). 1998. Local Government: Municipal Structured Act, Act 117 of 1998. Pretoria. Government Printers.
- South Africa. (Republic). 2000. Local Government: Municipal Systems Act, Act 32 of 2000. Pretoria. Government Printers.
- South Africa (Republic). 1996. The Constitution of the Republic of South Africa. Pretoria. Government Printers.
- Subedi, K.R. (2021). Determining the Sample in Qualitative Research. *Scholars Journal*, 4(1): 1-13.
- Sugiyantari, D. and Titisari, P. (2018). The effectiveness Implementation of the Regional Financial Management Information System Cloud at the Jember Regency. *International Journal of Research Science and Management*, 5(5): 94-98.
- Sungu, O.S. and Aila, F. (2022). Approaches to Change Resistance Management among County Governments in Kenya. *The International Journals of Business and Management*, 10(8): 82-90.
- Taherdoost, H. (2021). Data Collection Methods and Tools for Research; A Step-by-Step Guide to Choose Data Collection Technique for Academic and Business Research Projects. *International Journal of Academic Research in Management (IJARM)*, 10(1): 10-38.
- Tiffany-Kinder, R. If You Can Hear My Voice: A Narrative Inquiry into The Professional Journey of Eight First-Year Teachers. PhD. University of Hawai.

- Tshikundamalema, V.J. (2020). Challenges of Financial Sustainability in a rural Municipality: The Case of the Musina Local Municipality in the Limpopo Province of South Africa. MBA. University of Limpopo. South Africa.
- Twizeyimana, J.D., Larsson, H. and Gronlund, A. (2018). E-government in Rwanda: Implementation, Challenges and Reflections. *The Electronic Journal of e-Government*, 16(1): 19-31.
- Uwiragiye, E.T. (2018). The Impact of Smart Integrated Financial Management Information Systems on public financial management: An Empirical Investigation of Accounting Transactions Case Study: Ministry of Economic and Finance. Master of Information Systems. University of Rwanda. Rwanda.
- Van Helden, J. and Reichard, C. (2019). Making sense of the users of public sector accounting information and their needs. *Journal of Public Budgeting, Accounting and Financial Management*, 31(4): 478-495.
- Van Niekerk, T. and Sebakamotse, J.K.T. (2020). A few critical observations of current oversight and accountability challenges of financial management of municipalities in the Free State province: An ethical dilemma. *Journal for Christian Scholarship*, 56 (3&4): 269-293.
- Wald, N. and Daniel, B.K. (2020). Enhancing Students' Engagement with Abstract Ideas Through Conceptual and theoretical Frameworks. *Journal in Innovations in Education and Teaching International*, 57(4): 496-505.
- Wasihun, D. (2018). Factors Affecting Successful Implementation of Integrated Financial Management Information System (IFMIS) at Ministry of Finance and Economic Corporation (MOFEC). PhD. St. Mary's University. Addis Ababa. Ethiopia.
- Wambugu, M.P. (2019). Determinants of Integrated Financial Management Information System Implementation, in the National Government in Meru County. MBA. Kenya Methodist University. Kenya.
- Wise, C.R. (2020). "Teacher Identity and the Core: A Narrative Inquiry into the Relationship between Teacher Identity and lesson Planning in the Common Core Era". Doctor of Education. University of Memphis.
- Yaokumah, W. (2020). Integrated Financial Management Information System Project Implementation in Ghana Government Ministries. *International Journal of Information Technology Project Management*, 11(1): 17-20.

APPENDICES

APPENDIX A: LETTER OF INFORMATION



LETTER OF INFORMATION

Title of the Research Study: Evaluation of the application of Integrated Financial Management Information Systems in selected municipalities of KwaZulu-Natal

Principal Investigator/s/researcher: Thenjiwe Pretty Kweyama, Master of Business Administration

Co-Investigator/s/supervisor/s: Dr Celani.J. Nyide, Doctor of Business Administration

I am a candidate at the DUT, doing the PhD degree in Business and Information Management

This research study is seeking to evaluate the application of integrated financial management information systems in the selected municipalities in KwaZulu-Natal. Currently the municipalities' financial systems are not fully integrated and that has a huge contribution to corruption and fraud. The purpose of the study is to evaluate the current financial management information systems used by the municipalities and whether they are able to effectively produce the credible reports which are used by management and other stakeholders to make strategic decisions. The researcher has observed that the poor financial management systems have limited ability to generate reports, have poor response time and access security controls are weak which results to low performance in the financial management. This study intends to identify the gaps that are currently caused by the unintegrated financial management systems.

The aim of this study is to evaluate the application of the integrated financial management system in selected municipalities in KZN and to develop an IFMIS framework that is suitable for implementation by municipalities. The objectives of the study are as to examine the current financial management information systems (FMIS) used by the selected municipalities in KZN. To explore best practices of FMIS for the municipalities in KZN and to develop a framework for the successful implementation of IFMIS by municipalities. The research questions will be answered employing the qualitative method by obtaining primary data using both open-ended and closed ended questions when doing interviews. The questionnaire will be used as the main instruments of data collection. The interviews will be recorded from start to finish and audio-recorded from the interview process will be transcribed and be reproduced as written words. The interview sessions will be at a venue and time convenient to you. The interview session will take approximately 45-60 minutes of your time that will include the appreciation of ethical considerations.

6 August 2020

Data will be collected anonymously, and the names of the interviewee will not be disclosed throughout the study. Interviewees will be ensured the confidentiality of the information that will be provided for the study and will be utilised for the purposes of the study only. The interviewer will ensure that there are no risks involved and the nature of this interviews bears no harm to everyone who will be interviewed.

The interview will be a voluntarily process, therefore at any stage of the process the participate will be allowed to withdraw at any time and at no cost, no harm and no victimization whatsoever.

The research findings will be made available to the participant and the organization for their benefit of knowledge purposes and may be published as original contribution to the body of knowledge.

There is no pressure that will be imposed on individuals to participate. Participation on these interviews will be voluntarily and consequently no incentives will be provided for such participation.

The researcher will not at any stage asked the participant to pay anything associated or for participating to the study.

Participants will be ensured of integrity and the researcher will promise to be sincere with the participants and meet agreements that will be made with the participants and the organizations involved. Data will be collected anonymously, and the names of the participant will not be disclosed throughout the study. Participants will be ensured the confidentiality of the information that will be provided for the study and will be utilized for the purposes of the study only.

The researcher will be transparent about findings and make the results of the study available to all the participants that wish to get the findings, including any new developments of the findings.

The researcher will ensure that the interviews are conducted in a safe place and space and will make sure that all participants are protected, and researcher will avoid causing any harm whatsoever to all the research participants.

The researcher is available to be contacted on this number 0784576519, my supervisor's contact details is 0826117632 or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support Prof K Motaung on 031 373 2577 or researchdirector@dut.ac.za.

6 August 2020

APPENDIX B: CONSENT



CONSENT

Full Title of the Study: Evaluation of the application of Integrated Financial Management Information Systems in selected municipalities of KwaZulu-Natal

Names of Researcher/s: Thenjiwe Pretty Kweyama

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, TP Kweyama (name of researcher), about the nature, conduct, benefits and risks of this study - Research Ethics Clearance
Number: _____,
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

Full Name of Participant Thumbprint	Date	Time	Signature / Right
--	------	------	-------------------

I, Thenjiwe Kweyama herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

<u>Thenjiwe Kweyama</u> Full Name of Researcher	<u>16/08/2023</u> Date	Signature
--	---------------------------	-----------

Full Name of Witness (If applicable)	Date	Signature
--------------------------------------	------	-----------

Full Name of Legal Guardian (If applicable)	Date	Signature
---	------	-----------

6 August 2020

APPENDIX C: INTERVIEW SCHEDULE

Evaluation of the application of Integrated Financial Management Information Systems in selected municipalities of KwaZulu-Natal

Section A: Demographic Information

Please mark with an x or (√) in the box with the appropriate response. Make one box only.

1. How long have you been working for the Municipality?

0-1 year	
1-5 years	
5-10years	
10-15years	
15 or more years	

2. For how many years have you used IFMIS?

Less than a year	
1-5 years	
More than 5 years	

3. What is your age group?

Below 20 years	
20-29 years	
30-39 years	
40-49 years	
50-59 years	
60 years and over	

4. Educational qualifications

Matric or Grade 12 or Higher certificate	
National Diploma	
Bachelor's Degree	
Post Graduate Degree	
Honours Degree	
Master's Degree	
Doctoral Degree	

5. What is your gender?

Male	
Female	

Section B: Theme 1 - Current Financial Management Information Systems (FMIS)

6. Has your municipality incurred the following expenditure in the last 3 years which relates to the FMIS and explain the causes for incurring these expenditures?

- Unauthorised Expenditure;
- Irregular Expenditure; and
- Fruitless and Wasteful Expenditure

7. What are the Financial Management Information Systems (FMIS) policies your municipality have which cover the following financial management sectors or portfolios?

- Revenue and Debtors Management;
- Expenditure and Creditors Management;
- Supply Chain Management;
- Assets and Liabilities Management; and
- Budgets and Financial Reporting.

8. What is the status of the implementation of the above policies? Has the implementation of these policies yielded any positive results?

9. What is the FMIS used by your municipality to record all financial related transactions?

10. How old is the system and how often has it been updated since its initial installation?

11. Are there any issues on the FMIS raised by the Auditor-General in their last 3 years of audit and do they relate to any of the following finance sectors? Please give details.

- Revenue and Debtors Management;
- Expenditure and Creditors Management;
- Supply Chain Management;
- Assets and Liabilities Management; and
- Budgets and Financial Reporting

12. Please give details on how your municipality prepare and implement the Audit Action Plan to address issues raised by the Auditor-General?

13. Please explain how does your municipality ensures all issues raised by the Auditor-General relating to FMIS are covered and attended to timeously?

14. Describe the level of compliance in the FMIS with all requirements or sections of Municipal Finance Management Act (MFMA) governing finances of Local Government?

Theme 2 - To establish the extent to which financial management information systems are used by the selected municipalities in KZN.

15. What is the level of use or the extent to which the financial system is used by your municipality integrated to the payroll system, SCM and expenditure payment system?

16. Is the FMIS understood by all the relevant people in your Municipality who work in the following financial portfolios? Please explain.

- Revenue and Debtors Management;
- Expenditure and Creditors Management;
- Supply Chain Management;
- Assets and Liabilities Management; and
- Budgets and Financial Reporting

17. Does the FMIS provide for all general ledger modules? Please elaborate.

18. How often is the FMIS updated e.g. annually or bi-annual?

19. Have you ever requested or been requested to provide any reports using the FMIS? If, yes, what are those reports and how frequently are they requested?

Theme 3 - To determine factors that affect the successful implementation of IFMIS by municipalities.

20. How often or when last were all the relevant staff members trained on the financial management practices such as Generally Recognised Accounting Practice (GRAP), Municipal Budget Reporting Regulations (MBRR), municipal Standard Chart of Account (mSCOA) etc.?

21. Does the municipality have the Cash flow management strategy and Plan which covers the FMIS? Elaborate on its role to the municipality.

22. Does the financial system used by the municipality able to detect when the invoice is due for payment to maintain the 30 days' requirements on payment of service providers as required by the MFMA to avoid suspension of contracts by service providers? If not, Please Explain reasons for not adhering to that.

23. How do the system users receive the changes that comes with the development and implementation of the new IFMIS in your municipality?

24. Please explain the behaviour and attitude of the system users on the development and implementation of the IFMIS?

25. What kind of support have your municipality received from other organs of state such as the National and Provincial government on the development and implementation of IFMIS?

26. What are the recommendations made by the Auditor-General in their management report to address the audit findings relating to the FMIS in your municipality?

27. How does the management of your municipality communicate the changes on the FMIS to all the system users and do they adhere to the proper communication channels within the municipality?

28. Please explain whether there are any external pressure or comparison from other municipalities with regards to the reports produced by your current FMIS and how does your municipality deal with such?

Theme 4 - To explore best practices of FMIS for the municipalities in KZN

29. Do the system owners that are managing the financial system provide proper trainings and support to your municipality? What needs to be improved?

30. Who are the key municipal officials to be trained on the introduction and implementation of FMIS? Why?

31. Does your municipality have the project leader or champion who is an expert or trained upon introduction and implementation of the IFMIS? What role does the leader or champion plan? What can be improved?

32. Which system does your municipality have for proper data security, backup system and proper document management system in the event of data loss or system breakage?

33. What level of understanding does the system champion or relevant person have in understanding the working environment and that which financial systems that should be integrated?

34. What is the capacity of your municipality's IT server and will it be able to be sufficient to cater the requirements for the project of IFMIS implementation and be successful?

35. Do all staff members within Finance and IT department have the relevant skills and meet all the requirements for the positions they occupy? Please explain

Thank you for your participation

APPENDIX D: GATEKEEPERS' LETTERS MUNICIPALITY A



OFFICE OF THE ACTING MUNICIPAL MANAGER

P. O. Box 449 Harlingen 13433 Tel : 035 573 8600
8600
Mkuze Kingfisher Road Fax : 035 5731094
3965 Mkuze Website: www.ukdm.gov.za
Email : mm@ukdm.gov.za

Enquires: Mr M.A Nkosi (AMM)

Dear Ms TP Kweyama

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

uMkhanyakude District Municipality is in receipt of your request to conduct a study towards your dissertation topic: *“Evaluation of the application of Integrated Financial Management Information Systems in the selected municipalities of KwaZulu Natal”* through Durban University of Technology (DUT).

This serves to inform you that authority has been granted by the Municipality to conduct a study. The rationale to consider your request favourably inter alia, includes your commitment to provide statically significant and scientifically tested findings. More importantly, the rigorous recommendations that improve human capitals engagement and performance which equate to service delivery improvement to this Municipality.

The Municipality guarantees its employees cooperation's throughout the entire process until the study is complete. Lastly, you are urged to fully adhere to ethics codes that guide the conduct of the researcher when conducting the study.

Wishing you all the best of luck in your research paper.

Mr. M.A Nkosi
Acting Municipal Manager
DATE: 10th May 2022

MUNICIPALITY B



5 Mark Strasse Civic Centre
Business District
Private Bag X1004
Richards Bay 3900
E: reg@umhlathuze.gov.za
T: 035 907 5000
F: 035 907 5444/5/6/7
Toll Free No. 0800 222 827

www.umhlathuze.gov.za

Your ref:
Contact: V SINGH

Our file ref: 1535544
In response to DMS No:
Date: 10 June 2022

ATTENTION: MS TP KWEYAMA
DURBAN UNIVERSITY OF TECHNOLOGY

Madam

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

Your e-mail dated 18 May 2022 that was sent to the Municipality requesting permission from Council to conduct your research has reference.

You are hereby granted permission to conduct your research within the City of uMhlathuze. In order to ensure that your study can be used to improve the City of uMhlathuze overall, you may be requested to do a presentation for Council's Management Team on your findings upon conclusion of your research.

If you require further information, please contact Mr Vikash Singh (Deputy Manager: Training and Development) on 035 907 5196. Do ensure that all your data collecting methods are in compliance with Covid-19 regulations.

I wish you all the best with your research and await a bound copy of your dissertation upon completion of your studies.

ms Linaywuu
Deputy Municipal Manager: Corporate Services
DMS 1535544



ALL CORRESPONDENCE MUST BE ADDRESSED TO THE MUNICIPAL MANAGER

MUNICIPALITY C



Jozini Local Municipality

Jozini Circle Street
Bottom Town
3969
Tel. No (035) 572 1292
Email: municipalmanager@jozini.gov.za
Website: www.iozini.gov.za

Private Bag X028
Jozini
3969
Fax No, (035) 572 1266

Enquires: Mr J. Mngomezulu (MM)

Ms Thenjiwe Kweyama

Send by email: thethek12@gmail.com

Cell: 078 457 6519

Dear Ms Kweyama

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

The letter serves as authorisation to conduct the field research to fulfil the studies of Doctor of Philosophy degree (PhD) on your research topic which is "Evaluation of the application of Integrated Financial Management Information System in selected municipalities of KwaZulu Natal".

Upon the review of the letter sent to us by yourself, we are glad to offer you an opportunity to use our organization as one of the municipalities to conduct your research study. The municipality guarantees its employees cooperation throughout the process until your study is completed.

If you have any concerns or require additional information, feel free to contact our.....

Wishing you all the best in your studies

Yours faithfully

Mr J.A Mngomezulu

Municipal Manager

DATE: 10th May 2022

APPENDIX E: ETHICAL APPROVAL LETTER



Faculty Research Office
Durban University of Technology
Date: 21 April 2023

Student: Thenjiwe Pretty Kweyama
Student Number: 22175518
Degree: PhD BIM
Email: 22175518@dut4life.ac.za
Supervisor: Dr C. Nyide
Supervisor email: nyidec@dut.ac.za

Dear Ms Kweyama

ETHICAL APPROVAL: LEVEL 2

I am pleased to inform you that the Faculty Research Ethics Committee (FREC) following feedback from two reviewers, has granted preliminary permission for you to conduct your research 'Evaluation of the application of Integrated Financial Management in Integrated Financial Management Information Systems in selected municipalities of KwaZulu-Natal', was submitted to two ethical reviewers and they had the following queries:

When ethics approval is granted:

You are required to present the letter at your research site(s) for permission to gather data. Please also note that your research instruments must be accompanied by the letter of information and the letter of consent for each participant, as per your research proposal.

This ethics clearance is valid from the date of provisional approval on this letter for one year. A student must apply for recertification 3 months before the date of this expiry.

Recertification is required every year until after corrections are made, after examination, and the thesis is submitted to the Faculty Registrar.

A summary of your key research findings must be submitted to the FRC on completion of your studies.

Kindest regards.

Yours sincerely

Dr Mogiveny Rajkumar
FRC Chair
Faculty of Accounting and Informatics

APPENDIX F: TURNITIN REPORT

ORIGINALITY REPORT			
10%	6%	5%	5%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS
PRIMARY SOURCES			
1	hdl.handle.net Internet Source	1%	
2	Submitted to University of KwaZulu-Natal Student Paper	<1%	
3	researchspace.ukzn.ac.za Internet Source	<1%	
4	www.scirp.org Internet Source	<1%	
5	Submitted to Nelson Mandela Metropolitan University Student Paper	<1%	
6	www.zbw.eu Internet Source	<1%	
7	Submitted to Durban University of Technology Student Paper	<1%	
8	www.scielo.org.za Internet Source	<1%	
9	Submitted to Mancosa		

APPENDIX G: PROOF OF LANGUAGE EDITING

THE WRITING STUDIO *Writing and Editing Practice*

Certificate 1/8

TO WHOM IT MAY CONCERN

15 August 2024

This dissertation, entitled **Evaluation of the application of Integrated Financial Management Information Systems in selected municipalities of KwaZulu-Natal**, by TP Kweyama, has been edited and reviewed to ensure technically accurate and contextually appropriate use of language for advanced research.

Yours sincerely

CM ISRAEL, BA Hons (UDW) MA (UND) MA (US) PhD (UNH)
LANGUAGE EDITOR AND WRITING CONSULTANT
Connieisrael90@gmail.com Mobile 082 4988166