



**An exploration of measures to enhance the financial sustainability of the
uMgungundlovu District Municipality**

by

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DECLARATION

I, Nkosikhona Collen Quincy Sabela, declare that:

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ABSTRACT

This study investigates the financial sustainability of the uMgungundlovu District Municipality (UMDM), a key component of effective municipal governance in South Africa. The research is guided by four theoretical frameworks: Financial Control Theory, Contingency Theory, Collaborative Governance Theory, and Risk Management Theory. Financial Control Theory underscores the need for sound fiscal management and accountability; Contingency Theory considers the municipality's adaptability to external pressures such as economic and technological changes; Collaborative Governance Theory emphasizes stakeholder cooperation in addressing complex service delivery issues; and Risk Management Theory highlights the importance of identifying, assessing, and mitigating financial and operational risks to safeguard long-term sustainability.

The research examines the root causes of financial instability, including escalating debtor balances, cash flow difficulties, and operational inefficiencies, while proposing actionable strategies to strengthen the municipality's financial resilience. A convergent one-phase mixed-method approach was employed, integrating quantitative data from 104 municipal customers with qualitative insights from interviews with 9 municipal officials. This comprehensive methodology enabled a thorough analysis of financial management practices, customer experiences, and operational challenges within UMDM.

Key findings indicate that economic constraints, inaccurate billing, and errors in municipal statements significantly hinder customers' ability to pay for services. High tariff rates and insufficient income exacerbate these challenges. Qualitative insights further reveal issues such as aging infrastructure, inconsistent meter readings, and weak enforcement of policies and bylaws as major barriers to financial sustainability. Municipal officials emphasized the importance of strategic leadership, robust governance, and enhanced financial practices to address these challenges effectively.

The study concludes that achieving financial sustainability requires a holistic approach. Proactive public engagement, consumer education, and strengthened collaborative governance are essential for fostering stakeholder trust and compliance. Additionally, operational reforms, including modernised infrastructure, improved financial controls, and integrated planning, are critical to ensuring UMDM's ability to deliver equitable and sustainable services amidst economic and institutional challenges.

Keywords: Financial sustainability, Financial management, and Stakeholder engagements.

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LIST OF ACRONYMS

AFS	Annual Financial Statements
AGSA	Auditor-General of South Africa
BCMM	Buffalo City Metropolitan Municipality
COGTA	Cooperative Governance and Traditional Affairs
ICT	Information and Communication Technologies
IDPs	Integrated Development Plans
IMF	International Monetary Fund
MI	Material Irregularity
MFMA	Municipal Finance Management Act
MFSI	Municipal Financial Sustainability Index
MSA	Municipal Systems Act
OECD	Organisation for Economic Co-operation and Development
SDBIP	Service Delivery Budget and Implementation Plan
SAICE	South African Institution of Civil Engineering
SALGA	South African Local Government Association
SARS	South African Revenue Services
SDGs	Sustainable Development Goals
UMDM	uMgungundlovu District Municipality
WSA	Water Service Act
ANOVA	Analysis of Variance
EDA	Exploratory Data Analysis
GDPR	General Data Protection Regulation
SPSS	Statistical Package for The Social Sciences

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Chapter 3 of the Constitution of South Africa (1996) identifies the organisational structure of governance within the country, demarcating three distinct spheres: National, Provincial, and Local government. Each sphere maintains its autonomy and identity. However, they are interconnected, collaborating to fulfill the collective mandate of providing essential services to the citizens. The national government assumes a predominant role in policymaking and strategic oversight, guiding the direction of the nation. Conversely, the provincial administration assumes a critical function in implementing the policies, particularly through local governance channels, commonly known as municipalities (Ajam, 2014). The country's revenue base is centralised at the national level through the collection of taxes from citizens in the South African Revenue Services (SARS). Therefore, both provincial and local governments are highly dependent on receiving conditional grants for the implementation of national economic projects and tranches of equitable share from the national government to subsidise their operations.

In order to supplement the income from the national government, the municipalities collect property rates taxes and charge the communities for the services they provide, such as water, sanitation, and refuse collection. Chapter 8 of the Municipal Systems Act (2000) states that municipal services should be equitable and conducive, constantly improving in quality over time, financially sustainable, and consider the environment. The law also requires regular inspection of services provided by the municipalities to assess the need for upgrades, expansions, or improvements.

However, due to many factors, some of the municipalities in the county are in financial distress, which means that they are unable to meet the core mandate of the Municipal Systems Act on providing services to the communities. The report on the state of the local government by the Department of Cooperative Governance and Traditional Affairs (COGTA) reflects that out of the 257 municipalities at the time, 125 in 2018 were financially distressed, and the number increased to 163 in 2019 (COGTA, 2021). This means that 63 percent of the total municipalities in the country were in financial distress, and the costs of providing services were higher than the revenue that the municipalities received, leading to financial instabilities for those municipalities. Therefore, it is imperative to explore the measures to enhance the financial

sustainability of municipalities that will ultimately improve the well-being of South African citizens.

1.2 Background of the Study

The uMgungundlovu District Municipality (UMDM) is one of the major districts in the province of KwaZulu-Natal, made up of seven local municipalities with an estimated population of 1.2 million. It is well-established in the Midlands along the N3 that links Durban, the country's busiest harbour, to Johannesburg, the country's economic hub. UMDM is home to Pietermaritzburg City, the capital city in the province of KwaZulu-Natal (COGTA, 2023). UMDM has the potential to be one of the biggest job creators in the province as it consists of vast land that can be used for agricultural activities with crops easily exported to the international market. The beauty of the landscape can serve as a tourist destination to enhance economic activities to contribute to the financial sustainability of the municipality. In the past few years, the UMDM has experienced financial challenges concerning the recoverability of the costs incurred during the delivery of services to the citizens. Therefore, this study necessitates the opportunity for the municipality to explore the measures that can enhance the financial sustainability of UMDM.

1.3 Problem Statement

Despite the UMDM's efforts to enhance revenue generation, it continues to experience significant financial sustainability challenges. The municipality's ability to collect billed revenue is declining, with a gross debtors' balance increasing from R641 127 146 in 2022 to R901 687 701 in 2023, against a total revenue of R1 549 283 967 (UMDM, 2024b). This reflects a collection rate of only 41.8 percent, well below the National Treasury's recommended norm of 95 percent as outlined in MFMA Circular No. 71 (National Treasury, 2014). Such under-collection not only underscores UMDM's growing difficulty in recovering billed revenue, but also poses a serious threat to its fiscal stability and its capacity to sustain essential water, sanitation, and other municipal services.

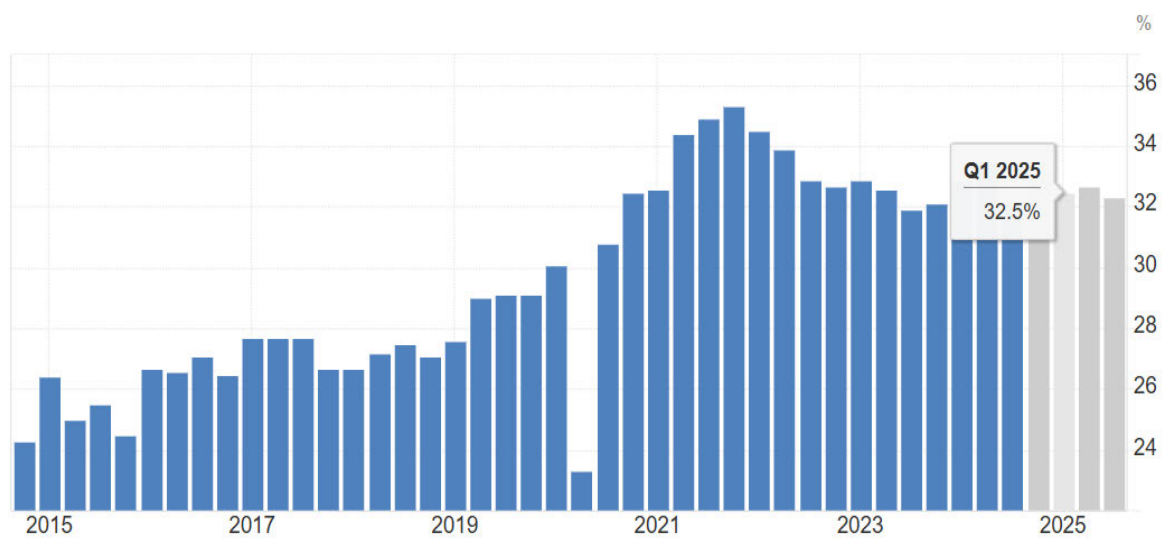
A significant contributor to the revenue shortfall is the rising unemployment rate within the district. Nationally, South Africa's unemployment rate has remained above 30 percent over the past decade (Khoza, 2024). Within the uMgungundlovu District Municipality (UMDM), the local unemployment rate stands at 30.4 percent, with one municipality reaching as high as 37 percent (COGTA, 2023). Projections indicate that the national rate will rise to 32.5 percent in the first quarter of 2025 (Tradingeconomics, 2025). As a result, an increasing proportion of

residents are unable to afford basic municipal services. This issue is further exacerbated by UMDM’s largely rural population and constrained economic activity, both of which heighten affordability challenges and contribute to declining revenue collection rates.

Exacerbating these dynamics, the cost of providing essential services has escalated sharply. A 9 percent tariff increase imposed by uMngeni-uThukela Water, plus a ZAR 2.14 per kilolitre capital levy for the uMkhomazi Dam, prompted UMDM to implement a 12 percent water-tariff hike for 2024/25 (UMDM, 2024a). Although the municipality’s inclining block, cost-reflective tariff structure is intended to promote sustainable consumption, these increases exceed the Consumer Price Index inflation target (National Treasury, 2023). In the context of rising unemployment, higher tariffs further erode households’ ability to pay, deepening the cycle of revenue shortfall.

While there is substantial literature on municipal finance in South Africa, few studies have examined how unemployment, rural population characteristics, and tariff design converge to produce persistent under-collection of revenue. Likewise, evidence is scarce on which interventions can simultaneously improve household affordability and strengthen municipal revenues. This study fills that gap by investigating the determinants of low collection performance in UMDM and by evaluating the root causes that lead to an increase in debtors' balance, factors that could impede the long-term sustainability, and exploring possible solutions to enhance both citizen welfare and the municipality’s long-term financial sustainability.

Figure 1.1: The South African unemployment rate



Source: www.tradingeconomics.com

1.4 Purpose Statement

This study aims to comprehensively and intensively examine alternative measures to enhance the financial sustainability of the UMDM, considering the significant socioeconomic impacts and economic challenges affecting individuals and companies within the district.

1.5 Research Questions

- What are the root causes behind the increase in the debtor's balance and the maintaining a healthy cash flow at uMgungundlovu District Municipality?
- What are the factors that could impede the long-term sustainability of the uMgungundlovu District Municipality?
- What are possible solutions that uMgungundlovu District Municipality could implement to combat financial instability?

1.6 Research Objectives

- To identify the root causes of the increase in debtors' balance and cash flow challenges faced by the municipality in meeting financial obligations.
- To determine the factors that can impede the long-term sustainability of the municipality.
- To identify possible solutions to combat the financial instability within the uMgungundlovu District Municipality.

1.7 Significance of the Study

The persistent rise in the debtors' level among municipalities in recent years is concerning as it brings the possibility of adverse financial constraints. As such, there is an increasing need to examine alternative opportunities that could relieve the financial burden on the UMDM. The district's community might also experience relief from the escalating costs imposed by a lack of socio-economic activities that have detrimental effects on the municipality and citizens. Furthermore, the exploration of other means to enhance financial sustainability could bring improvements in the new capital investments, maintenance and upgrading of existing infrastructure, and an overall enhancement in service delivery to the community of UMDM.

1.8 Methodology Overview

The study applied a convergent one-phase mixed-method approach to gather evidence through both quantitative and qualitative methods (Creswell and Creswell, 2022). It involved two

groups: municipal customers from each of the seven local municipalities and UMDM officials. The municipal customers were engaged through a quantitative approach to collect insights from the community's perspective, which was vital for understanding the experiences, needs, and opinions of those directly impacted by municipal services and policies. The qualitative approach involved interviews with municipal officials to obtain perspectives from within the administrative and managerial structures of the municipality. Their input was crucial for understanding the internal workings, decision-making processes, and operational challenges that either hindered or facilitated financial sustainability.

The data collected from both municipal customers and officials were analysed separately and subsequently compared to determine whether the findings corroborated or contradicted each other, as elaborated in Chapter 3. The study aimed to explore measures that the UMDM region could implement to enhance financial sustainability. By employing a mixed-method approach, the research provided a comprehensive understanding of the problem from the local municipalities' perspectives and the viewpoints of UMDM officials (Creswell and Creswell, 2022).

1.9 Dissertation Structure

This dissertation is structured into five chapters, outlined as follows:

Chapter One: This chapter introduces the background and significance of the study, offering a detailed explanation of the research problem and the corresponding problem statement. It also defines the study's objectives and provides an overview of the specific research questions formulated to achieve these objectives. The chapter concludes by highlighting the study's contribution to the field.

Chapter Two: This chapter provides an extensive review of the literature, focusing on various dimensions of municipal financial sustainability. It further explores the literature on the economic development of local governments within the South African context.

Chapter Three: This chapter outlines the research design and methodology employed in the study, with a detailed discussion of the mixed-method approach adopted. It elaborates on the population selection, data collection techniques, and data analysis methods. Additionally, the chapter addresses the ethical considerations observed throughout the research process.

Chapter Four: This chapter presents the interpretation and analysis of the collected data, focusing on insights from municipal customers within the UMDM jurisdiction and the perspectives of municipal officials.

Chapter Five: The final chapter provides recommendations and a conclusion based on the findings of the study. It emphasises practical measures to enhance the financial sustainability of the uMgungundlovu District Municipality.

1.10 Chapter Summary

This chapter established the context and rationale for exploring the financial sustainability of the UMDM within South Africa's intergovernmental governance framework. It highlighted UMDM's strategic location and economic potential, while outlining critical fiscal challenges such as low revenue collection, rising unemployment, and increasing service delivery costs. The research problem, purpose, questions, and objectives were clearly defined to guide the investigation. The chapter also explained the significance of identifying actionable measures to improve financial resilience and service delivery. A convergent one-phase mixed-method approach was introduced, combining perspectives from municipal customers and officials to provide a comprehensive understanding of the underlying causes of financial instability. The chapter concluded by outlining the structure of the dissertation. The next chapter presents a review of literature relevant to municipal financial sustainability and the specific challenges facing local government in the South African context.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on municipal financial sustainability, with a focus on its relevance to the UMDM. It begins by defining the concept of financial sustainability and contextualizing it within the municipality's economic landscape and historical financial performance. Key challenges affecting UMDM and similar municipalities are examined, including resource constraints, inadequate technical expertise, and inefficiencies in budgeting and implementation. The chapter emphasises the critical role of financial governance and accountability, highlighting transparent and ethical practices as essential for fostering long-term sustainability.

To enrich the discussion, the review incorporates global perspectives, particularly from other developing countries, to draw lessons on navigating financial instabilities. It also explores how technological innovations can enhance municipal financial management by improving efficiency, streamlining operations, and supporting data-driven decision-making. The study adopts Financial Control Theory, Contingency Theory, and Collaborative Governance Theory as its guiding frameworks, providing a structured lens through which to explore practical measures to enhance the financial sustainability of UMDM and similarly situated municipalities.

2.2 Economic Overview of the uMgungundlovu District Municipality

The economic landscape of UMDM is diverse, with agriculture, manufacturing, retail, and services being the primary sectors. Agriculture serves as a cornerstone of the local economy and produces significant outputs in sugarcane, timber, and dairy products (UMDM, 2024e). The manufacturing sector, which is largely centered around Msunduzi Local Municipality, includes food processing, textiles, and automotive components. Additionally, tourism is emerging as a vital sector, leveraging the district's natural beauty, historical sites, and cultural heritage (UMDM, 2024e). The geographic, demographic, and economic characteristics of UMDM directly impact its financial sustainability. The geographic diversity and significant natural features necessitate substantial investment in infrastructure to support agricultural productivity and mitigate environmental challenges, such as flooding from the Umgeni River. Effective infrastructure management is essential for sustaining economic activities and ensuring the district's long-term financial health (UMDM, 2024e).

In the UMDM, significant labour force statistics highlight key economic challenges. Out of 675,561 eligible individuals, 36 percent are employed, while 16 percent are unemployed, leading to a high unemployment rate exceeding 30 percent. Additionally, 41 percent of the population is classified as not economically active (Statistics SA, 2022a). These figures emphasise the need for targeted economic policies and interventions to boost employment opportunities and encourage sustainable economic growth. Achieving these goals necessitates a deep understanding of local socio-economic dynamics and strategic investments in sectors that promote job creation and inclusive development, which will enrich the municipality and help it maintain a healthy financial position.

Dlamini's (2020) study highlights the significant impact of youth unemployment on the country's economic activities. In the context of the UMDM, the youthful demographic presents both opportunities and challenges for financial sustainability. While it signifies a potential future workforce that could drive economic growth, realising this potential requires substantial current investments in education, healthcare, and social services. Failure to adequately invest in these areas may result in increased social costs and reduced economic productivity, thereby straining the district's financial resources.

2.3 UMDM's Historical Financial Performance

2.3.1 Financial Performance and Audit Outcomes

The financial health of municipalities is crucial for their overall sustainability. Over the last five years, the UMDM has shown significant improvement, maintaining unqualified audit opinions from 2019/20 to 2024/25 (UMDM, 2024b). This trend reflects the broader understanding that strong financial governance can lead to better audit results. According to Ngcobo and Malefane (2017), the better audit performance of the municipality signifies the effectiveness and efficiency of internal controls implemented by management.

2.3.2 Revenue Collection and Debtor Management Challenges

A growing body of literature and municipal reporting reveals that the UMDM is experiencing a sustained and deepening fiscal strain as a result of its expanding debtors' portfolio. The municipality's audited AFS shows that the total debt owed increased dramatically from R641 million in 2021/22 to R901 million in 2022/23, and further to R1.23 billion in 2023/24, marking a 92 percent increase in just two financial years (UMDM, 2024b). This alarming rise reflects systemic inefficiencies in revenue collection and credit control practices that compromise the municipality's financial viability.

Despite marginal improvements in audit outcomes, UMDM continues to fall short in actual revenue recovery. Its collection rate remained at just 55 percent in 2023, a slight improvement from 52 percent in 2022, yet still significantly below the National Treasury's benchmark of 95 percent (UMDM, 2023a). This implies that nearly half of the billed customers do not pay for municipal services, which undermines service delivery and places considerable pressure on liquidity and impairs long-term fiscal planning. The consequences are evident in the deterioration of cash reserves and the accumulation of interest on overdue accounts, contributing further to the inflation of the municipality's debtor book.

These patterns are not unique to UMDM. Nationally, municipalities are grappling with similar revenue management challenges. A recent study by Mushongera, Modiba, and Ndagurwa (2024) points to the intersection of economic hardship, limited affordability, and outdated billing systems as core obstacles to effective revenue collection in South African local government. In UMDM's case, these issues are compounded by infrastructural limitations and outdated metering technologies, fragmented customer data systems, and limited automation, which collectively hinder the accurate tracking and billing of services rendered.

Water curtailment has further exacerbated the situation, which has directly reduced UMDM's primary revenue stream. As a water services authority, the municipality has billed significantly less water usage during these periods, resulting in a tangible drop in income. To manage the growing burden of uncollectable debt, the municipal council approved the write-off of R8.29 million and recognised R363.8 million in debt impairment during the 2023/24 financial year alone (UMDM, 2024c). Such provisions reflect the municipality's shrinking confidence in its ability to recover amounts billed, and they raise critical questions about the sustainability of its current revenue model.

Moreover, the Auditor-General South Africa (AGSA, 2023) has repeatedly flagged operational inefficiencies in key areas such as meter reading accuracy, the credibility of the indigent register, and the enforcement of credit control policies, all of which directly affect the municipality's revenue performance. The absence of an integrated, technology-driven revenue collection system limits UMDM's ability to identify defaulters, issue timely and accurate bills, and enforce payment, creating a persistent gap between billing and actual cash collection.

In contrast, municipalities that have successfully navigated these challenges have increasingly turned to digital transformation. According to Kessy (2019), in a study conducted in Kinondoni Municipality, Tanzania, the implementation of electronic payment (e-payment) systems

positively influenced revenue collection through enhanced tax compliance, better monitoring of revenue streams, and improved financial reporting. The study found a positive linear relationship between e-payment adoption and overall revenue performance. These findings align with the South African context, where similar interventions could support improved compliance and reduced debtor growth. However, the study also cautioned against key obstacles to implementation, including poor internet connectivity, limited public awareness, inadequate technical support, and unreliable electricity supply—barriers that UMDM would need to address proactively. Despite these challenges, the research underscores that digitalising financial systems plays a pivotal role in bridging the gap between billing and actual revenue collection, a gap that has widened significantly in UMDM over recent years (Kessy, 2019).

2.3.3 Budget and Financial Management

Unpaid accounts have heavily impacted UMDM's budget, a common issue in many municipalities (Mushongera, Modiba and Ndagurwa, 2024). However, UMDM's budget has significantly improved, achieving a funded status over the past three years, from 2022/23 to 2024/25. This turnaround is attributed to increased tariffs ensuring cost-reflective pricing and better cash management, including investing surplus funds to generate interest (UMDM, 2023b). These strategies align with financial management recommendations that highlight the importance of dynamic pricing and the effective investment of surplus funds (Nyembezi, Rootman and Tait, 2019). UMDM's case reflects these challenges, emphasising the need for balanced fiscal strategies that consider both equity and efficiency (Jacobs, 2019). Therefore, it is imperative to consider this broader view of the challenges and strategies for economic and financial sustainability.

2.4 Defining Financial Sustainability

Financial sustainability is defined as an organisation's capacity to consistently increase its income over time, ensuring its long-term viability (Putra et al., 2021, as cited in Adams et al., 2010). According to Putra et al., financial sustainability goes beyond mere financial performance. It also encompasses an organisation's ability to fulfill its mission, effectively serve stakeholders, and maintain business continuity. They further argue that achieving financial sustainability requires above-average profitability to build financial reserves and enhance the capacity to navigate future challenges.

Camara and Chato (2023) define financial sustainability within the context of non-profit organisations as the ability to secure and manage resources necessary to sustain, enhance, and

grow their mission over time, while simultaneously minimising financial risks and preserving independence. Camara and Chato emphasise that maintaining financial stability enables organisations to consistently deliver their services and programs without interruptions, thereby ensuring their continued relevance and impact.

A study conducted by Nyembezi, Rootman, and Tait (2019), titled *The South African Public Broadcaster's Financial Sustainability: Internal Stakeholders' Perceptions*, identifies three critical factors influencing financial sustainability:

- i. Internal stakeholders,
- ii. The competitive environment, and
- iii. Resource management.

The study underscores the importance of allocating reserves or community wealth to enhance customer benefits and organizational performance. According to Nyembezi, Rootman, and Tait (2019), financial sustainability ensures the efficient functioning of an organisation by maintaining profitability and adequate liquidity to reduce the risks of bankruptcy.

Complementing these findings, León (2001) identifies four foundational pillars essential for achieving financial sustainability:

- i. Financial and strategic planning,
- ii. Income diversification,
- iii. Sound administration and finance, and
- iv. Own income generation.

While Nyembezi, Rootman, and Tait (2019) focus on key factors such as stakeholder involvement and resource management, both studies highlight the importance of building financial reserves in achieving long-term financial sustainability.

Finkler, Calabrese, and Smith (2022) further expand on this by linking financial sustainability to an organisation's ability to withstand economic uncertainties, highlighting that establishing contingency funds, managing debt effectively, and conducting regular financial risk assessments are essential practices for navigating challenges such as funding cuts, economic downturns, and unexpected expenses. These practices enable organisations to continue fulfilling their missions amidst financial instability.

2.5 Critical Elements of Financial Sustainability

Financial sustainability for municipalities involves a combination of crucial elements. First, effective revenue generation strategies are essential, including a mix of taxation policies, user fees, and leveraging grants and subsidies to create a stable financial base (Hajilou, et al., 2018). Equally important is managing expenditures wisely to ensure resources are used efficiently. Wällstedt, Grossi, and Almqvist (2014) suggest that good budgeting and financial planning help municipalities prepare for the future, while strong financial governance and accountability prevent the misuse of funds and ensure transparency. Engaging with the community and stakeholders is vital for building trust and making sure services meet local needs. Additionally, having robust risk management and contingency plans in place helps municipalities handle unexpected financial challenges, ensuring they remain resilient and stable. Together, these elements form a holistic approach to keeping municipalities financially sustainable.

2.5.1 Municipal Revenue Generation Strategies

Chapter 3 of the Municipal Systems Act (2000) outlines the various responsibilities and powers entrusted to municipalities. These responsibilities include overseeing and regulating municipal services, managing budgets, and generating revenue through rates, taxes, levies, service charges, and other fees. Essentially, municipalities are tasked with setting and implementing policies for tariffs, taxes, and debt collection to ensure they have the necessary funds to operate effectively.

One of the primary sources of revenue for local municipalities is property taxes. In the study on revenue enhancement by Jacobs (2019), it was noted that property taxes are one of the most reliable and predictable forms of income for municipalities. To maximise this revenue stream, it is crucial that property valuations are fair and accurate. This ensures equity and encourages property owners to pay their rates, knowing that the system is just and transparent.

Apart from property taxes, municipalities also rely on service charges for essential utilities like water, sanitation, and electricity to generate revenue. Whittington and Nauges (2020) argue that these charges should reflect the actual cost of providing these services. This means that those using the services should contribute to their costs, ensuring the system is fair and sustainable. Municipalities can maintain financial health by aligning service charges with the real costs while providing necessary services to the community.

Effective revenue generation for municipalities requires a balanced approach. While property taxes offer stability, service charges ensure that the costs of utilities and other services are

covered by those who benefit from them. This dual strategy helps maintain fairness and efficiency, ensuring municipalities can continue serving their communities effectively.

Section 84(1) of the Local Government: Municipal Structures Act (1998) further distinguishes or divides the function and powers between district and local municipalities. In the main, the following are specific core functions that the district municipalities are responsible for in providing services to the citizens:

- Bulk supply of water,
- Bulk supply of electricity that affects a significant proportion of municipalities in the district. Bulk sewage purification works and main sewage disposal,
- Solid waste disposal sites,
- Municipal roads, which form an integral part of a road transport system,
- Regulation of passenger transport services,
- Municipal airports,
- Municipal health services,
- Firefighting services,
- The establishment, conduct, and control of fresh produce markets and abattoirs,
- The establishment, conduct, and control of cemeteries and crematoria services,
- Promotion of local tourism for the area of the district municipality, and
- Municipal public works relating to any of the above functions or any other functions assigned to the district municipality.

The Local Government: Municipal Structures Act (1998) empowers district municipalities in South Africa to impose and collect taxes, levies, and duties. This authority is essential for generating revenue, which enhances their cash flow and ensures their financial sustainability, enabling them to continue providing crucial services to communities. However, despite these benefits, setting cost-reflective tariffs presents significant challenges. One of the main challenges in setting tariffs is ensuring that they cover the cost of providing services without discouraging their use, especially for essential services that must remain affordable. Whittington and Nauges (2020) highlight the high risk of tariff inequality, which necessitates

a careful balance to ensure fairness among customers from different income groups. Tariffs must be structured in a way that they are equitable for lower-income, middle-class, and upper-class customers.

The South African government acknowledges that a significant portion of its population lives below the poverty line and relies heavily on social grants (Chitiga-Mabugu et al., 2021). This economic reality makes it difficult for many citizens to afford essential services like water, electricity, and sanitation. To mitigate this issue, the government provides additional funding to municipalities through the local government equitable share formula, as highlighted by the South African Local Government Association (SALGA, 2012). However, these subsidies often fall short of covering the extensive needs of the population. As a result, municipalities frequently have to allocate extra funds to meet their service delivery commitments. Schultz and Hendrickse (2018) noted that maintaining services for indigent customers can be so costly that it forces budget reallocations, sometimes at the expense of services for paying citizens. These substantial costs create financial strain, affecting municipalities' liquidity and overall financial sustainability.

To manage these challenges, municipalities adopt various cost-saving strategies. Mbulawa (2019) suggests that strict expenditure management is one such strategy used to maintain financial health. Municipalities aim to ensure that they can meet their obligations by implementing rigorous budget controls and prioritising spending without compromising service delivery. The literature suggests that while the ability to impose and collect taxes and levies is crucial for the financial sustainability of district municipalities, it is equally important to address the complexities of setting fair and affordable tariffs. Balancing the need for revenue with the affordability of essential services remains a key challenge. Equitable funding mechanisms and prudent financial management practices are essential to navigate these challenges and ensure sustainable service delivery.

2.5.2 Expenditure Management

Expenditure management is a foundational element of financial sustainability in local government, especially amid constrained revenue growth, rising service demands, and increased fiscal pressure. According to Margaretta (2024), municipalities must not only spend within their means but also ensure that public expenditure delivers measurable value and aligns with service delivery mandates. In this regard, the UMDM offers a compelling case study. Its total expenditure increased from R1.24 billion in the 2022/23 financial year to R1.41 billion in

2023/24, a sharp rise that reflects escalating operational costs and growing demand for services. A particularly concerning indicator is the sharp increase in debt impairment—from R293.6 million to R363.8 million—signalling a decline in payment compliance among municipal customers and, by extension, a deterioration in revenue management.

These developments underscore Margareta's (2022) argument that municipalities experiencing rising defaults in service payments must enforce stringent expenditure controls and link budgeting processes to measurable outputs to mitigate financial vulnerability. In the case of UMDM, significant expenditure items such as employee-related costs (R324.4 million), contracted services (R252.2 million), and general expenses (R62.3 million) highlight the importance of cost efficiency in operational planning. Inventory losses and adjustments totalling R47.9 million further reveal internal inefficiencies that compromise budget integrity. Boufounou et al. (2024) argue that such fiscal leakages and spending irregularities necessitate strengthened internal controls, enhanced accountability, and the deployment of real-time expenditure monitoring systems to uphold financial discipline.

Policy instruments such as the MFMA Circular No. 82 (National Treasury, 2024) reinforce this stance, urging municipalities to eliminate non-priority spending, such as unnecessary travel, excessive catering, and outsourced consultancy, and redirect funds toward core service delivery areas. While UMDM recorded a surplus of R158.1 million for the 2023/24 financial year, this does not inherently indicate financial health. As Nurfadila (2024) cautions, true fiscal sustainability requires continuous enforcement of cost containment measures and the adoption of expenditure frameworks that are outcomes-based, transparent, and geared toward long-term developmental objectives.

The experience of UMDM also resonates with broader findings from other developing contexts. Ndunda (2024), in a study on county governments in Kenya, highlights how poor expenditure management—characterised by delays in payments to contractors, salary arrears, and rising liabilities—can rapidly erode public sector financial health. The study found that ineffective debt management, weak auditing practices, and underperforming financial information systems were key drivers of financial distress. Importantly, it noted that strategic resource allocation plays a moderating role, with better planning and allocation mechanisms helping to cushion the fiscal system from the full impact of poor financial practices. These insights reaffirm the need for municipalities such as UMDM to integrate sound expenditure

management with broader financial governance systems to ensure stability and responsiveness in service delivery.

2.5.3 Budgeting and Financial Planning Practices

In South Africa, municipal budgeting and financial planning are governed by various legislations designed to promote transparency, accountability, and sustainability. These regulations significantly impact the financial sustainability of municipalities, making it essential to examine their influence comprehensively. Furthermore, this literature review on budgeting and financial planning practices explores key areas such as the incorporation of financial planning and sustainability, the critical role of community involvement in the budget process, the challenges faced during budget implementation, and the need to strengthen financial governance and accountability. Understanding these factors helps with insights into the complexities of municipal financial management and identifies strategies to enhance the financial health of local governments.

2.5.3.1 The Constitution of the Republic of South Africa (1996)

The Constitution of the Republic of South Africa (1996) plays a pivotal role in defining local governments' financial management and service delivery responsibilities. It ensures that municipalities have the necessary resources to effectively carry out their duties by setting clear guidelines for financial management and service delivery (Constitution, 1996, s. 152). These guidelines help municipalities plan and execute their budgets to meet their residents' needs while maintaining financial stability and accountability. The constitutional framework promotes good governance and ensures that local governments can sustainably manage their financial resources, providing essential services to their communities.

2.5.3.2 Municipal Finance Management Act (MFMA)

The Municipal Finance Management Act (MFMA) defines the municipal budget as the financial plan for a municipality for the financial year (MFMA, 2003, s. 1). Financial planning involves creating long-term strategies to ensure financial sustainability and efficient resource management (CoGTA, 2020). Linking budget allocations to performance outcomes enhances accountability and ensures that resources are used efficiently. This approach allows for better monitoring and evaluation of the effectiveness of municipal programs and services (Fourie and Poggenpoel, 2017). The MFMA mandates the annual budget preparation process, forming a three-year medium-term revenue and expenditure framework aimed at promoting transparency, accountability, and effective financial management practices (MFMA, 2003, ss. 16-17).

Following the approval of the municipal budget, municipalities are required to prepare a Service Delivery Budget and Implementation Plan (SDBIP) within 28 days, detailing how the budget will be utilized to deliver essential services to the community (MFMA, 2003, s. 53). This framework ensures that municipalities not only plan their finances effectively but also commit to delivering tangible services to their residents.

2.5.3.3 The Municipal Systems Act (MSA) of 2000

The Municipal Systems Act (MSA) of 2000 requires municipalities to create Integrated Development Plans (IDPs), which are strategic documents spanning five years that guide and manage development within a municipality's jurisdiction (Masilo and Gershwin, 2020). These plans form the backbone of the municipality's budgeting and resource allocation approach, ensuring a structured and coherent path for growth and development. The importance of IDPs cannot be overstated, as they provide a clear vision and strategic direction, enabling municipalities to prioritise projects and allocate resources efficiently. This strategic planning helps municipalities address their communities' immediate needs. It also supports long-term goals by promoting sustainable development and financial stability (SALGA, 2019). By adhering to the guidelines set forth in the MSA, municipalities can better manage their finances, ensuring that they can meet the diverse needs of their residents while maintaining transparency and accountability (MSA, 2000, s. 25). The IDPs bring together different sectoral plans to ensure coordinated and cohesive development (Reddy, 2016). According to Masilo and Gershwin (2020), the IDPs provide a structured framework for identifying and prioritizing development projects, ensuring that resources are directed towards initiatives that impact the community.

2.5.3.4 Financial Planning and Sustainability

Effective financial planning is essential for ensuring the sustainability of municipal finances. According to COGTA (2020), financial planning entails developing long-term strategies that are aligned with the municipality's objectives and priorities. This process encompasses forecasting income and expenses, identifying potential financial risks, and formulating strategies to manage and mitigate those risks. The literature highlights the importance of connecting budget allocations to performance outcomes to enhance accountability and ensure efficient use of resources (Fourie and Poggenpoel, 2017). This method allows municipalities to monitor and evaluate the effectiveness of their programs and services, making necessary adjustments to improve performance.

2.5.3.5 Public Participation in Budgeting Processes

An essential aspect of financial accountability is actively involving the community and stakeholders in the budgeting process, thus promoting the key principle of the collaborative governance theory of face-to-face dialogue and shared commitment. Engaging citizens in budget discussions significantly enhances transparency and ensures that municipal funds are allocated according to the community's needs and priorities (Fung, 2015). This participatory approach builds trust and fosters a sense of civic responsibility, as residents are more likely to hold officials accountable for their financial decisions (Nielsen, et al., 2021).

Participatory budgeting gives citizens a direct say in how municipal funds are spent, leading to more equitable and effective resource allocation. Research has shown that participatory budgeting can improve public satisfaction with municipal services and increase civic engagement (Wampler, et al, 2021). This process allows community members to voice their preferences and priorities, ensuring that financial decisions reflect the genuine needs of the population.

While Wang, Hawkins, and Berman (2014) persuasively argue that involving community voices in financial governance deepens understanding of local needs and improves resource allocation. However, the argument assumes without examination that all stakeholders are willing and able to engage. In South African settings marked by low civic literacy and concentrated power, this overlooks barriers that silence less-resourced or less-educated groups, especially in rural areas such as UMDM.

Masiya, Mazenda, and Davids (2019) demonstrate how town-hall meetings, online forums, and citizen advisory committees can foster ongoing dialogue between residents and municipal officials. Their examples of enhanced responsiveness are encouraging, yet they do not address how well-resourced interest groups may capture these forums or how digital exclusion can marginalise rural populations.

Together, these studies underscore the intuitive appeal of participatory governance. It can foster accountability, build trust, and cultivate collective ownership of municipal decisions. However, enthusiasm alone does not ensure fairness or effectiveness. Empirical evidence is lacking on how participation endures under fiscal constraint or which design features safeguard marginalised voices. Therefore, it is critical to investigate the barriers to low civic literacy, limited information access, and power imbalances that exclude under-resourced groups in rural

contexts like UMDM and the dynamics by which organised interests may dominate participatory spaces.

2.5.3.6 Budget Implementation Challenges

Despite a comprehensive legislative framework, South African municipalities frequently encounter challenges in implementing effective budgeting and financial planning practices. Limited capacity and resources at the local government level often hinder the effective execution of these frameworks. Fourie and Poggenpoel (2017) note that many municipalities struggle with inadequate financial management skills and a lack of technical expertise, which impede their ability to develop and execute sound financial plans. This skill gap is a significant barrier to achieving financial sustainability and effective service delivery.

In addition to capacity issues, its political interference and corruption pose a substantial threat to the integrity of municipal finance management. Malepe (2022) argues that political meddling can undermine efforts to promote transparency and accountability, leading to misallocation of resources and financial mismanagement. Corruption, in particular, can divert funds meant for public services, exacerbating financial instability and eroding public trust. In a study on budget implementation in the City of Tshwane, Malepe (2022) further emphasises that corruption significantly impairs municipal financial health, highlighting the detrimental impact of unethical practices on budgetary processes.

The budget implementation challenges faced by municipalities are influenced by both internal and external factors. Internally, limited capacity and ineffective budget and financial planning controls can lead to mismanagement and inefficiencies. Externally, political factors and the level of public trust in municipalities play crucial roles. The erosion of public trust, often stemming from perceptions of corruption and inefficiency, can result in decreased community engagement and compliance with municipal policies, further complicating financial management efforts.

Addressing these challenges requires a multifaceted approach. Enhancing the financial management skills and technical expertise of municipal staff is essential for developing robust financial plans and ensuring effective budget execution. Strengthening governance structures and implementing stringent anti-corruption measures to restore public trust and ensure the proper use of municipal resources. By addressing both internal capacity issues and external political and social factors, municipalities can improve their financial sustainability and enhance service delivery to their communities.

2.5.4 Financial Governance and Accountability

Building on the discussion of South Africa's legislative framework, which includes the MFMA, the Constitution, and the MSA, it is clear that these laws lay a strong foundation for financial governance and accountability in municipalities. However, simply having these frameworks in place isn't enough. Their success relies heavily on how well they are implemented and how committed municipalities are to upholding good governance principles.

This section dives into key areas that impact financial governance and accountability. The discussion around the critical role of auditing practices, the importance of involving the public in budgeting processes, the challenges that municipalities face in implementing effective governance, and how technological innovations can improve financial management. The exploration of these topics reflects how municipalities can enhance their financial governance and ensure they manage public funds.

Furthermore, as a measure of accountability, South African municipalities are required to submit their financial statements to the Auditor-General of South Africa (AGSA) within two months following the end of the financial year (MFMA, 2003, s. 126). The AGSA audits these statements to ensure municipalities are managing their finances properly. This audit process is crucial as it reviews how municipal funds were handled over the past year, promoting transparency and accountability (AGSA, 2022). Regular audits by the AGSA help municipalities identify areas of financial mismanagement and take corrective actions, thereby fostering a culture of accountability (Mwila, 2021).

2.5.4.1 Role of Auditing in Financial Governance

Auditing is an integral part of good governance, playing a crucial role in uncovering financial discrepancies and mismanagement, and ensuring public funds are used appropriately. This practice encourages municipalities to manage public funds responsibly, guaranteeing the accumulation of reserves necessary for them to operate as going concern entities. Beck and Stone (2017) explain that municipalities risk losing their going concern status when they cannot adapt to economic changes, reducing public confidence in their ability to deliver affordable services. This decline in trust leads to taxpayer disengagement from local government affairs, further weakening municipal accountability and stakeholder relationships.

Conducting thorough audits demonstrates a municipality's commitment to accountability and transparency, an essential element for building public trust (AGSA, 2022). Internal audits provide continuous oversight, allowing municipalities to proactively address issues, while

external audits by the AGSA offer an independent evaluation, ensuring that financial statements accurately reflect the municipality's financial health (Fourie and Poggenpoel, 2017). These auditing practices are vital for maintaining financial governance and fostering a culture of transparency and accountability within municipalities. By adhering to rigorous auditing standards, municipalities can better navigate economic challenges and ensure accountability while enhancing their financial sustainability.

Audit committees, made up of independent experts, play a crucial role in this process. They oversee the audits and ensure that any recommendations are implemented, helping to strengthen internal controls, improve financial reporting, and reduce the risk of financial mismanagement (Fourie and Poggenpoel, 2017). The effectiveness of these audit committees is well-documented, with evidence suggesting that municipalities with active and independent audit committees tend to have better financial management outcomes (Motubatse, 2016).

However, not all municipalities take full advantage of the auditing process. According to Maclean (2014), some see audits as just a compliance task rather than a vital part of their governance strategy. This mindset can prevent municipalities from fully benefiting from the insights and improvements that audits can provide. Enhancing the understanding and appreciation of the audit process among municipal officials is crucial for improving financial governance.

2.5.4.2 Technological Innovations in Financial Governance

Technological advancements in the modern business environment have significantly enhanced financial management capabilities. The integration of advanced technological features into financial systems can provide robust application controls that mitigate the risk of improper transactions. Bella et al. (2023) conducted a study on the use of technology to enhance financial management, highlighting the importance of investing in technology infrastructure. Their findings suggest that such investments can improve efficiency, accuracy in decision-making, and risk management in financial processes.

The COVID-19 pandemic has further underscored the necessity for organisations to adopt advanced technological solutions. The pandemic introduced significant uncertainties, compelling organisations to reassess their financial strategies, manage liquidity challenges, and navigate volatile market conditions. Bella et al. (2023) concurred by stating that the economic disruptions caused by the pandemic have necessitated organizations to reassess their financial strategies, manage liquidity challenges, and navigate uncertain market conditions. This period

of economic instability has accelerated the adoption of technology as a means to ensure continuity, enhance financial oversight, and support strategic decision-making in organisations. Therefore, the following two fundamentals provide a comprehensive understanding of the importance of incorporating technology to enhance the financial sustainability of municipalities:

(1) Importance of technology in improving financial management and efficiency

The development of Information and Communication Technologies (ICT) has revolutionised the efficiency and transparency of local public bureaucracies. Farzaliyev (2023) highlights how these technological advancements provide significant convenience for public administration, enabling more effective and efficient service delivery over time. ICT facilitates traceability and verifiability within organizations, which are crucial for maintaining accountability and transparency.

Ntando and Mofolo (2024) highlighted that one of the primary benefits of integrating ICT into municipal operations is the ability to meet public expectations for faster service delivery and easier access to administrative information. These technologies facilitate greater citizen engagement with municipal services, thereby enhancing overall satisfaction and trust in local government. By streamlining processes and making information more accessible, ICT enables municipalities to respond more swiftly and effectively to the needs of their communities.

The efficiency brought about by technological advancements also has significant financial implications for municipalities. By leveraging ICT, municipalities can identify and eliminate non-essential costs, thereby optimising their financial resources. This cost-saving aspect of technology enables municipalities to redirect funds toward essential services, thereby enhancing their capacity to serve the community better (Farzaliyev, 2023).

Moreover, the financial balance achieved through technological efficiency contributes to the long-term financial sustainability of municipalities. By investing in proper services and infrastructure, municipalities can ensure that they meet the needs of their communities while maintaining fiscal responsibility. This sustainable financial environment is essential for municipal services' continuous improvement and stability. Farzaliyev's study underscores the importance of ICT in achieving financial sustainability for municipalities. It emphasises that the strategic integration of technology not only improves operational efficiency and

public satisfaction but also creates a robust financial foundation for municipalities to thrive in the long term.

(2) Future trends and potential technological solutions in municipalities.

The adoption of ICT brought about significant improvements in how municipalities operate, making them more efficient, transparent, and financially sustainable. Smart city initiatives and the use of Internet of Things (IoT) devices help optimize urban systems like traffic management, energy consumption, and waste disposal, leading to substantial cost savings and better service delivery (Hollands, 2020). Additionally, data analytics and big data enable municipalities to predict and address issues proactively, improving resource allocation and overall operational efficiency (Sharma et al., 2014). These advancements streamline processes, increase public satisfaction, and help municipalities maintain a healthy financial balance by cutting unnecessary costs, thus promoting a more sustainable fiscal environment.

However, South African municipalities are not fully capitalizing on these technological benefits. A study by Matshwane (2021) revealed that the implementation of ICT in local municipalities, both urban and rural, is often rushed and lacks a structured approach. This leads to error-prone ICT systems, resulting in issues like inaccurate billing. Such problems can cause significant revenue losses, negatively impacting these municipalities' financial sustainability. To truly benefit from ICT, municipalities must adopt more strategic and well-planned approaches to technology integration, ensuring their systems are reliable and effectively support financial stability.

2.5.7 Risk Management and Contingency Planning

Risk management is the process of identifying and evaluating potential risks and then taking deliberate steps to minimise, monitor, and manage the likelihood or impact of negative events to protect the organisation's interests (Aven, 2016). Contingency planning, on the other hand, prepares organisations to respond effectively to significant future events or situations that could compromise the stability of operations (Hubbard, 2020). Risk management and contingent planning are critical components of organisational strategy, particularly in sectors prone to uncertainties and unforeseen events. Municipalities, with their responsibility for public service delivery and financial stewardship, need a robust risk management framework.

The financial sustainability of municipalities is one aspect that necessitates effective risk management. Government Finance Officers Association (GFOA) asserts that implementing risk management in the government sector is crucial for preventing financial losses and

enhancing service delivery (GFOA, 2021). Municipalities often face financial constraints and budgetary pressures, making the efficient use of resources imperative. Without proper risk management, these entities are vulnerable to financial mismanagement, resulting in increased costs, reduced service quality, and, ultimately, compromised sustainability of the municipalities. Therefore, it is imperative to consider this broader view of the challenges and strategies for economic and financial sustainability.

2.6 Challenges and Strategies for Economic and Financial Sustainability

South African municipalities have encountered financial difficulties over an extended period. In certain cases, this distress has escalated to the point where local government operations are jeopardised with the possibility of collapsing municipalities. Conversely, numerous municipalities remained financially stable until the recent pandemic emerged (Glasser and Wright, 2020). The analysts Claassen and Kocks (2022) argued that the reasons for financial instability in South African municipalities are inadequate government, limited institutional capacity, inefficient financial management, persistent corruption, and prevalent political instability. The remainder of the municipalities are on the verge of being “either financially sound or dysfunctional” based on the results from the Municipal Financial Sustainability Index (MFSI).

The UMDM is not exempt from the challenges encountered by other municipalities in South Africa. Hence, this study is designed to explore alternative solutions to enhance the financial sustainability of the UMDM. It confronts various hurdles in attaining financial sustainability, encompassing balancing urban and rural development, effectively managing population expansion, and ensuring sustainable economic growth. Addressing these complexities demands comprehensive and integrated strategies:

- **Revenue Diversification** – is a crucial element for financial sustainability. Shoag, Tuttle, and Veuger (2019) argued that relying solely on traditional revenue sources, such as property rates and service charges revenues, can lead to economic vulnerability. Diversifying revenue sources, including manufacturing and services, can provide more stable and predictable income streams. This approach reduces the risk associated with dependence on a limited number of economic activities, thereby enhancing financial resilience.
- **Infrastructure Investment** – is another key strategy for promoting financial sustainability. The sustainable and resilient infrastructure is designed to withstand and

recover from disasters and disruptions, contributing to long-term sustainability goals. These sources collectively affirm the critical role of adequate infrastructure development and maintenance in economic support and cost reduction (OECD, 2024). Effective infrastructure investment not only boosts economic productivity but also attracts investment, which can further enhance the financial base of municipalities.

- **Strategic Planning** – Robust financial and strategic planning are fundamental to achieving fiscal resilience. Kabeyi (2019) emphasises the importance of adopting comprehensive strategic planning practices to ensure resources are allocated efficiently and effectively to address the needs of the population. Effective strategic planning encompasses sound financial management and long-term economic development strategies that align with the municipality's objectives.

These strategies are essential in navigating the complexities of municipal finance, ensuring sustainable development and effective service delivery amidst dynamic economic and demographic landscapes. Thus, it is imperative to consider the critical elements of financial sustainability that can mitigate the risks posed by the above challenges.

2.7 Impact of Infrastructure on Municipal Sustainability

South Africa's infrastructure is approaching a critical point of dilapidation, presenting challenges and opportunities. The development of new infrastructure offers a significant opportunity to create job opportunities and address the high unemployment rates among South African citizens. According to the National Treasury (2013), the MFMA Circular No. 58 has mandated municipalities since the 2012/13 budget year to allocate at least 40 percent of their capital expenditure to renew and upgrade existing assets. This directive aims to ensure the ongoing viability of municipal infrastructure and to develop asset maintenance plans that guarantee the consistent delivery of services to communities.

Despite these mandates, the South African Institution of Civil Engineering (SAICE) published an Infrastructure Report Card in 2022 that rated South Africa's infrastructure with Grade D. This low rating highlights the country's ongoing struggle to adequately maintain its existing infrastructure, with significant risks of operational failures looming (SAICE, 2022). This highlights the urgency of addressing infrastructure challenges to prevent further degradation and ensure reliable service delivery.

Although Calderón and Servén (2014) make a compelling case that infrastructure investment is foundational to economic stability and empowers local governments to drive development, their framework assumes that resources are allocated efficiently. An expectation that often falters in practice, especially in under-resourced municipalities. Likewise, Mthiyane, Wissink, and Chiwawa's (2022) findings that renewing and upgrading infrastructure can create employment and invigorate local economies resonate strongly; yet their evidence comes from around urban contexts with relatively strong administrative capacity. Therefore, it is impractical to assume that these benefits will flow equally in the UMDM's largely rural setting, where governance constraints and limited economic diversity may blunt the impact. By bringing the voices of municipal practitioners and residents into this conversation, this study will explore whether infrastructure renewal truly delivers on its promise of job creation and economic stimulus when local capacity, demographic realities, and social dynamics differ from those in existing models.

However, it cannot be negated that strategic investments in infrastructure contribute to the reliability and efficiency of services, thereby enhancing the overall quality of life for residents. This, in turn, fosters public trust and promotes greater community engagement and support for municipal initiatives. Addressing infrastructure challenges requires a comprehensive approach, encompassing sufficient funding, workforce development, and effective governance practices.

Even if the 40 percent capital expenditure mandate represents meaningful progress, it alone will not guarantee durable infrastructure outcomes. Municipalities must translate this mandate into action by crafting comprehensive asset-maintenance plans and securing the resources, both financial and human, that are needed to carry them out (National Treasury, 2013). Moreover, lasting success depends on genuine collaboration. Local authorities should coordinate closely with provincial and national counterparts to align priorities and pool expertise. Public-private partnerships can further strengthen implementation by bringing technical skills, innovation, and additional funding to bear on complex infrastructure projects.

2.8 Economic Development

The economic outlook of the G20 countries, which includes South Africa, as conducted by the Organisation for Economic Co-operation and Development (OECD), projected that global economic growth would range between 2.7 percent and 2.9 percent from 2023 to 2024. In contrast, South Africa's economic growth is projected to lag significantly behind, with estimates ranging from 0.3 percent to 1 percent in 2024 (OECD, 2023). This disparity indicates

that while global economic growth is stabilising, South Africa's economic progress remains fragile and slow.

Habiyaremye, King, and Tregenna (2022) suggest that South Africa's slow economic development is primarily due to socio-economic challenges. These challenges include high levels of unemployment, inequality, and inadequate infrastructure, which collectively hinder the country's economic potential. The authors emphasise the need for comprehensive policies that address these socio-economic issues to foster sustainable development.

Community participation is a critical component in enhancing economic development at the local level. Nielsen, et al. (2021) argue that improving community involvement can lead to more effective local governance and increased participation in economic activities. When communities are actively engaged in decision-making processes, it can result in more responsive and effective service delivery, which is essential for sustainable development.

Municipalities, therefore, must implement strategies that encourage community involvement. Such strategies could include participatory budgeting, community-led development projects, and regular consultations with residents. By involving the community in the planning and implementation of local projects, municipalities can ensure that the services provided are aligned with the needs and priorities of the residents, thereby enhancing service delivery and sustainability. This enables the municipality to levy charges on residents for the services provided, highlighting the critical importance of effective revenue collection strategies and prudent expenditure management.

2.9 International Comparative Analysis of South African Municipalities

Municipalities worldwide frequently face an influx of government programmes for implementation due to their proximity to citizens. Mishi, Mbaleki and Mushonga (2022) observe that South Africa's decentralised local-government framework mirrors their counterparts in Australia and New Zealand. This is attributed to the South African Constitution (1996) that assigned local government's objectives, duties, powers, and functions to the municipal council (Constitution, 1996, ss. 151-158). Australia's models also give councils substantial power (Local Government Act 2020, s.10). In contrast, in New Zealand, local authorities that oversee the structure and representation of local government are given powers and functions (Local Government Act 2002, ss. 30-31).

On paper, these legal frameworks empower subnational governments to tailor services and development to community needs. In practice, however, the availability of discretionary revenue determines how effectively those powers can be exercised. In South Africa, the “Equitable Share” grant constitutes approximately 42 percent of a typical municipality’s operating income, supplemented by some 18 percent in conditional grants tied to specific national or provincial programmes (National Treasury, 2025). By contrast, Australia’s councils funded 55 percent of their spending through property rates in 2021–22, with state grants accounting for 25 percent and Commonwealth grants just 4 percent (Australian Bureau of Statistics, 2022).

These differences reflect deeper economic and social contexts. Australia’s unemployment rate stood at a low 4.1 percent in March 2025, ensuring that ratepayers could reliably finance local services (Australian Bureau of Statistics, 2022). South Africa, by contrast, endures an unemployment rate of more than 30 percent (Statistics SA, 2022a). Many households struggle to pay rates or service charges, leaving municipalities dependent on intergovernmental transfers. New Zealand lies between these extremes: rates cover roughly 80 percent of council revenues, with central-government grants making up the remainder. However, the council argues that the rates are insufficient to finance service delivery. Therefore, there is a feeling of pressure to explore alternative means to raise revenue (The Conversation, 2025).

Although South African municipalities possess legal authorities comparable to those in Australia and New Zealand, they lack the financial capacity to exercise those powers effectively. Persistently high unemployment and a limited local revenue base render the South African councils heavily dependent on intergovernmental grants rather than own-source income. Accordingly, efforts to enhance local autonomy must extend beyond statutory reform to encompass measures that strengthen the underlying economic environment and diversify municipal funding structures, thereby enabling councils to translate their formal authority into tangible service delivery that will positively contribute to local government sustainability.

2.9.1 International Practices that Affect Financial Sustainability

In Spain, a study examining the implementation of the 2030 Sustainable Development Goals (SDGs) project highlighted its effects on the financial sustainability of the country's largest municipalities. The findings indicated that a stronger focus on these programmes by municipalities corresponded with deteriorating financial health. Specifically, municipalities experienced shorter payment periods, marginal surpluses, and, more significantly, higher

deficits (Benito, Guillamón, and Ríos, 2023). The reported deficits erode municipalities' financial reserves, which hugely affect their financial sustainability.

The financial sustainability of municipalities in Iran presents several notable challenges, as highlighted in recent research. Municipalities are not only tasked with implementing government projects but also face the significant difficulty of generating their own revenue. This often leads to a reliance on government funding, which undermines their financial independence and sustainability.

A case study focusing on Shabestar Municipality provides a detailed perspective on this issue. It illustrates that a municipality's location—whether urban or rural—plays a crucial role in its ability to achieve self-sustainability. Urban municipalities benefit from residents with greater financial capacity to pay for services, generating higher revenue. In contrast, rural municipalities face significant challenges in raising funds due to the lower affordability among their residents (Hajilou, et al., 2018).

This disparity creates a complex financial dilemma. Hajilou, et al., (2018) further illustrated that a substantial portion of taxes collected in urban areas is redirected to support rural municipalities, aiming to foster economic development in these regions. However, this reallocation also exacerbates the financial strain on urban municipalities, which contribute a significant share of their revenue to this cause. As a result, the financial sustainability of both urban and rural municipalities is compromised. Urban areas lose potential investments, and rural areas remain dependent on external support rather than developing independent revenue streams.

This situation underscores the need for a more balanced approach to municipal financing in Iran. Enhancing the revenue-generating capacities of rural municipalities through targeted economic development initiatives and providing urban municipalities with incentives to retain and reinvest their earnings locally could help address these challenges. Policy reforms that promote the equitable distribution of resources while encouraging financial self-reliance among all municipalities are crucial for promoting overall sustainability (Hajilou, et al., 2018).

2.9.2 Practices that Affect Financial Sustainability in South African municipalities

The financial sustainability challenges faced by municipalities in Australia, New Zealand, Spain, and Iran mirror those encountered by South African municipalities. Despite variations in specific circumstances, the core issues remain consistent, as discussed in the literature above:

revenue management, expenditure control, generating independent revenue, reliance on government funding, and maintaining proper budgetary control to ensure the delivery of services to citizens.

In South Africa, municipalities often find themselves in a challenging position where they must cut back on core services such as the supply of bulk water, sanitation, and electricity to focus on subsidised national government projects like HIV/AIDS initiatives, and youth unemployment eradication which are unfunded mandate for municipalities. Despite these projects being unfunded mandate, their demand and scale frequently exceed the financial capabilities of the municipalities, leading many municipalities to experience financial distress and rely on donors to sponsor these programs. This situation forces municipalities to prioritise national mandates over their essential local responsibilities, which ultimately compromises their financial sustainability and service delivery capabilities.

According to the journal by SA Cities (2021b), municipalities face significant challenges, particularly as populations grow, with an increasing demand for services, especially among lower-income groups. However, economic decline has led to stagnant household incomes, while municipalities are burdened with rising costs from unfunded mandates imposed by National and Provincial Governments. This results in higher expenditures for essential services, including salaries, bulk utility purchases, and more expensive borrowing due to national credit rating downgrades. This creates a situation where municipalities face rising service needs alongside a decreasing capacity of households to afford these services, complicating efforts to maintain financial sustainability and service delivery. This evidence highlights that municipalities are frequently burdened with more projects that they cannot manage financially, affecting their ability to maintain financial stability. Therefore, exploring alternative solutions and funding mechanisms is crucial to ensure municipalities can continue delivering essential services without succumbing to financial challenges.

2.9.3 Material Irregularities by Municipalities

Material Irregularity (MI) remains a critical issue that undermines the financial sustainability of South African municipalities. According to the Auditor-General of South Africa (AGSA, 2019), MI encompasses non-compliance with legislation, fraud, theft, or breaches of fiduciary duty that result in or are likely to result in material financial loss, misuse or loss of public resources, or substantial harm to public institutions and the general public. This definition underscores the severe implications of MIs on municipal governance and financial health.

Research indicates that MIs are significantly contributing to financial distress within municipalities. AGSA (2020) identified non-compliance with legislation and suspected fraud as primary factors leading to substantial financial losses and harm to municipalities and the public. The total financial loss from 194 identified MIs was estimated at R5.19 billion, just to highlight the scale of the issue.

The literature identifies three main sources of MIs:

- i. **Non-compliance:** Contract breaches by municipalities often result in penalties, diverting funds from essential services to cover these costs. This misallocation of resources hampers municipalities' ability to fulfill their core mandates (AGSA, 2020).
- ii. **Unrecovered Debt:** Municipalities frequently face challenges in collecting payments for services rendered. The inability to recover these debts leads to significant financial losses, affecting service delivery and financial stability (AGSA, 2020).
- iii. **Suspected Fraud and Uneconomical Procurement:** The AGSA (2020) report on MIs highlights instances of suspected fraud that could lead to enormous financial losses. Additionally, uneconomical procurement practices where goods and services are purchased at inflated prices further strain municipal finances.

Despite these ongoing issues, AGSA (2020) noted that the weaknesses in these areas have been repeatedly identified over several years, yet financial losses due to MIs continue to increase annually. This trend suggests a persistent and escalating problem that requires urgent attention. Addressing MIs is crucial for enhancing South African municipalities' financial health and sustainability. Literature suggests that implementing stricter compliance measures, improving debt recovery processes, and ensuring more economical procurement practices are essential steps toward mitigating financial risks (AGSA, 2020). Further research could explore the effectiveness of these measures and identify additional strategies to strengthen municipal governance and financial management.

2.10 Theoretical Framework

A theoretical framework serves as the cornerstone of the research, providing a systematic structure to guide the understanding and approach to the study. It allows the researcher to situate the work within the broader academic discourse by linking it to established theories and concepts, thereby offering a coherent lens for analysing and interpreting the research problem (Creswell and Creswell, 2022). According to Mulaudzi (2021), a theoretical framework

represents the foundational structure that supports the theory underpinning an exploratory study. These theories are critical in addressing the study's objectives by offering complementary perspectives that enhance the depth and scope of the analysis.

2.10.1 Financial Control Theory

According to Presti and Presti (2021), the concept of financial control was first introduced by Robert N. Anthony in 1965 as part of his foundational work on management control systems. He defined it as the process of ensuring that resources are obtained and used effectively in the accomplishment of organisational objectives. Subsequent scholars have expanded this concept by incorporating multidimensional assessment, stakeholder engagement, and strategic alignment. For instance, Simons (1994) introduced the concept of levers of control, which aim to balance innovation with accountability, while Otley (1999) developed performance management frameworks that integrate control mechanisms with strategic outcomes. Building on these foundational contributions, Manuylenko and Shebzukhova (2021) reconceptualised financial control as a comprehensive framework that integrates planning, goal setting, analysis, information management, and decision-making to support effective administration. It emphasises balancing financial planning, internal controls, and analytical functions to guide organisations toward achieving long-term objectives. By aligning management goals and utilising tools and models, financial control theory aims to shape and manage the future for sustained organisational performance.

The financial controls theory proposed by Bashaija et al. (2020) argues that organisations, including government entities, must be assessed from multiple perspectives. This multidimensional evaluation enables a comprehensive understanding of the intricate financial mechanisms, ensuring that internal and external factors influencing financial sustainability are considered.

The theory highlights the significance of integrating diverse analytical perspectives into robust financial control systems. These systems are essential for fostering accountability, enhancing operational efficiency, and ensuring long-term organisational sustainability. Bashaija et al. (2020) further emphasised that the financial control theory is underpinned by several foundational principles, which collectively support its practical application and relevance in organisational management.

- **Multidimensional Assessment:** The financial control theory underscores the importance of comprehensively evaluating organisations from multiple perspectives to understand

their financial processes. According to Mabunda (2023), this multidimensional assessment is particularly relevant in the public sector, where the effectiveness or ineffectiveness of governmental impacts and outcomes serves as a key indicator of organisational value. A critical assumption underlying this theory is that institutions' design, operations, and transactions inherently involve diverse stakeholders, each contributing to the broader system. Moreover, the mechanisms designed to safeguard resources must be seamlessly integrated into the overall power structure to ensure the alignment of practices and processes, ultimately supporting organisational efficiency and sustainability.

- **Robust Control Systems:** Strong financial control systems promote accountability, enhance operational efficiency, and ensure long-term sustainability within organisations. The financial control theory provides a structured framework for monitoring and managing financial activities, thereby reducing the risk of mismanagement or misuse of resources.
- **Balancing Costs and Benefits:** The theory focuses on balancing costs with benefits to achieve an optimal financial structure.
- **Practical Relevance:** Bridging the gap between theoretical models and real-world financial management challenges is fundamental to the theory.
- **Sustainability and Efficiency:** It promotes the efficient and sustainable management of resources, ensuring organisations can maintain financial stability over time.

The principles of financial control theory provide a robust foundation for addressing the financial challenges faced by municipalities, particularly those in financial distress. The theory's emphasis on multidimensional assessment aligns with the study's aim of examining internal and external factors influencing the financial sustainability of the UMDM. By adopting these principles, the study seeks to evaluate the municipality's current financial practices and identify strategies to mitigate financial mismanagement risks, ultimately enhancing sustainability.

Moreover, the study leverages the financial control theory to bridge the gap between theoretical insights and practical applications. As Bashaija et al. (2020) noted, theories grounded solely in assumptions may lack the practical relevance needed to address real-world challenges. By contextualising the principles of financial control theory within the UMDM's operational environment, this study aims to propose actionable strategies that resonate with the municipality's unique challenges.

This study adopted a convergent one-phase mixed-method approach that aligns seamlessly with the financial control theory. This methodological approach integrates quantitative data from municipal customers and qualitative insights from municipal officials, capturing diverse perspectives from the district municipality's stakeholders. This alignment reflects the assertion of Alavi et al. (2018) that theoretical frameworks should complement methodological approaches to enhance the depth and validity of findings. This research ensures a comprehensive understanding of the present financial dynamics, facilitating the development of tailored solutions for UMDM's financial sustainability challenges. The alignment of theory principles with both research objectives and methodological approaches ensures that this study contributes to the advancement of financial management for the sustainability of municipalities.

2.10.2 Contingency Theory

Contingency theory, empirically developed by Galbraith (1973) and Donaldson (2001), provides a foundational lens for examining how organisations, particularly in the public sector, must adapt their internal structures to fit the demands of a changing external environment. In the context of financial sustainability, this theory offers valuable insights into how municipalities like UMDM can align their organisational processes, structures, and decision-making practices with complex and evolving contextual factors such as economic volatility, resource constraints, and service delivery demands. The core idea of the theory is that no single organisational design works best in all situations. This makes the theory especially useful for understanding how organisations should respond to uncertainty and change.

Contingency theory posits that organisations operate as open systems, shaped by ongoing interactions with their external environment. It underscores the influence of external variables such as technological change, environmental pressures, and market fluctuations on organisational form and function. Organisations must remain adaptable, constantly aligning their internal operations with shifting conditions to maintain effectiveness and resilience (McAdam, Miller & McSorley, 2019).

As Galbraith (1973) argued, effective organisational design depends on the organisation's ability to process information and respond to environmental complexity. Donaldson (2001) further demonstrated through empirical analysis that organisations that misalign their structures with external contingencies often suffer from inefficiencies and reduced performance. This

theoretical stance challenges the idea of fixed organisational models, encouraging flexibility and responsiveness based on situational needs.

In this study, contingency theory supports the examination of how UMDM adjusts its internal systems and governance structures in response to external pressures, including limited financial resources, customer service demands, and infrastructural limitations. Rather than applying rigid models, the theory allows for an exploration of context-specific strategies that may enhance UMDM's ability to sustain effective and adaptive service delivery.

2.10.3 Collaborative Governance Theory

Collaborative Governance Theory offers a framework for public decision-making in which government entities collaborate with non-governmental stakeholders to tackle complex policy or service challenges. Emphasising shared responsibility and inclusiveness, the theory is rooted in Ansell and Gash's (2008) analysis of 137 cases. The study identified critical factors influencing successful collaboration, including stakeholder incentives, power imbalances, leadership, and institutional design. Furthermore, the study highlighted the key elements of the collaborative process, including trust-building, face-to-face dialogue, and shared commitment. The theory underscores that successful collaboration often develops through "small wins" that deepen trust and mutual understanding while also exploring this contingency model's practical and research implications.

In the local government sphere, public participation is legislated in Chapter 4 of the Municipal Systems Act (2000), where municipalities must develop a community involvement culture. Therefore, municipalities are mandated to establish mechanisms, processes, and procedures for community participation in municipal affairs. In the discussion of the literature on the critical element of financial sustainability, the importance of public participation during the local government budget preparation was discussed in length in paragraph 2.5.3.5.

The Collaborative Governance Theory was designed to improve adherence to the legislative requirements, ensuring the following:

- Initiation and Stakeholder Engagement,
- Inclusive Participation and equal representation,
- Building Trust and Relationships to reduce conflict,
- Collaborative governance and shared decision-making,
- Recognise incremental progress to reinforce the commitment,

- Ensure accountability through institutional support and leadership, and
- Encourages the evaluation of outcomes and adaptation.

By integrating these elements, Collaborative Governance Theory provides a flexible and adaptive approach to solving multifaceted challenges that require collective action across sectors.

The Buffalo City Metropolitan Municipality (BCMM) study on public participation finds that public involvement is often superficial, primarily focused on meeting legal requirements rather than fostering meaningful influence over outcomes that reflect community priorities and needs (Sibanda, 2018). This reveals a gap in effectively integrating public voices into municipal planning processes.

Similarly, this study identifies a similar gap (refer to Chapter 4), with results indicating that the majority of UMDM customers are eager to engage and participate in decision-making processes that contribute to the municipality's financial sustainability. The result showed that 41.75 percent strongly agreed, and 33.01 percent agreed, resulting in a total of 74.76 percent of customers expressing support and willingness to be part of the discussion on municipal affairs and decision-making that affects UMDM's citizens.

The theoretical frameworks discussed above serve as a critical foundation for this study, as each theory offers unique insights into the complexities of exploring measures to enhance the financial sustainability of the UMDM. According to Elliott and Higgins (2023), the theoretical framework must offer a comprehensive perspective to analyse both the challenges and opportunities, ensuring the research is grounded in established academic principles while addressing practical implications. These frameworks will inform the analysis and interpretation of the study's findings, aligning theory with empirical evidence.

2.10.4 Risk Management Theory

In a historical review of economics, Dr. Sulafa Nofal of the University of Brasília highlighted that Risk Management Theory has its origins in the disciplines of economics and management science, dating back to as early as 1921. The foundational work of Frank Knight was instrumental in this development, particularly his distinction between measurable risks and immeasurable uncertainties (Nofal, 2023). Knight contended that rational decision-making under conditions of known risk is vital for organisational sustainability. Further developments in the field were marked by Harry Markowitz's introduction of portfolio theory in 1952, which

emphasised the importance of balancing risk and return in investment decisions (Blay, 2024). Over time, the theory evolved into more comprehensive models, such as Enterprise Risk Management (ERM), which promote a structured and integrated approach to identifying and managing organisational risks (Bakos and Dumitraşcu, 2021).

Risk management operates through a structured process involving several key stages: risk identification, risk assessment, risk response, and risk monitoring (Hopkin, 2018). Organisations first systematically identify internal and external risks that could impact their objectives. Next, these risks are assessed in terms of likelihood and potential impact. Based on this analysis, mitigation or contingency plans are developed to either reduce the probability of risks occurring or minimise their effects. Finally, risks are continuously monitored and reviewed to ensure that strategies remain effective as circumstances evolve. This cyclical, proactive approach is fundamental to enhancing organisational resilience and supporting sustainable outcomes (Frigo and Anderson, 2011).

Traditionally, Risk Management Theory focused on identifying, assessing, and mitigating risks (Hopkin, 2018). However, it has increasingly evolved to incorporate proactive, technology-driven solutions to address complex financial vulnerabilities. A study conducted on an Indonesian local government showed that rigorous risk assessment is crucial for aligning municipal service delivery objectives with strategic requirements, further indicating that applying Risk Management Theory can effectively mitigate operational risks and uncertainties (Amirya and Irianto, 2024).

Contemporary scholars argue that building risk resilience in public sector organisations now requires the digital transformation of financial systems, processes, and procedures (Narayan and Kommunuri, 2023). The emergence of the COVID-19 pandemic accelerated digitalisation efforts across organisations and municipalities. In the post-pandemic context, there is a heightened need for integrated financial management systems (IFMS), e-procurement platforms, and real-time auditing tools, offering municipalities strategic mechanisms to predict financial risks earlier and strengthen internal control environments. Embedding digital technologies enables municipalities to shift from reactive risk responses to predictive, data-informed risk prevention (Narayan and Kommunuri, 2023). However, digitalisation itself introduces new categories of risks, including cybersecurity threats and data integrity vulnerabilities, necessitating adaptive and dynamic risk management frameworks (Mergel, Edelman and Haug, 2019).

In the context of the UMDM, integrating Risk Management Theory with digitalisation strategies offers existential solutions to ongoing financial instability challenges. Digitalising revenue collection systems, expenditure tracking, and internal audit processes could significantly reduce human error, fraud risks, and information asymmetries that currently compromise financial sustainability. Moreover, a value-based digital transformation, grounded in ethical governance principles, would align with broader goals of public sector accountability and long-term resilience. Therefore, this study adopts an integrated theoretical lens, recognising that traditional risk management must be complemented by digital innovation to create responsive, sustainable municipal financial systems capable of withstanding evolving socio-economic pressures.

2.11 Summary

This chapter has extensively discussed the literature and relevant theories focusing on financial sustainability within municipalities. Several key themes have emerged from this analysis. These include the critical role of effective budgeting despite facing implementation challenges such as limited resources and technical expertise. Furthermore, the significance of financial governance and accountability in promoting transparent practices for sustainable municipal finances has been underscored. Additionally, the potential of technological innovations to improve financial management efficiency and enhance decision-making processes in municipalities has been highlighted. Addressing these challenges and capitalising on the opportunities identified in this review will be essential for municipalities like UMDM to navigate financial pressures and ensure long-term viability. Building on the insights gained from this literature, the following chapter will dive into the methodology employed in this research.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

The preceding chapters have established a robust foundation by introducing the study and thoroughly reviewing the pertinent literature. This chapter outlines the methodology employed to address the research question, meticulously designed to meet the study's objectives. This research aims to comprehensively examine alternative measures to enhance the financial sustainability of the UMDM while considering the substantial socioeconomic impacts and economic challenges confronting individuals and businesses within the district. To this end, it is essential to discuss the relevance of the chosen research approach and design and provide context by describing the geographical dynamics of the study location. This chapter will also cover the target population, sampling methods, and sample size. Additionally, the instruments for data collection and the procedures for data analysis will be detailed. The chapter concludes with a discussion of the ethical considerations relevant to all parties involved in the study.

3.2 Research Design and Approach

The research design functions as an extensive framework or blueprint, offering both structure and direction to the study. It outlines the systematic organization and integration of all critical components of the research project, including the objectives, hypotheses, methods, and analyses, to effectively address the research question (Malhotra, Nunan, and Birks, 2020). By explicitly detailing the procedures and techniques employed, the research design ensured coherence and consistency throughout the study, facilitating a clear trajectory from the initial research question to the final conclusions.

The study utilised a convergent one-phase mixed method approach to integrate evidence from both quantitative and qualitative methodologies (Creswell and Creswell, 2022). This methodology was employed to gain a deeper and more holistic understanding of a research problem by leveraging the strengths of both quantitative and qualitative research techniques. The research was conducted among municipal customers in the UMDM's jurisdiction and among the municipality's officials. The municipal customers were subjected to quantitative methods, employing structured surveys to collect data. Conversely, the municipal officials were engaged through qualitative methods, utilising in-depth interviews to gather detailed insights. This dual method strategically ensured a robust and refined understanding of the research problem by capturing diverse perspectives from municipal customers and officials and

provided valuable insights into the socioeconomic and operational challenges faced by the UMDM, thereby informing more effective and sustainable financial strategies (Creswell and Creswell, 2022).

The quantitative data gathered through structured surveys from municipal customers provides statistically significant results that highlight general trends, patterns, and, most importantly, customers' opinions. This empirical data offered a broad overview of customer perspectives on municipal services and their satisfaction levels, which are crucial in establishing the intentions for payment or identifying the root causes of non-payment of municipal accounts. Consequently, this understanding enables the UMDM to build surplus reserves, thereby ensuring the financial stability of the municipality.

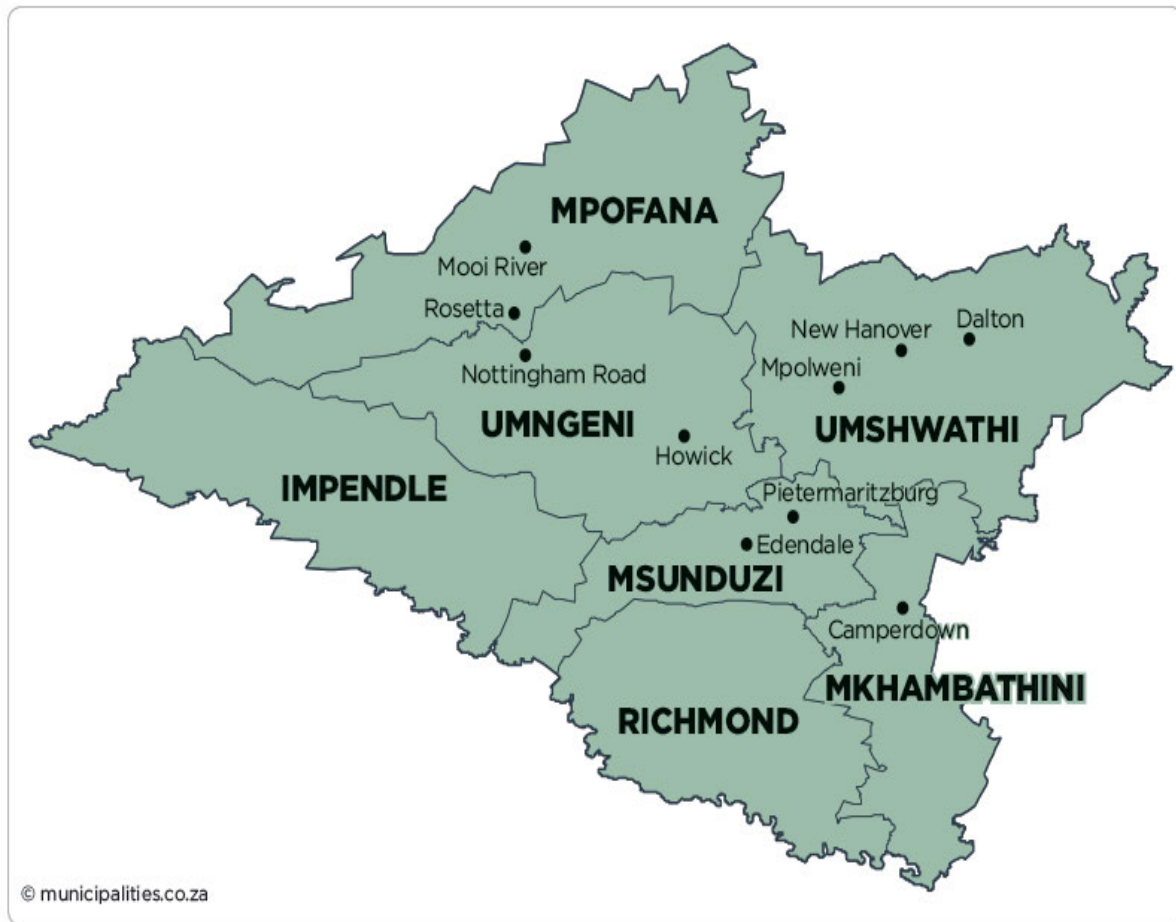
In contrast, qualitative data obtained through in-depth interviews with municipal officials delves into the intricacies of operational and socioeconomic challenges within the district. This narrative data captured the officials' refined and context-specific experiences and viewpoints, which quantitative methods alone might have overlooked. By integrating these two forms of data, the study corroborates findings and offers a more advanced understanding that neither method could have achieved independently.

Moreover, employing a mixed-method approach strengthened the validity and reliability of the research. Integrating data from multiple sources minimised the biases that were often present in single-method studies, resulting in a more balanced and trustworthy interpretation of the findings (Creswell and Creswell, 2022). This comprehensive approach was particularly important in municipal governance. Understanding both the broad customer base and internal operational challenges is crucial. It helps in developing effective policies and strategies that support the financial sustainability of UMDM.

3.3 Study Location

The study was conducted at the uMgungundlovu District Municipality, which supply water and wastewater services to six local municipalities: uMshwathi Municipality, uMngeni Municipality, Mpofana Municipality, iMpendle Municipality, Mkhambathini Municipality, and Richmond Municipality. Refer to Figure 3.1 below, which reflects the location of the study. The geographical demarcation of the district encompasses both urban and rural areas, with the majority being rural, as previously explained. This diverse setting presents unique challenges and opportunities for service delivery, making it an ideal location for examining measures to enhance financial sustainability within the region.

Figure 3.1: uMgungundlovu District Municipality's map



Source: www.municipalities.co.za

3.4 Target Population

In research methodology, "population" referred to the complete set of individuals or observations with specific characteristics relevant to the study. This group was often termed the "target population" and included all those who met the criteria outlined by the research question. Defining the target population helped establish the study's boundaries clearly, ensuring that the research findings applied to the appropriate group (Pandey and Pandey, 2021).

This study had a population of approximately 86,244, made up of 85,550 municipal customers, as well as 694 municipal officials. It involved a diverse sample drawn from the population of the UMDM, with a focus on inclusivity across various demographic factors, including race, age, and financial status. The sample encompassed a broad range of stakeholders, including residential customers, businesses, and government organizations within the municipality's jurisdiction. By including these diverse groups, the study aimed to ensure a comprehensive and representative analysis of the different perspectives and needs regarding exploring measures to enhance the financial sustainability of the UMDM. This approach facilitated a refined

understanding of the challenges and opportunities faced by the district. It supported the development of more effective and equitable financial strategies.

Studying the entire population would have yielded results that provided a fair representation. However, considering the district's diverse demographics and geographical factors, the sampling strategy detailed below offered an optimal solution for achieving a representative sample of the UMDM target population. This approach ensured that the study captured a comprehensive and balanced perspective, reflecting the varied characteristics and needs of the population within the UMDM to achieve the research objective.

3.5 Sampling Method

Sampling is the process of selecting a subset of individuals from a population to observe and analyse, with the aim of making extrapolations about the entire population (Lohr, 2021). In this study, stratified random sampling, often referred to as proportional random sampling, was applied. Stratified random sampling is defined by Qualtrics (2025) as a probability sampling technique where the population is divided into homogeneous subgroups, or strata, based on shared characteristics such as education level, income, or gender. Random samples are then selected from each stratum, allowing for comparisons across these groups to draw specific conclusions. This method ensured that all relevant subgroups were represented, provided more accurate and reliable results. According to Cooper and Schindler (2014), sampling involves selecting a sufficient number of elements from the population so that the study of the sample and its characteristics allows for generalisations about the population as a whole. This approach helped improve the representativeness and validity of the research findings.

This study applied stratified random sampling to reflect the views of both municipal customers (140) within local municipalities under UMDM jurisdiction and municipal staff officials (10), as illustrated in Table 1 below. Stratified random sampling offers a systematic approach to obtaining a sample that accounts for the population's demographic diversity, leading to more robust research results (Qualtrics, 2025). Given its vast geographical area and diverse population, this method is particularly suitable for the UMDM.

Yin (2017) suggests that multiple interviews are an effective approach in contexts of economic disparity and complex phenomena, as seen in the UMDM, where service delivery levels differ between urban and rural areas. This study will address the gaps leading to residents' unaffordability of municipal services while exploring solutions to bridge the inequalities within the UMDM jurisdiction. By employing stratified random sampling, the research aims to

provide a comprehensive and equitable analysis of the financial sustainability measures needed for the district.

3.6 Sampling Size

The population size of UMDM is substantial, encompassing a customer base of 85,550, as well as 694 municipal officials, including managers and senior managers (UMDM, 2024). To ensure fair representation, the study employed Cochran's sample size formula to determine the appropriate sample size. This method was critical for maintaining the validity of the research findings, as it accounts for the desired confidence level and margin of error, allowing for precise control over the sample size (Lohr, 2021). By using this approach, the study aims to produce accurate and reliable results that genuinely reflect the characteristics of the overall population.

The formula is presented as follows:
$$n = \frac{Z^2 \times P \times (1 - P)}{E^2}$$

where:

- n = initial sample size (for an infinite population)
- Z = Z-score (the number of standard deviations from the mean corresponding to the desired confidence level)
- P = estimated proportion of the population (typically 0.5 if unknown, as it provides the maximum variability)
- E = margin of error (the desired level of precision)

The above formula is then adjusted for a finite number of population; in this study, it is 86,244 (85 550 Customers + 694 Municipal officials).

Therefore, with a Confidence Level (Z): 90% confidence level ($Z \approx 1.645$), New Margin of Error (E): 7% (0.07), and Population Proportion (P): Assuming $P = 0.5$ for maximum variability. The sample size resulted in 138, however, a prudent approach of a sample of 150 was selected for this study as presented in Table 1 below:

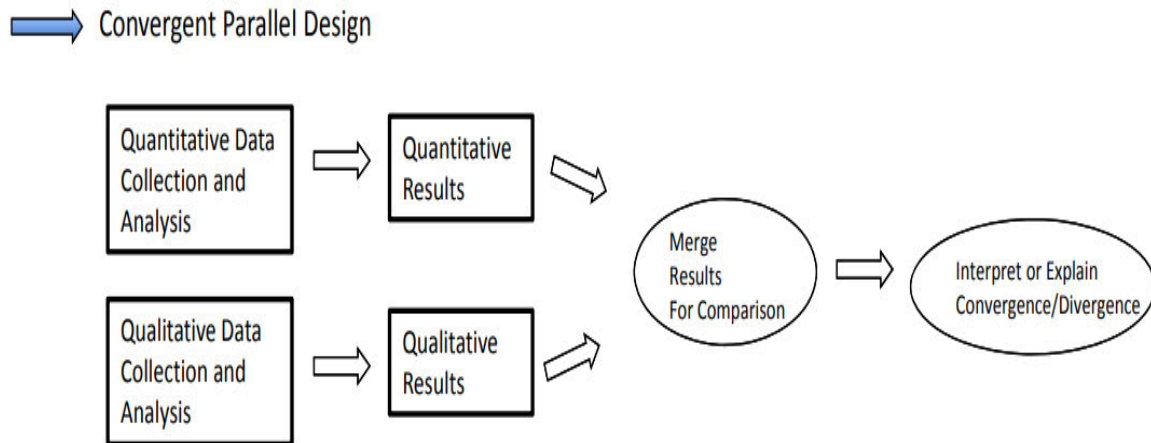
Table 1: Details of sample size

Local Municipalities Serviced by UMDM	Population	Target
uMshwathi	20	20
uMngeni	20	20
Mpofana	20	20
iMpendle	20	20
Msunduzi	20	20
Mkhambathini	20	20
Richmond	20	20
Sub Total	140	140
UMDM Officials		
Senior Management	2	2
Finance Management	2	2
General Management	2	2
Finance Staff Members	2	2
General Staff Members	2	2
Sub Total	10	10
TOTAL	150	150

3.7 Data Collection

This study followed a Convergent Mixed Methods Design in one phase. This method is explained by Creswell and Creswell (2018, p.300) as a “single-phase approach, where a researcher collects both quantitative and qualitative data, analyses them separately, and then compares the results to see if the findings confirm or disconfirm each other. The key assumption of this approach is that both qualitative and quantitative data provide different types of information—often detailed views of participants qualitatively and scores on instruments quantitatively—and together they yield results that should be the same.” In this study, a similar data collection approach was conducted, adopting a parallel data collection as the population is from separate spheres, municipal customers, and municipal officials, as illustrated in Figure 3.2 below:

Figure 3.2: Process Flow of Data Collection and Interpretation of Results



Source: Creswell, J.W., 2013. Steps in conducting a scholarly mixed methods study.

3.7.1 Primary Data Collection

An effective approach for engaging with municipal customers involved personally distributing questionnaires at Customer Care Centres, where residents regularly go to pay for services. These centres, which are conveniently located throughout the UMDM, serve as key points for residents to seek help and information about municipal services. By choosing these centres, the researcher was able to connect directly with a random selection of customers over a set period, ensuring that the necessary sample size of 133 residential customers was met while maintaining a fair and unbiased process.

The plan was carefully structured over three weeks:

- **Week 1:** The researcher spent time at the Howick Customer Care Centre, engaging with 45 randomly selected residential customers.
- **Week 2:** The focus shifted to the Hilton Customer Care Centre, where 44 residential customers were approached randomly.
- **Week 3:** The researcher visited the Mpofana/Mooi River Customer Care Centre, randomly selecting 44 residential customers.

This step-by-step approach allowed the researcher to meet the target of 133 customers, making the data collection process both practical and effective.

Being present at the centres also gave the researcher a chance to interact directly with the customers, offering any necessary explanations or support. This personal engagement helped build trust and encouraged customers to participate in the survey, as they felt valued and supported throughout the process. Moreover, conducting the on-site recruitment enabled the

researcher to observe customer reactions, address any concerns immediately, and ensure the data collected was accurate and reliable.

Interviews with municipal staff were conducted in person, except for those in satellite offices, who received interview questions via email. This approach ensured direct interaction and personalised rapport-building for most participants while accommodating remote employees' logistical constraints. Email interviews offered flexibility and convenience, allowing respondents to provide thoughtful insights at their convenience. This hybrid approach balanced methodological consistency with practical considerations, optimising data collection from diverse staff members.

By employing tailored recruitment strategies for municipal customers and officials, a researcher was able to optimise participation rates, minimise logistical challenges, and enhance the overall quality and reliability of the data collected.

3.7.2 Secondary Data Collection

In addition to primary data, secondary data played a significant role in this research. The secondary data were sourced from easily accessible sources that did not necessitate permission. This included data from the National Treasury - MFMA website, which was publicly available. Relevant literature, such as journals and papers focusing on municipal performance and financial sustainability within the local government sphere, were also consulted. Moreover, information from municipal websites, including strategic documents such as IDP, SDBIP, budget documents, quarterly reports, audited annual financial statements, and publications from local municipalities served by UMDM, were incorporated into the study. These secondary sources provided a comprehensive context and background, supporting the analysis and interpretation of the primary data, thereby enhancing the overall robustness and depth of the research findings.

3.8 Data Analysis

Data analysis is a critical component of research, enabling the summarisation and interpretation of information collected during the study. By applying analytical and logical reasoning, researchers can uncover relationships, trends, and patterns within the data (Ibrahim, 2015). In this study, NVivo13 and the Statistical Package for the Social Sciences (SPSS) version 29 software were employed to ensure a thorough and accurate analysis.

NVivo was instrumental in organising and analysing qualitative data, enabling the identification of patterns and themes within the textual information. SPSS was utilised for the statistical analysis of quantitative data, offering advanced tools for exploring numerical relationships. Drawing on formal training in statistics, the researcher was able to extract meaningful insights from the data. Correlation analysis was conducted to examine the strength and direction of relationships between key variables. In addition, descriptive statistics—including measures such as mean, median, mode, and standard deviation—were applied to summarise and interpret the data. To gain a deeper understanding of how financial vulnerability among residents affects municipal revenue, a multiple linear regression analysis was performed. This analysis incorporated standardised and unstandardised beta coefficients, t-values, and p-values to evaluate the significance and predictive strength of the identified relationships.

The data analysis process was carried out in distinct stages, beginning with quantitative data analysis, followed by an examination of qualitative data. The qualitative analysis identified six key themes, as detailed in Chapter 4, ensuring a comprehensive understanding of the collected data.

3.8.1 Data Preparation

Data preparation was essential for ensuring that the data to be analysed was cleaned and organised. This process involved several critical steps, including rectifying errors, detecting missing values, and appropriately formatting data to be analysed. Identifying and correcting errors ensures the accuracy and reliability of the data (Mittal and Raheja, 2024). According to Pallant (2020), detecting and addressing missing values was crucial, as incomplete data could have significantly impacted the results. Therefore, proper formatting was necessary to facilitate smooth and efficient analysis. Additionally, data preparation included converting qualitative responses into numerical form, a process known as data coding, which allowed qualitative data to be analysed quantitatively. This comprehensive approach to data preparation ensured that the data was ready for accurate and meaningful analysis, ultimately enhancing the validity and robustness of the study's findings.

3.8.2 Use of Exploratory Data Analysis (EDA)

Effective visual data communication is essential for expressing, illustrating, and evaluating raw information. This study employed EDA to visualise the data through the use of graphs, charts, and plots. The main objective of EDA was to identify patterns, outliers, and relationships within

the data, which are crucial for forming hypotheses and guiding subsequent analysis (Mukhiya, and Ahmed, 2020). Utilising these visual tools allows for a clearer comprehension of the data's structure and inherent trends, thereby enhancing the ability to make informed analytical decisions. Through EDA, the study aimed to present data in a more accessible and interpretable manner, facilitating a deeper understanding of the findings and supporting the overall research objectives.

3.9 Interpretation and Reporting of Findings

The final stage of the study focused on interpreting and reporting findings with the aim of presenting results in a clear and comprehensive manner. This stage involved summarising key findings and using charts and graphs to enhance visualization. Additionally, discussing the implications of these findings in relation to the research objectives was a crucial component of this process (Mukhiya and Ahmed, 2020). The use of visual tools not only enhanced the reliability and validity of the findings while making the data more accessible and easier to interpret. By combining qualitative and quantitative data analysis, the study thoroughly understood the financial sustainability challenges and opportunities within the UMDM. Presenting results through graphical demonstrations ensured effective communication with stakeholders, making the conclusions accurate and impactful.

3.9.1 Application of Triangulation

Triangulation was applied in this study to deepen the understanding of financial sustainability in the UMDM. Data source triangulation involved collecting information from two distinct groups: municipal customers through quantitative questionnaires and municipal officials through qualitative interviews. This approach captured different perspectives on the same challenges, strengthening the study's overall credibility. Methodological triangulation was also used. By combining survey data with in-depth interview narratives, the research balanced broad statistical patterns with detailed personal insights. This helped ensure that findings were not based on a single method or view, but reflected a richer, multi-dimensional understanding (Creswell & Creswell, 2022).

Thematic triangulation was applied during data analysis. Themes emerging from both the quantitative and qualitative data were compared to find points of agreement and disagreement. Reinforcing themes, such as the need for transparent billing and effective financial controls, validated the study's key recommendations. Contradictions, such as differing views on financial management efficiency, revealed important gaps between internal and external

experiences. These findings highlighted areas where communication and practices must be strengthened. Triangulation at each stage of the research added depth, improved the reliability of the results, and ultimately produced stronger, more actionable measures to enhance financial sustainability.

3.10 Ethical Consideration

Ethical clearance, also known as ethical approval, involves reviewing a research proposal to ensure compliance with established ethical standards and guidelines. This process is designed to safeguard participants' rights, safety, and well-being by identifying potential risks and ensuring proper procedures for obtaining informed consent. Resnik (2021) emphasises that ethical practices, including obtaining informed consent, ensuring confidentiality, and protecting participants from harm, are essential for fostering trust and cooperation between researchers and participants. Before initiating data collection, the researcher applied for ethical clearance, which was approved along with the research instruments by the University of KwaZulu-Natal.

3.10.1 Informed Consent and Research Permission

In this study, informed consent was secured from all respondents prior to the commencement of the research. This process ensured that participants were fully informed about the study's purpose, procedures, and potential benefits, thus facilitating an understanding of their involvement (Xu et al., 2020). The research encompassed both urban and rural areas, predominantly inhabited by isiZulu speakers. To ensure that consent was appropriately understood, consent forms were translated to accommodate all participants, especially in the remote areas of UMDM. Additionally, the researcher verbally explained the study details, using plain language to avoid technical jargon and to address any participant questions or concerns (DeJonckheere and Vaughn, 2019). Participants were also informed of their right to withdraw from the study at any time without facing penalties.

A gatekeeper letter was obtained from the Municipal Manager of UMDM, granting authorisation to conduct this research, which covered the district's seven municipalities. This approval ensured that the study adhered to ethical standards, guaranteeing that participants were aware of the legitimacy of the research and who had access to their data and its intended use (O'Leary, 2021). The researcher upheld transparency and respect for participant rights by adhering to these protocols.

3.10.2 Participant Anonymity and Data Confidentiality

Throughout the study, participant anonymity was diligently maintained to uphold ethical standards. Personal identifiers were carefully removed to protect privacy and ensure no association between the data and individual participants (Ellersgaard, Ditlevsen, and Larsen, 2022). Identifying information, such as names and contact details, was securely stored separately from the research data to further safeguard participants' confidentiality. By adhering to stringent confidentiality protocols, the continuous protection of participants' identities was ensured, demonstrating a strong commitment to the trustworthiness of the research process and the preservation of participants' privacy and dignity (Pascale et al., 2022). This rigorous approach prevented the disclosure of personal information. It ensured that data was used exclusively for its intended research purposes, aligning with the ethical principles of respect, autonomy, and beneficence.

3.10.3 Data Disposal

Proper disposal of research data is essential for protecting participant confidentiality and meeting legal and ethical obligations. To ensure digital data is irretrievable, it will be securely deleted using advanced software specifically designed for permanent erasure, with encryption added beforehand to provide an extra layer of security (Corti et al., 2019). Physical data, such as paper documents, CDs, or USB drives, will be carefully destroyed—using methods like shredding or degaussing—to prevent any possibility of reconstruction.

In some cases, anonymised data may be retained for future research, but only if it fully complies with initial consent agreements and legal standards, such as those outlined in the General Data Protection Regulation (GDPR) (Voigt and Bussche, 2017). By following these practices, researchers protect sensitive information and maintain the trust and integrity fundamental to ethical research.

3.11 Chapter Summary

This chapter provided a detailed overview of the research methodology, employing a convergent one-phase mixed-method approach that integrated both quantitative and qualitative data to gain a thorough understanding of the financial sustainability challenges within the UMDM. The unique context of the UMDM offered distinct challenges and opportunities, enabling a comprehensive exploration of the necessary measures to improve financial sustainability. The methodology ensured a balanced representation of the target population through careful selection of sampling methods and sample size determination. By using a

convergent parallel design, data were collected simultaneously from both municipal customers and officials, enhancing the quality and reliability of the findings.

Additionally, this chapter highlighted the data analysis process and emphasised the researcher's ethical responsibilities. Ethical considerations, such as ensuring participant anonymity and obtaining informed consent, were rigorously followed, reflecting a commitment to maintaining the integrity of the study. Through meticulous data collection and adherence to ethical standards, this methodology laid a solid foundation for the research. The next chapter focused on interpreting the data and presenting the findings, offering valuable insights and practical recommendations to improve the financial sustainability of the UMDM. This thorough approach not only strengthened the validity of the research but also aimed to make a significant contribution to the field of municipal financial management.

CHAPTER 4

PRESENTATION OF KEY FINDINGS, DISCUSSION AND DATA ANALYSIS

4.1 Introduction

The study intends to explore the measures to enhance the financial sustainability of the UMDM by acquiring the perspective and in-depth insight of the customers and municipal officials to achieve the study's objectives. As highlighted in the preceding chapter, this study employs a one-phase mixed method approach. Data was collected from customers through questionnaires and interview schedules. The researcher started with the physical collection of data by visiting Customer Care Centres within the UMDM jurisdiction; later, an online survey was distributed in an attempt to reach a broad spectrum of customers. The interviews were also conducted with municipal officials, who were strategically selected from Finance, Performance management, Economic development and planning, Water services, Internal Auditing and infrastructure, operations, and maintenance units.

This chapter commences with a comprehensive presentation of the quantitative findings, combining graphical and narrative formats to depict the responses from the municipality's customers. The questionnaire was crafted and structured to address the three research objectives of this study. Therefore, the results highlighted the challenges and root causes experienced by customers in paying municipal bills. The customer's opinion on factors that may impede the long-term sustainability of the municipality. Possible solutions to combat the municipality's financial instability. Subsequently, the chapter presents the qualitative findings, incorporating direct quotations from participant interviews to explain key themes aligned with the study's objectives, and it closes with a discussion of the findings.

4.2 Quantitative Study Results

The distributed questionnaire to the municipality's customers is subdivided into three sections: (1) demographic information, (2) ten questions addressing the three objectives of this study, and (3) two open-ended questions sourcing the views of customers that could be improved or incorporated by the UMDM in their operations. The presentation will start with demographic information and the findings of the questionnaire and conclude with a summary of participants' responses to the first ten questions and views by customers for the last two questions.

4.2.1 Survey Response Rate

Researchers often use various methods and techniques to improve the response rate, such as communicating with respondents, offering incentives, and courtesy follow-up reminders. Therefore, it ensures that the results are robust and tailored to the intended population (Nulty, 2008). The researcher in this study also specifically targeted the customers at the municipality's Customer Care Centres, where the questionnaire was physically handed over to customers for completion and offered clarity where necessary. Over a period of six weeks, starting from 16 September 2024 to 25 October 2024, four centers were visited: iMpendle, Mpofana (Mooi River), Howick, and Hilton. In addition, customers were offered an online survey option with the purpose of reaching more customers around the areas of Mkhambathini and Mshwathi.

The target population for municipal customers subjected to the quantitative study was 140, and 104 responded, giving a response rate of 74 percent. Dillman, Smyth, and Christian (2014) argue that gathering a high response rate from a wide range of stakeholders means that policymakers better understand the varied needs and preferences within the community. This broad participation enables them to make decisions that are better informed and more closely aligned with what people genuinely want and need. Customers were sceptical about participating in the survey. However, the researcher was able to explain the purpose of the study and the content of the informed consent form before participants signed the document.

4.2.2 Participants' Demographic Profile

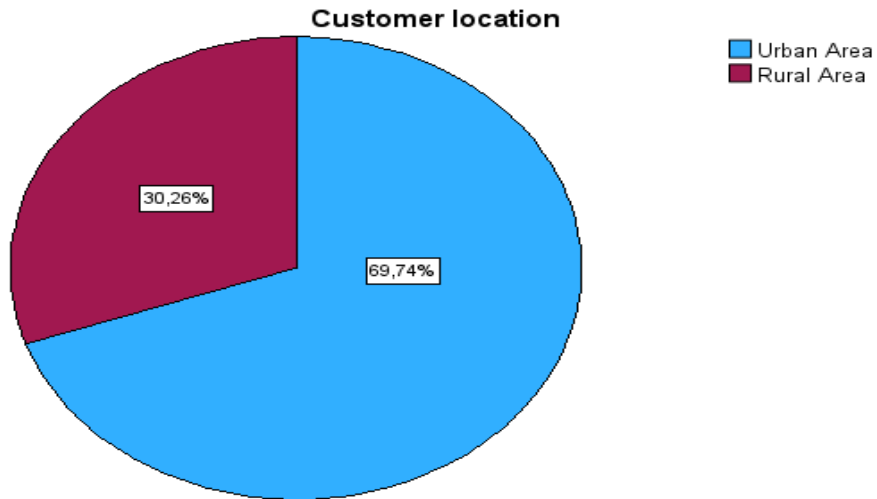
The pertinent demographic profile in this study included the customer's location, source of income, and average monthly bills for customers. The selected demographic information was critical in establishing whether the respondent was in an urban or rural area, where the participant gets the income to pay the municipal bills, and lastly, the average monthly bills that the respondents are paying to determine the average income that the municipality is supposed to receive per customer in a month.

4.2.2.1 Customer's Location

The survey results presented in Figure 4.1 indicate a total of 76 valid respondents regarding customer location. The majority of municipal customers (70 percent) resided in urban areas, while the remaining (30 percent) were from rural areas. It is assumed that rural areas rely predominantly on communal standpipes to service villages, with only a small portion of residents having access to metered municipal water. Consequently, the municipality's billing

and revenue collection efforts are primarily concentrated in urban areas, reflecting the higher proportion of urban customers (70 percent) compared to rural customers (30 percent).

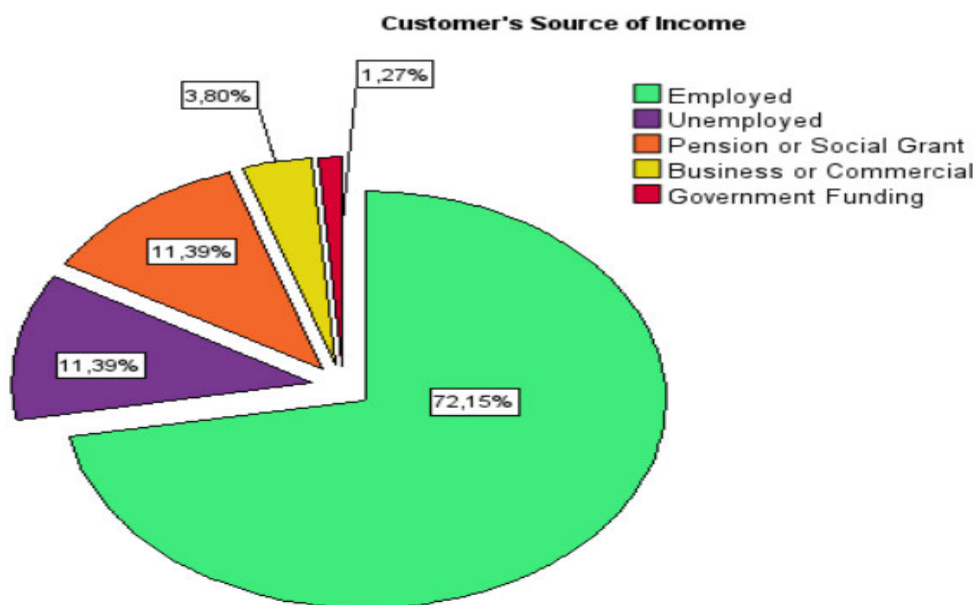
Figure 4.1: Customer location



4.2.2.2 Sources of Income

The municipal customers showed a valid total of 79 customers. This portrayed that most of the customers are employed (72 percent), followed by an equal proportion of 11 percent each for both unemployed and customers receiving pensions or social grants. The last two on this ranking are customers from businesses, with 4 percent, and Government funding, with 1 percent.

Figure 4.2: Sources of income

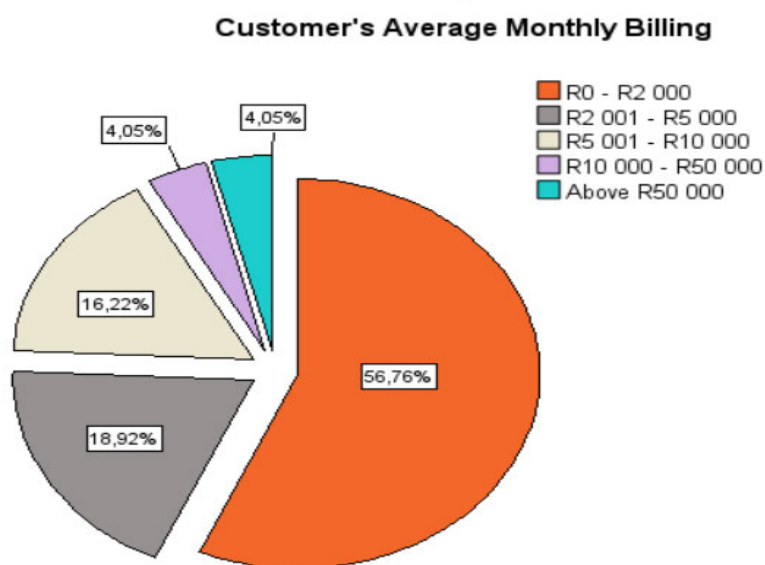


The survey discovered that the municipality's income source is derived primarily from customers who are employed or in the workforce. The remainder of municipal customers are highly dependent on government funding and social welfare grants. This is concerning as it may affect the financial sustainability of the municipality, as the UDMM economic status reflects that the majority of the citizens are unemployed, with a 30.4 percent unemployment rate, and one of the local municipalities recorded the highest unemployment rate of 37 percent (COGTA, 2023). Their unemployment is becoming a stumbling block for the UMDM and South Africa as a whole.

4.2.2.3 Average Monthly Bills for Municipal Customers

Figure 4.3 shows that the majority of customers' average monthly billing for water services is under R 2 000 represented by 57 percent. This is followed by an average billing of R2 001 to R5 000 with 19 percent. This is closely followed by those customers with an average billing of R5 001 to R10 000 with 16 percent. There are a very small number of customers with average monthly billing of R10 001 to R50 000 and those above R50 000, each reflecting 4 percent.

Figure 4.3: Customer's average monthly billing



The study findings suggest that few customers are on a high end with average monthly water billing of R10 000 upwards, and this gives an opportunity to scrutinise and assist these customers easily, as any default in payment will pose a greater threat to the financial sustainability of the municipality. In most cases, these are businesses and organs of the state.

4.2.3 Survey Outcomes on Study Objectives

It was critical for a researcher to align the questionnaire with the study objectives. This was essential to ensure that the data collected was relevant, focused, and capable of addressing the research questions effectively (Saunders, Lewis, and Thornhill, 2019). Furthermore, a well-constructed / questionnaire that reflects the study's objectives enables valid, reliable, and actionable findings, directly contributing to the research's credibility and applicability (Creswell and Creswell, 2022). This study carefully crafted the questions to align with the three research objectives. The questionnaire did not include the objectives. It was incorporated into the presentation of findings to illustrate how the questionnaire linked to the research objectives.

Table 2: Survey Questions Aligned with Research Objectives

Research Objectives	Questions to address the each objective			
Objective 1	Q1	Q2	Q3	Q4
Objective 2	Q5	Q6	Q7	Q8
Objective 3	Q9	Q10	Q11	Q12

The participants had the option to select one answer from 1 to 5, where 1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly agree.

4.2.3.1 Objective 1: To identify the root causes of the increase in debtors' balance and cash flow challenges faced by the municipality in meeting financial obligations.

Q1: Challenges in paying municipal bills on time

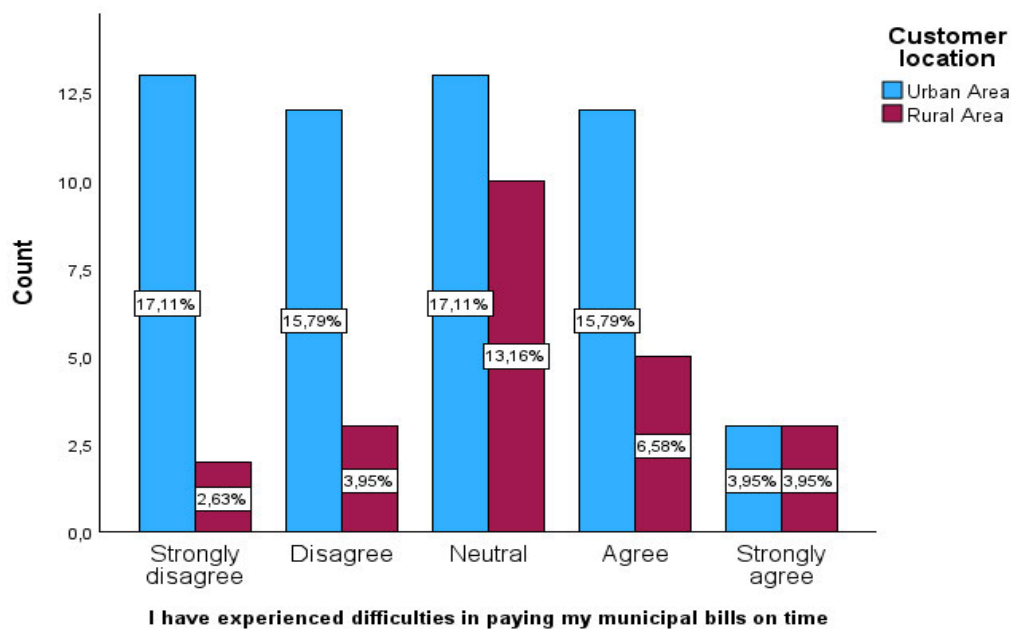
The overall results of the customer experience in paying municipal bills on time show that 26 percent do not care whether their bills are paid on time. Therefore, an analysis was conducted to establish the relationship between the customer's location and the payment of municipal bills on time. The results in Figure 4.4 (Bar chart) reflect that the majority of the people in rural areas chose to be neutral on this question. The assumption is that in rural areas, customers are also provided with communal water standpipes that are not billable to individual households. As a result, municipal disconnections do not have a major impact on rural areas, and they will not pay the municipal bills on time. The "I don't care attitude" with customers in rural areas when it comes to adherence to the municipality's policies and bylaws affects the municipality's cash flow, causing financial instability.

In urban areas, the customers were split in equal proportion at 17.11 percent, each between those who strongly disagreed that they experienced difficulties in paying on time and those

who did not care whether the payment was on time or not. This shows that due to the availability of paying facilities in urban areas, urban customers are not severely affected by paying municipal bills on time.

Figure 4.4: Relationship between customer location and paying municipal bills on time

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	20	19,2	19,2	19,2
	Disagree	17	16,3	16,3	35,6
	Neutral	27	26,0	26,0	61,5
	Agree	26	25,0	25,0	86,5
	Strongly agree	14	13,5	13,5	100,0
	Total		104	100,0	100,0



The most notable trend in this question is that as much as there are differences in experiences in paying municipal bills on time between urban and rural areas, they both strongly agree (4 percent each) that improvements are required to ensure that municipal bills are paid timeously.

Q2: The effect of current economic conditions on municipal bill payments

The discussion on the customer’s source of income above in Figure 4.2 reflects that the majority (72.15 percent) of the UMDM’s customers are employed. However, the result of the study in Figure 4.5 below shows that the economic conditions affect most of the customers, as 40.4 percent agreed, while 21.4 percent strongly agreed. This indicates that a total of 61.8 percent of employed customers are severely affected by changes in economic conditions, resulting in

the unaffordability of municipal services. Therefore, it is assumed that the change in economic conditions is one of the root causes of the municipality's failure to meet its financial obligations.

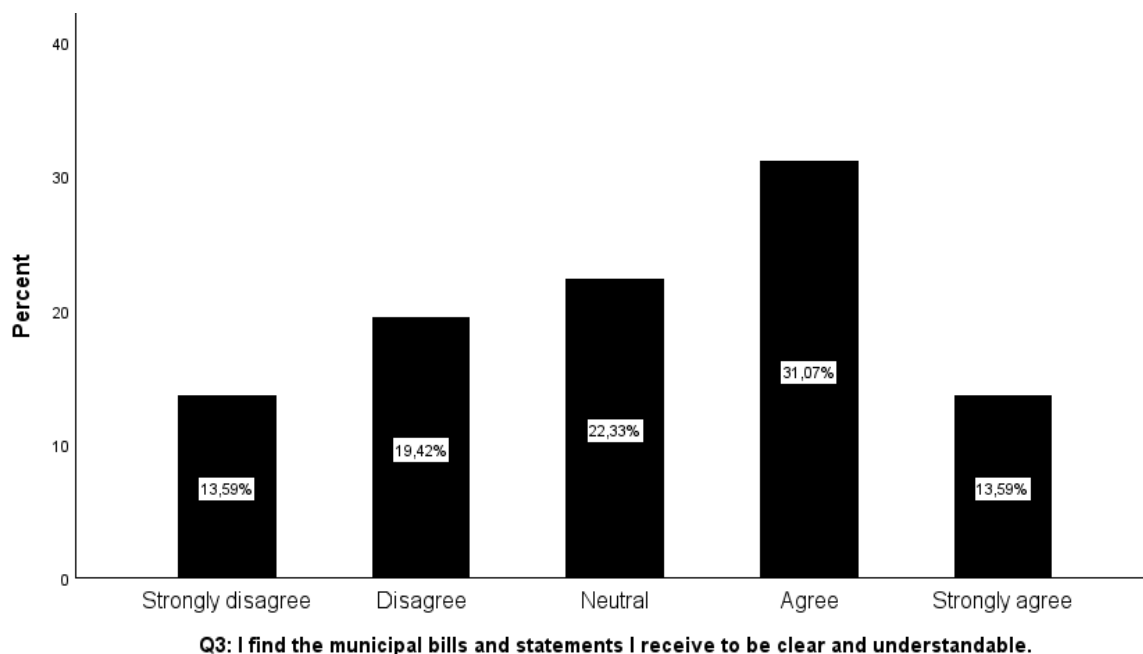
Figure 4.5: The effect of current economic conditions on municipal bill payments

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	11	10,6	10,6	10,6
	Disagree	13	12,5	12,5	23,1
	Neutral	16	15,4	15,4	38,5
	Agree	42	40,4	40,4	78,8
	Strongly disagree	22	21,2	21,2	100,0
	Total	104	100,0	100,0	

Q3: Understanding municipal bills and statements

The customer concurs that the municipal bills are clear and understandable, with 31.07 percent agreeing and 13.59 percent strongly agreeing, making a total of 46.6 percent.

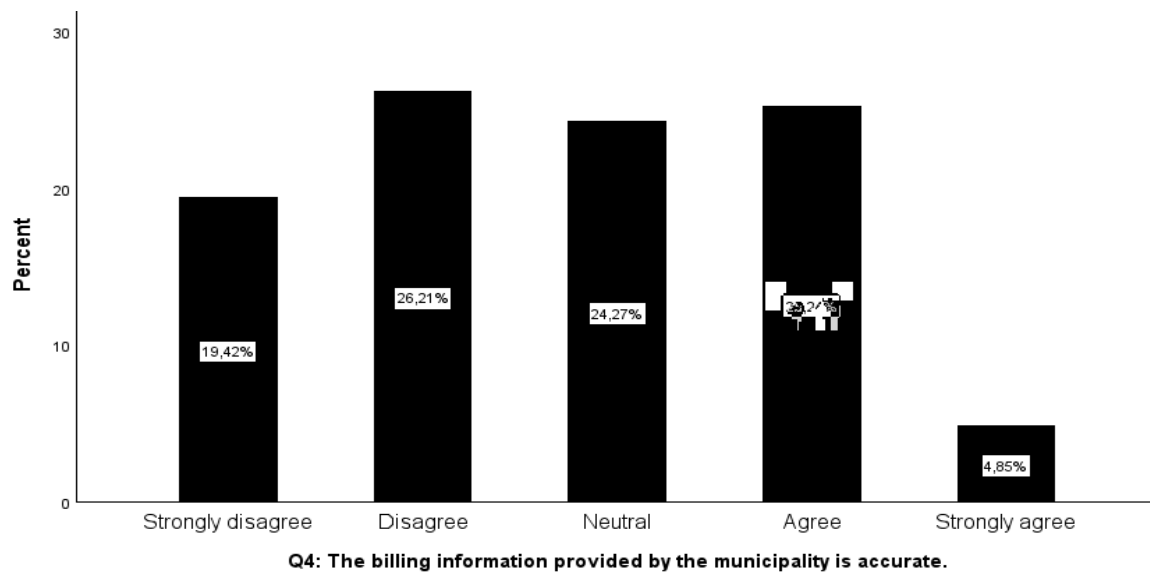
Figure 4.6: Understanding municipal bills and statements



On the contrary, a total of 33 percent of customers stated disagreement (19.42 percent) and strongly disagreed (13.59 percent). Therefore, for the municipality to increase its revenue, it is paramount to address the concerns of the customers who do not find the municipal accounts to be clear and understandable. It is a serious concern for the UMDM as the customers may simply ignore their bills, resulting in reduced cash flow and leading to financial constraints.

Q4: Accuracy of billing information

Figure 4.7: Accuracy of billing information



The results on the accuracy of municipal billing information show that 26.21 percent disagree and 19.42 strongly disagree, making the total percentage of 45.63 percent of customers who are not happy with the accuracy of billing information. If many customers are not satisfied with the billing information on their account, they will refuse to pay for those bills. Thus, creating serious financial problems for the municipality. A study conducted by Taherdoost (2023) finds that incorrect invoices result in irritated customers and loss of revenue. Therefore, UMDM should zoom in on what could be the cause for inaccurate billing and take radical corrective measures.

The issue of incorrect billing appears to be widespread. Notably, the study's demographics reveal that the majority of municipal customers reside in urban areas, are employed, and typically receive monthly bills ranging from R0 to R2000. This demographic insight offers a valuable starting point for UMDM to address and resolve the challenges associated with issuing inaccurate invoices to its customers, that is, to focus on this group of customers that represent the bulk of UMDM's customer base.

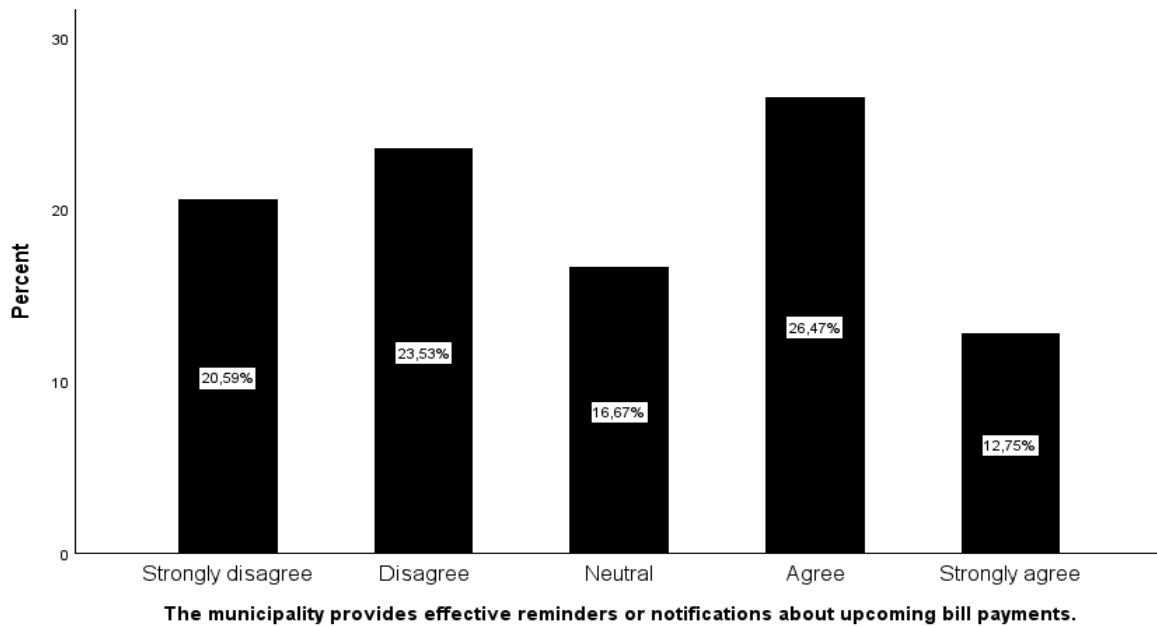
4.2.3.2 Objective 2: To determine the factors that can impede the long-term sustainability of the municipality.

Q5: Reminders to customers of upcoming municipal bills

The customers who strongly disagreed with the provision of reminders by the municipality to pay the municipal bills were 20.59 percent, which is more than customers who strongly agreed

with 12.75 percent. In essence, the majority of the customers suggest that the municipality is not providing reminders, 44.12 percent (both strongly disagree 20.59 percent + disagree 23.53 percent), compared to 39.22 percent (both strongly agree 12.75 percent + disagree 23.53 percent).

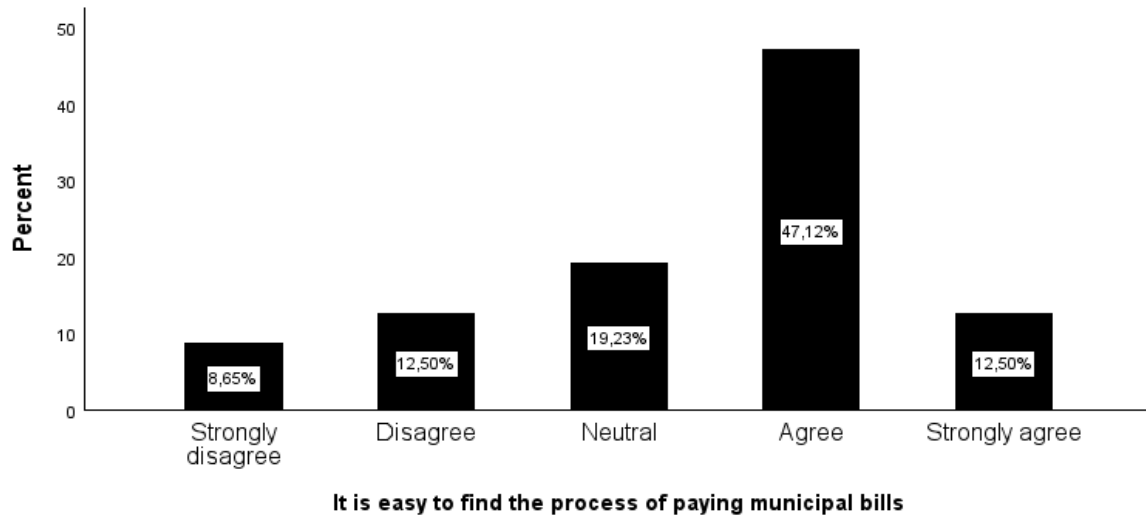
Figure 4.8: Reminders to customers of upcoming municipal bills



The study's findings highlight the need for the municipality to thoroughly examine its mailing system, with particular attention to the accuracy of email addresses used for issuing invoices or statements to customers. The fact that 44.12 percent of customers expressed concerns is alarmingly high and cannot be overlooked, as it has significant implications for the municipality's long-term financial sustainability. Essentially, customers may remain unaware of their outstanding debts, while the municipality inflates its projected revenue, leading to uncollected funds. This situation has the potential to undermine the municipality's credibility and exacerbate challenges in delivering effective services to the community.

Q6: Simplifying the Process of Paying Municipal Bills

Figure 4.9: Simplifying the Process of Paying Municipal Bills



The municipality bills the customers in order to collect the revenue that is due to the municipality, continuing to provide services to the community. However, the municipality cannot collect that revenue if the customers are unable to have easy access to the municipality's payment points. Therefore, it is critical for the municipality to provide as many payment points as possible. Also, the payment options should be expanded to be accessible to every customer.

The result of the study shows that 47.12 percent of the customers agree that it is easy to find payment points to process and pay municipal bills. To highlight that the municipality communicated their payment options to the citizens, 12.5 percent showed a strongly agreed opinion.

Crosstabulation was performed (refer to Figure 4.10 below) to compare the payment options with the customers' locations. It was interesting to note that even in rural areas, the municipality was able to ensure that there were facilities for customers to pay their municipal bills, where 17 out of 23 (74 percent) confirmed that there were accessible payment options for customers in rural areas.

Figure 4.10: Crosstabulation on Municipal payment point vs Customer location

Customer location * Q6: It is easy to find the process of paying municipal bills
Crosstabulation

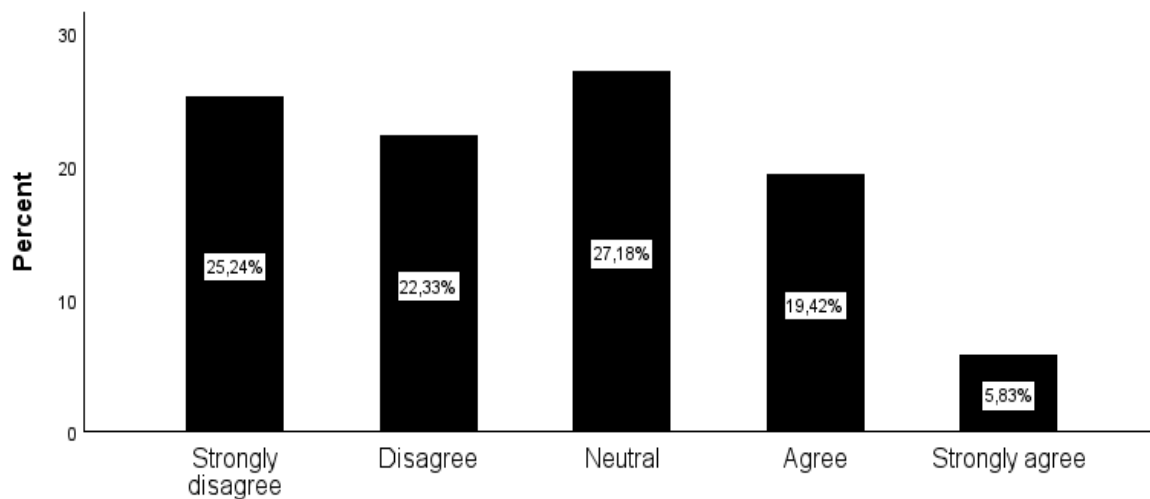
Count

		Q6: It is easy to find the process of paying municipal bills					Total
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
Customer location	Urban Area	1	5	9	30	8	53
	Rural Area	0	1	5	14	3	23
Total		1	6	14	44	11	76

Q7: Comparison of monthly billings to service delivery by municipality

The majority of urban municipal customers, accounting for 70 percent (as illustrated in Figure 4.1 above), believe that paying their municipal bills should result in improved service delivery in their communities. However, South Africa continues to grapple with a significant backlog in municipal service provision. Bester (2024) highlights that this challenge persists across many municipalities, with little effort from either municipalities or communities to evaluate how these service deficiencies affect community well-being. This disconnect likely explains why 47.57 percent of customers (25.24 percent strongly disagree, and 22.33 percent disagree) reject the notion that there is a direct relationship between the services provided by the municipality and the monthly bills paid by residents.

Figure 4.11: Comparison of monthly billings to service delivery by municipality



I am satisfied with the current level of municipal services provided relative to the monthly billing.

Figure 4.11 reflects a concerning trend: a substantial number of municipal customers have lost faith in receiving the services for which they continue to pay, as indicated by their high neutral responses of 27.18 percent to this question. This response pattern signals a potential issue for the municipality, particularly regarding its long-term financial sustainability. If residents who feel disillusioned by service delivery eventually choose to withhold payments, this could further strain the municipality's capacity to maintain essential services. Such a development would compromise the municipality's ability to meet its financial obligations and sustain its operations, underscoring the need for urgent intervention to rebuild trust and address service delivery challenges.

Q8: Satisfaction with the municipality's response time to water leakages and illegal connections

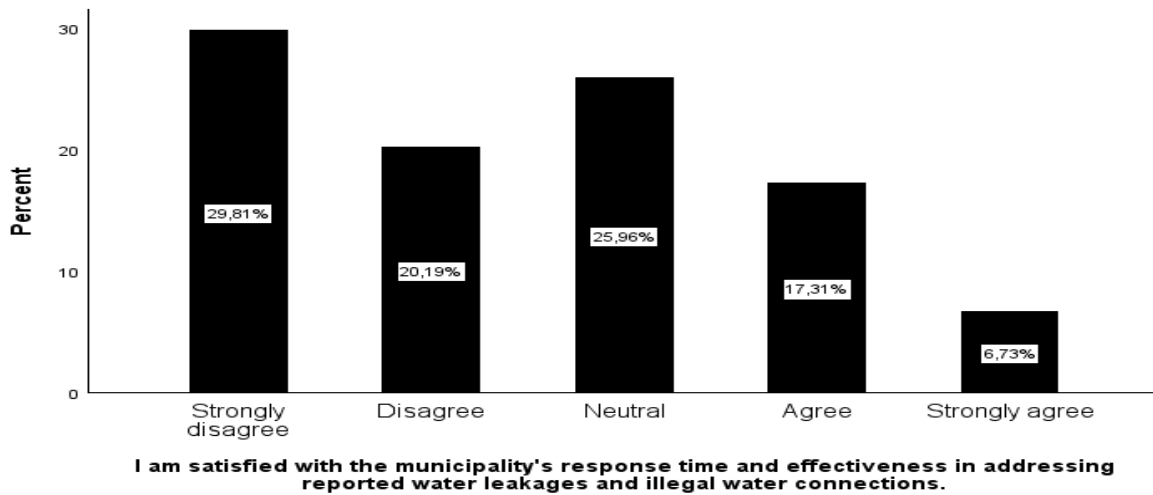
Water leakages and illegal water connections are critical points of discussion for two reasons: (1) the recently announced water shortages by the Department of Water and Sanitation (DWS), which affected Durban, Pietermaritzburg, and surrounding areas. (2) it costs the municipalities a significant amount of money, as further discussed below.

- (1) **Water Shortage** – On 23 May 2024, the Department of Water and Sanitation, in collaboration with Umngeni-uThukela Water, issued a media statement warning the KwaZulu-Natal community about declining dam levels and urging them to conserve water (DWS, 2024). Water leaks are an inevitable challenge, particularly within the UMDM jurisdiction, where aging water infrastructure suffers from inadequate maintenance. Given this context, this study sought to evaluate customer responses to reported water leaks to understand better the issue's impact and the effectiveness of municipal interventions.
- (2) **Illegal connections** – The UMDM purchases water in bulk from Umngeni-uThukela Water and sells it to the citizens to generate revenue that will cover the cost of purchases. In cases where there are illegal connections, UMDM does not recover the costs incurred, but it suffers huge trading losses, which affects the municipalities financially. If illegal water connections are not reported and stopped, the consequences are jeopardising the municipality's long-term financial sustainability.

The UMDM's audited 2023/24 Annual Financial Statements show that water losses increased from R70.2 million in the 2022/23 financial year to R100.3 million in the 2023/24 financial year, resulting in a staggering increase of 43 percent. The municipality indicated that water losses are more noticeable due to delays in reporting leaks, the occurrence of illegal connections—especially in rural communities—and issues with faulty meters. Together, these factors contribute to the growing challenge of effectively managing and preserving water resources (UMDM, 2024b).

Therefore, it is not surprising that the results of this research in Figure 4.12 below show that the majority (50 percent) of the citizens are not satisfied with the response time, as 29.81 percent strongly disagreed, and 20.19 percent also disagreed. The results show that there are customers who were unaware that they must report illegal water connections and water leakages outside their properties, as shown by 25.96 percent neutral responses.

Figure 4.12: Satisfaction with the municipality's response time to water leakages and illegal connections



The municipality must increase awareness and conduct consumer education on the importance of reporting water leakages and illegal water connections.

4.2.3.3 Objective 3: To identify possible solutions to combat the financial instability within the uMgungundlovu District Municipality.

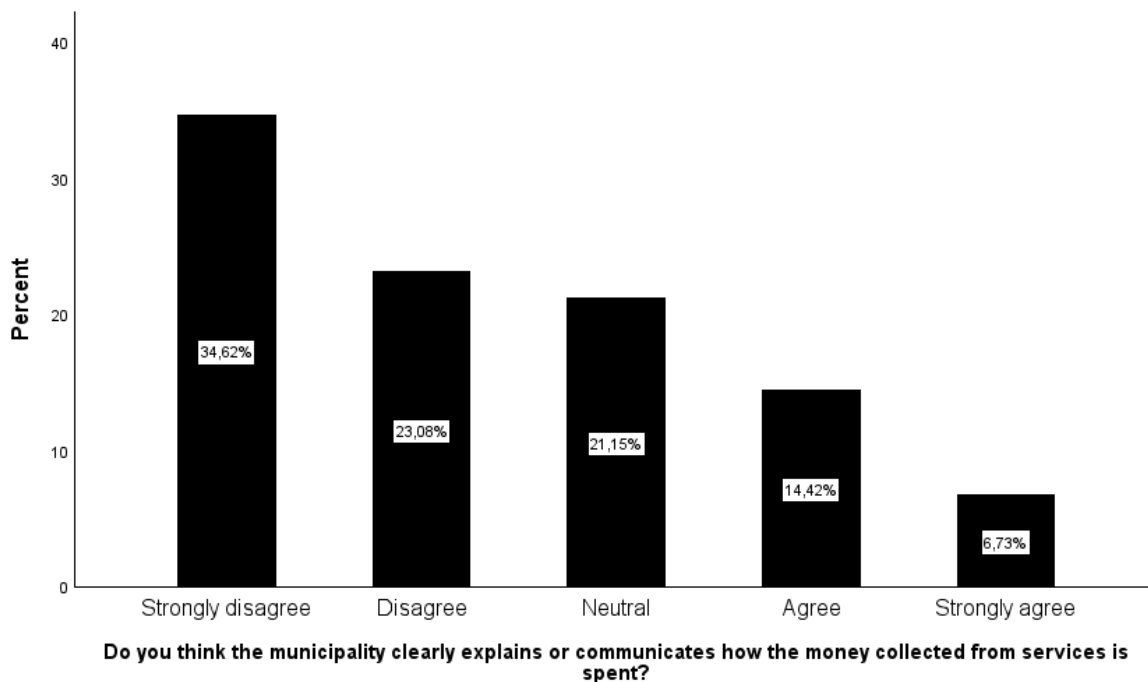
High levels of customers not paying for municipal accounts can strain budgets, making it challenging for municipalities to maintain financial stability. It is crucial to explore methods and strategies that can assist the municipality in reducing its unpaid customer accounts. Therefore, the following questions were strategically set to gather areas where the municipality can improve and source solutions from the municipal customers to ensure an inclusive approach is achieved to combat financial instability for the UMDM.

Q9: Transparency in municipal communication on the utilisation of service revenue

Building trust and fostering accountability between municipalities and citizens begins with effective communication, particularly about how public funds are used. When municipalities are transparent about financial matters, citizens understand how their tax contributions are being spent. This openness reassures communities that their hard-earned money is being managed responsibly and directed toward meaningful initiatives that address local needs and priorities (Bovens, Goodin, and Schillemans, 2014). By providing financial information in a clear and accessible way, municipalities instill confidence in their governance and strengthen their relationship with the people they serve, laying the groundwork for collaboration and mutual trust.

In addition, the Local Government: Municipal Structures Act (1998) highlights the importance of citizen participation in governance. Municipalities have a duty to actively involve their communities by organizing public engagement activities like “Izimbizo.” These forums create opportunities for open dialogue, where residents can share their concerns, offer feedback, and gain insights into how municipal funds are being allocated and spent. Such interactions empower citizens to play a role in decision-making processes and deepen their understanding of municipal priorities. Ultimately, these efforts go beyond mere accountability—they help build stronger, more transparent partnerships between local governments and their communities, paving the way for sustainable development that truly reflects the needs of the people.

Figure 4.13: Transparency in municipal communication on the utilisation of service revenue



The results of the study in Figure 4.13 above reflect that the municipality does not clearly explain or communicate how the money collected from customers is spent, with 34.62 percent of customers strongly disagreeing and 23.08 percent disagreeing, making a total of 57.7 percent of customers that do not support the statement. There were 6.73 percent of customers that strongly agreed. However, this shows that the municipality needs to do extensive work to let citizens know about public engagements. Public awareness can be in the form of the following:

- Public notices,

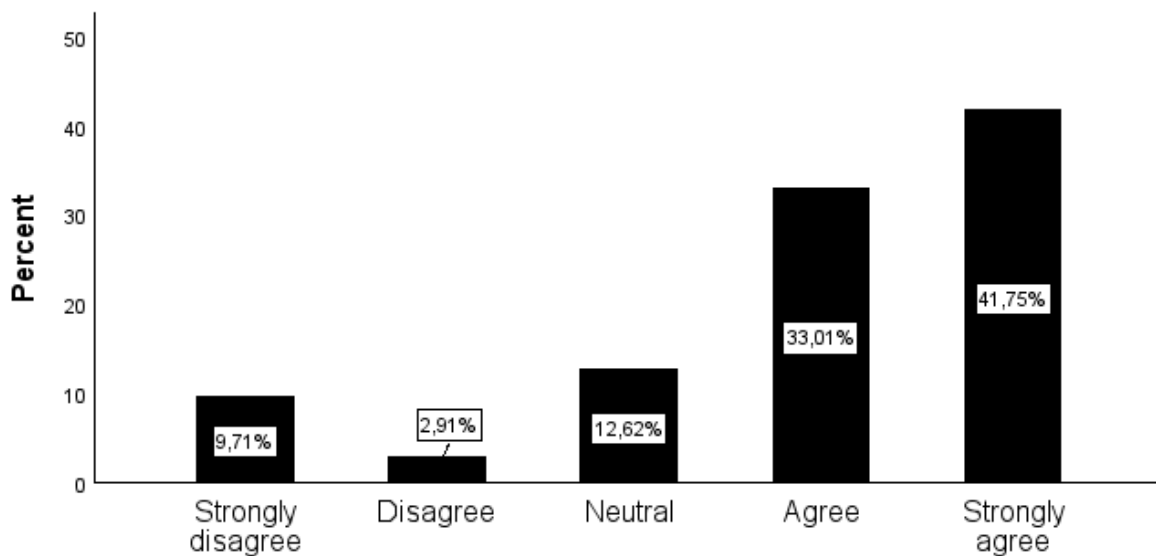
- Community forums,
- Social media,
- Ward committees, and
- Municipal website.

Q10: Community involvement in addressing municipal financial challenges

Local government has a direct link with the people; it is the government that is closer to the citizens of the country. Therefore, it is critical for the municipalities to build a relationship that will be the foundation for the success of the municipality. Creating platforms that will promote active engagement in municipal decision-making that ensures shared responsibility and cultivates transparency, which is essential for the effective management of public resources. Haarhoff (2019) highlights that community members bring unique perspectives and local knowledge that can irradiate challenges or bring opportunities that municipal officials may overlook.

In order to provide solutions, it was critical for this study to examine the level of community involvement to address the financial challenges of the municipality. If community members feel heard and valued, they are more likely to support and participate in municipal initiatives, which is paramount for the implementation of measures to enhance the financial sustainability of the municipality.

Figure 4.14: Community involvement in addressing municipal financial challenges



Community involvement and feedback are important for addressing the financial challenges of the municipality.

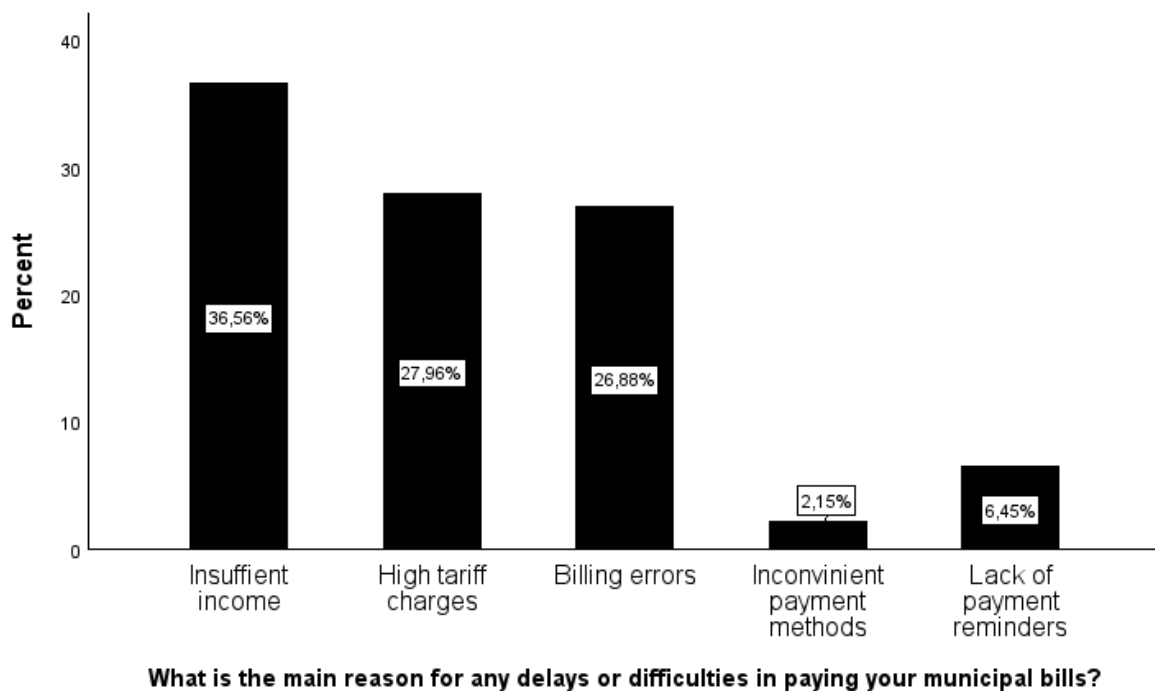
The research results on this question show that municipal customers are willing to be involved and participate in decision-making that will ensure that the municipality is financially sustainable, as 41.75 percent strongly agreed and 33.01 percent agreed, making a total of 74.76 percent of customers supporting the notion. It is critical for the UMDM to adopt strategies in their operation that will incorporate the opinions of their stakeholders, especially during the planning phase. These will ensure that the service delivery projects address the needs of the communities and will not end up as a “white elephant” being abandoned structures. Therefore, resulting in fruitless and wasteful expenditure for the municipality.

Q11: Reasons for delays in paying municipal bills

In this question, the municipal customers were given the option to choose the reason that causes a delay in paying the municipal bills. The options were as follows:

- Insufficient income,
- High tariff charges,
- Billing errors,
- Inconvenient payment methods, and
- Lack of payment reminders.

Figure 4.15: Reasons for delays in paying municipal bills



The results of the research show that the top three main reasons for the delay in paying the bills for municipal customers are as follows:

1. Insufficient income with 36.56 percent,
2. High tariff charges with 27.96 percent, and
3. Billing errors with 26.88 percent.

Insufficient Income - As discussed earlier, UMDM's customers are feeling the pinch due to the current economic conditions, which leads to difficulties in paying municipal bills. The current situation could have a negative impact on the municipality's financial sustainability.

High tariff charges – According to the municipality's 2024/25 Approved Budget, a tariff increase of 12 percent for water and wastewater was approved (UMDM, 2024a), which is the reason why it is in the top three of the concerns of citizens. The municipality charges tariffs to recover the cost of providing water to the communities. However, UMDM must explain the computation of the tariffs to avoid instances where the customers feel like they are being robbed as they have no other option but to get clean running water from the district municipality.

Billing errors – this is the area that creates frustrations for the municipal customers. While completing the questionnaire, one of the customers stated, *“I usually take photos of my meter readings and submit them to the municipality, but the statement always comes with different water consumption. How am I supposed to pay if my water consumption is incorrect?”* The municipality must implement mechanisms and internal control processes that will ensure that the customers' invoices reflect the correct customer consumption. This is the area the municipality can control to ensure that they do not lose revenue from customers.

Lack of payment reminders – The municipality issues invoices or statements of accounts to all active customers every month. Therefore, it is acceptable that the results of the survey show that only 6.45 percent of customers have problems with receiving reminders to pay for their outstanding debts. These seem to be exceptional cases that the municipality should address to ensure that it does not forfeit income from these customers, which will impact the financial sustainability of the municipality.

Inconvenient payment methods – It appears that the municipality has done excellent work in addressing the issue of payment options, as discussed above in Figure 4.9. The survey result showed that 59.62 percent agreed that there are enough payment points within UMDM. Hence, it ranks last with 2.15 percent, indicating that it is not the reason for the delay in paying municipal bills.

Q12: Exploring alternatives to assist in paying municipal bills easily

The municipal customers were asked to share their opinions on what could assist them in paying their municipal accounts easily. The research was conducted during the time when customers received their monthly bills and were coming to Customer Care Centres to pay or complain about their statements of account. The following views, without any alterations, were obtained from municipal customers.

Table 3: Unaltered views by municipal customers on paying municipal bills

Answers	Answers
Accurate and set date of water reading, and prompt bills. Hilton office is efficient, friendly and helpful.	Regular meter readings and billing
Accept our monthly reading - we send photos of the meter - readings.	Rectify errors in the billing system
Correct billing information and prompt metre readings.	Invoice must be emailed on time and have discount if we pay before due date
Reasonable tariffs and correct monthly billing	Correct invoice and on-time billing
Better income	The correct billings and easily access to pay bills
Is to be able to negotiate bills payment according to our income..	Allow to negotiate payment arrangements
The unemployment is one of the reason of not paying good	Implementation of an APP to provide all details on the invoice
EFT	Improve network in our at Impendle and better employment opportunity.
More discount because my pension is very small.	Involve the community in the tariff-setting process
Regular, timeous, provision of correct invoices in which the billing process is easy to understand.	We will appreciate prepaid meters
Correct meter readings	Change meter - affect the billing to much
I don't think there is a problem and am happy with the process	Fixing the meter reader could provide accurate billing.
Indigent policy to assist the customer to pay the bills.	Borehole installed due to inaccurate monthly invoices
Aging status on water account create confusion Accounts that are being disputed should not accrue interest until the dispute is resolved.	Reduce and revise tariff structure
been invoiced correctly	Lower tariff charge
Municipality to accept payment arrangement without incurring additional costs	If the municipality can reduce the tariff charge, I can be able to pay my municipal bill easily.
Lower tariff rates.	Ukuthi kwehlise intengo yamanzi (<i>To reduce water tariff charge.</i>)
Having the correct paying code will assist in fast tracking payment for customers. High tariffs charges that constantly increasing Repairs and maintenance on burst pipes are not done after operating hours to save water. The municipality is sending estimated bills which increasing the monthly billing with no reversal once the actuals are taken. This is detrimental to the customers as it put the billing into higher bracket causing strain in the family budget.	Indigent programme, scaping of old account and restart afresh
Constant and accurate billing of meters and timely reflection of these figures on the statements of account.	Receive correct bill in time
the current EFT payments system is effective	Attend to customer complaints immediately
Not having over inflated prices or tariffs	Customers to choose billing dates that are more suitable for them between the 15th and 1st of the month.
Receiving bill on time	The municipality could implement a USSD Code payment method, and have automated SMS reminders to keep track of payment due date to avoid late payments
The municipality can introduce the USSD payment method.	Accurate monthly reading of meter and understand billing system to ascertain accuracy
Beside EFT and over the counter, which are already existence. I would recommend Zapper or QR code	

Source: Author's own

It should be noted that not all respondents answered this question, as it requires a bit of time to write the answer, and customers preferred to read and tick the answer and continue with their business of the day. However, in those that took some time to respond, it was notable that most concerns were on the accuracy of the municipal bills. The statements or invoices were received late by customers. High tariffs are charged by the municipality. Inaccurate meter readings by the municipality. Customers also wanted to negotiate their payment arrangements and requested incentives to pay their accounts earlier than anticipated.

The municipality should consider these inputs from customers as they symbolize concerns that hinder the municipality from collecting revenue. If these matters are not addressed, in the long run, the customers will refrain from paying for municipal services, which will affect the long-term financial sustainability of the UMDM.

Table 4: Summary of Quantitative results with descriptive statistics

	Questions	Frequencies					Descriptive statistics			
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Median	Mode	Standard deviation
Objective 1	Q1: I have experienced difficulties in paying my municipal bills on time.	19.2%	16.2%	26.0%	25.0%	13.5%	2.97	3.00	3	1.318
	Q2: The current economic situation has affected my ability to pay my municipal bills.	10.6%	12.5%	15.4%	40.4%	21.2%	3.49	4.00	4	1.254
	Q3: I find the municipal bills and statements I receive to be clear and understandable.	13.5%	19.2%	22.1%	30.8%	13.5%	3.12	3.00	4	1.263
	Q4: The billing information provided by the municipality is accurate.	19.2%	26.0%	24.0%	25.0%	4.8%	2.70	3.00	2	1.187
Objective 2	Q5: The municipality provides effective reminders or notifications about upcoming bill payments.	20.2%	23.1%	16.3%	26.0%	12.5%	2.87	3.00	4	1.355
	Q6: It is easy to find the process of paying municipal bills.	8.7%	12.5%	19.2%	47.1%	12.5%	3.42	4.00	4	1.129
	Q7: I am satisfied with the current level of municipal services provided relative to the monthly billing.	25.0%	22.1%	26.9%	19.2%	5.8%	2.58	3.00	3	1.225
	Q8: I am satisfied with the municipality's response time and effectiveness in addressing reported water leakages and illegal water connections.	29.8%	20.2%	26.0%	17.3%	6.7%	2.51	2.50	1	1.269
Objective 3	Q9: Do you think the municipality clearly explains or communicates how the money collected from services is spent?	34.6%	23.1%	21.2%	14.4%	6.7%	2.36	2.00	1	1.277
	Q10: Community involvement and feedback are important for addressing the financial challenges of the municipality.	9.6%	2.9%	12.5%	32.7%	41.3%	3.94	4.00	5	1.243

Source: Author's own

4.3 Descriptive Data Analysis on Research Results

Objective 1: To identify the root causes of the increase in debtors' balance and cash flow challenges faced by the municipality in meeting financial obligations.

Respondents indicated mixed experiences with the payment of municipal bills. On the issue of timely bill payments (Q1), the mean score of 2.97 and a neutral median of 3.00 suggest that a significant proportion of respondents neither strongly agree nor strongly disagree with experiencing difficulties. However, the relatively high standard deviation of 1.318 indicates notable variability in individual experiences, underscoring the economic diversity among municipal customers. The impact of economic conditions (Q2) is particularly pronounced, with a mean of 3.49, and the majority of respondents agree that their ability to pay bills has been adversely affected. This finding is consistent with the broader economic pressures experienced in South Africa, where rising costs of living have strained household budgets (National Treasury, 2022).

Clarity and accuracy in billing information (Q3 and Q4) remain areas of concern. While respondents slightly agree that bills and statements are clear and understandable, as reflected by a mean score of 3.12, the perception of accuracy is notably lower, with a mean score of 2.70 and a mode of 2 (disagree). This discrepancy suggests that while customers can interpret their bills, they harbor doubts about their correctness, possibly linked to inconsistent or unclear billing processes.

The municipality requires a multidimensional evaluation to fully grasp the complexities of its financial mechanisms. This involves examining both internal factors, such as billing processes, and external factors, such as customer behavior in paying municipal bills. As emphasised by Financial Control Theory, these factors have a direct impact on the increase in debtor balances, which, in turn, affects the municipality's cash flow and overall financial sustainability.

Objective 2: To determine the factors that can impede the long-term sustainability of the municipality.

The municipality's communication around bill payment reminders (Q5) elicited a neutral response (mean = 2.87), though some respondents agreed on its effectiveness. The ease of paying bills (Q6) received more positive feedback, with a mean score of 3.42 and a lower standard deviation (1.129), indicating that most customers find the payment process relatively straightforward. This finding highlights a potential strength in the municipality's operational

systems, which can be leveraged to improve overall customer satisfaction, thus ensuring the municipality's long-term sustainability.

The findings reveal low satisfaction levels with the municipality's services in relation to billing (Q7), as reflected by a mean score of 2.58. Similarly, dissatisfaction is evident in the municipality's response time and effectiveness in addressing issues such as water leaks and illegal water connections (Q8), which recorded a mean of 2.51 and a mode of 1 (strongly disagree). These results highlight significant shortcomings in service delivery, contributing to public frustration and resistance to paying municipal bills, ultimately jeopardising the municipality's financial stability.

These findings align with McAdam, Miller, and McSorley's (2019) application of Contingency Theory, which asserts that there is no universal approach to organisational structure. Instead, organisational effectiveness depends on the alignment between the municipality's operations and the specific needs of its environment. In this case, the inability to address customer concerns effectively reflects a misalignment, further underscoring the need for adaptive strategies to meet the demands of the community and enhance financial sustainability.

Objective 3: To identify possible solutions to combat the financial instability within the uMgungundlovu District Municipality.

Transparency in financial communication (Q9) emerged as a critical weakness, with a low mean score of 2.36 and a mode of 1 (strongly disagree), indicating significant dissatisfaction among respondents. Many perceive that the municipality fails to communicate clearly how collected funds are allocated or spent. This lack of transparency undermines public trust, which is crucial for fostering compliance with municipal financial obligations. Customers who feel disengaged or distrustful of municipal processes are less likely to contribute to revenue collection efforts. Collaborative Governance Theory highlights the importance of inclusive decision-making processes and trust-building in addressing complex challenges. The municipality's failure to effectively communicate financial information represents a breakdown in this collaborative process, as trust and transparency are foundational to fostering meaningful engagement with stakeholders.

On a more positive note, there is strong support for community involvement in addressing financial challenges (Q10), evidenced by a high mean score of 3.94 and a mode of 5 (strongly agree). Respondents clearly value participatory approaches and believe that their feedback could play a vital role in achieving financial sustainability. This aligns with the principles of

Collaborative Governance Theory, which emphasises the importance of inclusiveness, shared responsibility, and trust-building as critical elements for successful collaboration.

Table 5: Testing the correlation of variables

Pearson's Correlation					
Comparison		Correlation coefficient	Standard Error	t-value	p-value
Customer location	Source of Income	-0.247	0.062	-2.193	0.031*
Customer location	Average Monthly Bill	-0.302	0.086	-2.653	0.010*
Customer location	Municipality's response time on reported matters	0.066	0.117	0.570	0,570**
Customer location	Effect of Current Economic Condition on Municipal Customers	0.159	0.125	1.383	0.171**
Source of Income	Difficulty in paying municipal bills on time	-0.173	0.103	-1.543	0.127**
Effect of Current Economic Condition on Municipal Customers	Difficulty in paying municipal bills on time	0.549	0.068	6.635	0.001*
Finding Paying Points	Customer location	0.049	0.103	0.425	0.672**
Accuracy of billing information	Difficulty in paying municipal bills on time	-0.133	0.104	-1.345	0.182**
* p < 0.05, the result is statistically significant, meaning the relationship is unlikely due to random chance					
** p > 0.05, the result is not statistically significant, suggesting no strong evidence of a relationship					

Source: Author's Own

4.4 Findings on Correlation Testing

The results of the correlation testing provide valuable insights into the relationships, as illustrated in Table 5 above. These findings illuminate the complex interactions between service delivery, economic constraints, and the municipality's revenue generation, particularly in comparing the effect on customers' location.

Location and Source of Income

The statistically significant p-value (< 0.05) establishes evidence of a relationship between location and source of income. However, the correlation coefficient (-0.247) reveals a weak negative linear relationship, indicating that income levels tend to decrease slightly as the location shifts, particularly toward rural areas. This finding aligns with the broader socioeconomic reality in rural contexts, where economic opportunities are scarce, and incomes are often lower. Such conditions impose a significant financial strain on the municipality, as it must serve a population with constrained financial resources, thereby limiting its ability to recover costs or sustain revenue streams effectively.

Location and Average Monthly Bills

A weak to moderate negative linear relationship (correlation coefficient: -0.302) is observed between location and average monthly bills, suggesting that average billing amounts tend to decrease in rural areas. This outcome is consistent with the municipality's provision of basic services, such as water standpipes, which often generate minimal revenue due to low service charges or free basic services policies. While these provisions fulfill a critical social mandate, they exacerbate the municipality's financial sustainability challenges by creating a revenue-expenditure mismatch, particularly in areas with minimal economic activity.

Location and Municipality's Response Time on Reported Matters

The correlation coefficient (0.066) indicates a negligible relationship between location and the municipality's response time on reported issues. The statistically insignificant p-value (0.570) further confirms that location does not play a meaningful role in influencing response times. This finding suggests that response times are more likely determined by internal factors such as resource allocation, administrative efficiency, and infrastructure availability rather than geographic disparities.

Location and Effect of Current Economic Conditions on Municipal Customers

A very weak positive linear relationship (correlation coefficient: 0.159) suggests a minimal association between location and the economic challenges faced by municipal customers. The high p-value (0.171) indicates that this relationship is statistically insignificant. These results imply that customers' economic hardships are shaped more by broader systemic or national economic conditions rather than their specific geographic location. This underscores the pervasive impact of macroeconomic pressures on municipal revenue collection and service delivery.

Source of Income and Difficulty in Paying Municipal Bills on Time

The weak negative correlation coefficient (-0.173) suggests that increased income levels do not significantly alleviate difficulties in paying municipal bills on time. The p-value (0.127) indicates that this relationship is not statistically significant. These findings suggest that income, on its own, may not be a strong determinant of payment behavior, likely because other factors, such as financial literacy, billing practices, or economic pressures, contribute to customers' struggles with timely payments.

Effect of Current Economic Condition on Municipal Customers and Difficulty in Paying Municipal Bills on Time

A moderate positive correlation (correlation coefficient: 0.549) highlights the significant impact of adverse economic conditions on customers' ability to pay municipal bills on time. The highly significant p-value (0.001) underscores the critical role of economic hardship as a barrier to revenue collection. This result calls for targeted interventions, such as financial assistance programs, flexible payment structures, or improved customer engagement strategies, to mitigate the financial strain on both the municipality and its customers.

Finding Paying Points and Customer Location

The correlation coefficient (0.049) reflects a negligible relationship between customer location and their ability to find paying points. The high p-value (0.672) confirms that this relationship is not statistically significant. This finding indicates that accessibility to paying points is equitable across locations, suggesting that the municipality's efforts to decentralize payment infrastructure have been successful. However, the municipality must continue monitoring and optimising access to ensure inclusivity, particularly for underserved areas.

Accuracy of Billing Information and Difficulty in Paying Municipal Bills on Time

The weak negative correlation coefficient (-0.133) suggests that improved billing accuracy is only minimally associated with reduced difficulties in paying bills. The high p-value (0.182) indicates that this relationship is not statistically significant. Although accurate billing is essential to efficient revenue management, this finding suggests that other systemic issues, such as affordability, payment methods, or customer trust, may play a more decisive role in payment behavior.

4.5 Synthesis of Correlation Testing Findings

Overall, the findings reveal predominantly weak correlations between location and the tested variables, with most relationships being either statistically insignificant or of limited practical relevance. However, two critical insights stand out: the negative correlations involving income and average monthly bills and the significant impact of adverse economic conditions on payment difficulties. These results underscore the district municipality's inherent challenges in servicing rural areas, where low-income levels, reduced billing amounts, and pervasive economic pressures constrain its ability to generate sufficient revenue.

The correlation between economic conditions and payment difficulties highlights the need for targeted interventions to enhance financial sustainability. These could include diversifying

revenue streams, optimizing service delivery models, or implementing measures to support financially vulnerable customers, such as payment relief programs or subsidised tariffs.

Simultaneously, the findings point to areas of strength, such as the equitable distribution of paying points across locations, which demonstrates the municipality's commitment to accessibility and inclusivity. However, improving billing accuracy and customer engagement remains essential for fostering trust and reducing payment delays.

4.6. Multiple linear regression analysis

Building on the earlier correlation analysis, the study advanced to a multiple regression model to determine which variables most significantly predict difficulties in paying municipal bills. This step aimed to generate deeper insights that could inform targeted strategies for enhancing the financial sustainability of the UMDM. The regression analysis was based on customer survey responses and included four independent variables: (1) the extent to which the current economic situation has affected the respondent's ability to pay municipal bills (Q2), (2) satisfaction with municipal services relative to billing levels (Q7), (3) the respondent's source of income, and (4) average monthly billing. The dependent variable was the respondent's reported experience of difficulty in paying municipal bills on time (Q1).

Table 6: Multiple Linear Regression Analysis

Coefficients						
Predictor Variable	Unstandardised Coefficients		Standardised Coefficients	t-value	p-value	Significance
	B	Std. Error	Beta			
(Constant)	0.998	0.585		1.706	0.093	Not significant
Q2: The current economic situation has affected my ability to pay my municipal bills.	0.506	0.102	0.520	4.948	0.000	Significant
Q7: I am satisfied with the current level of municipal services provided relative to the monthly billing.	0.022	0.110	0.021	0.200	0.842	Not significant
Customer's Source of Income	-0.043	0.151	-0.030	-0.285	0.776	Not significant
Customer's Average Monthly Billing	0.038	0.114	0.034	0.333	0.740	Not significant

a. Dependent Variable: Q1: I have experienced difficulties in paying my municipal bills on time

Source: Author's Own

The results revealed that economic hardship was the only statistically significant predictor of payment difficulty ($\beta = 0.520$, $p < 0.001$). This finding indicates a strong and consistent association between financial strain and non-payment, suggesting that residents facing

economic challenges, regardless of their income type or satisfaction with services, are more likely to struggle with meeting their payment obligations. Assuming the sample reflects the broader population, this relationship may point to a systemic financial vulnerability within the district.

These insights have important implications for municipal financial planning. They suggest that non-payment is more closely linked to broader socioeconomic pressures than to perceptions of service quality or the structure of billing. As such, addressing payment difficulties may require approaches responsive to residents' economic realities rather than focusing solely on operational or enforcement mechanisms.

Influence of Economic Conditions

The regression results revealed that the current economic situation (Q2) is a strong and statistically significant predictor of difficulties in paying municipal bills. The unstandardised coefficient for Q2 was $B = 0.506$, with a standard error of 0.102. The t-value was 4.948, and the p-value was 0.000, indicating a highly significant effect ($p < 0.001$). Additionally, the standardised coefficient (Beta = 0.520) highlights that among all variables tested, economic hardship has the strongest influence on customers' ability to pay bills. This suggests that customers facing financial stress due to broader economic conditions are more likely to default or delay municipal payments, which poses a serious challenge to revenue collection and the financial sustainability of the municipality.

Perceived Service Value and Payment Difficulty

Satisfaction with municipal services (Q7) did not significantly predict payment difficulty. The regression coefficient was $B = 0.022$ with a p-value of 0.842, indicating a weak and statistically insignificant relationship. Despite the assumption that dissatisfaction may lead to lower willingness to pay, these results suggest that even when customers are satisfied with the services they receive, their payment behaviour is more influenced by their economic capacity than by their perception of service quality. The Beta coefficient was only 0.021, reinforcing the minimal impact.

The statistical significance of economic hardship in predicting payment difficulties suggests several broader implications for municipal financial management and service delivery planning.

4.7 Implications on the Municipality's Financial Sustainability

The findings of this study support the broader aim of identifying factors that influence the financial sustainability of the UMDM, particularly in the context of equitable service delivery. Results indicate that economic vulnerability, especially in rural areas where service provision often incurs deficits, is central to payment difficulties. This suggests that financial sustainability cannot be viewed in isolation from residents' broader socioeconomic conditions.

The analysis reveals that difficulty paying municipal bills is more strongly associated with economic hardship than customer satisfaction or billing levels. This implies that residents' ability to pay is shaped less by perceptions of service value and more by their financial capacity. As such, payment behaviour may be more responsive to economic conditions than to operational factors alone.

These findings point to a potential need for revenue management strategies that are sensitive to residents' economic realities. The data imply that approaches that acknowledge varying income levels, financial literacy gaps, and the effects of macroeconomic trends, such as inflation or unemployment, may be more effective in addressing revenue challenges than uniform enforcement measures.

Overall, the quantitative study highlights the importance of aligning financial planning with socioeconomic dynamics. It suggests that a more context-aware approach to municipal finance, one that considers both revenue objectives and the lived economic conditions of residents, could enhance the municipality's long-term financial sustainability.

4.8 Qualitative Study Results

The qualitative study was initially designed to involve ten participants employed by the UMDM. However, one participant resigned before the interview process began, resulting in a final sample of nine participants. To ensure relevant and insightful data, purposeful sampling was used to deliberately select participants with specific characteristics pertinent to the study (Creswell and Poth, 2016). The selected participants included two individuals from each category: senior management, finance management, general management, finance staff, and general staff. This study does not mention the participants' names and positions for confidentiality reasons. However, participants are denoted as Respondent A – I.

4.9 Identification and Categorisation of Themes

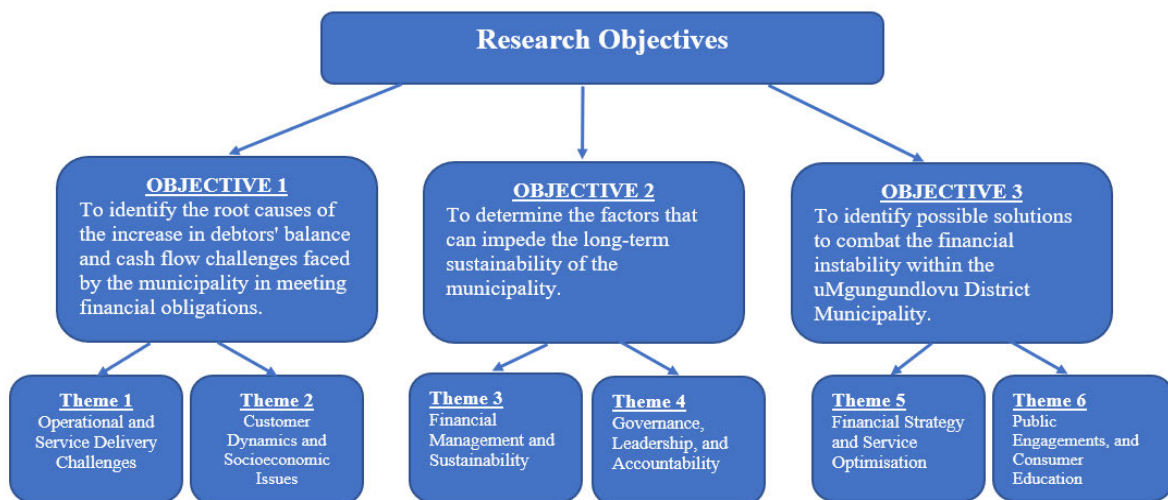
This study conducted thematic content analysis on the transcribed data using NVivo 15 software to extract themes directly related to the research questions systematically. The process began with coding the textual data, where each interview question was transformed into nodes within the software. Following this, responses to each question were thoroughly analysed, allowing for the identification of patterns and connections that emerged across the dataset. These patterns were then categorised as themes, providing a structured understanding of the participants' perspectives in alignment with the study's objectives.

The analysis of the responses from the interviews revealed six (6) main themes on the exploration of measures to enhance the financial sustainability of uMgungundlovu District Municipality, which are as follows:

1. Operational and Service Delivery Challenges
2. Customer Dynamics and Socioeconomic Issues
3. Financial Management and Sustainability
4. Governance, Leadership, and Accountability
5. Financial Strategy and Service Optimisation
6. Public Engagements and Consumer Education

Figure 4.16 below shows how the identified themes are aligned with each research objective. This is to ensure that the study remains focused and relevant to its intended purpose. Thus, providing coherence and clarity in the analysis and findings. Therefore, the qualitative results of this study are presented below under each theme.

Figure 4.16: Alignment of Themes to the Research Objectives



Source: Author's own

4.10 Presentation of Qualitative Findings

The findings of the study showed root causes and challenges that hinder the municipality's financial sustainability. The results highlighted factors affecting the long-term financial health of the municipality and explored potential solutions that could be integrated into business strategies. These solutions aim to give the municipality a competitive advantage in delivering effective and efficient services to its customers, thereby enhancing the financial sustainability of UMDM well into the future.

4.10.1 Theme 1: Operational and Service Delivery Challenges

Municipalities face a range of operational and service delivery challenges that affect their ability to provide essential services effectively. Key operational issues include aging infrastructure, limited staff and resources in revenue management, and high operational costs, all of which put a strain on municipal systems and affect their efficiency. Service delivery issues—such as inconsistent meter readings, delays in addressing customer queries, and frequent water disconnections—can lower public trust and satisfaction. Furthermore, focusing mainly on new infrastructure often means that maintenance of existing systems is overlooked, which reduces service quality over time. Addressing these issues requires a balanced approach that includes maintenance of infrastructure, customer service, and clear policy enforcement to improve municipal performance and reliability. Therefore, resulting in the following sub-themes that are discussed below.

4.10.1.1 Aging infrastructure and inconsistent meter reading

The findings of the study reflected challenges on both operational and service delivery levels, with the main concerns being the aging of the water meters and inconsistent meter readings, resulting in UMDM losing revenue or income. Developing and managing infrastructure is at the heart of the government's commitment to delivering essential services to communities. However, there has been a stronger emphasis on building new infrastructure, while the equally crucial tasks of managing and maintaining existing systems have often been overlooked. This imbalance has led to persistent service delivery issues, impacting communities that rely on these services, Mazele and Amoah (2022) explains.

This was evident, in the response provided by Participant C, noting that:

“We also have aging infrastructure, so I believe maintaining our meters is crucial. Some of the meters are buried, and because of this, when we send out statements, customers often challenge us, asking when the meter reading was done since their meter

is buried. This results in non-payment. One of the main issues is that we don't read meters consistently, and there's a lack of proper information provided to our customers."

Participant H believed that the damaged infrastructure and water meters could result in an incorrect or estimated consumption for customers:

"Most areas have damaged infrastructure and damaged water meters. This makes it difficult to quantify the amount of water that the customers consume correctly."

4.10.1.2 Lack of enforcement of municipal policies and bylaws

The findings show that the lack of enforcement of municipal policies and bylaws is a challenge for the municipalities. The respondents believed that the district municipality struggles to meet its established targets and objectives due to non-adherence to policies and bylaws, contributing to revenue losses and financial challenges for the municipalities.

Participant C stated that:

"The Debt Collection Policy and the Indigent Policy are good frameworks. However, the enforcement of these policies needs more attention."

Participant F was convinced that the non-adherence to the policies and bylaws was due to customers not being informed, educated, or made aware of the existence of policies and bylaws, noting that:

"Policies and bylaws should be properly communicated to the public in general and the targeted audience/customers."

When municipalities lack enforcement of legislation, it often leads to a decline in compliance, with some citizens beginning to neglect paying their municipal accounts. In response, municipalities typically implement control measures such as water service restrictions and disconnections to encourage payment and uphold accountability. However, these control measures should be implemented as a last resort due to the adverse consequences, such as public protests and vandalism of municipal infrastructure.

4.10.1.3 Water restrictions and disconnections

The result of the study finds that the municipality is having a challenge in implementing water restrictions and disconnections effectively to encourage citizens to pay for their outstanding customer accounts. The cited reason is that by law, the municipality is not allowed to shut down water services completely. The South African Constitution stipulates that everyone has the

right to access water (Constitution, 1996, s. 27). This means that disconnecting water services in a way that completely deprives individuals of this basic human right may be considered a violation of this constitutional right.

The Water Service Act (WSA) No. 108 of 1997 reinforces the South African constitutional protection as follows:

- **Section 3** of the act guarantees the right to a basic level of water supply and sanitation services. This provision obligates municipalities to maintain this minimum level of service, even if users are behind on payments (WSA, 1997, s.3).
- **Section 4** further stipulates that water service providers must follow due process before disconnecting water services and must consider the household's right to a basic water supply (WSA, 1997, s.4).

Therefore, the municipalities are caught between a rock and a hard place as the implementation of the policies is hindered by the country's legislation. The municipality can disconnect businesses and organs of the state. However, those are not the challenging customers. Households are the majority of non-paying customers and are protected by legislation.

Participant B alluded that:

“The district can only restrict the water supply, not cut it off completely. This limits our options for addressing non-payment.”

Participants E and H also shared that there are limitations when it comes to the implementation of the disconnections and restrictions, where households can be subject to running water at a certain level, not completely restricted.

Participant E: “The municipality has started to disconnect the Government and businesses with restrictions being imposed on household customers.”

Participant H: “Disconnections are undertaken to all unpaid accounts, especially businesses and organs of the state, with restrictions for household customers.”

4.10.1.4 Managing Municipal Costs

The municipality's inability to collect enough revenue from customers has necessitated stringent spending controls. Effective expenditure management has become a critical focus for UMDM, as highlighted by study participants. They emphasised the importance of adhering to cost containment measures in accordance with the MFMA Circular No. 82. Furthermore, the

declining revenue has also led to the curtailment of some service delivery projects, posing additional challenges. This reduction in visible service delivery projects may discourage citizens from paying municipal bills, as they may feel disengaged when tangible improvements are lacking in their communities. This cycle of limited revenue and restricted service delivery creates ongoing financial and operational pressures on the municipality.

Participant B, concurred by stating that:

“It’s important to note that if revenue collection falls short of expectations, we have to monitor our costs closely. We’ve adopted a very conservative approach to spending, ensuring that we maintain reserves so that even when revenue collection is lower than desired, we can still meet our month-to-month contractual obligations. This conservative financial management helps ensure that we avoid situations where the municipality cannot meet its basic financial commitments.”

Participant D emphasises that:

“To maximize the use of the revenue collected, there must be expenditure controls and initiatives that are aimed at reducing municipal costs.”

Participant G also concurred by saying:

“Implementation of cost-cutting and cost-containment measures ensures that future revenue gains are utilized efficiently.”

Participants pointed to various operational and service delivery challenges as underlying causes for the growing number of unpaid municipal accounts. The increase in unpaid accounts has led to a rise in debtors' balances, which strains the municipality's financial sustainability and ability to provide consistent services.

4.10.2 Theme 2: Customer Dynamics and Socioeconomic Issues

The gradual shift in municipal customer behaviour is influenced by socioeconomic factors such as income levels, employment status, and economic conditions. These factors make it difficult for customers to afford municipal services, resulting in a significant loss of income for the municipality. This loss impacts the UMDM's ability to improve service delivery and promote financial sustainability. The study also revealed that the information in the district municipality's billing system lacks credibility, leading to an increase in complaints from municipal customers. As a result, the study identified the following sub-themes.

4.10.2.1 Credibility of information on the billing system

The study's findings reveal that the UMDM inherited customer data from local municipalities when it took over the mandate for water distribution. According to the Municipal Structures Act (1998, s.84(1)), one of the key functions of district municipalities is to supply bulk water. However, this data transfer left the UMDM with incomplete or inaccurate customer information, which created challenges in correctly billing customers. As a result, inaccuracies in billing have made it nearly impossible for the municipality to recover payments from customers, contributing to a substantial loss of potential revenue needed for the municipality's financial sustainability.

Participant A emphasised by saying that:

“The data that was inherited during this transition was not credible, and the integrity of the records was highly questionable due to incomplete information. This has made it challenging to trace the debtors and get them to come forward and settle their accounts.”

The response from the interview with Participant B also reiterates this point in stating that:

“One of the main contributing factors is the debtors' database that we inherited from the local municipalities, which had significant gaps in information. Therefore, it becomes difficult to trace or locate these customers to recover the billed revenue.”

Respondents highlighted that inaccuracies in the billing system affect not only older customer data but also showed overall concerns about the reliability of customer information. Recognising these issues, the municipality has actively taken steps and introduced strategies to improve the accuracy of this information. Participants shared their thoughts on these efforts:

Participant A: “We’ve also been discussing the potential of a public-private partnership (PPP) where we would bring in external service providers to assist with a data-cleansing exercise and water meter audit to improve the credibility of our records”

Participant E: “The customer's data is not accurate enough for the municipality to bill customers correctly.”

Participant B: “We’ve had multiple rounds of data cleansing to clean up the debtors' database, but we’ve never reached a point where we have a fully clean database.”

The findings presented above indicate that the municipality still faces significant challenges in

enhancing the credibility of customer information within its billing system. The primary concern is that if the municipality does not take swift action, the ongoing issues with inaccurate billing could jeopardise the long-term stability of the UMDM, potentially undermining its ability to continue providing essential services to the community.

4.10.2.2 High unemployment rate

The country continues to face deep-seated challenges, including high unemployment, widespread poverty, persistent inequality, and political instability. The participants highlighted that the municipality finds itself in a difficult position, expected to provide services to communities that cannot pay due to unemployment or financial hardship.

The study's findings reveal that high unemployment significantly impacts the affordability of municipal services, especially in rural areas and townships where financial struggles are more pronounced. Many residents in these areas are unable to pay for municipal services, leading to a growing trend or culture of non-payment as a response to economic constraints. This significantly contributes to the financial instability of the municipalities. The participants concurred in stating the following:

Participant A: "We are facing significant challenges with non-payment in places like Bruntville and Mooi River. Many residents in these townships, particularly those living in RDP (Reconstruction and Development Programme) houses provided by the government, do not want to pay for services. The main reason for this non-payment is their economic status, as most residents struggle financially."

Participant B: "Another significant issue we've faced is the high unemployment rate in the district, which has worsened in recent years and has even increased in the last quarter. Many households are simply unable to pay their debts, yet they still have access to running water."

Furthermore, Participant H agreed with the reviewed literature in this study, noting that unemployment is not an issue faced solely by UMDM, but South Africa as a whole.

"Economic conditions do affect our collection due to high levels of unemployment. Even for those who are employed, the cost of living is too high. This is the problem that cuts across the entire country."

Participant C noted that other pressing social issues further worsen the unaffordability of municipal services.

“The economic situation is a major concern, with many people unemployed, some relying on pensions, and, in some cases, households are headed by children with absolutely no income.”

The municipality is investing a substantial amount of money to supply water across the entire district, aiming to meet its service delivery mandate. However, there is little return on this investment, as many rural residents are unable to pay for municipal services, which further strains the municipality’s finances. Participant G alluded to this by stating that:

“Consumer affordability is a major concern. Most of our customers are from rural areas and are unemployed. They find it hard to pay and afford our services, yet they need them, and the municipality is mandated to provide these services at a very high cost. Therefore, there is no return on investment.”

Discussions with interviewees highlighted that the district's economic conditions, combined with the high unemployment rate, are the major factors contributing to the inability to recover revenue for services rendered by the municipality. Respondents believed that a solution would be to fast-track the registration of indigent customers. The rationale behind the initiative was to enable better planning and budgeting, incorporating the irrecoverable revenue from indigent households.

4.10.2.3 Impact and obstacles in engaging indigent customers

Section 214 of the South African Constitution mandates that the National Government allocate funds to municipalities through the Equitable Share for the purpose of providing basic services, including to indigent households (Constitution, 1996, s. 214). In line with this, Paragraph 9 of the UMDM’s Indigent Policy (UMDM, 2024c, p.9) states, “Funds are already allocated to the municipality to fund the implementation of free basic services through the equitable share grant disbursed by the National Treasury to municipalities.” According to the municipality’s Indigent policy, the qualifying citizens must register to receive the subsidised free-basic services, which are limited to 6 kilolitres of water per month.

The study results revealed that many citizens in the district municipality who qualify for the indigent program are refusing to register. This refusal disadvantages the municipality, as it receives a smaller subsidy that does not align with the total number of qualifying customers.

Participant B shared this opinion:

“The uMgungundlovu District Municipality is largely rural, and most of our customers are, in fact, indigent. However, this reality is not reflected in the indigent register, as not everyone applies for indigent status. We’ve tried to push forward with the indigent registration process, but we’ve encountered a lot of reluctance from households. People feel that, since they’ve already had unrestricted access to water, they don’t see the need to sign up for a program that limits them to 6 kilolitres per month. They currently use as much water as they want, and there is resistance to this change, especially in certain areas where residents refuse to apply for indigent status.”

Participant E further noted that:

“Most of our customers are indigent customers. With the problem of affordability and the culture of non-payment, even the customers who can afford to pay are not paying. Most of our customers live in low-cost housing, and affordability is an issue.”

The findings from participants indicate that many qualifying indigent customers are unwilling to collaborate with the municipality to help reduce the costs associated with providing free basic services. To address this, the municipality could consider offering workshops or programs designed to educate residents on the benefits of indigent registration, highlighting how it serves both the citizens and the municipality. Participant C also suggested a practical way to improve information distribution by establishing satellite offices in rural areas, where most indigent customers reside:

“It’s equally important to consider how we handle rural communities. The municipality has invested significant amounts of money to install meters in rural areas, but we’re not seeing any return on that investment. Opening satellite offices in rural areas could help reduce the need for people to travel to urban centres and would also speed up the distribution of information in those areas.”

The findings in Themes 1 and 2 demonstrated the underlying root causes of the increasing debtors' balance and cash flow challenges faced by UMDM in meeting its financial obligations, thus addressing the first research objective. The next phase will focus on Themes 3 and 4, examining the results related to the second research objective: identifying factors that may threaten the long-term financial sustainability of the UMDM.

4.10.3 Theme 3: Financial Management and Sustainability

The literature highlights poor financial management as a major challenge for municipalities, often leading to long-term financial difficulties. Issues such as inefficient budgeting,

inadequate financial planning, and lack of accountability exacerbate this problem, making it harder for municipalities to meet their fiscal obligations and provide essential services (Jacobs, 2019). Among various expenses, infrastructure costs represent the largest financial burden. While maintaining and upgrading infrastructure is costly, it is essential for ensuring sustainable service delivery and supporting economic development. Given these challenges, this study sought the perspectives of municipal officials to understand these financial issues better and identify the potential threats to the long-term sustainability of the municipality.

4.10.3.1 Balancing revenue and expenditure patterns

The study found that the municipality faces significant challenges in collecting revenue from its citizens, which has led to a heavy reliance on National Government grants to maintain its operations. According to the UMDM's 2024/25 Original Budget Report, the municipality plans to collect only 52.1 percent of its total billing from customers (UMDM, 2024d). This means that nearly 48 percent of the revenue could go uncollected, posing a serious risk to the municipality's financial stability. If this trend continues, the long-term sustainability of the municipality could be in jeopardy.

The participants cited the following:

Participant H: "The amount that is collected is not enough to be channelled to service delivery projects, and the municipality has a lot of backlog in infrastructure development."

Participant D: "The demand for public services such as water, sanitation, and infrastructure maintenance often exceed the available budget."

Participant B: "Balancing the budget is always a challenge, and we continuously monitor expenditure against expected income throughout the financial year."

Given these financial constraints, it is critical for the municipality to adopt a prudent and strategic approach to budgeting, ensuring that expenditures are closely aligned with the available revenue and carefully managed to avoid overspending.

4.10.3.2 Effective management of infrastructure costs

As previously noted, the UMDM covers vast rural areas with challenging terrain, including mountainous landscapes. Despite these environmental hurdles, the municipality is tasked with providing water to all residents, including those in remote rural areas. This responsibility requires significant financial investment in water infrastructure capable of navigating the

district's complex geography. However, the substantial investment in infrastructure yields minimal returns, as many rural residents are unable to afford the municipal services provided.

Moreover, the costs associated with infrastructure are continuous even if the project is completed. The municipality must still maintain these assets to ensure their proper functioning. Failure to maintain infrastructure can lead to service disruptions, which often result in service delivery protests. These protests can escalate to violence, damaging existing infrastructure and forcing the municipality to start the process anew. Addressing grievances promptly and proactively is essential to prevent protests from escalating from non-violent to violent actions, which can have devastating effects on socio-economic development. Municipalities can help maintain peace and foster sustainable growth by implementing a responsive approach to community concerns.

The participants' responses were direct and agreed that it is critical for the municipality to monitor its infrastructure costs when stating the following effectively:

Participant A: "It's crucial that we carefully evaluate projects to avoid overcapitalisation. This highlights the need for more strategic planning, ensuring that projects not only address immediate needs but also provide a financial return or benefit in the long term."

Participant B: "We invest a significant amount of money in water infrastructure, but the reality is that areas like Hilton and Howick are the only prominent regions in the district where we can generate substantial revenue. These areas, along with businesses and government institutions, offer some return on investment. However, in municipalities such as Mkhambathini, Mpofana, and iMpendle, we don't collect much revenue because many residents are indigent."

Participant C: "The municipality faces a significant challenge, as infrastructure spending far exceeds potential revenue, resulting in financial strain. A key solution is to implement a comprehensive maintenance plan to reduce delays in repairing broken infrastructure, which could help manage costs more effectively. However, without a sustainable balance between spending and revenue, the financial pressure on the municipality continues to grow."

The insights shared by the participants and the discussions above call for the vital need to balance infrastructure spending with realistic revenue expectations. This balanced approach is

crucial to mitigating future financial challenges for the UMDM and ensuring that service delivery remains efficient and sustainable over time. In light of these considerations, the following sub-theme will explore the potential threats to the long-term sustainability of the municipality.

4.10.3.3 Threats to long-term sustainability of the municipality

Respondents identified several significant challenges to the long-term sustainability of the municipality. Foremost among these was the difficulty in achieving targeted revenue collection, as the UMDM budgeted to collect only 52.1 percent of anticipated revenue during the 2024/25 financial year (UMDM, 2024d). This shortfall in revenue collection highlights the need for more robust financial strategies to secure the municipality's financial health.

Additionally, the high dependency on government funding to support capital projects and the Equitable Share to finance daily operations emerged as a critical concern. This reliance on government funding restricts the municipality's fiscal flexibility and capacity for independent financial planning, which is essential for long-term stability. Lastly, respondents noted the issue of fund mismanagement, particularly the use of municipal resources on non-essential expenditures. In alignment with this concern, the National Treasury's MFMA Circular No. 58 (paragraph 4.1, discussed in the reviewed literature) specifies non-essential items on which municipalities should limit spending to foster financial sustainability (National Treasury, 2013).

Participant A noted that the inability to collect enough revenue, combined with a significant increase in tariffs, threatens the municipality's long-term sustainability, as many customers are financially struggling.

“The municipality is battling to collect revenue from customers. Tariffs are already high, and we recently had to increase them by 12%. Despite this, the increase does not cover all costs associated with the construction of the Mkhomazi Dam. This puts us in a challenging position where we cannot implement cost-reflective tariffs, which could threaten the financial sustainability of the municipality in the long run. The tariff structure includes several components, such as the tariff increase imposed by Umgeni-uThukela Water, and unfortunately, these costs are passed on to residents, who are already struggling financially and unable to afford municipal services.”

Participant C observed that the municipality's high reliance on grant funding hinders its ability to finance projects independently, leading to challenges in sustaining projects once government funds are depleted.

“The way I see it, we shouldn't be solely dependent on grants to carry out projects. We need to collect sufficient revenue to allow the municipality to address community issues promptly, simply by obtaining council approval and resolving the problem. Currently, when grant funds run out, everything—including ongoing projects—comes to a standstill, as we lack the reserves to sustain or fund them. For instance, during disaster situations, we were forced to write letters to the National Treasury requesting assistance because we had no reserve funds for emergencies.”

Participant E further emphasized that water, as a trading service, should be operating at a profit to cover the municipality's daily operational costs, reducing reliance on the Equitable Share.

“In my opinion, the municipality lacks enough reserves because the revenue collected from services is not enough to cover operational costs. Currently, the municipality is highly dependent on the Equitable Share for its day-to-day activities. Water is a trading service and, as such, should be operating at a profit.”

Participant G noted that:

“The municipality should begin to reflect on past financial practices, implement tighter controls, and monitor expenditures to reduce non-essential spending. This approach would help build enough reserves, supporting the municipality's long-term financial sustainability.”

The collective insights from participants emphasize the urgent need for the municipality to adopt a more balanced financial strategy, one that thoughtfully manages both revenue generation and expenditure to support long-term sustainability. Achieving financial stability is essential for the municipality to meet community needs and sustain essential services effectively. Building on these perspectives, the next theme examines the study's findings on governance, leadership, and accountability, shedding light on how these critical factors influence the municipality's performance and its ability to maintain operations over the long term.

4.10.4 Theme 4: Governance, Leadership, and Accountability

Several factors influence the financial sustainability of a municipality, and governance, leadership, and accountability are key aspects that this study sought to explore. The interviews conducted with participants revealed the following sub-themes, which provide valuable insights into these critical areas.

4.10.4.1 Political leadership

The analysis of the research results on governance, leadership, and accountability highlights the critical role of political leadership in shaping municipal management. According to Sørensen (2020), interactive political leadership can enhance public trust in the decision-making process within a democratic country. Sørensen further suggests that when leaders effectively communicate and collaborate with the public, people are more likely to accept and support the laws and policies that shape the country.

The result from participants highlighted that the UMDM's political leadership made the services delivery a priority and are keen on strategies that benefit both the municipality and its citizens, and respondents concurred in stating that:

Participant A: "We have excellent political leadership, including representatives from all parties involved."

Participant B: "Every month, a standing item is presented to the municipal council, outlining key developments from the revenue division. This includes reports on disconnections carried out, amounts recovered, outstanding balances, challenges faced, and the strategies to be implemented moving forward. Political leadership has been instrumental in driving these processes forward, ensuring that strategies are implemented."

4.10.4.2 Collaboration between political leadership and municipal management

This study emphasises the crucial role of collaboration between political leaders and municipal management in shaping decision-making, service delivery, and governance. According to Mbandlwa, Dorasamy, and Fagbadebo (2020), local government employees view leadership as a critical element for the success of public service, which requires clear direction to ensure optimal performance. Effective leadership is key to better service delivery.

The findings reflect that a strong collaboration between political leadership and municipal management ensures policy alignment with community needs and financial realities, supporting long-term sustainability and effective service delivery through accountable and transparent governance.

Participant A indicated that management works cohesively in addressing the critical issues faced by the municipality, noting that:

“On the management side, we also have a strong team that collaborates across departments. Both the technical and finance teams are working together on key issues, such as managing water losses.”

Participant B acknowledged that while there is a strong level of cohesiveness between political leadership and management, there is still room for improvement, stating that:

“I do believe there is a gap. While leadership is excellent at pushing for the implementation of strategies, I feel that more emphasis should be placed on raising awareness around water consumption and conservation, as well as the responsibility of individuals to pay for services. Political leadership and management are great at developing strategies, but there is often a lack of follow-through in implementation, particularly regarding public awareness. I believe this is where the gap lies and where more effort is needed.”

Themes 3 and 4 above, explored the factors that could threaten the long-term financial sustainability of UMDM, as outlined in the second research objective. The following discussion will focus on themes 5 and 6, which aim to identify potential solutions to address financial instability, aligning with the third research objective.

4.10.5 Theme 5: Financial Strategy and Service Optimisation

The study identified the root causes and risks affecting the long-term financial sustainability of UMDM, making it essential to explore potential solutions to strengthen its fiscal resilience. The research questions were crafted to encourage interviewees to share insights on financial strategies and service optimisation measures that could help the municipality achieve lasting stability, which resulted in the following sub-themes.

4.10.5.1 Strategic approach to reducing debtors’ balances

The study found that the municipality has introduced several plans to reduce the amount of unpaid bills. These efforts aim to collect payments from people with old, overdue bills while

also making sure that new bills are paid on time, preventing unpaid balances from building up to substantial amounts.

Participant A indicated that:

“In response to the growing issue of unpaid debts, the municipality is piloting a new app-based system aimed at improving debt collection and making it easier for residents to manage their payments.”

The respondent emphasised that it is imperative for the municipality to embrace technology in line with global trends to improve service delivery and efficiency. The introduction of the app-based system represents a significant step forward, and it will offer a range of features designed to serve the municipality’s customers better. These capabilities include, but are not limited to, the following:

- Providing updated customer information through personalised profiles,
- Displaying municipal customers' account balances,
- Showing monthly water consumption in kilolitres,
- Allowing customers to upload their meter readings directly,
- Posting important updates and notifications, and
- Offering convenience and accessibility of information on mobile devices.

The municipality is optimistic that the App will address most of the current issues related to customer account details and statements once the pilot is successfully implemented. Additionally, the app-based system is intended to be linked to the municipality's billing system, ensuring seamless integration and improved accuracy.

Participant B also revealed there is an ongoing meter audit project that is focusing on cleaning the customer’s data on the billing system:

“The meter audit, launched in August 2024, addresses significant discrepancies found during indigent registration in areas like Mpofana Local Municipality, where numerous meter numbers did not match the database records. These inconsistencies raised concerns about unregistered connections and irregularities. The audit aims to verify that meters in the field align with the municipality’s records and identify any unaccounted connections. Conducted district-wide, this initiative seeks to create an accurate and reliable meter database. Improved accuracy in meter readings is expected

to reduce billing disputes, increase payment compliance, and ensure fair charges for customers by resolving discrepancies between statements and actual consumption.”

4.10.5.2 Payment plans and incentives for customers

Several participants in the study emphasised the need for the UMDM to implement strategic initiatives aimed at recovering the substantial outstanding amounts from customers. They suggested that the municipality should consider offering incentives that would encourage timely payments and improve overall collections. Key initiatives proposed include:

- **Offering discounts for early payments:** This would incentivise customers to settle their debts sooner, reducing the overall outstanding balance.
- **Reviving repayment plans with added incentives:** Reintroducing structured repayment plans, coupled with additional benefits for those who adhere to them, could encourage more customers to manage their debts effectively.
- **Providing flexible customer payment options:** Expanding payment methods and allowing more convenient ways for customers to pay could increase compliance, particularly for those who face financial constraints.
- **Offering amnesty for customers willing to settle their debts:** Introducing a temporary amnesty program for those who come forward to pay their outstanding balances would help clear significant arrears and restore a sense of accountability among residents.

By implementing these strategies, the municipality could encourage a more positive payment culture, increase revenue recovery, and reduce the financial strain on its operations.

4.10.5.3 Exploring new service optimisation

The municipality relies heavily on water and sanitation services to be profitable trading services, which is crucial for funding projects to foster economic development for its citizens. The municipality also depends on government grant funding to continue delivering essential services to the community. These are the two primary sources of income for the municipality. However, this limits the potential for the UMDM to grow and expand. Given this financial reliance, the study highlights the need for the municipality to explore alternative service offerings that could enhance its financial stability.

The respondents proposed several initiatives to optimize the municipality’s revenue streams.

Participant A stated that:

“We are considering integrating fire assessments into our services, particularly for individual assessments, with the goal of issuing fire safety certificates at a fee. This could create a new revenue stream by billing those seeking fire certifications.

Additionally, we are exploring the possibility of expanding our mandate beyond water and sanitation to include services such as fresh produce markets, airports, and health services. These initiatives would help diversify the municipality’s revenue base and strengthen its financial stability.”

Participant B expanded on the development that the municipality has made in ensuring that the Emergency services unit explores the additional new revenue stream by saying that:

“We have very active emergency services, but we were previously unable to impose fees for call-outs due to the lack of appropriate bylaws. However, this situation changed last financial year, when the necessary bylaws were developed and adopted by the municipal council. These bylaws have now been published on the municipality’s website, and as a result, the municipality will start generating revenue from emergency services.”

These proposed initiatives suggest a forward-thinking approach to diversifying the municipality’s income streams, potentially boosting financial stability and sustainability in the long term.

4.10.6 Theme 6: Public Engagements and Consumer Education

The literature reviewed in this study emphasises the advantages of municipalities' involvement in and consulting public opinion, particularly during the preparation of draft budgets. Participatory budgeting empowers citizens to have a direct say in allocating municipal funds, promoting more equitable and efficient resource distribution. Nielsen, et al. (2021) note that this approach not only enhances public satisfaction with municipal services but also fosters increased civic engagement by creating opportunities for community members to voice their preferences and priorities. Participatory budgeting aligns financial decisions with the actual needs of the communities.

The study’s findings suggest that community engagement should extend beyond budgetary matters to include all operational challenges impacting citizens, as communities often possess valuable insights and solutions. Additionally, the study underscores the importance of educating consumers about municipal policies and bylaws, and recommends awareness

campaigns to encourage water conservation, prompt reporting of water leaks, and timely payment of municipal accounts to avoid interest on outstanding balances.

4.10.6.1 Public participation and engagements

During the interviews, respondents highlighted instances of miscommunication and noted a disconnect between the expectations of the municipality and those of its customers. This misalignment often contributes to the non-payment of municipal accounts. To address these challenges, participants emphasised the importance of robust public engagement initiatives to foster mutual understanding and resolve such issues.

Additionally, they suggested that involving municipal councillors in these engagements could expedite the process, as councillors are closely connected to the communities they serve. Their involvement was seen as a way to enhance credibility and secure public buy-in, given the trust and influence councillors hold within their constituencies.

Participant B emphasised that:

“The involvement of councillors would enhance the credibility of municipal officials and their programs, thereby making it easier to connect with and engage the community. Their endorsement would significantly increase the effectiveness of awareness campaigns as community members take them seriously.”

Participant C highlighted that:

“Addressing customer resistance to payment requires meaningful dialogue with political leadership. The councilors should stress the importance of clear communication to bridge consumer expectations, such as the turnaround time for resolving reported issues, to eliminate misunderstandings that could lead to non-compliance with payment obligations. Involving political leaders is crucial, as their proximity to the community allows them to facilitate improved communication and foster mutual understanding.”

The findings highlight the importance of regular, meaningful conversations between the municipality and its stakeholders, supported by political leadership. These discussions are essential for fostering accountability and nurturing a culture of consistent payment of municipal accounts, which is crucial for ensuring the municipality's financial health. Furthermore, the interviews emphasised the critical role of consumer education in addressing these challenges, underscoring the need for well-informed communities to drive lasting change.

4.10.6.2 Consumer education and awareness campaigns

The respondents stressed that consumer education is a key solution to addressing the challenges faced by the municipality. Education should focus on raising awareness about the importance of paying for municipal services and ensuring citizens understand their critical role in maintaining municipal operations and infrastructure. It should also clarify the reasons behind increases in water tariffs, helping to bridge the information gap and counter misinformation circulating within communities about the municipality's expectations.

Respondents further highlighted the necessity of targeted awareness campaigns to promote water conservation as a pressing priority, given its status as a scarce resource. These campaigns should educate citizens on the financial and environmental consequences of water wastage, including the significant losses incurred from unreported water leaks. By fostering a deeper understanding of these issues, such initiatives aim to encourage responsible behaviour, build trust between the municipality and its stakeholders, and ultimately improve compliance with payment obligations.

Participants shared these opinions on this matter:

Participant C highlighted the importance of consumer education, particularly in teaching individuals how to conserve water. I suggested establishing community help desks to ensure residents fully understand their rights regarding the services provided by the municipality, fostering a more informed and engaged community.

Participant F added that educating communities about the importance of paying for municipal services is key to reducing non-payment issues. By increasing awareness, it is possible to improve collection rates, which, in turn, enhances the municipality's cash flow and financial stability.

Participant H emphasised the need for the municipality to create a system that allows the community to report water leakages and illegal connections quickly. Unreported leakages often result in significant financial losses, which further strain the municipality's resources. Additionally, Participant H recommended organising workshops at the ward level to help residents appreciate the importance of maintaining municipal infrastructure. These workshops should also teach about the importance of taking care of and maintaining infrastructure by communities. This will encourage residents to take responsibility in caring for infrastructure, ensuring its long-term functionality and benefit to the community.

4.11 Discussion of Results

The discussion integrates insights from the literature reviewed in Chapter 2 and the findings presented above to analyse the factors influencing the financial sustainability of the UMDM. The discussion is structured around key themes derived from the research objectives: the root causes of financial challenges, impediments to long-term sustainability, and strategies for financial stability. The analysis highlights synergies between theoretical perspectives and, empirical findings.

Objective 1: To identify the root causes of the increase in debtors' balance and cash flow challenges faced by the municipality in meeting financial obligations.

The findings indicate several factors contributing to UMDM's financial instability, with delayed payment of municipal bills emerging as a critical issue. Customers in rural areas demonstrated indifference toward timely bill payments due to reliance on communal standpipes, which are not individually billable. This disconnect reflects a lack of awareness of municipal policies, undermining cash flow stability and exacerbating financial strain.

Quantitative data reveals a significant correlation between customer location and their attitude toward bill payment, with rural customers more likely to neglect payments compared to their urban counterparts. This finding aligns with contingency theory, which suggests that municipalities must adapt strategies based on the distinct characteristics of their customer base (McAdam et al., 2019). For UMDM, this adaptation could include targeted outreach and education initiatives in rural areas to increase compliance and reduce financial losses.

The reviewed literature underscores the role of effective revenue management in mitigating such challenges. Hajilou et al. (2018) argue that municipalities must prioritise accurate billing and equitable revenue collection mechanisms. However, the study findings reveal pervasive billing inaccuracies, with 45.63 percent of respondents dissatisfied with the accuracy of their bills. A strong negative correlation is evident between perceived billing accuracy and willingness to pay, highlighting the urgency of addressing these issues. This aligns with the assertion by Taherdoost (2023), noting that billing errors lead to customer frustration and revenue losses. Addressing these issues requires robust internal controls and enhanced customer engagement.

Another critical factor is the municipality's dependence on employed customers, who constitute 72 percent of the customer base. However, with a 30.4 percent unemployment rate in the region (COGTA, 2023), economic conditions heavily influence bill payments. Approximately 61.8

percent of respondents reported affordability challenges due to adverse economic conditions, highlighting the need for targeted interventions to cushion vulnerable populations. The correlation between unemployment rates and late payments underscores the necessity of social policies and subsidies tailored to low-income households to sustain revenue inflows.

Objective 2: To determine the factors that can impede the long-term sustainability of the municipality.

The study identifies several impediments to UMDM's long-term financial sustainability, including inadequate communication, limited customer engagement, and systemic inefficiencies. Transparency in financial communication is a significant challenge, with 57.7 percent of respondents dissatisfied with how the municipality explains the utilisation of service revenue. This lack of transparency erodes trust, as supported by Bovens et al. (2014), who emphasize the importance of clear and accessible financial information in fostering accountability.

Correlation analysis between transparency perceptions and trust levels reveals a positive relationship. Customers who perceive greater transparency are more likely to exhibit trust in municipal governance and comply with payment obligations. This highlights the importance of communication strategies that clearly articulate how collected revenues are allocated, fostering a sense of mutual accountability and community buy-in.

The municipality's approach to customer engagement also requires improvement. While 74.76 percent of respondents expressed willingness to participate in decision-making processes, the lack of effective platforms for such engagement limits their involvement. Haarhoff (2019) highlights the value of leveraging local knowledge to identify challenges and opportunities, emphasising the need for inclusive governance frameworks. Collaborative governance theory supports this approach, advocating for shared responsibility and trust-building mechanisms (Ansell & Gash, 2008). A significant proportion of customers (74.76 percent) are eager to co-create solutions, suggesting that fostering participatory platforms could enhance UMDM's operational efficiency and financial health.

Infrastructure challenges, including aging water systems and illegal connections, further strain UMDM's financial resources. The audited 2023/24 Annual Financial Statements revealed a 43 percent increase in water losses, amounting to R100.3 million (UMDM, 2024b). These losses stem from delayed water leak repairs and illegal connections, aligning with findings by

Calderón and Servén (2014), who link infrastructure inefficiencies to financial instability. Effective asset management and timely interventions are critical to addressing these challenges.

Objective 3: To identify possible solutions to combat the financial instability within the uMgungundlovu District Municipality.

To combat financial instability, the study identifies several actionable strategies. Enhancing revenue generation mechanisms is paramount. The municipality must address billing inaccuracies and adopt technology-driven solutions to streamline revenue collection. Bella et al. (2023) highlight the role of technology in improving financial management efficiency and decision-making. Implementing automated billing systems and real-time monitoring can reduce errors and improve customer satisfaction.

Correlation analyses within the findings suggest a strong relationship between improved billing accuracy and customer payment rates, emphasising the financial benefits of investing in technology. Automation not only minimizes human errors but also enables real-time tracking of customer accounts, ensuring prompt detection and rectification of discrepancies.

Public participation in budgeting processes is another critical strategy. The results reveal significant support for community involvement, with 74.76 percent of respondents advocating for collaborative decision-making. Participatory budgeting not only enhances transparency but also aligns resource allocation with community priorities (Wampler et al., 2021). UMDM can leverage forums, social media platforms, and ward committees to foster active citizen engagement. The integration of collaborative governance theory reinforces these strategies. The theory emphasises trust-building and shared responsibility, aligning with customer willingness to engage in co-creating solutions to financial challenges. This shared governance model ensures alignment between municipal policies and community needs, reducing conflicts and fostering mutual accountability.

Cost containment measures are equally important. The National Treasury's MFMA Circular No. 82 emphasizes the need for municipalities to reduce non-essential expenditures. Effective expenditure management involves aligning costs with benefits and implementing stringent controls to prevent financial mismanagement. As Van Schalkwyk (2012) notes, robust cost management enhances service delivery value while ensuring financial sustainability.

Addressing water losses is critical for stabilising UMDM's finances. The municipality must invest in infrastructure maintenance and public awareness campaigns to mitigate water

leakages and illegal connections. Collaborative efforts with stakeholders, including private-sector partnerships, can enhance resource management and ensure efficient service delivery. Municipal officials highlighted the importance of community awareness campaigns to encourage reporting of water leaks and illegal connections, which could significantly reduce financial losses.

Lastly, fostering a culture of accountability is essential. Regular audits and transparent reporting mechanisms can strengthen financial governance and rebuild public trust. Internal audits provide continuous oversight, while external audits by the Auditor-General offer independent evaluations of financial health (Fourie & Poggenpoel, 2017). Adopting these measures will enhance UMDM's credibility and operational efficiency. The findings emphasise that addressing billing inaccuracies and communication transparency concerns is crucial to achieving accountability and restoring public confidence.

4.12 Integration of Quantitative and Qualitative Findings

The use of a Convergent Parallel Design in this study enabled a rich, multidimensional exploration of the factors influencing the financial sustainability of the UMDM. The collection of quantitative and qualitative data simultaneously ensured that statistical patterns were immediately complemented by lived experiences and operational insights. Quantitative findings, such as the correlation between customer location and payment behaviour, dissatisfaction with billing accuracy, and perceptions of transparency, were brought to life through narratives from municipal officials, who illuminated the universal inefficiencies, infrastructural challenges, and communication gaps that underpin the numbers. This integration allowed the study to meet its three research objectives comprehensively: the root causes of financial challenges were understood not only through customer affordability issues and disconnection from billing practices but also through institutional weaknesses in service delivery models; the impediments to long-term sustainability were revealed through both the lack of transparent financial communication and the absence of meaningful customer engagement platforms; and practical strategies were developed by aligning quantitative trends with qualitative recommendations, such as investing in technology, strengthening participatory governance, enforcing cost containment, and improving infrastructure management.

4.13 Chapter Summary

This chapter presented the findings for both quantitative and qualitative aspects of this research and encapsulated the integration of theoretical insights and empirical findings to highlight the

multifaceted nature of financial sustainability challenges at UMDM. Root causes such as delayed payments, billing inaccuracies, and economic constraints require targeted interventions. Impediments to long-term sustainability, including inadequate communication and infrastructure inefficiencies, necessitate comprehensive reforms. By implementing strategies such as revenue optimization, participatory governance, cost containment, and accountability measures, UMDM can enhance its financial resilience and ensure sustainable service delivery.

The strong correlations observed between transparency, community engagement, and payment compliance suggest that prioritizing communication and participatory frameworks can significantly improve financial outcomes. Expanding community engagement, improving communication transparency, and leveraging technology will be pivotal in addressing UMDM's financial challenges and fostering long-term sustainability. Robust governance, grounded in theoretical frameworks and empirical evidence, will ensure that the municipality meets its objectives while aligning with stakeholder expectations.

CHAPTER 5

RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

The study on enhancing the financial sustainability of the UMDM was driven by the growing financial challenges faced by municipalities, which threaten their ability to deliver services effectively in the future. The research objectives were structured around three core elements: identifying the underlying causes, examining the long-term impact, and exploring potential solutions to prevent financial instability. The previous chapter presented and discussed the research findings, concluding with a summary that highlighted the correlation between quantitative and qualitative results.

This concluding chapter provides a comprehensive overview of the research, offering recommendations based on the study's outcomes. It also addresses the limitations of the research, acknowledging any factors that may have influenced the findings. Furthermore, the chapter suggests directions for future research, identifying areas that could further expand or complement the current study. In conclusion, the chapter emphasises the importance of the study's contributions and its potential to inform and shape future efforts in municipal financial management.

5.2 Research Overview

The problem statement identified at the beginning of the study in Chapter 1 was the foundation of this research, where the research objectives and questions were formed to address the problem. The study focused on the financial challenges faced by the UMDM, particularly the unaffordability of municipal services caused by economic constraints, including high unemployment rates and limited economic activities within rural areas. Additionally, inefficiencies in revenue collection, aging infrastructure, and misaligned municipal policies further exacerbated these challenges. This necessitated a study aimed at exploring measures to enhance the financial sustainability of UMDM. The objectives of the study were:

- To identify the root causes of the increase in debtors' balance and cash flow challenges faced by the municipality in meeting financial obligations.
- To determine the factors that can impede the long-term sustainability of the municipality.
- To identify possible solutions to combat the financial instability within the uMgungundlovu District Municipality.

As discussed in Chapter 2, a mixed-method approach was employed to gather comprehensive insights from municipal customers and officials.

- The results were presented and discussed in Chapter 4, providing actionable insights into the root causes of the municipality's financial challenges. Key factors identified included:
- The significant impact of economic conditions on customers' ability to pay for municipal services was highlighted by a correlation between unemployment rates and late or non-payment of bills.
- Perceptions of unclear and inaccurate billing, with 45.63 percent of respondents dissatisfied with the accuracy of their statements, led to mistrust and reduced compliance.
- Aging infrastructure contributes to inefficiencies such as water losses, which increased by 43 percent in the 2023/24 financial year.
- Weak enforcement of municipal policies and bylaws, particularly around debt recovery and disconnections.
- Operational inefficiencies and insufficient cost management exacerbate financial strain.

The second objective sought to determine factors impeding UMDM's long-term sustainability. While the study found that there was alignment between political leadership and municipal administration in prioritising service delivery, gaps were evident in the implementation of strategic plans. Challenges included inadequate community engagement and communication, which weakened public trust and hindered the municipality's ability to align services with community needs.

Lastly, the study explored solutions to enhance financial sustainability. Key recommendations, amongst others, included:

- Implementation and installation of smart water meters for all billable municipal customers.
- Automation and streamlining of municipal processes.
- Upgrading of water infrastructure to address backlogs and increasing water demands.
- Implementing customer education initiatives to improve understanding of municipal processes, billing, and the importance of water conservation.
- Establishing awareness campaigns to encourage efficient water use, reducing water losses and associated costs.
- Exploring additional revenue streams, such as:
 - Charging fees for fire certificates issued by the fire department.

- Revitalizing fresh produce markets and abattoirs, as mandated by the Local Government: Municipal Structures Act (1998, s84(1)).
- Restoring airport services under the municipality’s jurisdiction to capitalize on potential revenue.

The findings underscored the importance of leveraging community engagement, transparent communication, and innovative revenue-generation strategies to address UMDM’s financial challenges. The municipality can strengthen its financial resilience and ensure sustainable service delivery by aligning strategic objectives with actionable solutions.

5.3 Recommendations

After considering the research findings and results, the study proposes the following recommendations to address challenges and enhance the financial sustainability of UMDM.

5.3.1 Recommendations: Objective 1

5.3.1.1 Installation of Smart Water Meters

In the interviews conducted with municipal officials, it was ascertained that manual meter readings pose a lot of challenges. These challenges directly impact customers’ hesitation or stalling to pay municipal accounts, resulting in the municipality having cash flow limitations. Most respondents find that installing smart water meters could be a solution the district municipality is looking for.

The study on water metering was conducted in Italy, where the estimated costs and benefits of installing smart water meters were analysed. Given the study background of conditions similar to those in South Africa, more specifically UMDM, the benefits of installing smart water meters can be adopted to reduce challenges faced by the District Municipality. Italy is in a similar environment position where there is an increase in socio-economic development and change in consumption patterns, such as an increase in water demand due to a rise in population coupled with water scarcity and inadequate water infrastructure (Uggeri and Simeon, 2019). UMDM can simulate the following benefits:

Enhanced water conservation – Smart meter offers real-time data on water usage, which will enable municipal customers to identify patterns, inefficiencies, and potential wastage. Furthermore, smart meters assist in the early detection of water leaks and abnormal usage. Thus, reducing water losses and promoting sustainable water usage practices.

Improve Accuracy of Municipal Billing – The recording of precise water consumption that feeds to the municipal billing system, reducing reliance on estimated water consumption and human errors from municipal meter readers. This will reduce the number of complaints from municipal customers, which often leads to resisting payment of municipal accounts. Moreover, building trust between the UMDM and its customers.

Efficiency in UMDM’s operations – The need for manual meter readers will be significantly reduced, where the readers can only focus in remote areas where the network is a challenge. Therefore, the municipality saves on labour costs. In addition, UMDM can monitor the performance of the system remotely and assist in identifying issues such as burst pipes or inefficiencies in the water supply without physical inspections.

Empowerment of Municipal Customers – Since the UMDM is currently piloting a mobile app portal, it can be linked to the customer’s smart meter so that consumers can access details on their water usage information easily. Customer can able to set personalised alerts on high consumption or potential water leaks in their households, encouraging proactive water conservation efforts.

Revenue Protection – The installation of a water-smart meter will reduce the number of illegal connections and detect water leakage, which costs the UMDM a significant amount of money. Improved cash flow from timely and accurate billing ensures better resource allocation for maintenance and infrastructure development.

However, it is important to acknowledge that the upfront costs of procuring and installing smart water meters, coupled with necessary system integration, may place strain on UMDM’s already limited budget. Therefore, a phased implementation starting in high-revenue or high-debt areas is recommended to ensure cost-effectiveness. UMDM should also explore donor support, public-private partnerships (PPPs), and grant funding from national programmes to ease the financial burden. In the medium to long term, improved revenue collection and reduced water losses may generate enough savings to justify the investment.

The above benefits, as adapted from the study by Uggeri and Simeon (2019), will eliminate problems identified by municipal customers as the root cause for the non-payment of municipal accounts, which grossly affect the financial sustainability of the UMDM. The integration of smart water meters can immensely improve the municipality’s water management systems while ensuring consumer satisfaction, operational efficiency, and sustainability.

5.3.1.2 Strengthening Financial Management Practices

Another significant challenge identified in the study was UMDM's struggle with cash flow due to inefficient financial management practices. Improving financial management will enable the municipality to allocate resources better and prioritise investments that promote financial sustainability.

- **Improved Budgeting and Forecasting:** UMDM should adopt more robust budgeting and forecasting practices to improve its ability to manage revenue and expenditure. The municipality can ensure better planning and financial stability by aligning budgeting processes with long-term financial goals.
- **Cost Reduction and Efficiency Gains:** UMDM should review its existing spending patterns and identify areas where costs can be reduced, particularly in non-essential services. Streamlining operations and renegotiating contracts with service providers could yield significant cost savings.
- **Enhanced Debt Collection Strategies:** A comprehensive strategy should be developed to address outstanding debts and improve debt collection. This may involve targeted communication with delinquent customers and offering payment plans or discounts for lump-sum payments to incentivize timely debt resolution.

While these interventions largely involve process improvements and policy changes rather than capital expenditure, they do require internal capacity, training, and possibly consulting support. UMDM should consider reallocating a portion of operational budgets toward financial management enhancement initiatives, which can yield high returns through improved revenue collection and cost containment.

5.3.1.3 Customer Education and Awareness Programs

Another critical finding from the study is the importance of customer engagement and education in promoting timely payment of municipal accounts. Many respondents identified a lack of understanding among municipal customers about how their water usage is billed and the impact of unpaid bills on municipal finances. To address these issues, UMDM should implement customer education and awareness programs.

- **Transparency in Billing:** Clear communication about how water usage is measured and billed will help customers understand their responsibilities and the importance of timely payments. UMDM could disseminate this information through social media, workshops, and community meetings.

- **Water Conservation Campaigns:** Since water conservation is a key priority, the municipality should run campaigns to educate customers on the importance of reducing water wastage. This can include providing practical tips on water-saving methods and demonstrating how customers can monitor and manage their consumption using smart meters and the mobile app portal.

Incentives for Early Payments: UMDM could introduce programs that offer discounts or rewards for early payments or consistent payment records. This could incentivize customers to pay on time, improving cash flow and reducing the risk of outstanding debts.

These initiatives may involve modest marketing and outreach costs. However, by leveraging existing communication platforms, such as the mobile app portal and local radio, UMDM can minimise expenditure while maximising reach. Additionally, partnerships with civil society and donor-funded campaigns can further ease the financial burden of these programmes.

5.3.2 Recommendations: Objective 2

5.3.2.1 Automation and Streamlining of Municipal Processes

UMDM should prioritise automating and streamlining its internal processes to enhance operational efficiency and response times. Interviews with municipal officials revealed delays in addressing urgent issues, such as burst water pipes and leaks, which were exacerbated by non-integrated reporting systems.

To address this, the following steps are recommended:

- **Integrated Reporting Channels:** UMDM should invest in automated systems that enable seamless communication between departments. For example, when a burst pipe is reported, the system should immediately notify relevant departments such as Finance (for procurement) and Infrastructure and Technical Services (for repairs). This will minimise delays in addressing the issue, improving both operational efficiency and the municipality's response to customer complaints.
- **Asset Management Automation:** The automated system should automatically record newly purchased assets in the municipality's asset register. This ensures that all assets are adequately safeguarded, reducing the risk of asset mismanagement or loss. Streamlining asset management processes will also provide real-time tracking, enabling better maintenance planning and cost control.

The initial cost of acquiring or upgrading digital systems may present challenges for UMDM's constrained budget. To mitigate this, the municipality could begin with low-cost, modular systems or pilot the initiative in one department before full rollout. Support from national e-government grants or donor-funded ICT development programmes can further improve affordability. The long-term operational savings from faster service delivery and reduced data errors will offset the upfront investment.

5.3.2.2 Upgrading Water Infrastructure to Address Demand

The study found that rising population levels and increasing water demand are contributing to pressure on the municipality's water infrastructure. To address this, UMDM must prioritise upgrading its water infrastructure to meet growing demand and ensure reliable service delivery.

- **Infrastructure Modernisation:** UMDM should invest in upgrading its water treatment plants, pipelines, and distribution systems. Modern infrastructure will be more efficient, reduce water loss, and accommodate the growing population's needs.
- **Expansion of Water Supply Networks:** The municipality should focus on expanding its water supply networks to underserved areas, ensuring that all residents have access to reliable water sources. This can be achieved through a combination of municipal funds, PPPs, and donor funding.
- **Regular Maintenance Programs:** Preventative maintenance programs should be implemented to reduce the occurrence of bursts and leaks. Regular inspections and upgrades to existing infrastructure will prolong the life of the assets and minimise costly repairs.

To improve implementation feasibility, UMDM should prioritise infrastructure upgrades based on risk assessments and revenue potential. It should also pursue blended financing options such as conditional infrastructure grants, PPPs, and Development Bank funding. Clear cost-benefit analysis and return-on-investment (ROI) projections will help secure external support.

5.3.2.3 Strengthening Public-Private Partnerships (PPPs)

One key finding from the study was the significant financial pressure UMDM faces in maintaining and upgrading its infrastructure, especially in the water sector. Establishing or strengthening public-private partnerships (PPPs) could provide a valuable solution. By collaborating with private sector entities, UMDM could access the necessary expertise,

investment, and innovation to improve its infrastructure without relying solely on municipal budgets.

- **Joint Investment in Infrastructure:** PPPs can facilitate joint funding initiatives for water supply and distribution systems, reducing the financial burden on the municipality. This approach would allow UMDM to maintain or expand its infrastructure without extensive capital expenditures.
- **Risk-sharing and Innovation:** In a PPP model, risks associated with water infrastructure projects are shared between the municipality and private partners, reducing the financial risk for UMDM. Private sector partners can also bring innovative solutions and technologies to improve water management and operational efficiency.
- **Improved Service Delivery:** Collaboration with the private sector can help enhance the quality and reliability of water services, leading to higher customer satisfaction and increased revenue from improved billing accuracy and fewer service disruptions.

PPPs offer a financially viable alternative to purely municipal funding, particularly under tight budgetary conditions. However, effective governance and well-structured contractual arrangements are essential to ensure that PPPs deliver value for money without compromising public interests. UMDM should develop PPP policies and assess partner proposals based on long-term sustainability rather than short-term relief.

5.3.2.4 Strengthening Governance and Accountability

Ensuring transparency, accountability, and effective governance is crucial for UMDM's financial sustainability. The study revealed concerns over inefficient reporting systems and delays in addressing infrastructure issues, which could be linked to gaps in governance.

- **Clear Accountability Structures:** UMDM should establish clear accountability frameworks within the municipality to ensure that departments are held responsible for their performance. This will also improve coordination between departments, reducing delays in addressing customer complaints and service issues.
- **Performance Monitoring and Reporting:** UMDM should implement regular performance monitoring systems to track progress on financial and operational goals. Transparent reporting on the municipality's financial health and progress on sustainability initiatives will build trust with both municipal customers and external stakeholders.

While strengthening governance structures generally involves administrative changes rather than major expenditures, UMDM may need to allocate a budget for staff training, monitoring systems, or external audits. These investments are relatively modest but crucial for enhancing long-term efficiency and accountability.

5.3.3 Recommendations: Objective 3

5.3.3.1 Exploration of Additional Revenue Streams

The findings suggested that the municipality explore additional revenue streams to generate the much-needed income required for its financial sustainability. One such opportunity lies in charging fees for fire certificates issued by the fire department, which could provide a reliable and consistent source of income while remaining aligned with essential service delivery. Another promising avenue involves revitalising fresh produce markets and abattoirs, as mandated by the Local Government: Municipal Structures Act (1998, s84(1)). This initiative would create revenue, boost local economic activity, and promote agricultural development. Additionally, restoring airport services under the municipality's jurisdiction offers the potential to generate income through landing fees, storage rentals, and other aviation-related services.

While these initiatives offer long-term revenue opportunities, initial capital investment and operational capacity must be considered. UMDM could begin with feasibility studies and phased implementation, prioritising the most cost-effective and self-sustaining projects first. Partnerships with private sector investors or sector-specific grants can also reduce the financial burden and risk exposure. If effectively implemented, these initiatives could diversify the municipality's income base while contributing to its long-term financial stability and resilience.

5.4 Study Limitations

5.4.1 Geographical Dispersion of Municipal Customers

The municipal customers are dispersed throughout the uMgungundlovu District Municipality, which posed a challenge for a researcher to cover all areas within the municipality. To address the potential risk of excluding certain regions from the study, an electronic survey was distributed using email addresses sourced from the UMDM customer billing database. This approach helped to ensure a broader coverage, and the number of survey responses steadily increased over time.

5.4.2 Scepticism of Participants

During the data collection process, the researcher encountered scepticism from participants, particularly in rural areas and Customer Care Centres serving townships, where municipal customers are often associated with illegal connections. Many customers feared that the survey would be used to put pressure on them to pay outstanding municipal bills, while others were concerned that the researcher might gather personal financial information and share it with the municipality. However, after the researcher provided a detailed explanation of the study's purpose and reassured participants of confidentiality, as outlined in the informed consent form, they were encouraged to participate honestly in the study.

5.4.3 Availability of Municipal Officials

The researcher scheduled appointments with all nine selected municipal officials and provided them with the interview questions and informed consent forms in advance to prepare for the meetings. However, due to unforeseen circumstances and job-related demands, face-to-face interviews were successfully conducted with five participants. The remaining four participants opted to complete the interview questions independently and emailed their responses back to the researcher. While this approach ensured their participation, it limited the opportunity to ask probing questions, which could have provided more in-depth insights into the research subject.

5.4.4 Limited Qualitative Sample Size and Generalisability

Given the limited number of municipal officials (nine) and the constraints encountered during data collection, the qualitative sample size was relatively small. While the selected participants held key roles relevant to the study, the findings drawn from their responses may not fully represent the perspectives of all stakeholders within the municipality. Furthermore, due to the context-specific nature of this case study, focusing on the UMDM, the generalisability of findings to other municipalities or regions may be limited. Nevertheless, the insights generated offer valuable depth and context-specific relevance for understanding the financial challenges and potential strategies to enhance financial sustainability within the UMDM.

5.5 Suggestions for future studies

This research focused on exploring measures to enhance the financial sustainability of the UMDM. However, given the complexity and multifaceted nature of financial sustainability, there is a clear necessity for consideration of other aspects of financial sustainability, especially in municipalities that provide water and sanitation. These areas have emerged from both the findings of this study and the broader context of water management and municipal governance

in South Africa. Expanding research into these directions will help provide a more holistic view of how municipalities can achieve both financial resilience and sustainable resource management. The following areas warrant further investigation:

- **Financial Implications of Water Conservation:** Future studies should explore the financial consequences of promoting water conservation in municipalities. Research could investigate how municipalities can balance the need for water conservation with the imperative to secure sufficient revenue. This could involve assessing alternative revenue models, such as tiered pricing, improved debt collection strategies, or the introduction of new water-related services.
- **Economic Impact on Key Industries:** Further research should investigate the broader economic impacts of water conservation efforts, particularly on industries dependent on municipal water services. This research could analyse the potential disruptions to sectors like agriculture, manufacturing, and hospitality, and propose solutions that mitigate negative economic effects while promoting water-saving initiatives.
- **Sustainable Water Management Solutions:** Given the importance of long-term water sustainability, future studies should focus on developing and testing financially resilient water management solutions. This could include examining the potential for technological innovations (e.g., desalination and water recycling) and public-private partnerships (PPPs) to support both water conservation and financial stability for municipalities.
- **Policy and Governance Frameworks:** To address the governance challenges highlighted in this study, future research could explore the role of policy and institutional frameworks in facilitating effective water conservation and financial management. This could include evaluating the impact of integrated governance models, where municipal departments collaborate more effectively to align water management with financial sustainability.

5.6 Contribution to the Body of Knowledge

This study contributes meaningfully to the body of knowledge on municipal financial sustainability by offering a detailed, context-specific analysis of the uMgungundlovu District Municipality (UMDM). While broader studies have examined municipal fiscal distress in South Africa, few have explored localised, practical measures tailored to the socio-economic and infrastructural realities of UMDM. Using a Convergent Parallel Design, the study integrated perspectives from municipal customers and officials, providing a comprehensive

understanding of the root causes of financial instability, factors threatening long-term sustainability, and potential solutions.

The findings highlight key challenges, including outdated water infrastructure, inefficient billing practices, and limited customer engagement, aligning with national concerns reported by the Auditor General (AGSA, 2022). In response, the study proposes actionable recommendations such as the installation of smart water meters, process automation, and the diversification of revenue streams, emphasising the role of technology and governance reforms in strengthening financial sustainability.

By illustrating the interconnectedness of infrastructure, technology, governance, and community involvement, this research offers a practical framework that can inform both policy development and implementation across similar municipalities. Ultimately, the study advances local government financial management discourse and provides a valuable guide for policymakers, practitioners, and scholars.

5.7 Conclusion

This study explored measures to enhance the financial sustainability of the uMgungundlovu District Municipality amidst increasing financial pressures on municipal service delivery. The findings revealed several critical factors contributing to UMDM's financial instability, including economic hardships that hinder municipal customers' ability to pay, outdated infrastructure, and inadequate management of operational costs. Additionally, ineffective enforcement of municipal policies and gaps in customer communication regarding billing and financial practices were identified as key obstacles to improving payment compliance and building trust. Despite these challenges, the study noted an improving collaboration between UMDM's political leadership and administrative staff, though there remains a need for greater alignment in governance strategies.

To address these issues, the study proposed key recommendations such as the installation of smart water meters, strengthening financial management processes, customer education, and awareness campaigns, upgrading water infrastructure to address demand, and strengthening governance and accountability to enhance operational efficiency. These measures are aimed at supporting the long-term financial sustainability of the district municipality while improving service delivery and customer satisfaction.

In conclusion, this research highlights the urgent need for UMDM to address its financial challenges by focusing on transparent communication, strategic governance, and sustainable resource management. The implementation of the proposed recommendations will not only strengthen UMDM's financial stability but also enhance its ability to deliver essential services, ensuring a more resilient and sustainable future for its communities.

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Participation in this study is entirely voluntary, and participants reserve the right to withdraw their involvement at any stage without facing any repercussions. Declining to participate or withdrawing from the study will not result in any form of penalty or adverse consequence for the participant.

Data security will be paramount in this research on measures to enhance the financial sustainability of the uMgungundlovu District Municipality. Encryption and restricted access protocols will be implemented to ensure the confidentiality and integrity of the data. The researcher and supervisors (view access only) will access stored data via secured login credentials and possibly encrypted channels, maintaining strict control over who can view or modify the information.

CONSENT

I have been informed about the study entitled “An exploration of measures to enhance the financial sustainability of the uMgungundlovu District Municipality” by Nkosikhona CQ Sabela.

I understand the purpose and procedures of the study.

I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at this number: [REDACTED] also reach me at 204519407@stu.ukzn.ac.za; alternatively, nkosi.sabela@kzntreasury.gov.za.

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers, then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604557 - Fax: 27 31 2604609
Email: HSSREC@ukzn.ac.za

Additional consent, I hereby provide consent to:
Audio-record my interview/focus group discussion YES / NO

Signature of Participant

Date

Appendix 2: IsiZulu - Informed Consent Form

INFORMED CONSENT FORM

Imininingwane yezokuxhumana nokuvuma ukubamba iqhaza kucwaningo

uMcwangingi: Nkosikhona CQ Sabela

Contact Number [REDACTED]

Email address: 204519407@stu.ukzn.ac.za

uMqondisi: Dr. Nomkhosi Luthuli

Contact Number (031 260 8887)

Email address: luthulin5@ukzn.ac.za

Aqondisa naye: Dr. Mloni BF Vilakazi

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Usuku :/...../2024

Abaphathi abahloniphekileyo kanye nabobonke abazoba ingxenye yoncwano

Igama lami ngingu Nkosikhona CQ Sabela ngisabenza e KZN Provincial Treasury, izingendlela zami zokuxhumana zilotshiwe ngenhla. Uyamenywa ukuba ube ingxenye lapho sithinta ucwano ngezinyathelo ezingasiza ukusimamisa ukuzimela kwezezimali kuMgungundlovu District Municipality. Inhloso ngqangi yalolucwano ukuhlolisisa ezinye izindlela zokusimamisa umasipala ngokwezemali kunokuncika kakhulu kuma khasimende. Lolicwano lilindeleke ukuba libe nabazoba ingxenye abawu 150 sebebonke. Bakhiwe abawu 140 kubona kukhona abawu 20 abavela komasipala abayisikhombisa abangaphasi kwe District, kanye no 10 ovela kubaphathi nabasebenzi baMasipala. Kuzoba nophenyo lwamakhasimende nenhlobo yabasebenzi bamasipala. Ubude bokuba ingxenye yalesifundo, uma uthandle, kulindeleke ukuba uphenyo lube imizuzu eyishumi nanhlanu (15) kanti inhlobo izoba imizuzu engamashumi amabili (20). Lesifundo asikhokhelwe.

Akukho bungozi kanti futhi akukho kuthikamezeka ekubeni yingxenye yalesifundo. Kodwake, abayingxenye yalesifundo banelungelo lokuphuma noma inini uma sebezwa amandla ephela okuqhubeka nesifundo. Akukho nzuzo elethwa ngqo isifundo kulabo abathathe ingxenye. Loluphenyo futhi aluniki inzuzo ngqo ebonakalayo njengomholo kwabayingxenye. Kodwake, kubalulekile ukuba sazi ukuthi ukuba ingxenye yalesifundo kuyathuthukisa ulwazi kulendima. Ngokuba ingxenye nje, udlala indima enkulu ekusizeni abancwano ukuba baqonde izimo eziningi ezahlukile, lokhu okungenza ukuba kube nomthelela omuhle emphakathini. Oyingxenye yalesifundo kumenza abe nethuba lokuzibheka futhi afunde kabanzi ngesihloko esiphansi koncwano.

Lesifundo sibhekiswe kabanzi futhi sagunyazwa I UKZN Humanities Kanye ne Social Sciences Research Ethics Committee (inombolo yokugunyazwa: HSSREC/00007367/2024).

Uma kukhona inkinga noma imibuzo ekhona, umphenyi nabaqondisi bakhe bayatholakala kwminingwane engenhla noma UKZN Humanities Kanye ne Social Sciences Research Ethics Committee, kuleminingwane elandelayo:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604557- Fax: 27 31 2604609
Email: HSSREC@ukzn.ac.za

Ukuba ingxenye yalolucwaningo uyazivolontiyela futhi abathathe ingxenye banalo ilungelo lokuphuma ngaphandle kokubhekana nezijeziso. Ukunqaba ukuba ingxenye noma ukuphuma maphakathi nesifundo akuzukuba nasigwebo noma nemiphumela emibi kokade eyingxenye yesifundo.

Ukugcineka kolwazi oluqoqiwe kubaluleke kakhulu kuloluphenyo ezinyathelweni zokusimamisa ukuzimela ngokwezezimali kuka Masipala waseMgungundlovu District. Ukulandela imigudu efanale kuzogcinwa ukuqinisekisa imfihlo yolwazi oluqoqiwe. UMcwaningi kanye nabaQondisi (Lungelo lobuka lodwa) bazokwazi ukubona ulwazi oluqoqiwe kodwa kofanele baqale bafake imininingwane yabo ukuze kuqinisekise ukuthi akungeni noma ubani abuke noma ashintshe ulwazi oluqoqiwe.

Mina _____ ngazisiwe ngesifundo enesihloko seithi “Ucwaningo ngezinyathelo ezingasiza ukusimamisa ukuzimela kwezezimali kuMgungundlovu District Municipality” Olwenziwa ngu Nkosikhona CQ Sabela.

Ngiyayiqonda inhloso kanye nemigudu yalolucwaningo.

Nginikeziwe ithuba lokuphendula imibuzo ngesifundo futhi ngiphendule ngokwaneliseka.

Ngiyafunga ukuthi ukuba ingxenye yalesifundo ngizivolontiyele futhi ngingaphuma noma inini ngaphandle ngokuthikameza engikufumana ngokuba ingxenye.

Uma nginemibuzo noma ngidinga incazelo maqondana nesifundo ngiyaqonda ukuthi ngingathinta umcwaningi kulenamba, _____ noma 204519407@stu.ukzn.ac.za okanye nkosi.sabela@kzntreasury.gov.za.

Uma nginemibuzo noma izikhalazo ngelungelo lami ekubeni ingxenye yocwaningo noma okuthinta lolucwaningo noma umcwaningi ngingakwazi ukuthinta:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION
Research Office, Westville Campus
Govan Mbeki Building
Private Bag X 54001
Durban
4000

KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604557- Fax: 27 31 2604609
Email: HSSREC@ukzn.ac.za

Ngiphinde ngivumelane, nolulandelayo:

Ukuqopha amazwi kwinhlobo

Ngiyavuma / Angivumi

Siginesha

Usuku

Appendix 3: English – Interview Instruments

SURVEY QUESTIONNAIRE – MUNICIPAL CUSTOMERS ONLY

An exploration of measures to enhance the financial sustainability of the uMgungundlovu District Municipality

Participation in answering the questionnaire is voluntary, and there is no reward offered for participation. Participants have the right to withdraw from answering the questions at any time without any consequences. Please be assured that all information provided will be treated confidentially and used solely for research purposes. Your privacy and anonymity are of utmost importance. Thank you for your participation.

Please select appropriate box					
Demographic	Urban area	Rural area			
Source of income	Employed	Unemployed	Social Grant/Pension	Businesses or Commercial	Government Funding
Average Monthly Bill	R0 - R2 000	R2 001 - R5 000	R5 001 - R10 000	R10 001 - R50 000	Above R50 000

Please rate your response to the following statements from 1 to 5.

1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree

1	I have experienced difficulties in paying my municipal bills on time.	1	2	3	4	5
2	The current economic situation has affected my ability to pay my municipal bills.	1	2	3	4	5
3	I find the municipal bills and statements I receive to be clear and understandable.	1	2	3	4	5
4	The billing information provided by the municipality is accurate.	1	2	3	4	5
5	The municipality provides effective reminders or notifications about upcoming bill payments.	1	2	3	4	5
6	It is easy to find the process of paying municipal bills	1	2	3	4	5
7	I am satisfied with the current level of municipal services provided relative to the monthly billing.	1	2	3	4	5
8	I am satisfied with the municipality's response time and effectiveness in addressing reported water leakages and illegal water connections.	1	2	3	4	5
9	Do you think the municipality clearly explains or communicates how the money collected from services is spent?	1	2	3	4	5
10	Community involvement and feedback are important for addressing the financial challenges of the municipality.	1	2	3	4	5

11. What are the main reasons for any delays or difficulties in paying your municipal bills?

- Insufficient income
- High tariff charges
- Billing errors
- Inconvenient payment methods
- Lack of payment reminders
- Other (please specify):

12. What could help you pay your municipal bill easily?

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.....
.....

INTERVIEW QUESTIONS – MUNICIPAL OFFICIALS

An exploration of measures to enhance the financial sustainability of the uMgungundlovu District Municipality

Please note that participation in this interview is entirely voluntary, and there is no obligation to answer any question. You have the right to decline to answer any question or to end the interview at any time without penalty. Your participation is confidential, and your responses will be anonymised in any reporting or analysis. The information gathered from this interview will be used solely for research purposes.

1. What are the main reasons for the rise in unpaid debts in the uMgungundlovu District Municipality?

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2. How well are the current debt collection methods working in the uMgungundlovu District Municipality?

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3. How do local economic conditions affect the municipality's cash flow and ability to pay its bills?

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4. What internal financial practices are in place, and how do they affect the municipality's cash flow and debt management?

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5. What financial risks could threaten the long-term stability of the uMgungundlovu District Municipality?

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6. How does the municipality's income compare to its spending needs, and what issues are there?

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7. How do costs for infrastructure and projects affect the municipality's financial health?

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8. How do the municipality's governance and management practices impact its long-term financial stability?

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9. What debt management practices can the uMgungundlovu District Municipality use to reduce unpaid debts?

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10. What new ways of generating revenue can the municipality use to improve its cash flow?

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11. How can the municipality improve its financial management to prevent future financial problems?

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.....

12. How can involving the community help solve the financial challenges of the uMgungundlovu District Municipality?

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Appendix 4: IsiZulu – Interview Instruments

INHLOLOVO KUMAKHASIMENDE KAMASPALA

Isihloko: Ucwaningo ngezinyathelo ezingasiza ukusimamisa ukuzimela kwezezimali kuMgungundlovu District Municipality

Ukubamba iqhaza ekuphenduleni loluhla lwemibuzo akusiyona impoqo, futhi akukho mklomelo onikezwayo ngokubamba iqhaza. Ababambiqhaza banelungelo lokuyeka ukuphendula imibuzo nganoma yisiphi isikhathi ngaphandle kokucwaswa noma kwemiphumela emibi. Uyaqinisekiswa ukuthi lonke ulwazi olunikezayo luzophathwa ngokuyimfihlo futhi luzosetshenziselwa lolucwaningo kuphela. Sizozinisekisa ukuthi imininingwano yakho yonke iyimfihlo. Siyabonga kakhulu ngokubamba kwakho iqhaza.

Sicela ukhethe ibhokisi elifanele					
Indawo Ohlala kuyo	Indawo yasemadolobheni	Indawo yasemakhaya			
Umthombo wemali engenayo	Ngiyasebenza	Angisebenzi	Isibonelelo esivela kuHulumeni/ Impesheni	Ibhizinisi noma Ukuhweba	Uxhaso lukaHulumeni
Imali ekhokhelwa isikweletu sikaMaspala ngenyanga	R0 - R2 000	R2 001 - R5 000	R5 001 - R10 000	R10 001 - R50 000	Above R50 000

Khetha impendulo eyodwa kulezi zitatimende ezilandelayo, ngokuzungeleza inamba eyodwa echaza uvo lwakho kuseka ku 1 kuya 5.

1 = Angivumi Nhlobo

2 = Angivumelani

3 = Phakathi nendawo

4 = Ngiyavumela

5 = Ngivuma ngesiqiniseko

1	Nginenkinga okukhokheleni uMaspala ngesikhathi.	1	2	3	4	5
2	Isimo somnotho samanje sikwenze kwanzima ukukhokha izikweletu zikaMaspala.	1	2	3	4	5
3	Isitatimende sesikweletu esivele kuMaspala sicacile futhi kulula ukusiqonda.	1	2	3	4	5
4	Uhla lezikweletu kwisitatimende esilethwa uMasipala sibalwe ngokufanele.	1	2	3	4	5
5	UMaspala uyakukhumbuza ngesikweletu esilandelayo ukuze izokwazi ukukhokha.	1	2	3	4	5
6	Izindlela zokukhokhela izikweletu zikaMaspala zitholakala kalula.	1	2	3	4	5
7	Ngiyaneliseka indlela uMaspala osebenza ngayo uma uqhathanisa nemali ekhokhelwa izingqalasizinda njalo ngenyanga.	1	2	3	4	5
8	Ngiyaneliseka ngesikhathi sokuphendula kwaMasipala nokusebenza kahle ekubhekeni izinkinga zamanzi ezibikiwe, kanye nokuxhunywwa kwamanzi okungekho emthethweni.	1	2	3	4	5
9	Uma ucabanga uMaspala uwuchazela kahle umphakathi ngokusetshenziswa kwezimali ebezikhokhelwa izingqalasizinda.	1	2	3	4	5
10	Ukubamba iqhaza komphakathi kubalulekile ekubhekeni izinselelo zezimali ezingakhungatha kuMasipala.	1	2	3	4	5

11. Isiphi izizathu esenza ungakwazi ukukhokha isikweletu kuMasipala ngesikhathi esifanele?

- Ukungabi nemali eyanele
- Intengo ephezulu (High Tariff Charge)
- Amaphutha kwisitatimende esilethwa uMaspala
- Ukusweleka kwezindawo ezilula zokukhokha
- uMaspala akakukhumbuzi ngokukhokhela isikweletu
- Okunye (Chaza kafushane):.....

12. Ikuphi okungasiza ukwenza ukukhokhela isikweletu sakho kuMaspala kube lula?

.....

Appendix 5: Ethical Clearance



19 August 2024

Nkosikhona Collen Quincy Sabela (204519407)
Grad School of Bus & Leadership
Westville Campus

Dear NCQ Sabela,

Protocol reference number: HSSREC/00007367/2024

Project title: An exploration of measures to enhance the financial sustainability of the uMgungundlovu District Municipality

Degree: Masters

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 12 July 2024 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

Incidents of adverse events and serious adverse events (AEs and SAEs) should be reported in writing to HSSREC, the study sponsors, and any regulatory authority (where appropriate), within 7 working days of the occurrence for local sites and 14 days for all other South African sites.

This approval is valid until 19 August 2025.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

HSSREC is registered with the South African National Health Research Ethics Council (REC-040414-040).

Yours sincerely,



Professor Dipane Hlalele (Chair)
/nng

Humanities and Social Sciences Research Ethics Committee

Postal Address: Private Bag X54001, Durban, 4000, South Africa

Telephone: +27 (0)31 260 8350/4557/3587 Email: hssrec@ukzn.ac.za Website: <http://research.ukzn.ac.za/Research-Ethics>

Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

INSPIRING GREATNESS

Appendix 6: Gatekeeper's Letter

Enquiries: DR EX Muthwa

30 April 2024

Dr Mlondi Vilakazi and Dr Nomkhosi Luthuli
Graduate School of Business and Leadership
University Of KwaZulu-Natal
Westville Campus
Durban
3630



Dear Dr. Mlondi Vilakazi and Dr. Nomkhosi Luthuli

RE: PERMISSION TO CONDUCT RESEARCH

I, Dr. X. Muthwa, Acting Municipal Manager of uMgungundlovu District Municipality, hereby acknowledge and approve the research project of Mr. Nkosikhona Collen Quincy, Sabela (204519407), titled "An exploration of measures to enhance the financial sustainability of the uMgungundlovu District Municipality." This research will be conducted within the uMgungundlovu District Municipality, which provides Water and Waste water services to seven local municipalities namely; uMshwathi Municipality, uMngeni Municipality, Mpofana Municipality, Impendle Municipality, Msunduzi Municipality, Mkhambathini Municipality, and Richmond Municipality. The research is intended for the completion of Mr. Sabela's MBA degree at the University of KwaZulu Natal.

Yours sincerely,

DR. EX MUTHWA
ACTING MUNICIPAL MANAGER

Office of the Municipal Manager
PO Box 3235, Pietermaritzburg, 3200
242 Langalibalele Street, Pietermaritzburg, 3201
Tel: 033 897 6763 Fax: 033 394 5512