

EVALUATING THE EFFICACY AND BEST PRACTICES OF FINANCIAL MANAGEMENT INFORMATION SYSTEMS FOR MUNICIPALITIES IN AN EMERGING ECONOMY

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Abstract

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This study evaluates the effectiveness and best practices of financial management information systems (FMIS) in municipalities within an emerging economy. Despite growing adoption of FMIS to improve financial transparency, reporting, and decision-making, implementation challenges persist, particularly at the municipal level (Sebakamotse & van Niekerk, 2020). The research investigates how FMIS contribute to improved financial management, identifies policy and operational gaps, and explores compliance with national financial frameworks. A qualitative approach grounded in interpretivism was adopted, using an exploratory-descriptive case study design. Twelve senior officials from finance and information and communication technology (ICT) departments across three municipalities were purposively selected and interviewed. Thematic analysis revealed a fragmented FMIS landscape dominated by SAGE Evolution and SAP ERP, with limited module utilisation and inconsistent policy implementation. While municipalities reported some compliance with the Municipal Finance Management Act (MFMA), significant gaps were found in alignment with the Municipal Standard Chart of Accounts (mSCOA). Audit findings related to underutilised modules and unauthorised, irregular, and wasteful expenditures point to systemic inefficiencies and poor internal controls. These insights provide a foundation for improved FMIS implementation and policy formulation across municipalities in emerging economies.

Keywords: Financial Management Information Systems, Municipal Finance, Public Sector Accountability, Emerging Economies, Local Government Financial Management

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1. INTRODUCTION

In an era marked by rising public demand for accountability, transparency, and efficiency in the management of public resources, financial governance has become a cornerstone of sustainable development and good public administration (Githui & Njuru, 2024). The pervasive challenges of fraud, accounting irregularities, and poor financial oversight have eroded public trust in governmental institutions, particularly at the local government level. In many emerging economies, including South Africa, municipalities are frequently in the spotlight for financial mismanagement, underscoring the urgent need for robust and transparent financial systems (Mishi et al., 2022). In this context, the implementation of financial management information systems (FMIS) offers a promising pathway for improving corporate governance, financial integrity, and reporting standards within the public sector.

FMIS are automated systems designed to support public financial management functions, including budgeting, expenditure control, financial reporting, and auditing (Izang et al., 2022). These systems integrate various financial activities to ensure comprehensive, timely, and accurate financial information that informs decision-making and enhances accountability (Muwema & Phiri, 2020). In municipalities, FMIS play a critical role in streamlining processes, reducing manual errors, and ensuring compliance with legislative requirements such as the Municipal Finance Management Act (MFMA) and the Municipal Standard Chart of Accounts (mSCOA) introduced by the South African National Treasury. As Gcora and Chigona (2019) note, the South African government has increasingly encouraged municipalities to leverage FMIS to improve governance, enhance responsiveness, and strengthen service delivery.

Despite these ambitions, the implementation and adoption of FMIS across South African municipalities remains limited and inconsistent. The Auditor-General of South Africa (AGSA) continues to report widespread non-compliance with financial regulations, including unauthorised, irregular, and fruitless and wasteful (UIFW) expenditures (Mishi et al., 2022; Moolman & van der Walddt, 2022). These financial transgressions, often symptomatic of weak internal controls and poor governance structures, mirror broader global concerns about financial misreporting and corporate malpractice in the public sector (Bamigboye, 2020; Charmaine et al., 2024). Municipalities often fall victim to systemic mismanagement, corruption, and the absence of robust financial reporting systems, rendering them unable to ensure the credibility and reliability of their financial statements. These shortcomings are further exacerbated by a lack of skilled personnel, poor leadership, and governance inefficiencies (Gichuhi & Muna, 2024; Nyide, 2022).

FMIS success is contingent on several factors, including institutional readiness, user competence, and regulatory compliance. Muita and Karanja (2018) observed that implementation failures often arise due to user resistance, inadequate training, and a lack of change management strategies. Furthermore, municipalities frequently struggle to align their FMIS platforms with regulatory

requirements such as the MFMA and mSCOA, leading to audit findings and negative public perceptions (Zakwe, 2022). These challenges reveal not only technical barriers but also governance deficits that must be addressed to realise the full potential of FMIS in enhancing public sector accountability.

Given the significant investment in FMIS and the strategic importance of municipal finance in national development, it is imperative to critically evaluate the effectiveness and best practices of FMIS in local government settings. This study responds to the need for a comprehensive assessment of FMIS in selected municipalities in KwaZulu-Natal, an emerging economy in which disparities in institutional capacity and technology adoption are evident. By identifying operational gaps, policy shortcomings, and governance challenges, this study seeks to provide actionable insights into how FMIS can be harnessed to strengthen financial reporting, reduce audit findings, and restore public trust in local governments.

Following this introduction, the paper presents Section 2 reviews the literature. Section 3 provides a research method that was used to collect and analyse the data. Section 4 presents the results. Section 5 discusses the results, and how they link to the literature. Section 6 provides conclusions drawn from the results and areas of further research.

2. LITERATURE REVIEW

This section synthesises existing research related to the adoption and implementation of FMIS in public sector governance, with an emphasis on their role in strengthening accountability, improving reporting quality, and mitigating financial misconduct in municipalities of emerging economies.

2.1. Financial management information systems and public financial governance

The emergence of FMIS is closely linked to global efforts to modernise public financial management and enhance transparency in government spending. Initially developed as tools to streamline budget execution and reporting, the FMIS have evolved into strategic instruments to reinforce public accountability (Quiñones, 2025). FMIS are automated platforms that integrate various financial processes such as budget preparation, accounting, procurement, auditing, and reporting into a unified digital environment (Izang et al., 2022; Muita & Karanja, 2018). Within municipalities, the implementation of FMIS supports improved financial governance by ensuring data integrity, enforcing internal controls, and facilitating audit compliance (Tetteh et al., 2022). These systems are increasingly recognised as institutional mechanisms for promoting responsible fiscal stewardship, enabling municipalities to track real-time financial data, detect irregularities, and report accurately on the use of public funds. Their ability to automate manual financial operations reduces opportunities for corruption, enhances accountability, and improves audit trial quality (Kokogho et al., 2024; Reynilda & Renal, 2025).

From a governance perspective, FMIS is not merely a technical system, but a tool for fostering transparency, trust, and fiscal discipline.

Governments are better equipped to respond to audit queries and public scrutiny by creating centralised financial databases (Muita & Karanja, 2018). The FMIS also facilitate comparative benchmarking across departments and municipalities, enabling performance-based evaluations of public spending (Kokogho et al., 2024). These capabilities are especially critical in emerging economies where institutional weaknesses have historically enabled financial mismanagement.

In South Africa, the imperative for FMIS adoption has been underscored by recurring audit findings on UIFW expenditures (Mishi et al., 2022). Municipalities often struggle with legacy systems, fragmented data sources, and poor interdepartmental coordination, making it difficult to produce accurate financial statements (Moolman & van der Waldt, 2022). FMIS addresses these challenges by standardising financial processes, improving interconnectivity, and ensuring adherence to regulatory frameworks, such as the MFMA and mSCOA (Gcora & Chigona, 2019; Lekhera et al., 2023).

Furthermore, the FMIS contributes to fiscal transparency by providing public access to financial data. When integrated with open government portals, FMIS can facilitate civic engagement, allowing citizens to track budget allocation, procurement outcomes, and spending efficiency (Chirau & Blaser-Mapitsa, 2020; Mabunda et al., 2023). Thus, the FMIS strengthens the democratic accountability mechanisms that underpin good governance. However, the potential of FMIS is often constrained by weak institutional capacity, lack of sustained political will, and resistance to change (Aryani, 2023; Muita & Karanja, 2018). Successful implementation requires more than technical deployment; it depends on leadership, change management, legal compliance, and a skilled workforce.

2.2. Drivers for financial management information systems adoption

Several factors drive FMIS adoption in municipalities, particularly in emerging economies. Externally, pressure from national oversight bodies and international donors plays a significant role in pushing municipalities toward FMIS implementation (Tetteh et al., 2022). Legal mandates, such as those requiring compliance with the MFMA and mSCOA, create a regulatory imperative for FMIS usage (Gcora & Chigona, 2019).

Globally, municipal administrators seek to improve operational efficiency, reduce fraud, and enhance decision-making through timely and accurate financial reporting (Kokogho et al., 2024). FMIS also supports data-driven planning and performance-based budgeting. (Efunniyi et al., 2024; Charmaine et al., 2024) suggest that municipalities with weak audit records view FMIS adoption as a corrective mechanism for improving transparency and credibility.

The integration of the FMIS with information and communication technology (ICT) infrastructure is another major driver. As municipalities digitise their operations, FMIS have become a natural extension of e-governance initiatives (Abied et al., 2022). Enhanced interoperability, automation, and

data sharing enable municipalities to adopt performance monitoring systems that align better with their strategic goals (Herbart et al., 2025). However, in addition to technical and administrative factors, the FMIS adoption is often shaped by complex internal political dynamics (Akidi et al., 2024). In many municipalities, the push for FMIS is closely tied to reform agendas spearheaded by newly elected officials who seek to demonstrate improved governance and service delivery (Tetteh et al., 2022). Political actors may encourage FMIS to enhance its legitimacy or meet campaign promises related to financial accountability and development outcomes (Gichuhi & Muna, 2024; Majani et al., 2022). At times, the FMIS was introduced in response to scandals or reputational damage, with local governments aiming to restore public trust through improved transparency and accountability mechanisms (Kadir et al., 2024).

Historically, the decentralisation of government functions in South Africa has increased municipalities' financial and administrative responsibilities (Munzhedzi, 2021). This transition revealed significant gaps in financial control systems, prompting a shift toward digital platforms, such as FMIS, to address operational inefficiencies that traditional paper-based systems can no longer manage effectively (Enaifoghe, 2022). The 1998 White Paper on local government and subsequent legislation, such as the MFMA, laid the groundwork for these reforms, establishing the stage for a more integrated and rule-based approach to municipal financial management (Nzewi & Sibanda, 2023; Wall, 2022).

2.3. Regulatory framework and compliance

The regulatory environment governing the FMIS in South African municipalities is anchored in a comprehensive legal framework designed to enforce transparency, accountability, and fiscal discipline. The foundation of this framework lies in the Constitution of the Republic of South Africa (1996), which establishes local government as a distinct sphere of governance responsible for delivering services, promoting economic development, and managing public finances in a sustainable manner (Mlambo & Maserumule, 2023). Section 152 of the Constitution explicitly mandates municipalities to promote accountability and ensure the provision of democratic and effective governance (Munzhedzi, 2021).

MFMA is central to regulating financial management in municipalities and introduces norms for budgeting, accounting, internal controls, audits, and financial reporting (Krishnan & Subban, 2022). Municipalities are required to implement systems that support effective planning and financial control, including the FMIS, which aligns with the mSCOA (Lekhera et al., 2023). mSCOA standardises data classification across municipalities, allowing for uniform and comparable financial reporting. These reforms are intended to facilitate timely audits, reduce irregular expenditures, and improve overall financial governance (Mishi et al., 2022; Moolman & van der Waldt, 2022).

Despite these legislative directives, compliance across municipalities has remained inconsistent. The AGSA has repeatedly flagged issues such as

misalignment with mSCOA, delayed submissions, and weak audit trails (Nzama et al., 2023). A key factor contributing to noncompliance is the limited capacity of municipalities to fully implement FMIS. This includes challenges in the technical infrastructure, staff skills, and system integration (Mlambo & Maserumule, 2023). Oversight bodies, such as municipal public accounts committees and audit committees, are designed to monitor municipal compliance with financial regulations (Krishnan & Subban, 2022). However, these bodies often lack the expertise and resources to effectively enforce their mandates (Krishnan & Subban, 2022). Audit committees in particular have been criticised for their limited independence and capacity to hold management accountable. Although the MFMA and King IV Report on Corporate Governance recommend independent and skilled audit committees, many municipalities fall short of these standards, compromising the integrity of financial governance (Kganakga et al., 2023).

In response to these gaps, the National Treasury and Cooperative Governance and Traditional Affairs have issued numerous guidelines and frameworks to improve implementation (Krishnan & Subban, 2022; Mlambo & Maserumule, 2023; Charmaine et al., 2024). Nevertheless, the effectiveness of FMIS is still undermined by fragmented reporting lines, poor data quality, and institutional resistance to transparency. A failure to meet audit requirements has tangible consequences. Poor compliance erodes public trust and hampers service delivery, particularly in rural and financially distressed municipalities (Enaifoghe, 2022). As highlighted by Mlambo and Maserumule (2023), the constitutional obligation to deliver basic services and foster development cannot be fulfilled without robust financial systems and strict adherence to regulatory frameworks.

3. RESEARCH METHODOLOGY

This study employed a qualitative research design underpinned by the interpretivist paradigm, which recognises the importance of understanding the subjective meanings and experiences of individuals involved in FMIS implementation (Donkoh & Mensah, 2023). Given the focus on exploring institutional practices, policy alignment, and perceived challenges in FMIS deployment across South African municipalities, a qualitative methodology was appropriate for capturing the complex socio-political and operational dynamics involved (Sebakamotse & van Niekerk, 2020).

Although this study adopted a qualitative research design, alternative research methods can also be considered suitable. For example, a quantitative approach involving surveys could have been used to gather standardised data from a larger sample of municipalities, enabling the statistical analysis of FMIS adoption trends and performance indicators (Munzhedzi, 2021). Alternatively, a mixed-methods design combining surveys and interviews could have enriched the findings by offering both breadth and depth quantitative metrics of system usage and qualitative insights into institutional challenges. However, such methods may not sufficiently uncover the nuanced experiences and contextual complexities afforded by a qualitative approach. Therefore, qualitative design

was chosen as the most effective means of exploring the depth of human experiences, perceptions, and policy interpretations within diverse municipal contexts.

3.1. Research design

An exploratory descriptive case study approach was adopted to examine how FMIS is operationalised within selected municipalities in KwaZulu-Natal. This exploratory aspect allowed the study to probe unknown or under-researched phenomena, such as the inconsistent use of FMIS modules and compliance with mSCOA. The descriptive component aimed to provide a detailed account of FMIS practices, policy frameworks, and audit-related findings in the local government finance environment. This dual design enhances the richness and contextual relevance of the findings (Gaya & Smith, 2016).

3.2. Sampling strategy

Purposive sampling was used to select three municipalities that actively initiated FMIS implementation. Twelve senior officials from the finance and ICT departments were chosen based on their operational roles and their knowledge of municipal financial systems. This sampling method was appropriate for identifying information-rich respondents who could offer critical insights into the strengths and limitations of FMIS at the operational level (Lim, 2024). Table 1 presents an overview of the respondents.

3.3. Data collection

Data were collected through semi-structured face-to-face interviews, which allowed the respondents to elaborate on their experiences and challenges. An open-question framework guided the interviews and encouraged detailed responses to FMIS usage, system integration, policy alignment, and compliance issues. Each interview lasted between 45 and 90 minutes and was recorded with the respondents' consent. Ethical clearance was obtained from the Durban University of Technology, and informed consent was obtained from all respondents.

3.4. Data analysis

Thematic analysis was used to analyse the qualitative data. Following Braun and Clarke's (2022) methodology, the researchers transcribed the interviews, conducted initial coding, and identified recurrent themes through a systematic process of reviewing, defining, and naming the themes. A cross-case analytical technique was applied to compare the findings across the three municipalities, enhancing the depth and credibility of the analysis (Braun & Clarke, 2022; Lim, 2024). This method allowed the identification of shared challenges.

3.5. Ensuring trustworthiness

To ensure rigour and trustworthiness, this study employed member checking, peer debriefing, and triangulation (Moolman & van der Walddt, 2022).

Respondents were invited to verify the accuracy of their interview transcripts and the preliminary findings. Multiple sources, including internal policy documents, audit reports, and system manuals, were reviewed to corroborate the interview data. These strategies enhance the credibility, dependability, and confirmability of the findings (Donkoh & Mensah, 2023).

This methodological approach allowed for a robust and nuanced understanding of FMIS implementation, highlighting the policy, technical, and governance factors that influence the effectiveness of municipal financial management.

Table 1. Respondents' information and interview information codes

<i>Municipality</i>	<i>Respondent</i>	<i>Position</i>	<i>Interview mode</i>
JLM	Respondent 1 (R1)	Manager: Financial planning and reporting	Face-to-face
	Respondent 2 (R2)	Manager: Assets and AFS	Face-to-face
	Respondent 3 (R3)	Assistant manager: Revenue	Face-to-face
	Respondent 4 (R4)	Assistant manager: Expenditure	Face-to-face
UKDM	Respondent 5 (R5)	Manager: Budget and financial reporting	Face-to-face
	Respondent 6 (R6)	Senior accountant and acting manager: Assets and PPE	Face-to-face
	Respondent 7 (R7)	Manager: ICT	Face-to-face
	Respondent 8 (R8)	Senior ICT technician	Face-to-face
ULM	Respondent 9 (R9)	Senior manager: Assets, AFS, and creditors management	Face-to-face
	Respondent 10 (R10)	Head: Supply chain management (SCM) unit	Face-to-face
	Respondent 11 (R11)	Manager: ICT	Face-to-face
	Respondent 12 (R12)	Deputy manager ICT: Governance	Face-to-face

Note: JLM — Jozini Local Municipality, UKDM — uMkhanyakude District Municipality, ULM — City of uMhlathuze Local Municipality. Source: Authors' elaboration.

4. FINDINGS

This section presents the key findings from semi-structured interviews conducted with senior officials across three municipalities in KwaZulu-Natal. The data were analysed thematically using Braun and Clarke's (2022) framework. Four main themes emerged: 1) FMIS utilisation and integration, 2) audit

and compliance, 3) policy alignment and governance, and 4) challenges and best practices in FMIS implementation. Each theme is discussed in detail below, supported by the respondents' direct quotes. Table 2 summarises the coding structure, illustrating how the themes were derived from the recurring patterns in the interview data.

Table 2. Themes and coding structure

<i>Theme</i>	<i>Codes</i>
FMIS utilisation and integration	<ul style="list-style-type: none"> • Use of FMIS modules; • FMIS platforms and infrastructure; • Digitisation of core functions; • Policy alignment; • System updates and maintenance.
Audit and compliance	<ul style="list-style-type: none"> • Alignment with AGSA audit requirements; • Module implementation; • Data quality; • Manual processes; • Internal controls.
Policy alignment and governance	<ul style="list-style-type: none"> • Existence of FMIS-related financial policies; • Policy implementation; • Regular policy reviews; • Centralised governance structures.
Challenges in FMIS implementation	<ul style="list-style-type: none"> • Resistance to change; • Limited and inconsistent training; • Outdated ICT infrastructure; • Partial system integration; • Inconsistent knowledge dissemination.
Best practices in FMIS implementation	<ul style="list-style-type: none"> • Project leadership and planning; • Alignment of policies with FMIS; • Cross-departmental training programmes; • Use of system-generated reports; • Support from external stakeholders and system vendors; • Security and backup protocols.

Source: Authors' elaboration.

4.1. Financial management information systems utilisation and integration

Respondents consistently highlighted the uneven and partial use of the available FMIS modules. Although all municipalities had some form of FMIS installed, ranging from SAP ERP to SAGE Evolution, the extent to which these systems were integrated into their daily operations varied.

R2 noted, "We have these policies and systems, but we are not using them as intended, so yes, it affects our audits" (personal communication, February 20, 2024). This sentiment reveals a recurring pattern in which FMIS exists more as a symbolic infrastructure than as an operational tool. Several respondents mentioned that while modules for grants, asset management, or payroll were included in their systems, they were not fully activated or utilised.

R5 echoed this by stating, *“We pay for modules we are not using, and AGSA has picked up on this”* (personal communication, February 27, 2024). This underutilisation not only results in audit challenges but also in financial inefficiencies, as municipalities are investing in technologies that are not yielding their full value.

Another respondent, R1, noted that *“the reason for incurring unauthorised expenditure is that the municipality had more than anticipated demands from the public, hence, we had to overcommit ourselves”* (personal communication, February 20, 2024). This indicates that resource constraints and systemic planning failures contribute to financial management challenges.

Some respondents shared that their FMIS systems had become outdated or lacked full integration, which contributed to the challenges in utility and responsiveness. R6 stated, *“SAGE was installed in 2012, and while updates have occurred, we don’t utilise all modules”* (personal communication, February 20, 2024). R3 and R4 emphasised that *“SCM processes were not being followed, and the lack of internal controls”* (personal communication, February 20, 2024) exacerbated FMIS underperformance.

A contrasting narrative emerged from R9 of the ULM, who reported a successful FMIS migration: *“We migrated to SAP ERP recently and most modules now work in sync — from SCM to payroll and creditors”* (personal communication, March 5, 2024). This highlights that with appropriate support, structured rollout, and system updates, municipalities can achieve better integration.

Nevertheless, other municipalities still face operational limitations. R3 shared, *“In payroll, we do journals manually each month”* (personal communication, February 20, 2024), revealing that some core functions are yet to be digitised. This challenge was linked to technological lag, with R7 adding, *“We are still deploying new servers to improve FMIS performance”* (personal communication, February 27, 2024). In some cases, outdated servers and infrastructure have caused critical system breakdowns. R7 explained that their servers would crash in 2023, and recovery efforts would require external support and the deployment of new disaster recovery systems. Respondents, such as R5, reported that backup systems were insufficient, leading to disruptions in report submissions to the Treasury.

The interviews also revealed insights into how municipalities approached FMIS policy. All municipalities reported having policies governing the financial management sector (for example, SCM, budgeting, and revenue management), and there was a significant disparity in the level of implementation and regular review of these policies. R10 remarked, *“On revenue and debtors’ management, we have a Credit Control Policy; on expenditure and creditors, we have an Investment and Cash Management Policy; SCM is also governed by an Supply Chain Management Policy”* (personal communication, March 5, 2024).

However, R4 cautioned, *“Some of our policies predate FMIS upgrades and need reviewing”* (personal communication, February 20, 2024). These governance gaps lead to inconsistent execution and

poor alignment between financial policies and system functionality.

There were also substantial concerns regarding system updates and frequency. Some respondents (for example, R1 and R6) stated that their systems were updated annually, whereas others noted irregular or ad hoc updates. R12 clarified, *“We follow a due change process. It’s not always annual; updates occur as required”* (personal communication, date, March 5, 2024). These discrepancies in maintenance practices may contribute to operational inefficiency and audit concerns.

4.2. Audit and compliance

The theme of audit and compliance emerged strongly in all three municipalities, revealing both progress and persistent gaps in FMIS utilisation for regulatory reporting and audit readiness. Respondents described the recurring challenge of aligning FMIS practices with the audit requirements stipulated by the AGSA, particularly in relation to the mSCOA and MFMA. Many respondents acknowledged audit findings related to UIFW expenditures, often linked to either poor configuration or underutilisation of FMIS modules. R2 reported, *“AGSA picked up that our asset register was not up to date and not automated, which resulted in a qualification”* (personal communication, February 20, 2024). Similarly, R5 remarked, *“Because we did not implement all modules properly, audit queries keep coming, and they focus on noncompliance issues”* (personal communication, February 27, 2024).

Respondents attributed many of these issues to inconsistencies in data quality, delays in reconciliation, and a lack of system integration between departments. R6 explained, *“Finance uploads data, but SCM and other units use manual records. When AGSA checks, figures do not reconcile”* (personal communication, February 27, 2024). This fragmented approach to data entry and financial reporting leads to audit disputes and raises questions regarding the reliability of financial statements. The importance of full module integration and real-time data visibility was echoed in the interviews.

Some municipalities have demonstrated improved audit outcomes following targeted efforts to streamline FMIS reporting functions. R10 noted, *“We have had clean audits for the past three years because we use the system effectively and review reports monthly”* (personal communication, March 5, 2024). This highlights the value of proactive audit preparation and internal quality assurance, including the use of automated FMIS tools for exception reporting and a compliance dashboard.

However, audit trials are often undermined by weak internal controls. Respondents from the ICT departments (R8 and R12) pointed out that there was inadequate segregation of duties and poor user access control within the systems, raising the risk of fraud and manipulation. R8 stated, *“Sometimes, one person has access to too many modules. It’s a red flag during AGSA audits”* (personal communication, February 27, 2024). This observation was consistent with the AGSA’s concern about internal control deficiencies, especially in relation to user management and system security.

Another area of concern is the frequency of system maintenance and its implications for compliance. R1 revealed that “system backups were not consistent and failed to capture all transactional data” (personal communication, February 20, 2024). This resulted in missing information during audit sampling and negatively impacted audit opinions. Respondents (for example, R5, R6, and R11) indicated that their municipalities lacked dedicated FMIS audit teams, relying instead on general finance staff to respond to audit queries, which affected the quality and timeliness of responses.

4.3. Policy alignment and governance

Respondents provided insights into the existence, scope, and implementation of FMIS-related policies as well as their role in reinforcing transparency, accountability, and compliance with MFMA and related legislation. All 12 respondents affirmed that their municipalities had financial policies that governed the use of FMIS across critical areas, including budgeting, revenue collection, expenditure, SCM, and asset and liability management. R5 explained, “The policy that talks to all these aspects of financial management is our IT Policy, and it applies to all financial sectors — revenue, expenditure, SCM” (personal communication, February 27, 2024). Similarly, R10 elaborated, “We have a Credit Control Policy, an Investment and Cash Management Policy, a Supply Chain Management Policy, and an Asset Management Policy. All these are aligned with the system” (personal communication, March 5, 2024).

However, while the existence of these policies was widely acknowledged, there were discrepancies in how effectively they were implemented and updated in response to the changing regulatory and operational needs. R1 noted, “There is room for review depending on the legislation, as it changes over time. We must align our policies accordingly” (personal communication, February 20, 2024). This sentiment reflects a broader challenge identified in the study: the need for dynamic policy management that adapts to evolving governance standards and system functionalities.

In terms of governance structures, many municipalities have made efforts to centralise FMIS-related decision-making. R7 observed, “We try to ensure that all departments are on the same page. Policies help us move as one unit towards compliance and effective service delivery” (personal communication, February 27, 2024). Respondents emphasised that such centralisation supports stronger oversight and consistency, particularly when integrated with automated FMIS controls.

However, gaps in policy coherence and enforcement have been noted. Several respondents (for example, R3 and R4) struggled to recall the full range of FMIS-related policies in their municipalities, indicating potential issues with internal communication, policy dissemination, or employee engagement. This observation aligns with the AGSA’s frequent audit findings regarding municipalities’ inconsistent policy application or lack of supporting documentation during audits.

The study also reveals a positive correlation between policy implementation and improved audit outcomes. R10 attributed their municipality’s clean audits to effective policy enforcement, stating, “The policies have yielded positive results. We have

managed to implement them and align our operations accordingly” (personal communication, March 5, 2024). Similarly, R7 remarked, “Our policies enhance control. We have developed a standardised way of doing things, which strengthens governance” (personal communication, February 27, 2024).

4.4. Challenges and best practices in financial management information systems implementation

Respondents highlighted key issues, such as resistance to change, integration limitations, inadequate training, and infrastructure constraints, alongside effective strategies that have supported successful implementation. A recurring challenge cited by multiple respondents was the resistance to change among system users. R1 remarked, “There is resistance because if you are used to something, you get comfortable. Change management must take effect before we introduce those changes” (personal communication, February 20, 2024). R5 supported this, stating, “There is a lot of resistance sometimes. Even when a new module is introduced, people hesitate to use it, not because it’s ineffective, but because it’s unfamiliar” (personal communication, February 27, 2024). While most respondents acknowledged that the staff ultimately adapted, the initial resistance posed a barrier to smooth transitions and full utilisation of FMIS functionalities.

This is closely related to the issue of limited or selective training. While most municipalities offer training on key regulations such as Generally Recognised Accounting Practice (GRAP), mSCOA, and Municipal Budget and Reporting Regulations, several respondents indicated that training is inconsistent and sometimes only accessible to a few, often within the budget and reporting sections. R6 stated, “The municipality lacks consistent training, and I cannot recall when last it was provided to all staff” (personal communication, February 27, 2024). R5 added, “Few people usually attend the training, while others who use the system daily are excluded” (personal communication, February 27, 2024). This fragmentation in training limits the dissemination of system knowledge and contributes to uneven FMIS adoption.

ICT infrastructure limitations have emerged as a significant challenge. Several municipalities cited outdated servers and a lack of sufficient storage capacity as obstacles to system upgrades and data management. R6 explained, “The municipality’s server is old, and we are in the process of procuring a new server. The current one cannot support a new project” (personal communication, February 27, 2024). By contrast, municipalities that proactively upgraded their systems reported smoother implementation processes. R9 noted, “We planned ahead. Both software and hardware were procured specifically for the SAP ERP system, and the rollout was successful” (personal communication, March 5, 2024). These contrasting experiences emphasise the importance of infrastructure readiness in supporting digital reforms.

Moreover, integration limitations are common to most municipalities. Although many systems are partially integrated, typically with payroll or SCM components, few municipalities have achieved seamless ERP integration. R5 described a workaround process: “We get reports from payroll and import

them into the financial system. But contract management, for example, is still a separate module" (personal communication, March 5, 2024). In municipalities with full integration, such as those using SAP ERP, the efficiency benefits were more pronounced. R9 confirmed, "Now we have seamless integration. SCM, creditors, and payroll are all fully connected within the ERP, with host-to-host banking" (personal communication, March 5, 2024).

Despite these challenges, this study revealed several best practices that enhanced FMIS implementation and sustainability.

4.4.1. Strong project leadership and planning

Municipalities that appointed dedicated project leaders or champions, often from ICT or finance units, reported better coordination and oversight. R9 highlighted that their ICT head worked closely with external consultants to manage system rollout and ensure technical alignment with organisational needs.

4.4.2. Policy alignment and internal governance

The consistent use of audit action plans and adherence to internal financial policies have helped municipalities stay on track with their implementation goals. R10 attributed their clean audits to the strict enforcement of the FMIS-aligned policies.

4.4.3. Training and skill-building across departments

Although inconsistent in some municipalities, others had institutionalised training programmes, including participation in national mSCOA workshops. The respondents who attended these sessions reported improved system knowledge and confidence. R1 noted, "We all attended the MFMP course, and that gave us the foundation to understand FMIS better" (personal communication, February 20, 2024).

4.4.4. Use of system-generated reports for oversight

Respondents confirmed that FMIS enabled the generation of various reports for the Treasury, Council, and other stakeholders. This functionality strengthens transparency and supports informed decision-making. As R5 described, "From the system, we extract monthly, quarterly, and annual reports; everything from trial balances to general ledgers" (personal communication, February 27, 2024).

4.4.5. Support from system vendors and external stakeholders

Respondents acknowledged critical support from national and provincial treasuries, particularly in the context of the mSCOA rollouts. R10 stated, "We report directly to the National Treasury and engage them for advice. Their support has been pivotal" (personal communication, March 5, 2024). System vendors were also credited with providing ongoing technical support, although some respondents suggested that skill transfer and training could be improved.

4.4.6. Security and data backup protocols

Although gaps exist, some municipalities have adopted cloud-based solutions, off-site backups, and disaster recovery plans. R12 shared, "We do daily, weekly, and monthly backups. We also use off-site storage and have a document management module on SAP ERP" (personal communication, March 5, 2024).

Although challenges persist, particularly regarding change management, integration, infrastructure, and training, several municipalities have demonstrated effective strategies to overcome these obstacles. Best practices such as clear communication, continuous capacity building, strategic leadership, and policy alignment have contributed to more successful FMIS implementation.

To provide a concise overview of the main themes and their implications, Table 3 summarises the core insights derived from thematic analysis.

Table 3. Summary of themes

Theme	Core insight	Key implications
FMIS utilisation and integration	FMIS modules exist but are underutilised or partially integrated; some municipalities have successfully achieved integration with updated systems.	Full integration improves efficiency and reduces audit challenges.
Audit and compliance	Gaps in FMIS configuration and integration affect audit outcomes; strong module utilisation and proactive monitoring improve compliance.	Automated tools and proper user access controls are essential for clean audits.
Policy alignment and governance	Policies exist but vary in implementation; strong governance is linked to improved audit results.	Regular policy reviews and centralised oversight strengthen FMIS governance.
Challenges and best practices in FMIS implementation	Resistance to change, inadequate training, and outdated infrastructure hinder implementation; proactive planning, leadership, and training improve outcomes.	Change management and capacity building are crucial for sustainability.

Source: Authors' elaboration.

5. DISCUSSION

The study found that FMIS adoption across municipalities remains fragmented, with uneven module utilisation and varying levels of system integration. Although systems such as SAGE Evolution and SAP ERP are present, their underutilisation, often due to legacy constraints, training gaps, or infrastructure deficits, limits their

strategic value. These results affirm Gichuhi and Muna's (2024) assertion that the mere presence of systems does not guarantee effectiveness without accompanying institutional capacity and commitment. Underutilisation of paid modules not only undermines efficiency but also contributes to fruitless and wasteful expenditures (Mishi et al., 2022), exposing municipalities to recurring audit findings.

The findings resonate with those of Iravonga et al. (2023), who emphasised the need for functional integration across financial domains for FMIS to enhance performance. Municipalities that demonstrated system-wide synchronisation, particularly in SCM, payroll, and creditor management, realised improved reporting and audit outcomes, reinforcing the proposition that FMIS must evolve from symbolic compliance mechanisms to fully embedded governance tools (Gcora & Chigona, 2019).

A consistent theme across all three municipalities was the difficulty of aligning FMIS practices with the audit expectations of the AGSA. Audit findings, particularly those related to UIFW expenditures, are often linked to poor system configuration, a lack of internal controls, and fragmented data sources. These findings validate Nzama et al. (2023), who highlighted systemic weaknesses in audit trails and policy execution as contributors to persistent non-compliance.

Where the FMIS was properly configured and supported by regular internal audits, municipalities recorded improved audit outcomes. This finding supports the observations of Kokogho et al. (2024) that FMIS has a direct impact on audit preparedness and transparency. However, governance issues such as overlapping user access and inadequate backup protocols, as noted in this study, present a significant risk to audit reliability, an issue raised in the literature by Izang et al. (2022). Therefore, effective audit compliance requires not only robust system design but also internal control systems that secure data integrity and promote transparency.

Although all municipalities in the study reported having policies that regulate financial operations, the challenge lies in operationalising these policies through FMIS. In many cases, policies are outdated or misaligned with current FMIS functionalities, revealing a disconnection between regulatory intentions and technical execution. This aligns with Munzhedzi's (2021) critique that the misinterpretation of policies, rather than their absence, undermines service delivery. Respondents who reported stronger audit performance attributed this to tighter policy enforcement and a clearer alignment with financial systems. This study also reinforces the importance of synchronising policy updates with evolving legislative frameworks, such as MFMA and mSCOA. The literature by Mlambo and Maserumule (2023) supports this view, arguing that dynamic policy frameworks are essential for effective decentralised governance.

This study reveals a complex interplay between the internal and external factors influencing FMIS implementation. Internal challenges, such as resistance to change, uneven training distribution, and outdated infrastructure, mirror global findings on digital transformation failures (Muita & Karanja, 2018; Aryani, 2023). Change resistance, in particular, was a recurring theme, with many staff members reluctant to adopt new modules or processes due to comfort with legacy systems or inadequate communication. However, municipalities that invested in training, stakeholder engagement, and leadership demonstrated greater adaptability, thus highlighting the importance of proactive change management (Kokogho et al., 2024).

Furthermore, the availability of a dedicated project leader and strong ICT-finance collaboration proved instrumental in the successful

implementation. This finding supports the work of Bamigboye (2020) and Gichuhi and Muna (2024), who stress that leadership is critical in navigating technical and cultural obstacles in digital reforms.

External factors, such as oversight from provincial and national treasuries, were also identified as enablers of best practices. Structured support, particularly for mSCOA rollouts and benchmarking with peer municipalities, enhanced compliance and promoted a learning culture. These findings affirm those of Mishi et al. (2022), who noted the critical role of intergovernmental cooperation in improving municipal performance.

This study highlights several best practices, including robust reporting functions, document management, off-site data backups, and capacity building, as foundational to FMIS success. These practices demonstrate that municipalities can overcome systemic limitations when governance, policy, and technology are cohesively aligned.

6. CONCLUSION

The transition towards automated FMIS in South African municipalities reflects a broader shift in public sector financial governance from manual and fragmented processes to integrated digital systems. The findings of this study demonstrate that while the implementation of FMIS has made a positive contribution to the enhancement of financial accountability, transparency, and compliance, significant operational and governance challenges persist. The overall experience of adopting FMIS in the municipalities studied shows promise, particularly when there is strong leadership, policy alignment, and institutional capacity. However, gaps in infrastructure, inconsistent training, partial system utilisation, and resistance to change continue to undermine the full realisation of FMIS's potential.

The implementation of the FMIS has embedded financial accountability mechanisms in municipal operations, particularly in areas such as budgeting, expenditure tracking, and audit readiness. Its integration with legislative frameworks such as the MFMA and mSCOA has fortified municipal finance practices, promoting internal controls and streamlining reporting processes. However, underutilised system modules, irregular policy updates, and fragmented audit trails indicate that the transformation is far from complete. A recurring concern observed in this study is that municipalities invest in FMIS capabilities that remain underused, leading to fruitless and wasteful expenditures, undermining the objectives these systems aim to achieve.

This study confirms that external oversight, particularly from the National and Provincial Treasuries and the AGSA, remains a key driver of FMIS implementation success. Internal enablers, such as leadership commitment, cross-functional collaboration, and capacity building through continuous training, also play crucial roles in determining system effectiveness. Municipalities with integrated communication protocols and stronger interdepartmental coordination demonstrated better FMIS integration and audit outcomes. However, the inability to keep pace with system upgrades and compliance demands underscores the need for agile, responsive governance structures.

By drawing on institutional and stakeholder theories, this study provides a nuanced understanding of the contextual factors influencing FMIS adoption and operationalisation. This highlights the tension between policy directives and on-the-ground realities, suggesting that effective reform must go beyond technical compliance. Future policy efforts should aim to standardise system usage, enforce consistent implementation protocols, and strengthen internal audit mechanisms to promote effective, accountable, and transparent municipal financial management.

This study contributes to the growing discourse on digital public finance reform and offers a roadmap for improving FMIS deployment in local government settings. As municipalities face increasing demands for data integration, cybersecurity, and performance-based reporting,

the FMIS must be repositioned from a compliance tool to a strategic enabler of efficient service delivery, cost control, and public value creation.

However, this study had several limitations. The sample size, comprising three municipalities, may restrict the generalisability of the findings as it may not reflect the full diversity of FMIS implementation across the province or nationally. Consequently, the results should be interpreted with caution when extrapolating them to other contexts. Moreover, the cross-sectional nature of the study limits its ability to capture the evolution of FMIS practices over time. FMIS deployment is a dynamic process shaped by shifting organisational priorities, regulatory amendments, and technological advancements. A longitudinal approach can offer deeper insight into these changes.

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