FACTORS INFLUENCING IMPLEMENTATION OF THE INTEGRATED FINANCIAL MANAGEMENT INFORMATION SYSTEM FOR MANAGING PUBLIC FINANCES

Orthodox Tefera *, Jared Okello Otieno **

* Corresponding author, Graduate School of Business and Leadership, University of KwaZulu-Natal, South Africa Contact details: Graduate School of Business and Leadership, University of KwaZulu-Natal, University Road, Westville,

Durban Private Bag X 54001, Durban, South Africa

** Graduate School of Business and Leadership, University of KwaZulu-Natal, Durban, South Africa



How to cite this paper: Tefera, O., & Otieno, J. O. (2024). Factors influencing implementation of the integrated financial management information system for managing public finances. *Journal of Governance & Regulation*, *13*(2), 145–153. https://doi.org/10.22495/jgrv13i2art14

Copyright © 2024 The Authors

This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0). https://creativecommons.org/licenses/by/ 4.0/

ISSN Online: 2306-6784 ISSN Print: 2220-9352

Received: 05.06.2023 **Accepted:** 22.04.2024

JEL Classification: G3, G28 DOI: 10.22495/jgrv13i2art14

Abstract

With increasing technological advancement in contemporary society, various systems have been developed to improve public fund management. Several public entities have adopted the wellliked integrated financial management information system (IFMIS) for managing their finances. The current study aimed to identify factors influencing the implementation of the IFMIS. This case study on the County Government of Migori involved 255 employees. Principal component analysis (PCA) was used to significant identify the most factors that influence the implementation of IFMIS. The factors were categorized into technological, organisational, environmental, cultural, and ethical. From the analysis, training and dependency on experts were significant technological factors. For the organizational factors, the three key influencers were observed to be creating an organizational culture that dictates how the county operates, developing an organizational culture that supports technology and use in various departments, and having the ability to use it in record management, such as classification and storage. For environmental factors, the most crucial influencer was the efficiency of IFMIS systems. On cultural and ethical factors, this study revealed that importance is the ability to distinguish motivation from corruption, support openness and accountability in implementation, and put in place a formal organizational evaluation of culture. By understanding the importance of these factors, policymakers and administrators in the Migori County Government can prioritize resources and efforts towards addressing these key areas.

Keywords: IFMIS Implementation, Principal Component Analysis, Public Funds

Authors' individual contribution: Conceptualization — O.T. and J.O.O.; Methodology — O.T. and J.O.O.; Validation — O.T. and J.O.O.; Formal Analysis — O.T. and J.O.O.; Investigation — O.T. and J.O.O.; Resources — O.T.; Writing — Original Draft — J.O.O.; Writing — Review & Editing — O.T. and J.O.O.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

VIRTUS 145

1. INTRODUCTION

entities worldwide have adopted Public the integrated financial management information system (IFMIS) because it is a potent tool for managing public finances. It allows for the effective distribution of resources and provides timely financial information, which can accelerate economic growth. IFMIS is a tool that helps organizations improve their financial management systems, secure data, generate useful information, and make better decisions (Lundu & Shale, 2015). This can increase performance, financial and time efficiency, and convenience. Additionally, IFMIS goes beyond basic general ledger accounting and covers various functions, including payroll, human resource management, revenue management, purchases and procurements, liability and asset management, debt control, budgeting, cash management, and accounts payable or receivable. Therefore, implementing IFMIS significantly impact can an organization's performance and competitiveness.

The IFMIS is a data system that allows the effective distribution of resources and increases management decision-making by using available information and timely financial help to accelerate the growth of an economy (Njogo & Njeru, 2022). Since 1984, the World Bank has advocated this scheme to assist nations in managing their government resources (Njogo & Njeru, 2022). The World Bank has financed the successful implementation of IFMIS in areas such as the Caribbean and Latin America. The effective application of IFMIS helps to improve organizations significantly (Wanyama & Zheng, 2011) and helps various organizations gain a significant competitive advantage. The main objective of incorporating IFMIS budget planning revolves around its capability of offering timely and precise budget and decision-making information (Wanyama & Zheng, 2011). IFMIS's range and functionality differ from implementing a fundamental general ledger accounting (Ahadiat, 2005). The range covers payroll, human resource management, revenue management, purchases and procurements, liability and assets management, debt control, budgeting, cash management, and accounts payable or receivable.

IFMIS can improve public sector management (Scherer & Voegtlin, 2020). Institutions that use suitable management systems can expand their business performance. Financial management systems can secure data and generate useful information, thereby improving the decision-making process and accomplishing corporate visions (Akhter, 2022).

The study used three theories to understand the factors influencing the implementation and adoption of IFMIS: 1) the technology acceptance model (TAM), which looks at how users perceive and adopt technology; 2) the information diffusion theory (IDT), which examines how information spreads within an organization; and 3) the work around theory (WAT), which explores strategies for overcoming obstacles in using technology. Using these theories, the study aimed to understand the factors influencing the implementation and adoption of IFMIS. At both the organizational and individual levels, the adoption and utilization of information technology can bring about immediate as well as long-term benefits, such as increased performance, financial and time efficiency, and convenience (Foley Curley, 1984; Sharda et al., 1988).

Empirically, the factors were identified as technical, organizational, and environmental. The study also adopted an inductive approach using qualitative tools to explain the quantitative data, hence developing an enhanced model that links the three theories together in the adoption of information systems.

The World Bank has spent several billions to successfully finance IFMIS systems globally (Kanjo, 2020). County governments have participated in the co-financing of these projects (Lysiak et al., 2017). However, despite the intended enhancement of operational and technical performance, only 89% of the IFMIS projects are operational. This is particularly concerning in Africa, where a high rate of failure has been observed. Recently, most research on the implementation of IFMIS has solely addressed its effects on governance, impeding factors, performance, challenges, and role in the main supply chain of management. However, so far, only a limited study has effectively synthesized the underlying factors that ensure successful adoption and complete implementation of the IFMIS in managing public finances.

The study employed a mixed-methods approach, combining quantitative data analysis with qualitative tools. The quantitative data was collected through surveys administered to government officials responsible for IFMIS implementation, while the qualitative data was gathered through interviews and focus group discussions. The data was then analyzed using statistical techniques and thematic analysis to identify the factors influencing the adoption and implementation of IFMIS.

The study's findings showed that a combination of technical, organizational, and environmental factors affect the adoption and implementation of IFMIS successfully. Technical factors include the availability of infrastructure and technical support, while organizational factors include leadership support and employee training. Environmental factors refer to the broader socio-political context in which IFMIS is implemented, such as government policies and regulations.

Based on the findings of this study, should policymakers allocate funding for infrastructure development and training programs to support the implementation of IFMIS. They should also ensure that there is leadership support and a supportive organizational create culture. Additionally, it is important to address the broader organizational and environmental factors that influence the adoption of IFMIS, such as creating a supportive organizational culture and aligning government policies with the goals of IFMIS implementation.

One limitation of this study is that it focused on a specific geographic region, which means that the findings may not be applicable to other contexts. Future research could investigate the factors influencing the adoption and implementation of IFMIS in different countries and compare the effectiveness of different strategies for promoting its adoption. Additionally, further research could investigate the long-term impacts of IFMIS on public sector management and the effectiveness of different strategies for promoting the adoption and implementation of IFMIS.

This paper is organized as follows. Following the introduction in Section 1, Section 2 is a literature review with empirical studies that shed light on factors that influence the implementation of IFMIS. Section 3 introduces background information on research and methodology. After the analysis and findings of the study, the authors provide discussions and implications in Section 4. Finally, in Section 5 this paper concludes with key points, recommendations, future research directions, and limitations.

2. LITERATURE REVIEW

This section reviews the literature and indicates that factors contributing to the system's failures are broadly classified as resulting from organisational, political, and technological issues.

2.1. Technological factors

In the management information systems (MIS) field, technological factors play a crucial role in successfully adopting and implementing software and hardware. Understanding the influence of technology on MIS is essential for organizations seeking to optimize their information management processes.

scheme's Technological factors are the fundamental functioning involving IFMIS software and hardware (Goddard et al., 2001). Several studies have examined the relationship between technology and the effective application of MIS. Goddard et al. (2001) highlight the importance of IFMIS software and hardware in the functioning of a scheme. Voegtlin and Pless (2014) emphasize that the complexity of a system can influence its successful adoption, while Tran Trung and Huu Nguyen (2023) argue that technological factors such as internal controls, data, procedures, and manuals also impact system implementation.

The choice of software and hardware for an MIS can significantly affect its successful adoption (Chalu, 2019). Voegtlin and Pless (2014) highlight the case of Tanzania, where system operations failures occurred until a medium software package was chosen, which was less complicated than what is used in Ghana. Furthermore, the platform through which IFMIS interconnectivity works, such as web and intranet equipment, also plays a crucial role in the system's effective execution.

While technology plays a vital role in successfully adopting IFMIS, there are potential challenges and limitations. Compatibility with existing systems, for example, may pose difficulties during the implementation process. Additionally, training requirements and the need for ongoing technical support are important considerations to ensure the effective execution of IFMIS.

2.2. Organizational factors

There are organizational factors that can influence the successful implementation of IFMIS. These factors include institutional procedures, user ability, top management support, qualified workers, and support from middle managers. Understanding these organizational variables is crucial for ensuring the efficient application of IFMIS in government agencies.

Previous studies have identified several organizational factors that can impact the successful implementation of IFMIS. For example, Voegtlin and Pless (2014) described these factors as government funding management procedures and agreements. Samah (2018) highlighted the importance of organizational arrangements, user ability, top management support, and qualified workers needing better benefits.

In a study about the factors that affect how well IFMIS is used in Kenva's government ministries. Wanyama and Zheng (2011) surveyed and talked to important people to find out how opposition from employees, involvement of top management, system complexity, and employee skill levels affected the process. Their findings revealed that these factors played a significant role in the execution process of IFMIS. Additionally, Wanyama and Zheng (2011)emphasized the importance of user engagement, clear goal setting, top leadership support, and suitable facilities for the successful implementation of the re-engineered IFMIS in government agencies.

While previous studies have explored various organizational factors influencing IFMIS implementation, none have specifically examined the impact of the growth of Creative Commons. This gap in the literature prompted the need for our study, which aims to evaluate the underlying factors that influenced the efficient application of IFMIS in the Migori County Government. By considering the influence of Creative Commons on IFMIS implementation, our research aims to a comprehensive understanding provide of the organizational factors that contribute to the success of IFMIS in government agencies.

2.3. Environmental factors

Environmental factors play a crucial role in the successful implementation of IFMIS. The accessibility of external abilities, such as technical expertise and support, can greatly impact the system's effectiveness. For example, if there is a lack of skilled personnel available to assist with implementing and maintaining IFMIS, it may hinder system's functionality and performance. the Additionally, stakeholder support is essential for the smooth adoption of IFMIS. Institutions prioritizing stakeholders' well-being are more likely to gain their support, which can lead to a more seamless implementation process. Supplier support is another important factor to consider, as it can affect the availability of necessary resources and updates for the system. Competing software developers may also influence the implementation of IFMIS, as organizations may have to choose between different software options based on their features and compatibility. Trust in software vendors is crucial, as organizations need to have confidence in the reliability and security of the system they are implementing (Theuri et al., 2020). Lastly, ethical impacts should be considered, as the implementation of IFMIS should align with ethical standards and guidelines. By considering these environmental factors, organizations can better navigate the implementation process and increase the chances of a successful outcome.

Cioli et al. (2023) add that institutions that contribute to the well-being of stakeholders can more easily get their support and implement their systems at a lower cost. Compared to public-sector commercial, projects, financial management information systems packages necessitate considerable and expensive changes to how companies carry out their day-to-day activities, which usually takes several years (Theuri et al., 2020). Implementation in small firms takes three to six months, but one to three years in larger companies, despite the high information and communication technology (ICT) knowledge levels in most private organizations and the huge number of competent consultants engaged.

According to Theuri et al. (2020), IFMIS is an automated system that manages and controls public finance, accounting, auditing, and financial reporting. Its success or failure depends on the environment in which it is implemented. Implementing IFMIS offers numerous benefits to organizations. Firstly, it enhances financial management by providing real-time access to financial data and automating various accounting and auditing processes. This improves efficiency and accuracy in financial operations, reducing the risk of errors and fraud. Secondly, IFMIS supports budget allocations by facilitating the monitoring and tracking of budget utilization, ensuring that funds are allocated and utilized in accordance with organizational goals and priorities. Thirdly, IFMIS aids in management decisions by providing timely and reliable financial information for decisionmakers. This enables informed decision-making based on accurate and up-to-date financial data. Fourthly, IFMIS helps organizations fulfil their fiduciary responsibilities by ensuring transparency and accountability in financial transactions and reporting. Lastly, IFMIS simplifies the preparation and reporting of financial statements, streamlining the process and reducing the time and effort required. By leveraging ICT in financial operations, IFMIS empowers organizations to improve their financial management practices and make more informed decisions (Scherer & Voegtlin, 2020).

2.4. Legal factors

Legal factors play a crucial role in the successful implementation of IFMIS. They provide the necessary framework and guidelines for the establishment and operation of the system. Without proper legal frameworks, the implementation of IFMIS may face numerous challenges and may not be able to achieve its intended goals.

When implementing IFMIS, it is essential to analyze the existing governance scheme, ICT infrastructure, incentives, and accessible human resources. The assessment should also consider the existing legal framework and identify any gaps or modifications required to support IFMIS implementation effectively. This comprehensive analysis of legal factors will ensure the system operates within legal boundaries and complies with relevant regulations. According to Equey Balzli and Morard (2012), it is crucial to identify a core team and establish the necessary legal frameworks to oversee the implementation of IFMIS. Additionally, the availability of senior management committed to the system's success is essential. This ensures proper leadership and management support throughout the implementation process, leading to a more successful outcome. IFMIS implementation may remain a mirage or a mere dream without such legal frameworks. In addition, the method involves analyzing the present governance scheme, ICT infrastructure, incentives, existing legal framework, and accessible human resources. This assessment must also address the training requirements and future difficulties of application (Equey Balzli & Morard, 2012)).

The planning process for the implementation of IFMIS can be complex and challenging. In some instances, there may be a lack of plans and evidence of approval from senior management, leading to delays in the project. It is important to address these challenges and ensure proper planning and approval processes are in place to avoid such delays and ensure a smooth implementation process.

2.5. Cultural and ethical factors

Organizations use IFMIS as a software system to control financial transactions, budgeting, and reporting. In the context of this study, IFMIS refers to the system used in the financial management of Migori County Government.

Culture and ethics play a crucial role in shaping the behaviour and decision-making of individuals and organizations in the workplace (Iswanti et al., 2023). A strong work culture promotes shared values, norms, and beliefs that guide employees' day-to-day activities. Ethical standards provide a framework for making moral judgments and distinguishing between right and wrong actions. When employees adhere to the organization's culture and ethical standards, it fosters a positive work environment, enhances trust, and motivates employees to achieve their goals (Varma, 2021).

A number of researchers have shown how corruption has adversely affected IFMIS, which is an ethical issue (Magala, 2010). Similarly, Barafi et al. (2022) stated that corruption is a constant dilemma that challenges societies, leading to dire consequences at the national and local levels of the economy, while Hossain et al. (2020) detailed how the lack of ethics and corruption has led to a lack of public trust in systems.

Most researchers have shown how corruption has adversely affected IFMIS, which is an ethical issue. According to Equey Balzli and Morard (2012), most workers and employers in America strive to do things correctly. The authors' study found that most workers conform to the company's ethical standards of behaviour, and they can report a wrong when they witness it. However, some troublesome trends exist for trackers of ethical behaviour in the workplace.



The study's main objective was to examine the factors that influenced the successful implementation of IFMIS in the financial management of Migori County Government. It primarily assessed four factors, namely technological, organisational, environmental, cultural, ethical and legal factors.

3. METHODOLOGY

The main objectives of this study were to identify the factors influencing the implementation of IFMIS in Migori County and to assess the impact of these factors on the management of public funds. Additionally, the study aimed to provide recommendations for improving the successful implementation of IFMIS in the future.

This study employed a mixed-methods approach to investigate the factors influencing the implementation of IFMIS. Quantitative data was through surveys administered collected to officials government responsible for IFMIS implementation. The survey questions were designed to assess users' perceptions and attitudes towards technology adoption, the organization's spread of information, and the strategies individuals employ to overcome obstacles to using technology. The data collected through the surveys was then analyzed using statistical techniques to identify the significant factors influencing the adoption and implementation of IFMIS. In addition to the surveys, qualitative data was gathered through interviews and focus group discussions to provide further influencing the factors insights into IFMIS implementation. Thematic analysis was used to analyze the qualitative data and identify common themes and patterns. A comprehensive understanding of the factors influencing IFMIS achieved by combining implementation was quantitative and qualitative data analysis.

3.1. Research design

The descriptive research design was chosen for this study because it allowed for a detailed examination of the factors influencing the implementation of IFMIS in Migori County. This design was considered the most suitable because it provided an opportunity to gather comprehensive data and analyze the relationship between variables. Further, McDonnell (1997) asserted that descriptive design is the most relevant design for a well-designed problem.

3.2. Population and sampling

The target population in the current study was 255 employees of the Ministry of Finance in Migori County. The target individuals were people with direct experience with the IFMIS. The aim of a study is to gather data scientifically to achieve a given objective (Sugiyono, 2017). Thus, the researchers used a heterogenous sampling scheme for the quantitative phase of the study and a stratified purposive sampling technique for the qualitative phase of the study, involving 59 employees. The remaining 196 employees in the study were drawn using a simple random sampling technique from a population of 400 employees.

3.3. Data collection instrument and procedure

The questionnaires were administered to the participants in person during working hours. were provided The participants with clear instructions on completing the questionnaires and were allowed to ask any questions for clarification. To ensure data quality, the researchers conducted a pilot test of the questionnaires with a small sample of participants to identify any potential issues and make necessary adjustments.

3.4. Data analysis

The design of the questionnaire included both open-ended and closed-ended questions. The questionnaire used in the study was to determine the factors that influence the successful implementation of IFMIS in the management of public funds.

A five-point Likert scale was adopted in both and closed-ended questionnaires. the open The respondents were provided with a research instrument consisting of a list of possible answers about the attributes of the system. The respondents were then requested to rate their agreement levels on the various factors related to IFMIS's successful implementation. The first few questions required the respondents to select 'yes', 'no' or 'maybe', and then they were requested to rate statements on individual factors on a scale of 1 to 5, depending on how applicable it was in their situation (5 - strongly)agree, 4 – agree, 3 – neutral, 2 – disagree, 1 -strongly disagree). Scores 1 and 2 (disagree) and 4 and 5 (agree) have been combined for analysis.

The study adopted both criteria and translation validity. Translation validity assesses the degree to which the concepts transform into reality accurately by using subjective judgment (face validity) and examining the content domain (content validity). The study was based on instruments developed from established TAM, IDT, and WAT theoretical frameworks with related literature to ensure content validity.

The collected data was analyzed using SPSS software. Descriptive statistics such as median and standard deviation were used to summarize the quantitative aspects of the questionnaire. Spearman's ranked correlation coefficient was used to analyze the rank-order correlation between variables. Principal component analysis (PCA) was conducted to reduce the indicators to an established factor score. The factors were retained by assessing the construct validity of the dimensions and examining the structure or relationships between the variables. The process of factor extraction was based on the four key concepts of factor analysis: 1) communities, 2) patterns of factor loading, 3) explained variance, and 4) factor rotation. The process was done independently for each latent variable. These techniques were chosen because they allowed for comprehensive data analysis and provided insights into the relationships between variables.

4. RESULTS AND DISCUSSION

The results and discussions will be presented in the following section.



Prior to assessing the impact of specific factors identified (technological, organizational, environmental, cultural, and ethical), an assessment of all factors based on the survey question was done. This was done using the Kaiser Meyer Olkin (KMO) rule shown in Table 1.

Table I. KMO and Bartlett's	s test
-----------------------------	--------

KMO measure a	0.689				
Bartlett's test of sphericity	Approx. chi-square	5,505.802			
	df	1128			
	Sig.	0.000			
Source: Authors' calculation.					

Table 1 shows that the identified factors (16) explain at least 68.9% of IFMIS success in Migori County. Bartlett's test of sphericity also confirmed sampling adequacy, chi-squared x^2 (1128) = 5,505.802, p < 0.001. PCA analysis was conducted on the specific six factors perceived to be influencing the implementation of IFMIS systems. Figure 1 shows a summary of the individual factors and the percentage variance of IFMIS implementation

success that they explain scaled in terms of eigenvalues.

Figure 1. Screen plot



Component number

Source: Authors' elaboration.

4.1. Technological factors

Table 2 and Table 3 show PCA output for technological factors and the corresponding identified factors.

Table 2. Community technological factors

Community technological factors	Initial	Extraction
The county depends largely on experts to run the system.	1.000	0.969
Users' inadequate training on IFMIS uses.	1.000	0.647
Most of the users do not have the auditing and accounting skills and knowledge necessary for operating the IFMIS application.	1.000	0.766
There is a lack of commitment by the senior county officials on the use of IFMIS in the management of funds.	1.000	0.785
There is a lack of human capital to oversee the implementation of IFMIS because of poor human capital development because of inadequate and insufficient IFMIS practical training.	1.000	0.811
Note: Method of extraction $-PCA$		

Source: Authors' calculation.

Table 3. Variance	summary tecl	hnological	l factors
-------------------	--------------	------------	-----------

Commonant	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
No.	Total	% of variance	Cumulative, %	Total	% of variance	Cumulative, %	Total	% of variance	Cumulative, %
1	2.970	59.403	59.403	2.970	59.403	59.403	2.970	59.403	59.403
2	1.008	20.165	79.568	1.008	20.165	79.568	1.008	20.165	79.568
3	0.497	9.937	89.505						
4	0.335	6.691	96.196						
5	0.190	15.217	100.00						
37.1. 37.1. 1	C	- DCA							

Note: Method of extraction — PCA. Source: Authors' calculation.

source: Authors culculation.

Table 2 and Table 3 demonstrate that, according to the survey results, reliance on experts to operate the systems accounts for 59.403% of the variance in IFMIS implementation success. In comparison, insufficient training only accounts for 20.165%. The other three factors identified explain less than 20.165% of the variance in IFMIS implementation.

4.2. Organizational factors

Table 4 and Table 5 summarize the PCA analysis on organizational factors.

From Table 4 and Table 5, it is observed that the creation of a new organizational culture in

the operation of county departments explains 35.072% of the variations in IFMIS success, closely followed by an organizational culture that supports the adoption of this technology in the department (25.169%), record management (24.541%), and finally confidence in using IFMIS boosted by senior management support. From the findings, unlike technological factors, where factors with significant impact on IFMIS implementation are limited to the first three factors, for organisational factors, it is observed that all the key factors identified from the initial PCA in Table 5 significantly affect the implementation of IFMIS.

Table 4. Community	organizational	factors
---------------------------	----------------	---------

Community organizational factors	Initial	Extraction
The IFMIS process has resulted in the creation of a new organisational culture on how county departments operate.	1.000	0.685
Organisational culture supports technology adoption in the department.	1.000	0.675
Record management, such as identification of records, classification and storing, influence the success of IFMIS implementation in the county.	1.000	0.546
Confidence in using IFMIS is boosted by the support of senior managers.	1.000	0.504
Note: Mathed of autraction BCA		

Note: Method of extraction — PCA. Source: Authors' calculation.

VIRTUS 150

Commonant	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
No	Total	% of	Cumulative,	Total	% of	Cumulative,	Total	% of	Cumulative,
NO.	10101	variance	%	10101	variance	%	10101	variance	%
1	1.403	35.072	35.072	1.403	35.072	35.072	1.403	35.072	35.072
2	1.007	25.169	60.242	1.007	25.169	60.242	1.007	25.169	60.242
3	0.982	24.541	84.783						
4	0.609	15.217	100.00						

Table 5. Variance summary of organizational structure

4 0.609 15.21 Note: Method of extraction — PCA.

Source: Authors' calculation.

4.3. Environmental factors

Table 6 and Table 7 show the PCA result summary for environmental factors.

From Table 6 and Table 7, the efficiency of IFMIS explains 75.127% of the variance in IFMIS success, which is explained by environmental factors

followed by security issues, particularly those related to access and single log, which explains 15.19%. Security of personal data on IFMIS systems only explains 9.683% of IFMIS implementation success proportion that is explained by environmental factors.

Tabl	le 6.	Community	environmental	l factors
------	-------	-----------	---------------	-----------

Community environmental factors	Initial	Extraction
IFMIS is not energy-efficient.	1.000	0.770
There is no relevant security built into the system with access rights on a single log-on.	1.000	0.799
I feel my personal data is not often secure in the system.	1.000	0.685
Note: Method of extraction $-PCA$.		

Source: Authors' calculation.

Common out No.		Initial eigenvalues		Extraction sums of squared loadings			
Component No.	Total	% of variance	Cumulative, %	Total	% of variance	Cumulative, %	
1	2.254	75.127	75.127	2.254	75.127	75.127	
2	0.456	15.190					
3	0.290	9.683					

Note: Method of extraction - PCA*.*

Source: Authors' calculation.

4.4. Cultural and ethical factors

Three cultural and ethical factors were identified as being impactful on IFMIS implementation. Table 8 and Table 9 show the resulting PCA analysis of the identified factors.

From Table 8 and Table 9, the ability of IFMIS to distinguish corruption motivation explains more

than 50% of its implementation's ethical and cultural implications. The ability of IFMIS specialists to support openness and accountability during implementation explains 22.545%, while formal evaluation of culture related to ethics in light of IFMIS implementation explains 18.37% of the IFMIS success variance explained by ethical and cultural factors.

Table 8. Community cultural and ethical factors

Community cultural and ethical factors	Initial	Extraction
IFMIS does not extinguish the underlying motivation for corruption.	1.000	0.583
The specialists' ethical behaviour does not support openness and accountability in the implementation of IFMIS.	1.000	0.541
My department has yet to undertake a formal organisational evaluation culture related to ethics.	1.000	0.648
<i>Note: Method of extraction — PCA.</i>		

Source: Authors' calculation.

 Table 9. Variance explanation: Ethical and cultural factors

Component No.	Initial eigenvalues			Extraction sums of squared loadings		
	Total	% of variance	Cumulative, %	Total	% of variance	Cumulative, %
1	1.773	59.085	59.085	1.773	59.085	59.085
2	0.676	22.545				
3	0.551	18.370				

Note: Method of extraction — PCA. Source: Authors' calculation.

5. CONCLUSION

This study aimed to identify factors influencing the implementation of IFMIS in the Migori County Government. The factors investigated in the current study were categorized into four categories (technological, organizational, environmental, cultural, and ethical factors). By understanding the importance of these factors, policymakers and administrators in the Migori County Government can prioritize resources and efforts towards addressing these key areas. For example, the county government can enhance the technological capabilities needed for successful IFMIS implementation by investing in



comprehensive training programs and ensuring access to experts. Similarly, by fostering an organizational culture that values technology and encourages its use, the county government can create an environment conducive to the effective implementation and utilization of the IFMIS. Furthermore, by focusing on factors such as efficiency and access security, the county government can ensure that the environmental conditions necessary for the success of IFMIS are met. Lastly, the county government can promote a transparent and efficient financial management system by addressing cultural and ethical factors such as motivation and accountability. Overall, these findings highlight the critical areas that need attention to successfully implement IFMIS in the Migori County Government. These findings highlight the critical areas that need attention to successfully implement IFMIS in the Migori County Government, such as improving training and support.

The study found that the most important factors influencing the implementation of IFMIS in the Migori County Government were technological, organizational, environmental, and cultural/ethical factors. Specifically, training and dependency on experts were crucial for successful implementation under technological factors, while creating an organizational culture that supports technology and its use in various departments was vital for organizational factors. The efficiency of IFMIS systems and access security were identified as critical environmental factors. Lastly, distinguishing motivation from corruption and supporting openness and accountability were important cultural and ethical factors.

While this study has provided valuable insights into the factors influencing the implementation of IFMIS in the Migori County Government, there are still areas that could be explored. Future research could explore how factors such as age, education level, and professional experience of government employees may influence their willingness and ability to adopt and utilize the IFMIS. For example, younger employees who are more tech-savvy and have grown up in the digital age may be more open embracing new technologies like to IFMIS. Additionally, employees with higher levels of education and training in finance or accounting may better understand the benefits and functionalities of IFMIS, leading to greater adoption. By investigating these demographic factors, policymakers can gain insights into potential barriers to adoption and design targeted strategies to overcome them. Additionally, further research could focus on

improving public financial management in Kenya by examining strategies to enhance the implementation of IFMIS in other county governments. By studying the strategies and best practices for successful IFMIS implementation in other county governments, policymakers and administrators in Kenya can gain valuable insights into improving public financial management at a national level. Implementing IFMIS systems in multiple county governments can increase transparency, accountability, and efficiency in financial processes, benefiting citizens and promoting economic growth. Additionally, a more comprehensive understanding of the factors influencing IFMIS implementation across the country can inform policy decisions and resource allocation at a national level. Therefore, further research in this area is crucial to driving positive changes in public financial management practices in Kenya.

Although this study has provided valuable insights, it is important to acknowledge its limitations. One limitation is the focus on only one county government, Migori County. Conducting the study in other county governments in Kenya would have provided a more comprehensive the understanding of factors influencing the implementation of IFMIS in the country. Additionally, the reliance on self-reported data from participants may introduce response bias and affect the accuracy of the findings. Future studies could consider using other mixed-methods approaches to gather more robust and objective data.

The main objective of this study was to identify the factors influencing the implementation of IFMIS in the Migori County Government. To achieve this objective, the study categorized the factors into four categories: technological, organizational, environmental, and cultural/ethical. By conducting a PCA analysis, the study aimed to determine which factors contributed most to the successful implementation of financial statements. While PCA analysis is a useful statistical technique for identifying the most significant factors, it is important to acknowledge its limitations. One potential limitation of PCA is that it assumes linearity between variables and may not capture complex non-linear relationships. Additionally, the interpretation of PCA results can be subjective and dependent on the researcher's judgment. Therefore, while PCA provides valuable insights into the relative importance of different factors, it should be used with other research methods to obtain a more comprehensive understanding of the factors influencing IFMIS implementation.

REFERENCES

- Ahadiat, N. (2005). Factors that may influence or hinder use of instructional technology among accounting faculty. *Campus-Wide Information Systems, 22*(4), 210–232. https://doi.org/10.1108/10650740510617520
- Akhter, A. (2022). Impact of accounting information systems on organizational performance: Private commercial banks of Bangladesh. *International Journal of Scientific and Research Publications*, *12*(4), 307–311. https://doi.org/10.29322/IJSRP.12.04.2022.p12443
- Barafi, J., Alkrisheh, M. A., Al-Obeidi, A. H., Alsaadi, S., & Mahameed, W. F. (2022). Anti-corruption mechanisms: A study in the light of international law and national regulation [Special issue]. *Journal of Governance & Regulation*, *11*(4), 224–236. https://doi.org/10.22495/jgrv11i4siart3
- Chalu, H. (2019). The effect of IFMIS adoption on financial reporting quality in Tanzanian local governments. *Business Management Review*, 22(2), 1–31. https://bmr.udsm.ac.tz/index.php/bmr/article/view/104
- Cioli, V., Giannozzi, A., Pescatori, L., & Roggi, O. (2023). Are environmental, social and government factors incorporated in the credit ratings? *Risk Governance and Control: Financial Markets & Institutions*, *13*(3), 22–32. https://doi.org/10.22495/rgcv13i3p2

VIRTUS

- Equey Balzli, C., & Morard, B. (2012). The impact of an integrated financial system implementation on accounting profiles in a public administration: An ethnographic approach. *Journal of Accounting & Organizational Change*, *8*(3), 364-385. https://doi.org/10.1108/18325911211258344
- Foley Curley, K. (1984). Are there any real benefits from office automation? *Business Horizons, 27*(4), 37-42. https://doi.org/10.1016/0007-6813(84)90055-7

Goddard, J. A., Molyneux, P., & Wilson, J. O. S. (2001). European banking: Efficiency, technology, and growth. John Wiley.

- Hossain, F., Kumasey, A. S., Rees, C. J., & Mamman, A. (2020). Public service ethics, values and spirituality in developing and transitional countries: Challenges and opportunities. *Public Administration and Development*, *40*(3, special issue), 147–155. https://doi.org/10.1002/pad.1890
- Iswanti, Ujianto, & Riyadi, S. (2023). Ethical leadership, culture, and public service motivation on organizational citizenship behavior: A case study of civil servants [Special issue]. *Corporate Governance and Organizational Behavior Review*, 7(3), 395-404. https://doi.org/10.22495/cgobrv7i3sip14
- Janssen, M. F. W. H. A., Bannister, F., Glassey, O., Scholl, H. J., Tambouris, E., Wimmer, M.A., & Macintosh, A. (Eds.) (2014). *Electronic government and electronic participation: Joint proceedings of ongoing research, posters, workshop and projects of IFIP EGOV 2014 and ePart 2014* (Volume 21). IOS Press.
- Kanjo, C. (2020). Poverty by design: The role of ICT. In B. I. Hamada & S. Wok (Eds.), *Off-and-online journalism and corruption International comparative analysis.* IntechOpen. https://doi.org/10.5772/intechopen.86280
- Kholeif, A. O. R., Abdel-Kader, M., & Sherer, M. (2007). ERP customization failure: Institutionalized accounting practices, power relations and market forces. *Journal of Accounting & Organizational Change, 3*(3), 250–269. https://doi.org/10.1108/18325910710820292
- Lundu, B. L., & Shale, N. (2015). Effect of intergrated financial management information system (IFMIS) implementation on supply chain management performance in the devolved government systems in Kenya: A case of Nairobi city county government. *International Academic Journal of Procurement and Supply Chain Management, 1*(5), 1–26. https://www.iajournals.org/articles/iajpscm_v1_i5_1_26.pdf
- Lysiak, L., Kachula, S., & Kulichenko, V. (2017). Ukraine-EU cooperation for realization of innovative projects and programs aimed at public financial management modernization. *Problems and Perspectives in Management*, *15*(2–1), 212–221. https://doi.org/10.21511/ppm.15(2-1).2017.05
- Magala, S. (2010). Ethical control and cultural change (in cultural dreams begin organizational responsibilities). *Journal of Public Affairs, 10*(3, special issue), 139–151. https://doi.org/10.1002/pa.359
- McDonnell, J. (1997). Descriptive models for interpreting design. *Design Studies*, 18(4), 457–473. https://doi.org/10.1016/S0142-694X(97)00012-4
- Njogo, M. N., & Njeru, B. G. (2022). Effect of integrated financial management information system on public expenditure management in Kenya. *Information and Knowledge Management, 12*(1). https://doi.org/10.7176/IKM/12-1-01
- Samah, S. (2018). Recognizing acceptance of change and organizational support in public service organizations: Engaging middle managers in organizational change. *International Journal of Human Resource Studies*, 8(2), 249-262. https://doi.org/10.5296/ijhrs.v8i2.12892
- Scherer, A. G., & Voegtlin, C. (2020). Corporate governance for responsible innovation: Approaches to corporate governance and their implications for sustainable development. Academy of Management Perspectives, 34(2), 182–208. https://doi.org/10.5465/amp.2017.0175
- Sharda, R., Barr, S. H., & McDonnell, J. C. (1988). Decision support system effectiveness: A review and an empirical test. *Management Science*, *34*(2), 139–159. https://doi.org/10.1287/mnsc.34.2.139
- Sugiyono. (2017). *Metode penelitian kuantitatif, kualitatif, dan R&D* [Quantitative, qualitative research methods, and R&D]. ALFABETA.
- Theuri, M. W., Macharia, S., & Kamau, A. (2020). An assessment of the influence of working environment on service delivery in the public health sector in Nyeri County, Kenya. *Management and Economics Research Journal, 6*, Article 961199. https://www.researchgate.net/publication/341108426_An_Assessment_of_the _Influence_of_Working_Environment_on_Service_Delivery_in_the_Public_Health_Sector_in_Nyeri_County_Kenya
- Tran Trung, T., & Huu Nguyen, A. (2023). Impact of accounting information systems on corporate performance: An application of agency theory [Special issue]. *Corporate Governance and Organizational Behavior Review*, 7(3), 429-443. https://doi.org/10.22495/cgobrv7i3sip17
- Varma, R. (2021). Dissecting culture at work: Conversation with Indian immigrant scientists & engineers in the US industrial sector. *Technology in Society*, *66*, Article 101654. https://doi.org/10.1016/j.techsoc.2021.101654
- Voegtlin, C., & Pless, N. M. (2014). Global governance: CSR and the role of the UN global compact. *Journal of Business Ethics*, *122*(2), 179–191. https://doi.org/10.1007/s10551-014-2214-8
- Wanyama, I., & Zheng, I. (2011). The fit between organizational structures and is implementation: The case of IFMIS in Kenya. International Journal of Trade, Economics, and Finance, 2(2), 131–137. https://doi.org/10.7763/IJTEF.2011.V2.91
- Wanyonyi, K. W., & Theuri, J. (2021). Integrated financial management information system and financial performance in Trans Nzoia County, Kenya. *International Journal of Current Aspects in Finance, Banking, and Accounting, 3*(2), 51–64. https://doi.org/10.35942/ijcfa.v3i2.196

VIRTUS