GREAT JOURNS

Journal of Business and Management

Vol.1 No.2, April 2024

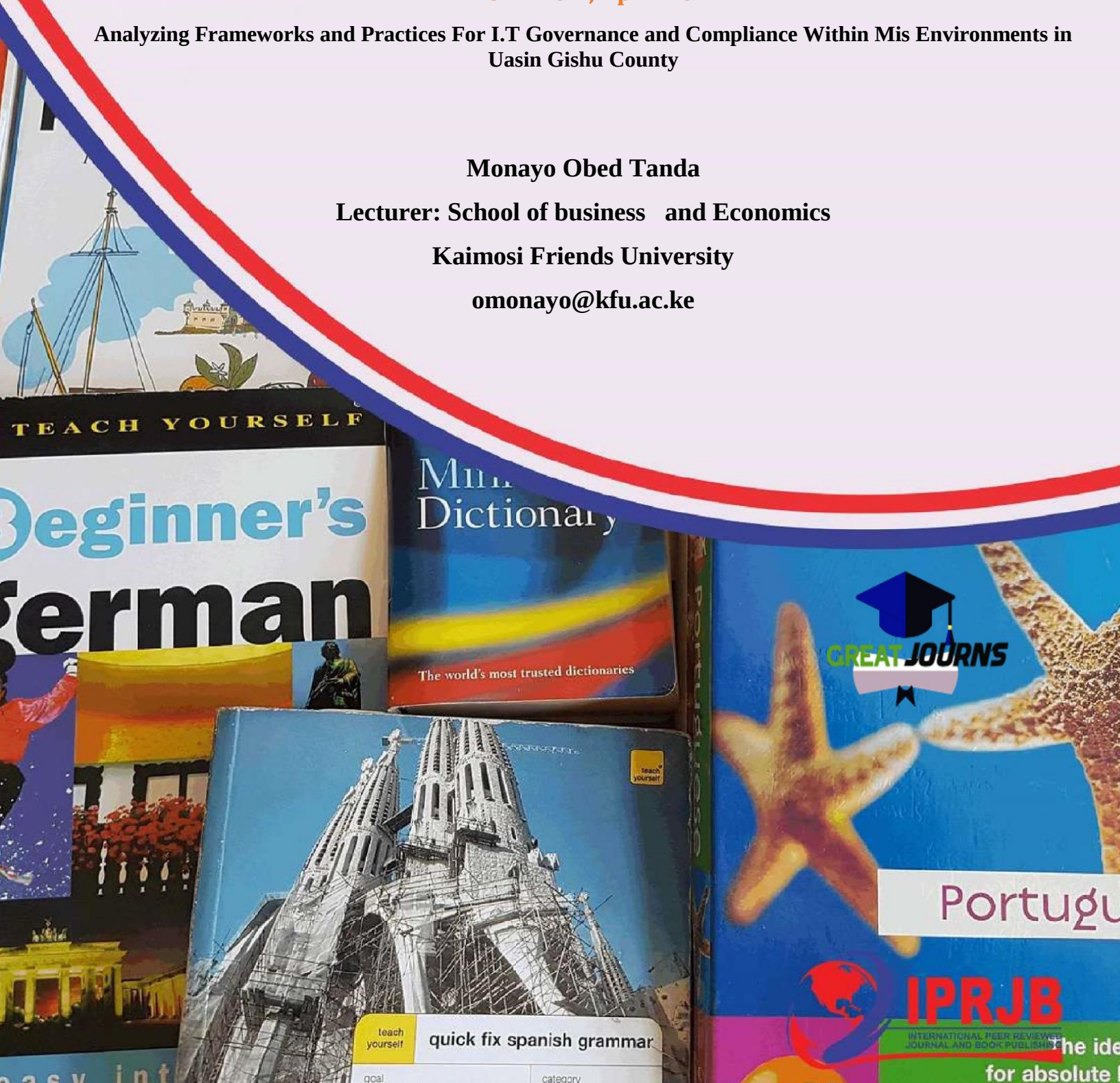
Analyzing Frameworks and Practices For I.T Governance and Compliance Within Mis Environments in Uasin Gishu County

Monayo Obed Tanda

Lecturer: School of business and Economics

Kaimosi Friends University

omonayo@kfu.ac.ke



Great Journs
ISSN: 2328-4870
Vol.1 No.2, April 2024

Journal homepage: www.greatjourns.com

ABSTRACT

This study examined the frameworks and practices for IT governance and compliance within Management Information Systems (MIS) environments in Uasin Gishu County, employing a mixed-methods approach. Quantitative surveys, utilizing Likert-scale questions, were distributed to IT professionals and managers across diverse organizations, supplemented by qualitative semi-structured interviews. The sample population of 75 ensured representation from various sectors and maturity levels of IT governance frameworks. Data analysis involved statistical methods for quantitative data and thematic analysis for qualitative insights. The findings indicated existing risk management processes within MIS environments, albeit with areas for improvement such as enhancing risk identification and mitigation, aligning with organizational objectives, and cultivating a risk-aware culture. Evaluation revealed varying levels of performance and efficiency in IT governance practices, suggesting opportunities for enhancing transparency, accountability, and stakeholder engagement. Recommendations included implementing thorough review processes for risk assessment documentation, enhancing the effectiveness of risk mitigation strategies, and improving the analysis of audit reports. The study underscored the importance of continuous evaluation and improvement in IT governance and compliance practices to align IT initiatives with organizational goals effectively.

Keywords: ***IT Governance, Compliance, Management Information Systems (MIS) Frameworks***

1.0 Introduction

According to Hoogervorst, (2019) IT governance involves defining the structure, processes, and mechanisms that ensure IT resources are used efficiently to achieve organizational goals while managing risks appropriately. Compliance, on the other hand, refers to adhering to relevant laws, regulations, and industry standards applicable to IT operations and data management.

Murray (2011) explains that good governance is similar to the just provided definition though its focus should be on projects and not programmes. Murray highlights five key aspects of good governance as aligned to the objectives of an organization. The long-term goals are identified and implemented by an organization through strategic management. To achieve these goals, the organization chooses which activities in the programme or project it is going to carry out. This influences its success. At the strategic level, the organization decides on the structure of governance so as to manage its projects. Project governance in every organization is a subset of corporate governance. Project management includes elements of governing projects at the level of the project and the projects details as well. Good governance needs require solid framework to be available within an organization that has well defined roles and responsibilities. Every undertaken project forms a temporary structure which is supported by the main structure. The availability of portfolios and programmes in an organization means the organization has a solid framework to support its programs, projects and portfolios.

In Turkey, a study done by Çelik & Yilmaz, (2011) the study provided an in-depth examination of information technology (IT) governance practices within the public sector of Turkey, considering the unique socio-economic, political, and cultural context of the country. The research investigated the adoption, effectiveness, challenges, and opportunities associated with IT governance

frameworks in Turkish public sector organizations, with a focus on enhancing organizational performance and service delivery (Çelik & Yilmaz, 2011). The study analyzed the extent to which public sector organizations in Turkey had adopted formal IT governance frameworks, such as COBIT and ITIL, and explored the drivers and barriers influencing adoption decisions (Cetindamar, 2016). It assessed the alignment between IT governance practices and organizational objectives, aiming to understand the impact of governance frameworks on decision-making processes and accountability mechanisms. The research evaluated the effectiveness of IT governance practices within Turkish public sector organizations, examining their influence on organizational outcomes such as service delivery, efficiency, and innovation. Through in-depth interviews and analysis, the study identified key challenges and opportunities related to IT governance, including resource constraints, organizational culture, stakeholder engagement, and regulatory compliance. Based on the findings, the study offered actionable recommendations for improving IT governance practices within Turkish public sector organizations. These recommendations included enhancing leadership commitment, investing in IT infrastructure and human capital, strengthening accountability mechanisms, and fostering a culture of continuous improvement (Yilmaz, 2011).

In South Africa, a study by Marnewick & Labuschagne, (2011) the research examined IT governance practices within South Africa, emphasizing the adoption and implementation of the COBIT framework in organizations within the country. This study aims to provide insights into the effectiveness, challenges, and opportunities associated with the adoption of COBIT as a key IT governance framework. The research began by analyzing the extent to which South African organizations have adopted the COBIT framework for IT governance purposes. Khuswaha and Pillai, (2011) explored the drivers and barriers influencing the adoption decisions, as well as the alignment between COBIT practices and organizational objectives. They assess how the implementation of COBIT influences decision-making processes, accountability mechanisms, and organizational performance outcomes. The study evaluates the effectiveness of COBIT implementation within South African organizations, examining its impact on IT service delivery, operational efficiency, and strategic alignment with business objectives. Through comprehensive analysis and interviews, the research identifies key challenges faced by organizations in implementing COBIT, including resource constraints, organizational culture, and regulatory compliance requirements.

The main gaps in understanding IT governance and compliance within MIS environments in Uasin Gishu County lie in the lack of comprehensive knowledge regarding current practices, specific challenges faced, and the level of stakeholder engagement. Additionally, there is a need to benchmark local practices against industry standards to identify areas for improvement and offer actionable insights for future planning. Addressing these gaps will provide organizations with a clearer understanding of their IT governance and compliance landscape, enabling them to enhance their frameworks and practices effectively to align with organizational goals and industry best practices.

1.1 Statement of the problem

There is a lack of comprehensive understanding regarding the existing IT governance frameworks and practices within MIS environments in Uasin Gishu County. While some organizations have established governance structures, others operate without clear frameworks, leading to inconsistencies, inefficiencies, and potential compliance risks. The IT landscape is subject to a complex regulatory environment, with evolving laws, standards, and best practices. Organizations in Uasin Gishu County must navigate these regulations while ensuring compliance with industry standards such as ISO/IEC 27001, GDPR, and sector-specific requirements (International Organization for Standardization. 2013). However, the extent to which organizations in the county adhere to these regulations and standards is unclear. The rapid pace of technological advancements presents both opportunities and challenges for IT governance and compliance within MIS environments. Emerging technologies such as cloud computing, Internet of Things (IoT), and artificial intelligence (AI) introduce new risks and complexities that organizations must address to maintain effective governance and compliance practices. Organizations in Uasin Gishu County face resource constraints, including budgetary limitations and a shortage of IT expertise. These limitations hinder the implementation of robust IT governance frameworks and practices, leaving organizations vulnerable to security breaches, data loss, and regulatory penalties. External factors such as political, economic, and socio-cultural influences also impact IT governance and compliance practices within MIS environments. Changes in government policies, economic conditions, or societal expectations introduce additional challenges or opportunities that organizations must address to maintain effective governance and compliance.

1.3 Theoretical review

1.3.1 Agency Theory

The main proponent of Agency Theory is generally considered to be Michael C. Jensen. Jensen, published in 1976 (McColgan, 2001). Agency Theory provides a valuable lens through which to understand the dynamics of decision-making, accountability, and control within organizations, particularly in the context of IT governance. In the MIS environment, there is a clear separation between principals (such as stakeholders, management) and agents (such as IT professionals), each with their own interests, goals, and responsibilities.

Agency Theory highlights the existence of agency costs, which arise from conflicts of interest between principals and agents. In the context of IT governance, agency costs manifest as inefficiencies, moral hazards, or adverse selection problems. By applying Agency Theory, organizations identify and mitigate these costs through appropriate governance mechanisms, such as clear roles and responsibilities, performance incentives, and monitoring systems (Delves, & Patrick, 2010). One of the key insights of Agency Theory is the importance of aligning incentives between principals and agents to mitigate agency problems. In the context of IT governance and compliance, this means designing governance frameworks that incentivize IT professionals to adhere to regulatory standards, best practices, and organizational objectives. By aligning incentives, organizations reduce the likelihood of non-compliance and improve the effectiveness of IT governance practices (Kallmuenzer, 2015). Agency Theory emphasizes the need for transparency and accountability in organizational decision-making processes. Within MIS environments, this translates into implementing mechanisms for reporting, oversight, and

performance evaluation. By enhancing accountability and transparency, organizations improve compliance with IT governance frameworks and build trust among stakeholders.

Within Uasin Gishu County's organizations, IT governance frameworks serve as mechanisms for aligning the interests of principals with those of agents, ensuring that IT resources are used effectively and in line with organizational objectives. Agency Theory help analyze how these frameworks allocate decision-making authority, define roles and responsibilities, and establish mechanisms for monitoring and accountability.

1.4 Research Objectives

i. To examine the risk management processes in place within MIS environments in Uasin Gishu County
ii. To evaluate the performance and efficiency of IT governance practices within MIS environments in Uasin Gishu County
iii. To investigate the level of stakeholder engagement in IT governance processes within MIS environments in Uasin Gishu County.

2.0 LITERATURE REVIEW

Information technology governance is a series of steps that an organization embarks on adjust their performance goals with operations of information technology in achieving its strategic objectives and evaluating its results. Automation has benefitted the banking sector primarily through the developments of information technology. Information technology governance is an area that has received very little attention especially as concerns to the sector of finance.

Weill and Ross (2012) conducted a study within financial institutions with an intention of weighing information technology governance. The study was conducted in Brazil and constituted of 60 professionals as the sample. Seventy-nine-point six percent (79.6%) was the approximate average performance. This performance showed a maximum performance (100%) had not been achieved by the organization despite a majority nearing it. This research is an original study of financial institutions in Brazil and how they are being influenced by information technology performance. The context of performance is not the only thing that the study investigates but also the significance placed by the organization on every element of information technology governance as it adjusts with goals and needs of the organization.

Weill and Ross (2014) conducted a study within Brazilian financial institutions 2002 with an aim of establishing their performance in information technology governance. The study set to establish the performance of information technology governance within Brazilian financial institutions and establish possible worldwide benchmarks for the future. According to Weill and Ross (2014) organizations with a competitive advantage consider the availability of accurate information as a vital strategic resource that ensures their survival. Information technology's importance is growing as organizations understand its importance in business value addition and competitive positioning (Khadra et al., 2019).

According to Schwarz and Hirschheim (2013), organization strategy and information technology is connected and their activities must be managed by CIO's. This is in relation to information technology governance (ITG). Weill and Ross (2014) argue that there is a relationship in the definition of ITG in the manner in which it is selected in the administration and evaluation in the investment of information technology.

Risk management refers to the steps of risk identification, evaluation and the process of mitigating the risk to a level that is acceptable. Risk management is defined as the steps taken in the identification and evaluation of risk and the process put in place to lower it to a degree that is acceptable. Didraga and Brandas (2012) describe risk in the context of project management as a crucial element that establishes the success of information technology projects. Approaches both past and present in relation information technology projects and risk managements are presented in their study. The study presents a comparison of the approaches as an objective in relation to practices that are currently existing. Many projects have since failed because results of different approaches on risk management have been presented through practices and literature of project management.

According to Lientz and Larssen (2014), the dynamic business environment has experienced quick information communication technologies developments which have led to organizations reorganizing their business processes and aligning service delivery and production. Organizations which adopt these technologies end up having competitive advantage and developing in a modern way hence increasing their profit margins and ensure their survival through the shifting environment. Ruddock (2016) and Mansell (1999) argue that organizations gain several ways by having competitive advantage such as enhanced service delivery, automated workflow, improved timely decision support and real-time transactions. Information communication and technology risk however have also accompanied their adoption in the organization. These include the risk to technology, finance, strategy and operations.

Stakeholder refers to any individual, group or organization that affect or be affected by a program. Also, stakeholder is anyone who has interest in a project or will affected by its deliverables or output. Carley (2016) indicated that stakeholder management is critical to the success of every project in every organization. Stakeholders are describing as individuals grouped together with the purpose of achieving the objectives of the organization. How long the project takes will to a large extend determine the nature and number of stakeholders. Moodley (2012) therefore argues that it's important to continuously review and identify them within the life of the project.

A study by Mugo (2014) clarifies that stakeholder engagement occurs within the several stages of cycle of the project and at several societal levels in many forms. The range is continuous through a path that includes addition of programmes and projects to sharing information, empowerment, making decisions, coordination and consultancy. According to the study, stakeholder's engagement is an approachable path during a project or an evaluation tool at the end of the project. Stakeholder's engagements is used by people or communities to come together through project developments. They use it as a learning process at the end of the project by gaining the experience, skills and knowledge (Albert, 2004).

Great Journs
ISSN: 2328-4870
Vol.1 No.2, April 2024

Journal homepage: www.greatjourns.com

3.0 METHODOLOGY

3.1 Study Design

This study employs a mixed-methods approach, combining quantitative surveys and qualitative interviews to gather comprehensive data on the frameworks and practices for IT governance and compliance within MIS environments in Uasin Gishu County.

3.2 Data Collection Methods

A structured survey questionnaire was distributed to IT professionals and managers within various organizations in Uasin Gishu County to gather quantitative data on their experiences with IT governance and compliance frameworks. The survey will utilize Likert-scale questions to measure perceptions and attitudes towards the implementation and effectiveness of these frameworks. Semi-structured interviews was conducted with a subset of these professionals to delve deeper into their experiences, including challenges faced, strategies for compliance, and suggestions for improvement. These interviews will provide rich qualitative insights into the nuanced dynamics of IT governance and compliance practices within the region (Bryman & Bell, 2015).

3.3 Sample Selection

The study will target a representative sample of IT professionals and managers across various organizations and sectors within Uasin Gishu County, ensuring diversity in perspectives and experiences with IT governance and compliance. According to Mugenda & Mugenda (2003), 30% of the target population is sufficient for research; hence, the sample population was 75. Both organizations with mature IT governance frameworks and those in the early stages of implementation was included to allow for comparative analysis and a comprehensive understanding of IT governance and compliance practices.

3.4 Data Analysis

Quantitative data from the surveys was analyzed using statistical methods, including descriptive statistics and inferential analysis, to identify patterns and correlations between the adoption of IT governance frameworks, compliance levels, and organizational outcomes. Qualitative data from the interviews was analyzed using thematic analysis to identify recurring themes, patterns, and insights related to IT governance and compliance practices, challenges, and their impact on MIS environments (Braun & Clarke, 2006).

3.5 Ethical Considerations

Ethical considerations were paramount throughout the research process, ensuring confidentiality, anonymity, and informed consent of participants. Approval was sought from relevant institutional review boards to ensure compliance with ethical guidelines and standards for conducting research involving human subjects.

Great Journs
ISSN: 2328-4870
Vol.1 No.2, April 2024

Journal homepage: www.greatjourns.com

4.0 RESULTS AND DISCUSSIONS

4.1 Risk Management Processes

Table 4.1 Risk Management Processes

Statements	SA	A	U	D	SD	N
Review and evaluate the documentation of risk assessments	23	10	21	15	6	**75**
						100%
	31%	13%	28%	20%	8%	
Assess the strategies and plans implemented to mitigate identified risks	16	19	14	11	15	**75**
						100%
	21%	25%	19%	15%	20%	
Analyze internal and external audit reports	24	15	5	20	11	**75**
						100%
	32%	20%	7%	27%	15%	
Evaluate the frequency and regularity with which risk assessments are conducted	20	23	6	12	14	**75**
						100%
	27%	31%	8%	16%	19%	

According to table 4.1, the following were the findings, Regarding Review and evaluate the documentation of risk assessments: This statement referred to the organization's practice of examining the documentation associated with risk assessments. Respondents were asked to assess whether the documentation was reviewed and evaluated effectively. The data showed that out of the 75 respondents, 23 (31%) strongly agreed, 10 (13%) agreed, 21 (28%) were undecided, 15 (20%) disagreed, and 6 (8%) strongly disagreed. Assess the strategies and plans implemented to mitigate identified risks: This statement pertained to the organization's assessment of the strategies and plans put in place to address identified risks. The data revealed that out of the 75 respondents, 16 (21%) strongly agreed, 19 (25%) agreed, 14 (19%) were undecided, 11 (15%) disagreed, and 15 (20%) strongly disagreed. Analyze internal and external audit reports: This statement focused on the organization's practice of analyzing both internal and external audit reports. According to the data, out of the 75 respondents, 24 (32%) strongly agreed, 15 (20%) agreed, 5 (7%) were undecided, 20 (27%) disagreed, and 11 (15%) strongly disagreed. Evaluate the frequency and regularity with which risk assessments are conducted: This statement concerned the organization's

evaluation of the frequency and regularity of conducting risk assessments. The data showed that out of the 75 respondents, 20 (27%) strongly agreed, 23 (31%) agreed, 6 (8%) were undecided, 12 (16%) disagreed, and 14 (19%) strongly disagreed.

4.2 Performance and Efficiency

Table 4.2 Performance and Efficiency

Statements	SA	A	U	D	SD	N
Evaluate the presence and effectiveness of continuous improvement initiatives	29	19	9	8	10	**75**
	39%	25%	12%	11%	13%	**100%**
Measure the efficiency of resource utilization in IT governance activities	34	15	11	12	3	**75**
	45%	20%	15%	16%	4%	**100%**
Assess the extent and effectiveness of the implementation of IT governance frameworks	27	17	8	14	9	**75**
	36%	23%	11%	19%	12%	**100%**
Assess the extent and effectiveness of the implementation of IT governance frameworks	25	16	13	17	4	**75**
	33%	21%	17%	23%	5%	**100%**

According to table 4.2 the following were the findings, Evaluate the presence and effectiveness of continuous improvement initiatives: Out of the 75 respondents, 29 (39%) strongly agreed, 19 (25%) agreed, 9 (12%) were undecided, 8 (11%) disagreed, and 10 (13%) strongly disagreed regarding the presence and effectiveness of continuous improvement initiatives in IT governance activities. Measure the efficiency of resource utilization in IT governance activities: Among the 75 respondents, 34 (45%) strongly agreed, 15 (20%) agreed, 11 (15%) were undecided, 12 (16%) disagreed, and 3 (4%) strongly disagreed regarding the efficiency of resource utilization in IT governance activities. Assess the extent and effectiveness of the implementation of IT governance

frameworks: Regarding the extent and effectiveness of the implementation of IT governance frameworks, 27 (36%) respondents strongly agreed, 17 (23%) agreed, 8 (11%) were undecided, 14 (19%) disagreed, and 9 (12%) strongly disagreed out of the 75 respondents. Assess the extent and effectiveness of the implementation of IT governance frameworks: Similarly, regarding the extent and effectiveness of the implementation of IT governance frameworks, 25 (33%) respondents strongly agreed, 16 (21%) agreed, 13 (17%) were undecided, 17 (23%) disagreed, and 4 (5%) strongly disagreed out of the 75 respondents.

4.3 Level of Stakeholder Engagement

Table 4.3 Level of Stakeholder Engagement

Statements	SA	A	U	D	SD	N
Assess the participation of stakeholders in governance structures,	21	17	5	20	12	**75**
	28%	23%	7%	27%	16%	**100%**
Evaluate the availability, frequency, and effectiveness of training and awareness programs aimed at stakeholders	25	20	11	12	7	**75**
	33%	27%	15%	16%	9%	**100%**
Analyze the effectiveness of communication channels and feedback mechanisms used	19	21	15	14	6	**75**
	25%	28%	20%	19%	8%	**100%**
Review the quality and accessibility of documentation and reporting related to IT governance processes	26	18	10	6	15	**75**
	35%	24%	13%	8%	20%	**100%**

According to table 4.3 the following were the findings, Assess the participation of stakeholders in governance structures: Out of the 75 respondents, 21 (28%) strongly agreed, 17 (23%) agreed, 5 (7%) were undecided, 20 (27%) disagreed, and 12 (16%) strongly disagreed regarding the participation of stakeholders in governance structures. Evaluate the availability, frequency, and effectiveness of training and awareness programs aimed at stakeholders: Among the 75

respondents, 25 (33%) strongly agreed, 20 (27%) agreed, 11 (15%) were undecided, 12 (16%) disagreed, and 7 (9%) strongly disagreed regarding the availability, frequency, and effectiveness of training and awareness programs aimed at stakeholders. Analyze the effectiveness of communication channels and feedback mechanisms used: Regarding the effectiveness of communication channels and feedback mechanisms, 19 (25%) respondents strongly agreed, 21 (28%) agreed, 15 (20%) were undecided, 14 (19%) disagreed, and 6 (8%) strongly disagreed out of the 75 respondents. Review the quality and accessibility of documentation and reporting related to IT governance processes: Out of the 75 respondents, 26 (35%) strongly agreed, 18 (24%) agreed, 10 (13%) were undecided, 6 (8%) disagreed, and 15 (20%) strongly disagreed regarding the quality and accessibility of documentation and reporting related to IT governance processes.

5.1 Conclusion

The study concluded that, there were existing risk management processes within MIS environments in Uasin Gishu County. However, there were areas for improvement, such as enhancing the identification and mitigation of risks, ensuring alignment with organizational objectives, and fostering a culture of risk awareness and responsiveness.

The evaluation indicated that IT governance practices within MIS environments in Uasin Gishu County exhibit varying levels of performance and efficiency. While some practices effective in ensuring alignment between IT and business objectives, there opportunities for enhancing efficiency, transparency, and accountability in decision-making processes.

The investigation suggested that there was a need to enhance stakeholder engagement in IT governance processes within MIS environments in Uasin Gishu County. Effective engagement foster collaboration, communication, and consensus-building among stakeholders, leading to improved decision-making and alignment of IT initiatives with organizational goals.

5.2 Recommendations

The study recommended that: Organizations should implement processes to ensure thorough and effective review and evaluation of documentation related to risk assessments. This includes establishing clear guidelines and standards for documentation review and providing adequate training to staff members responsible for this task.

It is essential to assess and enhance the effectiveness of strategies and plans implemented to mitigate identified risks. This involves conducting regular reviews of risk mitigation measures, identifying gaps or deficiencies, and implementing corrective actions as necessary to strengthen risk management practices.

Organizations should focus on improving the analysis of both internal and external audit reports to identify areas for improvement and address compliance issues effectively. This include investing in tools and technologies to streamline the audit analysis process and enhance the accuracy and reliability of findings.

.

References

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.

Bryman, A., & Bell, E. (2015). *Business Research Methods* (4th ed.). Oxford University Press.

Çelik, H. E., & Yilmaz, V. (2011). Extending the technology acceptance model for adoption of e-shopping by consumers in Turkey. *Journal of Electronic Commerce Research*, *12*(2), 152.

Cetindamar, D. (2016). IT Governance in the Public Sector: The Case of Turkey. *Public Administration and Information Technology*, 15(4), 221-240.

Delves, D., & Patrick, B. (2010). Agency theory summary. *Delves Group Corporate*.

Hoogervorst, J. A. P. (2019). Enterprise Governance and Enterprise Engineering. Springer.

Khuswaha, K., & Pillai, P. (2011). IT Governance in South African Organizations: A Case Study Approach. *African Journal of Information Systems*, 4(2), 123-140.

Marnewick, C., & Labuschagne, L. (2011). The impact of the COBIT framework on IT governance in South African organizations. *South African Journal of Business Management*, 42(3), 27-36.

McColgan, P. (2001). Agency theory and corporate governance: a review of the literature from a UK perspective. *Department of Accounting & Finance, University of Strathclyde, Glasgow*.

McDermott, O., Charlesworth, G., Hogervorst, E., Stoner, C., Moniz-Cook, E., Spector, A., ... & Orrell, M. (2019). Psychosocial interventions for people with dementia: a synthesis of systematic reviews. *Aging & mental health*, *23*(4), 393-403.

Mugenda, O. M., & Mugenda, A. G. (2003). *Research Methods*: Quantitative and Qualitative Approaches. Acts Press.

Murray, A. (2011) *White Paper: PRINCE2 and Governance*, November 2011, London, the Stationary Office.

Weill, P., & Ross, J. (2014). IT Governance: How top performers manage IT decision rights for superior results. Boston, MA: *Harvard Business School Press.*

Yilmaz, V. (2011). Improving IT Governance in Turkish Public Sector: Challenges and Opportunities. *International Journal of Public Sector Management*, 24(5), 423-437.