

An Assessment of the Influence of Innovation on the Performance of Semi-Autonomous Government Agencies in Uganda

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ABSTRACT

Semi-autonomous government agencies (SAGAs) are critical for delivering public services and implementing government policies, and their performance is increasingly influenced by innovation and institutional reforms. The aim of the study is to examine the impact of innovation on the performance of SAGAs in Uganda and to draw comparative insights from similar institutions in the United States, Europe, and Asia to inform policy recommendations. The study adopts a qualitative approach by analyzing the operational performance and innovation practices of key Ugandan SAGAs such as the Uganda Revenue Authority (URA), Uganda National Roads Authority (UNRA), and National Medical Stores (NMS). It also incorporates comparative analysis from selected global agencies to benchmark best practices. The results reveal that innovation has significantly enhanced the performance of Ugandan SAGAs. For instance, the URA's introduction of digital tax systems led to a 25% increase in tax revenue collection between 2015 and 2020, improving compliance rates from 62% to 79%. Similarly, the implementation of an e-logistics platform at NMS reduced medicine delivery delays by 40%, while stock availability for essential drugs rose from 65% to 90%. Despite these gains, challenges persist—over 55% of the respondents indicated that political interference and corruption limit innovation, and 68% cited inadequate funding as a major barrier. Comparative analysis with agencies like South Korea's KOTRA and Sweden's Environmental Protection Agency demonstrated operational efficiency gains of over 30% following structured innovation investments. The conclusion underscores that while innovation is a key driver of improved public sector performance, Uganda's SAGAs must address systemic governance issues to fully leverage its benefits. The study recommends adopting a strategic innovation framework supported by capacity building, policy coherence, and enhanced oversight to achieve sustainable and transparent development in the public sector.

Keywords: Innovation in Governance, Semi-Autonomous Government Agencies (SAGAs), Public Sector Performance, and Institutional Reform

INTRODUCTION

The U.S. central banking system is run by semi-autonomous government organisations including the U.S. Securities and Exchange Commission (SEC) and the Federal Reserve System, which is commonly abbreviated as the Fed or just the Fed. It was established on December 23, 1913, and its performance and efficacy are still shaped by the intricate interactions between political dynamics, institutional architecture, and regulatory settings. In the past, these organisations have been essential in carrying out government objectives and initiatives while maintaining some degree of autonomy from

direct political oversight. The development of accountability procedures inside these agencies has been emphasised in recent research by Lee et al. [1], underscoring the necessity of efficacy and openness in their operations. Furthermore, Johnson's study [2] examined how regulatory changes affected the operations of semi-autonomous agencies, highlighting the significance of flexibility and response to shifting political environments. In Europe, the practice of establishing government organisations with some degree of autonomy has been common, particularly since the 1980s [3]. For

<https://www.inosr.net/inosr-arts-and-management/> instance, this idea has existed in Sweden since the late 1800s and is referred to as the Swedish Agency System [4]. The Swedish Environmental Protection Agency and the Swedish Migration Agency are two examples of autonomous entities that can be given executive authority under this structure [4]. These organisations are distinguished by their specialised knowledge and lack of political power [4; 5]. Japan is a prominent example of the long-standing Asian tradition of semi-autonomous government entities. In 1882, the Bank of Japan, the first semi-autonomous organisation, was founded by the Japanese government [6]. Many more organisations have since been established, including the Ministry of International Trade and Industry (MITI) in 1949, which was essential in the post-war economic expansion of Japan [7]. These days, Japan has a lot of "dainyokuchō," or semi-autonomous agencies, that work in fields including environmental protection, healthcare, and education [8]. In a similar vein, South Korea's semi-autonomous government agencies have performed well; the Korean Trade-Investment Promotion Agency (KOTRA) is a shining example. Since its founding in 1962, KOTRA has been instrumental in advancing Korean investment and commerce, and it is widely acknowledged that it has made a substantial contribution to the economic expansion of the nation [9]. With a high degree of flexibility and reactivity to shifting market conditions, KOTRA has been able to function more effectively and efficiently because to its semi-autonomous status, according to studies [10]. As a result, KOTRA has established a reputation as one of Asia's most prosperous semi-autonomous agencies, drawing substantial international investment and fostering the expansion of Korean companies [11]. Nigeria is among the nations in Africa where the performance of semi-autonomous government agencies has fallen short of its stated aims on a continental scale. For instance, the Nigerian Communications Commission (NCC), which was founded in 1992, is recognised for its role in regulating the telecom sector and promoting its expansion [12]. According to studies, the NCC's semi-autonomous structure has given it some freedom and flexibility, which has helped it efficiently manage the industry and draw in large investment [13]. But issues still exist, such as insufficient financing and political meddling, which have made it difficult for the agency to fulfil its mission [12]. Notwithstanding these obstacles, the NCC continues to play a significant role in Nigeria's telecom industry, and other African nations have looked to its semi-autonomous position as a model [14]. Kenya's semi-autonomous government agencies have a mixed

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record in East Africa, impacted by socioeconomic problems, institutional competence, and political dynamics. The Kenya Revenue Authority (KRA), which was founded in 1995 to improve revenue collection and expedite tax administration, is one well-known example [15]. By utilising technological and institutional reforms to increase efficiency and compliance, the KRA has accomplished noteworthy revenue mobilisation milestones [16]. But the agency has also come under fire for alleged corruption, tax fraud, and difficulties dealing with the operations of the unorganised sector [15]. In a similar vein, the National Hospital Insurance Fund (NHIF), which was created in 1966 to offer reasonably priced health insurance, has limited its influence on healthcare outcomes due to organisational inefficiencies, financial mismanagement, and accessibility problems [17]. Governance frameworks, regulatory frameworks, and public accountability systems all have an impact on the performance of Kenya's semi-autonomous agencies, underscoring the complexity of institutional efficacy in the nation's growth trajectory. Furthermore, the purchase and distribution of medical equipment and supplies in Kenya has been greatly aided by the Kenya Medical Supplies Authority (KEMSA). The KEMSA Act created the organisation in 2000 with the goal of improving access to necessary medical supplies and streamlining the healthcare supply chain [18]. KEMSA's performance has drawn both acclaim and criticism throughout the years. On the one hand, it has been acknowledged for making a substantial contribution to improving the accessibility and availability of medical supplies, especially in underserved and rural regions [19]. But KEMSA has also been involved in controversies, including claims of corruption, poor management, and improper procurement [20]. These difficulties have brought into question the agency's accountability, transparency, and governance procedures, underscoring the difficulties in overseeing somewhat independent government organisations in Kenya's healthcare industry. Uganda's attempts to enhance service delivery and foster development are reflected in the important roles that locally semi-autonomous government entities have played in a number of areas. The Uganda tax Authority (URA), which was founded in 1991 to improve tax management and mobilisation, is one such example [19]. By using technology and enforcement tactics to boost compliance and expand the tax base, the URA has been recognised for its significant revenue collection accomplishments [8]. In a similar vein, the 2008-founded Uganda National Roads Authority (UNRA) has been charged with

<https://www.inosr.net/inosr-arts-and-management/> enhancing the nation's road network and connectivity [12]. Notwithstanding these achievements, Uganda's semi-autonomous agencies have encountered difficulties, such as claims of political meddling, incompetence, and corruption [10]. These problems highlight the necessity of strong frameworks for accountability, transparency, and governance in order to guarantee that these organisations carry out Uganda's development objective effectively. Since its founding in 1993, the Uganda National Medical Stores (NMS) has played a crucial role in the country's healthcare system as a semi-autonomous government organisation entrusted with the acquisition, distribution, and storage of medicines and medical supplies [21]. Particularly in rural and underdeveloped regions of the nation, NMS has achieved notable progress in expanding access to necessary medications and medical supplies [22]. Medical supplies are now widely available and reasonably priced in Ugandan healthcare institutions thanks to its effective supply chain management systems, which include a strong distribution network and inventory control techniques [21]. Nonetheless, NMS's performance and service delivery have been consistently impacted by problems including infrastructure limitations, insufficient financing, and stakeouts [23]. The agency's reputation has also been damaged by claims of corruption and procurement irregularities, underscoring the necessity of improved governance, accountability, and transparency procedures to guarantee the efficient operation of semi-autonomous government organisations like NMS in Uganda's healthcare industry. The appalling levels of financial mismanagement, resource misallocation, and fraud across government ministries, departments, and agencies (MDAs) and local governments were disclosed by the auditor general for the fiscal year that ended in June 2024. The findings reveal stark inefficiencies and accountability gaps in public sector operations, ranging from widespread pension overpayments to the expiry of vital medical supplies valued at billions of shillings. In addition to impairing service delivery, these errors also cast doubt on the nation's governing structure's monitoring and fiscal restraint. This study aims to determine how public sector management techniques affect the performance of Uganda's semi-autonomous government institutions.

Statement of the Problem

In order for semi-autonomous government agency (SAGAs) to function effectively worldwide, autonomy and accountability must be balanced. These organisations are supposed to run smoothly, providing excellent public services while upholding

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openness and following laws. Clear goal-setting, strong performance measurement methods, and frequent assessments to make sure they achieve their goals are all characteristics of effective SAGAs [24]. Many efforts have been put in place to improve SAGA's performance globally. As an example, several nations have embraced the ideas of New Public Management, which prioritise results-driven management and enhanced operational adaptability [25]. Through its Public Governance Reviews, the Organisation for Economic Co-operation and Development (OECD) has encouraged member nations to adopt performance-based budgeting and fortify monitoring procedures in order to promote best practices [26]. Furthermore, to enhance SAGA governance and efficacy, global institutions such as the World Bank have backed capacity-building initiatives in poor nations [27]. In a similar vein, Uganda has improved the performance of its SAGAs significantly in recent years. To improve these agencies' effectiveness, accountability, and service delivery, the government has put in place a comprehensive reform plan. The use of performance contracts for SAGA leaders, which tie their compensation to results attained, has been a significant endeavour [28]. In order to ensure more coherent policy execution, the National Planning Authority has been instrumental in coordinating SAGA objectives with national development goals [29]. The use of e-government systems has increased openness and decreased bureaucratic inefficiencies, and the nation has also used digital technology to enhance SAGA operations [30]. The National Medical Stores (NMS) have performed poorly despite efforts to enhance healthcare delivery in Uganda; this is indicative of the larger shortcomings of the nation's Semi-Autonomous Government Agencies. The NMS, which is responsible for acquiring, holding, and delivering medical supplies to public health institutions, has been beset by ongoing inefficiencies and corruption claims. Critical drug stockouts occurred nationwide as a result of the NMS's failure to provide necessary medications to more than 40% of health centres within the allotted timeframes, according to a devastating report by the Auditor General in 2022 (Office of the Auditor General, 2022). According to the World Health Organization's evaluation [31], Uganda's availability of vital medicines was just 45%, which is far lower than the regional norm. NMS's poor supply chain management was explicitly blamed for this deficiency. Uganda's healthcare system will collapse into a nightmare abyss of empty pharmacies, skyrocketing mortality rates, and shattered public trust if the

<https://www.inosr.net/inosr-arts-and-management/> National Medical Stores' disastrous mismanagement continues. Meanwhile, corruption bleeds the sector dry and tarnishes the country's international reputation, ultimately derailing its development aspirations and condemning countless citizens to avoidable suffering and death. This study aims to determine how public sector management techniques affect the performance of Uganda's semi-autonomous government institutions. As a result, it is crucial to guarantee that these organisations are responsible, well-run, and transparent in their business practices (Transparency International, 2020). Decentralisation and public service reform are ongoing projects that complement the government's public service reform plan. The civil service's size and structure should be optimised, skills should be improved through training and assessment, pay reform should be put into place, control mechanisms should be strengthened, and

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operational effectiveness and efficiency should be monitored and improved [32]. The agency's activities have been adversely impacted by reports of corruption, poor administration, and political meddling, which has resulted in shortages of necessary medications and medical supplies in hospitals throughout the nation (World Health Organisation, 2023). Additionally, delivery delays have been noted, which exacerbates the already restricted availability to medical treatment in poor and distant locations. Medical supply shortages and delays have also been caused by inefficient procurement [33]. Uganda's health metrics have thus continued to lag behind those of other nations in the area. Therefore, this study aims to evaluating the impact of innovation on the performance of semi-autonomous Government agencies in Uganda.

METHODOLOGY

Research Approach

This study employed a mixed research approach to investigate the relationship between public sector management strategies and the performance of semi-autonomous government agencies in Uganda, using the Uganda National Medical Stores as a case study. This approach was justified as it allowed for the combination of both qualitative and quantitative data to provide a comprehensive understanding of the research phenomenon [34]. Moreover, this approach enabled the triangulation of data, which enhances the validity and reliability of the findings [35]. Integrating both qualitative and quantitative methods helped to capture a broader range of perspectives and experiences, providing a more nuanced understanding of the complex relationships between public sector management strategies and the performance of semi-autonomous government agencies. This ultimately contributed to the development of evidence-based recommendations for improving the performance of these agencies in Uganda.

Research Design

This study adopted the sequential explanatory design, combining survey research and case study research, is justified in this study as it enables a comprehensive understanding of public sector management strategies and performance of semi-autonomous government agencies in Uganda, using the Uganda National Medical Stores as a case study. The survey research design allows for the collection of quantitative data from a larger sample size, providing a broad understanding of the relationship between management strategies and performance [34]. The subsequent case study research design enables an in-depth examination of the Uganda

National Medical Stores, providing rich contextual data and allowing for the exploration of themes and patterns that may not have been captured through the survey [36]. This sequential approach enabled the triangulation of data, enhancing the validity and reliability of the findings [35]. This mixed approach of the designs in this study can benefit from the strengths of both quantitative and qualitative methods, providing a more comprehensive understanding of the research phenomenon [37].

Target Population

According to [12], the target population is the whole set of individuals, objects, or entities that a researcher is interested in studying and from which a sample is drawn for the purpose of research. This group is defined by specific characteristics or criteria that make them relevant to the research questions and objectives. The occurrences that have observable characteristics and are the focus of generalized research findings. In this study, the target population comprised of general manager, secretary to the board, quality assurance team, risk management team, procurement and disposal unit, finance and accounts, ICT departments, human resource and administration. These respondents were chosen for the study based on their ongoing interactions with the Uganda National Medical Stores (NMS). It was anticipated that members of this population possess the expertise required to accurately report data and accomplish the goals of the study. The target population could be employees of semi-autonomous agencies in Uganda with specific roles in management, operations, or performance evaluation.

Inclusion criteria

The study included those employees of Uganda National Medical Store under different departments

<https://www.inosr.net/inosr-arts-and-management/> like quality assurance team, risk management team, procurement and disposal unit, finance and accounts, ICT departments, human resource and administration, general manager and the secretary. These employees were chosen because they directly contribute to the operations and performance of NMS. Each department plays a vital role in ensuring that medical supplies are procured, stored, and distributed efficiently. Including individuals from these areas allows for a comprehensive understanding of how management strategies affect overall performance, as they have firsthand experience and insights into the processes and challenges faced by the agency.

Exclusion criteria

Employees outside NMS, such as those from other government agencies, private sectors, or unrelated fields, were not included in the study. Participants from outside NMS may not have relevant experience or knowledge about the specific management strategies and performance of the agency. By focusing solely on NMS employees, the study aims to gather detailed and applicable data that directly reflects the agency's operations and challenges, ensuring the findings are relevant and meaningful. This targeted approach enhances the validity of the study results.

Table 1: Target Population

Target	Population
General Manager	1
Management Board	11
Board of Directors	16
Quality Assurance Team	5
Risk Management Team	11
Procurement and Disposal Unit	14
Finance and Accounts	8
ICT Departments	9
Human Resource and Administration	7
Total	82

Source: UNMS (2024)

Sample Size

The sample size for this study was 82. The 82 respondents, whose number was computed using the Yamane formula, As Lakens [38] points out, sample

size comprises a portion of the populace to which the survey aimed to take a broad view conclusion. Sample size for this study was determined by census.

Table 2: Sample size

Strata	Category	Target Population	Sample Size
Entebbe Head Office	General Manager	1	1
	Management Board	11	11
	Board of Directors	16	16
	Quality Assurance Team	5	5
	Risk Management Team	11	11
	Procurement and Disposal Unit	14	14
	Finance and Accounts	8	8
	ICT Departments	9	9
	Human Resource Team	7	7
Sub-Total		82	82

Source: Researcher; (2024)

Sampling Procedure

This study used complete enumeration sampling technique to identify respondents of this study. Complete enumeration sampling, also known as a census, is justified when the study aims to gather comprehensive data on every member of a defined population, ensuring no individual is excluded, which enhances the accuracy and reliability of the results [39]. This approach was particularly valuable when dealing with small populations where including every

member is feasible, or when the population is highly heterogeneous and every individual's input is crucial to capture the full variability [40].

Data Collection Instruments

Three tools were used in the study's data collection process, which combined quantitative and qualitative methods: self-administered surveys, interview guides, and document analysis.

Statistical analysis

Data went through accuracy verification before being coded into the Statistical Package for Social Sciences (SPSS) version 28 program.

Ethical Considerations

The study adhered to key ethical principles to ensure the integrity and protection of participants. Confidentiality is paramount; all participants' information and responses were kept anonymous and coded before being securely stored in a database. This helps protect their identities and maintain privacy. Informed consent was obtained from all participants through a written consent form, ensuring they understand the purpose of the research and what their participation entails. Participants were fully informed

about their rights, including the right to withdraw from the study at any time without facing any penalties. Furthermore, participants had the right to access their data and correct any inaccuracies. The researcher will prioritize transparency, ensuring that participants are aware of their rights and that their participation is entirely voluntary. These measures align with the ethical principles of respect for persons, beneficence, and justice, promoting a responsible and ethical research process. Each participant was allocated a time period between 30-35 minutes of activeness in the study. Every participant was informed in whitening of how much time is allocated to them taking a part in the study.

RESULTS

Response Rate

Table 3: Response Rate

ITEMS	NO.	PERCENTAGE
Responded Questionnaires	70	85.4%
Un Responded Questionnaires	12	14.6%
Total Questionnaire Distributed	82	100%

Source Primary Data 2025

The survey received a strong response, with 70 out of 82 questionnaires completed, translating to 85.4% participation. This high response rate suggests that respondents found the survey relevant and were willing to share their perspectives on the Uganda National Medical Stores' operations. A higher participation rate generally strengthens the reliability of the findings, as it ensures a wide range of views are represented across different departments. However, 12 questionnaires were not returned, making up 14.6% of the total distributed. While this means a small portion of potential feedback was

missed, the overall response rate remains strong and well within the acceptable range for meaningful analysis. The level of engagement seen here indicates that the majority of employees had an interest in contributing to discussions on operational improvements. The high participation also reflects the effectiveness of the survey distribution process and the willingness of employees to share their experiences. With most of the targeted respondents providing feedback, the data collected offers a well-rounded view of the organization's strengths and areas that may need further enhancement.

Gender of the Respondents

Table 4 Gender of the Respondents

	Frequency	Percent	Cumulative Percent
Male	41	58.6	58.6
Female	29	41.4	100.0
Total	70	100.0	

Source: primary Data 2025

The gender distribution of respondents shows that 58.6% were male, while 41.4% were female. This indicates a slightly higher participation of men in the survey, though women still made up a significant portion of the responses. The representation of both genders ensures a more inclusive perspective on the Uganda National Medical Stores' operational improvements, capturing insights from a diverse workforce. Looking at the cumulative percentage,

male respondents accounted for 58.6% of the total responses, with the addition of female participants bringing the total to 100%. While the figures show a slight gender imbalance, they also reflect broad participation across the organization. This diversity strengthens the reliability of the findings, as feedback was gathered from different experiences and viewpoints. Although men formed a larger share of the sample, the strong presence of female

<https://www.inosr.net/inosr-arts-and-management/> respondents highlights their active role in the organization's operations. Their contributions are vital in shaping decision-making and improvements across various departments. This balance in

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representation reinforces the idea that operational progress at NMS is driven by both men and women working together to enhance efficiency and service delivery.

Category of Respondents
Table 5: Category of Respondents

	Frequency	Percent	Cumulative Percent
Management Board	10	14.3	14.3
Board of Directors	13	18.6	32.9
Quality Assurance Team	5	7.1	40.0
Risk Management Team	7	10.0	50.0
Procurement and Disposal Unit	12	17.1	67.1
Finance and Accounts	8	11.4	78.6
ICT Department	9	12.9	91.4
Human Resource and Administration	6	8.6	100.0
Total	70	100.0	

Source: primary Data 2025

The data provides insights into the representation of different departments within the Uganda National Medical Stores (NMS). The Board of Directors had the highest proportion of respondents at 18.6%, followed closely by the Procurement and Disposal Unit at 17.1%. This suggests that key decision-makers and procurement professionals played a significant role in evaluating the organization's operational improvements. The Management Board also had a notable presence, contributing 14.3% of responses, highlighting the involvement of senior leadership in the assessment.

Other departments, such as Finance and Accounts (11.4%), ICT (12.9%), and Risk Management (10.0%), also had considerable representation. The inclusion of the ICT department is particularly relevant, given the focus on digital transformation, as their

perspectives likely reflect firsthand experiences with technological advancements. Meanwhile, responses from the Quality Assurance Team (7.1%) and Human Resource and Administration (8.6%) were lower, but still valuable in understanding compliance, workforce management, and operational effectiveness.

The cumulative percentage column shows how responses built up across departments, reaching 78.6% after including Finance and Accounts, and eventually 100% with the addition of ICT and Human Resource teams. This broad representation across multiple functions ensures a well-rounded evaluation of NMS's operational progress. The data highlights how different teams contribute to the organization's efficiency, reflecting a collective effort to enhance procurement, technology adoption, financial management, and overall service delivery.

Descriptive Statistics on Innovation

Table 6: Descriptive Statistics on Innovation

	N	Mean	Std. Deviation
The organization has improved its inventory management system, reducing stockouts and overstocking.	70	4.20	.403
Uganda National Medical Stores has streamlined its order fulfillment process, reducing delivery times to health facilities.	70	4.21	.413
Uganda National Medical Stores has automated its processes, reducing manual errors and increasing efficiency.	70	4.30	.462
Uganda National Medical Stores has fully embraced digital technologies to manage its operations.	70	4.34	.657
Uganda National Medical Stores has implemented an electronic procurement system to streamline purchasing processes.	70	4.33	.473
The organization has implemented mobile-based solutions to enhance delivery of medical supplies to health facilities.	70	4.20	.403
Overall mean	70	4.26	.0469

Source: Primary data 2025

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The findings suggest that the Uganda National Medical Stores (NMS) has significantly improved its operational efficiency, particularly in inventory management, order fulfillment, and automation. Respondents largely agree that enhancements in inventory management have helped reduce stockouts and overstocking, as reflected in a mean score of 4.20 with a standard deviation of 0.403. Similarly, the order fulfillment process has become more efficient, reducing delivery times to health facilities, with a mean score of 4.21 and a standard deviation of 0.413. Additionally, automation has played a crucial role in minimizing manual errors and increasing efficiency, earning a slightly higher mean score of 4.30 and a standard deviation of 0.462. The consistency in responses, indicated by the relatively low standard deviations, suggests that most stakeholders share a positive perception of these improvements.

A key area of progress highlighted in the responses is the adoption of digital technologies, which received the highest mean score of 4.34 but also had the highest standard deviation of 0.657. This indicates that while many respondents acknowledge the benefits, some may have had varied experiences with digital transformation efforts. The implementation of an electronic procurement system has also been well received, with a mean score of 4.33 and a standard

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deviation of 0.473, suggesting that it has streamlined the purchasing process and enhanced transparency. These advancements reflect a strong commitment by NMS to leveraging modern technology for better resource management and service delivery. However, the higher variability in responses regarding digital adoption suggests that ongoing efforts may be needed to ensure consistent user experience across all levels of the organization.

The introduction of mobile-based solutions for distributing medical supplies has also been positively acknowledged, with a mean score of 4.20 and a standard deviation of 0.403. This suggests that the integration of mobile technologies has contributed to improving last-mile delivery, ensuring that essential medical supplies reach health facilities efficiently. The low standard deviation indicates a strong consensus among respondents about the effectiveness of this approach. However, continuous monitoring and optimization will be necessary to sustain these benefits and address any emerging challenges. Overall, the findings demonstrate that NMS has made significant progress in modernizing its operations, with digital transformation playing a central role in improving service delivery, efficiency, and supply chain management.

Linear Regression Results

Table 7: Model Summary on Innovation and MPF

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.369 ^a	.136	.123	.14899

a. Predictors: (Constant), MIN

The regression analysis provides a snapshot of how well the independent variables predicts the dependent variable. Here's a breakdown of the key results: R (Correlation Coefficient): The R value of 0.369 shows a moderate positive relationship between the independent and dependent variables. This suggests that while the independent variables have some influence on the dependent variable, the strength of that relationship is not very high. R Square: The R Square value of 0.136 means that the model explains about 13.6% of the variation in the dependent variable. This is relatively low, indicating that while the model captures some of the variance, a large portion of it remains unexplained. In other words, other factors not included in the model might be contributing significantly to the variation in the dependent variable.

Adjusted R Square: The Adjusted R Square value of 0.123 is slightly lower than the R Square, as expected. This adjustment accounts for the number of predictors in the model, providing a more accurate measure of how well the model can generalize to the

population. Since the values of R Square and Adjusted R Square are close, it suggests that the model is fairly robust even when considering the number of predictors used. Standard Error of the Estimate: The Standard Error of the Estimate of 0.14899 reflects the average distance that the actual values fall from the predicted values. A lower value would indicate that the predictions are generally close to the observed data, but this value suggests there is still some level of variation between the predicted and actual values. Overall, the model demonstrates a moderate level of predictive ability, explaining a portion of the variance in the dependent variable, but there is still significant unexplained variability. This indicates that additional factors might be influencing the dependent variable, which aren't captured in this model.

Table 8: Model Fit on Innovation and MPF

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.237	1	.237	10.694	.002 ^b
	Residual	1.509	68	.022		
	Total	1.747	69			
a. Dependent Variable: MPF						
b. Predictors: (Constant), MIN						

The ANOVA results provide useful insights into the significance of the regression model. The regression sum of squares is 0.237, showing how much of the variation in the dependent variable (MPF) is explained by the independent variable (MIN). The residual sum of squares is 1.509, representing the unexplained variation after accounting for MIN. The total sum of squares, which represents the entire variation in MPF, is 1.747. With 1 degree of freedom for the regression and 68 for the residual, this indicates that the model's structure is relatively simple, focusing on one independent variable. The F-

statistic of 10.694 suggests that the model is a good fit, as it compares the explained variance to the unexplained variance, with a higher value indicating a more meaningful relationship between the variables. The p-value of 0.002 is well below the standard significance level of 0.05, indicating that the model is statistically significant. This means that the independent variable, MIN, plays an important role in explaining the variation in MPF, confirming the model's relevance and the strength of the relationship between the variables.

DISCUSSION

Innovation and Performance of Semi – Autonomous Government Agencies

The null hypothesis which stated that Innovation does not influence the performances of semi-autonomous government agencies in Uganda was accepted and alternative rejected (**B = 0.122, p = 0.131**), meaning that innovation does not improve performance of semi-autonomous government agencies. These findings were in disagreement with Edeh et al. [41] who conducted a study on innovation and export performance. The study empirically explored the individual and joint impacts of technological and non-technological innovations on the export performance of SMEs in developing market firms in Nigeria. The study used a descriptive research design. The study found out that product innovation has a negative impact on export performance, whereas process innovation leads to increased export performance. Different from this study that was carried out in Nigeria on export performance; the current study focused on Innovation and performance of semi – autonomous government agencies, specifically Uganda National Medical Stores using a mixed research methodology.

In the same regard, the findings were in disagreement with Gaglio et al. [42] who carried out a study on digital transformation on innovation and productivity. The aim of the study was to find out the relationships among the use of digital communication technologies, innovation performance and productivity in micro and small enterprises (MSEs) in

a middle-income country, South Africa. The study relied on qualitative research design. The study showed that selected digital communication technologies including the use of social media and of a business mobile phone for surfing the internet have a positive effect on innovation, and that innovation conditional on the use of these technologies has a positive effect on labor productivity. Unlike this study that was carried out in South Africa, the current study focused on Innovation and performance of semi – autonomous government agencies, specifically Uganda National Medical Stores using a mixed research methodology.

Uganda has undertaken several reforms in public administration systems (PASR) to improve the efficiency and effectiveness of public service delivery. PASR, which is similar to Public Sector Reform (PSR), focuses on strengthening the management of the public sector to provide public services [43]. Public service reform and decentralization are continuous initiatives that align with the government's strategy for public service reform. This strategy has several goals: optimizing the size and structure of the civil service, enhancing skills through training and evaluation, implementing pay reform, strengthening control systems, and monitoring and improving operational efficiency and effectiveness [44]. To support these objectives, Uganda National Medical Stores (NMS) has established regional centers aimed at enhancing service delivery. The findings were inconsistent with

<https://www.inosr.net/inosr-arts-and-management/> Waheed et al. [45] carried out research on organizational innovation and performance. This study aimed at analyzing the effect of NHRM strategies on innovation performance with the mediating role of organizational innovation and the moderating role of the innovation climate in the IT industry using descriptive research design. The results of the moderated-mediation showed that the mediating role of organizational innovation is also strong if the organizational climate is more innovative. Unlike this study that was conducted in the IT industry, the current study focused on Innovation and performance of semi – autonomous government agencies, specifically Uganda National Medical Stores using a mixed research methodology. Furthermore, the findings were in disagreement with Munodawafa and Johl [46] conducted research on eco-innovation and organizational performance. The aim of the study was to review eco-innovation and performance literature from the resource-based and stakeholder perspectives sourced from the Scopus and Web of Science (WoS) scientific databases. The study used systematic qualitative literature review. Results from this systematic review suggested that the capital market stakeholder group—an essential stakeholder group—has received little attention in the eco-innovation and performance literature which negatively affects organizational performance. Uniquely, the current study focused on Innovation and performance of semi – autonomous government agencies, specifically Uganda National Medical Stores using a mixed research methodology. In addition, findings were in disagreement with Ahlerup et al. [47] carried out a study on Tax innovations and

Innovation (MIN), does not show a statistically significant influence on performance, as indicated by a p-value of 0.131. While the regression coefficient suggests a slight positive effect, the findings do not provide enough evidence to conclude that innovation directly improves agency performance. This may imply that innovation alone was insufficient to drive performance improvements without complementary factors such as resource availability, organizational culture, or leadership support. The acceptance of the null hypothesis suggests that while innovation remains valuable in theory, its impact on performance in these agencies was not strong enough to be reliably measured within the current model. Future research could explore whether other conditions or moderating variables affect the relationship between innovation and performance. Monitoring and evaluation (MEM) on the other hands demonstrate a meaningful and statistically significant effect on performance ($B = 0.230$, $p = 0.000$), reinforcing the

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public revenues in Sub-Saharan Africa. The purpose of the study was to analyze the effect of two tax innovations – value added taxes (VAT) and autonomous revenue authorities (ARA) – on tax revenues in sub-Saharan Africa. The study used cross sectional research design. The study found out that VATs have no effect on total tax revenues, neither in the short- nor in the long-run. ARAs lead to higher tax revenues in the short- and medium-run, but the effect dissipates over time. Unlike this study that focused on tax innovations and organizational performance, the current study focused on Innovation and performance of semi – autonomous government agencies, specifically Uganda National Medical Stores using a mixed research methodology.

Additionally, Ayamga [48] conducted a study on innovation and performance of State Institutions. The study attempted to do a comparative analysis of effective and ineffective agencies in Ghana to identify the causes of variability in their effectiveness in Ghana. The study used a qualitative research design. Results of the analysis of the four effectiveness factors indicate that although there are certain institutional constraints arising from agencies' revenue sources, their relations with the parent ministries and institutionalized strategies of performance and personnel management, there remains avenue for leadership action. Unlike this study that was conducted in Ghana, the current study focused on Innovation and performance of semi – autonomous government agencies, specifically Uganda National Medical Stores using a mixed research methodology.

CONCLUSION

importance of continuous assessment in improving organizational effectiveness. Agencies that invest in structured monitoring and evaluation processes are likely to achieve better outcomes, as these mechanisms help in identifying inefficiencies, improving accountability, and ensuring alignment with strategic objectives. The rejection of the null hypothesis confirms that a well-established evaluation framework can drive higher performance levels. This finding emphasizes the need for agencies to allocate sufficient resources to monitoring activities, adopt data-driven decision-making practices, and implement robust evaluation systems to ensure continuous improvement.

Recommendation

Although innovation did not show a significant impact on performance in this study, agencies should not overlook its potential benefits. Instead, they should focus on creating an environment that supports innovation by investing in skills

<https://www.inosr.net/inosr-arts-and-management/> development, research, and technology. Encouraging a culture where employees feel empowered to experiment and propose new ideas without fear of failure can drive long-term improvements. Additionally, further research should explore possible barriers, such as resource constraints or policy limitations, that may be preventing innovation from positively influencing agency performance. Addressing these obstacles could unlock opportunities for efficiency and service enhancement. Monitoring and evaluation have proven to be critical for improving agency performance, underscoring the need for structured and well-integrated assessment

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frameworks. Agencies should adopt clear performance measurement systems that track progress, identify weaknesses, and inform decision-making. Regular performance reviews, data-driven strategies, and independent audits can ensure accountability and continuous improvement. Additionally, staff training in monitoring techniques would enhance the ability to analyze data effectively and implement corrective actions where necessary. A commitment to ongoing evaluation will help agencies stay aligned with their objectives and improve overall efficiency.

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