African Journal of Emerging Issues
Peer reviewed | Double blind | Interdisciplinary

African Journal of Emerging Issues
(AJOEI)
Online ISSN: 2663 - 9335
Available at: https://ajoeijournals.org

SUPPLY CHAIN MANAGEMENT

E-PROCUREMENT PRACTICES AND PERFORMANCE OF THE PROCUREMENT FUNCTION IN THE MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL GOVERNMENT, KENYA

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Publication Date: April 2026

ABSTRACT

Purpose of the study: The study examined the effect of e-procurement practices on performance of the procurement function in the Ministry of Interior and Coordination of National Government, Nairobi, Kenya.

Statement of the problem: Ministry of Interior and Coordination of National Government continues to face persistent challenges in procurement function performance, including delayed acquisitions, inflated costs, substandard supplies, and limited transparency. Despite a budget exceeding KSh 140 billion in the 2022/2023 financial year and the availability of IFMIS since 2017, only 42% of transactions are processed electronically. These inefficiencies undermine operational readiness and public confidence.

Methodology: A descriptive research design was adopted. The target population consisted of 232 supply chain officers from the 22 departments at the Ministry headquarters. A sample size of 147 was determined using Slovin's formula, and stratified random sampling ensured proportional representation across departments. Primary data were collected using closed-ended questionnaires which were distributed through google forms and the drop-and-pick method. The pilot study was conducted in the Ministry of Health, where 15 questionnaires were administered (representing approximately 10% of the sample size) to assess reliability and validity. Content validity was confirmed via expert and supervisor review, while reliability was evaluated using Cronbach's Alpha, with all constructs exceeding the 0.7 threshold. Data analysis utilized descriptive statistics and inferential statistics.

Findings: The findings revealed a positive and statistically significant relationship between e-procurement practices and the performance of the procurement function ($r = 0.834$, $p = 0.000$). Regression analysis indicated that a unit increase in e-procurement practices leads to a 0.451-unit improvement in procurement performance ($\beta = 0.451$, $p = 0.003$).

Conclusion: The study concludes that e-procurement practices serve as a critical driver for enhancing efficiency, transparency, cost-effectiveness, and timeliness in the Ministry's procurement operations.

Recommendations: The study recommends that the Ministry prioritize full integration of digital procurement platforms, provide continuous staff training and ensure readily available technical support. Policymakers and the Public Procurement Regulatory Authority promote capacity-building initiatives and technology adoption to strengthen e-procurement practices and improve procurement outcomes in Kenya's security-sensitive public institutions.

Keywords: *E-Procurement Practices, Performance, Procurement Function, Ministry of Interior and Coordination of National Government, Kenya*

BACKGROUND OF THE STUDY

E-procurement practices refer to the systematic use of electronic systems and digital technologies to facilitate and manage procurement processes within organizations. These practices include e-tendering, e-sourcing, e-ordering, e-invoicing, and the use of integrated procurement platforms such as Enterprise Resource Planning (ERP) systems and online supplier portals (Mwikali & Kavale, 2022). Unlike traditional procurement approaches that rely on manual paperwork, face-to-face interactions, and fragmented communication channels which often result in delays, inefficiencies, and lack of transparency modern e-procurement emphasizes automation, transparency, accountability, and real-time information sharing. Effective implementation of e-procurement practices enhances the performance of the procurement function by improving process efficiency, reducing procurement cycle time, minimizing costs, and strengthening compliance with regulatory frameworks, ultimately leading to better service delivery and organizational performance (Ngugi & Mugo, 2021).

Globally, e-procurement practices have been widely adopted as a key driver of efficiency and transparency in both public and private sector procurement functions. Developed countries such as the United States and the United Kingdom have implemented advanced e-procurement systems that integrate supplier databases, contract management tools, and real-time monitoring mechanisms to streamline procurement operations (Croom & Brandon-Jones, 2020). These

systems have enabled organizations to reduce procurement costs, enhance supplier competition, and improve accountability in the use of public resources. Additionally, global institutions such as the World Bank and the United Nations advocate for the adoption of e-procurement as a means of reducing corruption, enhancing transparency, and promoting value for money in public procurement processes (OECD, 2021). These global experiences demonstrate that effective adoption of e-procurement practices significantly improves procurement performance and governance outcomes.

In Africa, governments and organizations are increasingly embracing e-procurement practices to address challenges associated with inefficiency, corruption, and lack of transparency in procurement processes. Countries such as Rwanda, South Africa, and Ghana have implemented electronic government procurement systems to streamline tendering processes, enhance supplier participation, and improve oversight in public procurement (Adusei & Awunyo-Vitor, 2020). However, the adoption of e-procurement in many African countries is still constrained by factors such as inadequate ICT infrastructure, resistance to change, limited technical skills, and weak regulatory enforcement. Despite these challenges, there is growing evidence that e-procurement practices contribute to improved procurement efficiency, reduced costs, and enhanced accountability in public sector operations across the continent (Mose *et al*., 2021).

In East Africa, and particularly in Kenya, the government has made significant strides in promoting e-procurement practices through the implementation of the Integrated Financial Management Information System (IFMIS), which includes an e-procurement module aimed at enhancing transparency, efficiency, and accountability in public procurement. The Ministry of Interior and Coordination of National Government, as a key government entity, relies on procurement processes to support service delivery and operational effectiveness. Studies indicate that the adoption of e-procurement practices such as e-tendering, online supplier registration, and electronic contract management has the potential to improve procurement performance by reducing procurement cycle time, enhancing compliance with the Public Procurement and Asset Disposal Act, and minimizing opportunities for corruption (Odhiambo & Kamau, 2022). However, challenges such as system inefficiencies, inadequate user training, resistance to technological change, and intermittent system downtime continue to affect the optimal utilization of e-procurement systems.

Procurement function refers to the structured set of activities and processes through which an organization acquires goods, works, and services necessary for its operations in an efficient, transparent, and accountable manner. It encompasses key activities such as needs

identification, supplier sourcing, tendering, evaluation, contract management, and performance monitoring (Odhiambo & Kamau, 2021). In the public sector, the procurement function is guided by legal and regulatory frameworks to ensure fairness, competitiveness, and value for money. Unlike traditional procurement systems that rely heavily on manual processes and fragmented decision-making which often lead to inefficiencies, delays, and lack of accountability modern procurement functions emphasize strategic sourcing, process integration, and the use of digital technologies. An effective procurement function enhances organizational performance by ensuring timely acquisition of quality goods and services, optimizing costs, and supporting service delivery objectives (Monczka *et al*., 2020).

Efficiency and reliability in the procurement function are critical indicators of organizational performance, particularly in public institutions where service delivery is directly dependent on the availability of resources. Ineffective procurement processes often result in delays in project implementation, poor quality goods and services, non-compliance with procurement regulations, and increased operational costs (Wanyonyi & Muturi, 2020). Such inefficiencies may also create opportunities for malpractice and corruption, undermining public trust and accountability. Therefore, organizations must strengthen their procurement function by adopting best practices such as transparent tendering processes, supplier performance evaluation, and effective contract management to ensure consistency, reliability, and responsiveness in procurement operations.

In Kenya's public sector, the procurement function operates within a dynamic environment shaped by regulatory requirements, technological advancements, and increasing demand for accountability in the use of public resources. The enactment of the Public Procurement and Asset Disposal Act and the adoption of systems such as the Integrated Financial Management Information System (IFMIS) have significantly transformed procurement operations by promoting transparency, efficiency, and standardization. However, challenges such as bureaucratic procedures, limited technical capacity, resistance to change, and system inefficiencies continue to affect the effectiveness of the procurement function in many government institutions (Kibicho, 2020). These challenges have highlighted the need to strengthen procurement systems and enhance performance measurement beyond financial metrics to include aspects such as compliance, efficiency, and service delivery outcomes.

Within the Ministry of Interior and Coordination of National Government, the procurement function plays a critical role in supporting administrative operations, security services, and coordination activities across the country. The effectiveness of this function determines the

timely availability of essential goods and services, ranging from office supplies to critical infrastructure and security-related resources. As such, the performance of the procurement function is not only a matter of operational efficiency but also a determinant of public service delivery and national stability. Consequently, there is a growing need to assess how procurement practices, particularly the adoption of e-procurement systems, influence the performance of the procurement function within the Ministry, with a view to enhancing efficiency, transparency, and accountability in public procurement.

STATEMENT OF THE PROBLEM

The Ministry of Interior and Coordination of National Government is responsible for procuring essential goods and services that support national security, public safety, and operational readiness. Despite receiving over KSh 140 billion in the 2022/2023 financial year, the Ministry continues to face persistent procurement inefficiencies that undermine operational effectiveness, escalate costs, and erode public confidence. The Auditor-General's 2022/2023 report highlighted critical weaknesses, including a six-month delay in awarding a police uniform contract that resulted in emergency procurement at inflated prices, causing an estimated loss of KSh 420 million. The report further revealed that 30% of sampled contracts lacked required documentation, violating the Public Procurement and Asset Disposal Act (PPADA) 2015, and noted the absence of post-award monitoring for 18 high-value contracts worth KSh 2.1 billion, leading to the delivery of substandard security equipment to officers.

These challenges are compounded by the underutilization of e-procurement systems. Although the Integrated Financial Management Information System (IFMIS) has been operational since 2017, only 42% of procurement transactions are processed electronically. This low adoption rate limits transparency, real-time monitoring, and timely decision-making, resulting in prolonged procurement cycles, increased paperwork, higher administrative costs, and heightened risks of irregularities. According to the Public Procurement Regulatory Authority (PPRA, 2023), the Ministry ranks among the top government entities with high tender cancellations and review appeals, largely attributable to weak digital integration and manual processes. Consequently, delayed acquisition of critical security systems and equipment directly compromises national security operations and value for money therefore the study examined the effect of e-procurement practices on the performance of the procurement function in the Ministry of Interior and Coordination of National Government, Nairobi, Kenya.

THEORETICAL FRAMEWORK

The study was anchored on Technology Acceptance Model (TAM). TAM was developed by Fred Davis in 1986. The theory explains the adoption of new technologies by focusing on two key constructs: perceived usefulness and perceived ease of use. According to TAM, individuals are more likely to adopt and consistently use a technology if they believe it will enhance their job performance and if they find it simple to operate (Al-Qirim, 2020). Over time, TAM has been widely applied in explaining how technological innovations are integrated within organizations, particularly in enhancing efficiency and effectiveness of operations.

A major strength of TAM is that it provides a clear framework for understanding the trade-offs between in-house production and outsourcing, helping organizations make decisions that balance efficiency, cost, and risk (Sánchez-Prieto, 2021). It is particularly effective in explaining the importance of governance structures such as contracts, supplier monitoring, and partnerships in reducing opportunism and safeguarding long-term relationships. TAM also emphasizes the role of transaction characteristics like asset specificity and uncertainty, which are highly relevant in complex sectors such as interior security procurement where high-value, specialized goods and services are involved (Marangunić & Granić, 2020).

A key critique of TAM is that it tends to focus narrowly on cost minimization and opportunism, often overlooking other strategic factors such as innovation, collaboration, and long-term value creation (Alalwan, 2021). The theory assumes that parties act primarily out of self-interest, which may oversimplify real-world relationships where trust, social capital, and mutual dependency also drive cooperation. Additionally, TAM has been criticized for underestimating the role of dynamic environments such as technological change or shifting regulations where rigid cost-based governance structures may become less effective.

In the Ministry of Interior and Coordination of National Government, TAM is particularly relevant in explaining how e-procurement systems affect performance of the procurement function. If procurement officers perceive e-procurement platforms as useful in reducing paperwork, enhancing transparency, and speeding up the procurement cycle, they are more likely to embrace the system. Similarly, when the system is user-friendly and easy to navigate, adoption rates increase. This contributes to enhanced efficiency through real-time tracking, reduced corruption opportunities, and improved accountability in interior security procurement. TAM therefore provides a theoretical lens to understand how user perceptions

and attitudes towards e-procurement systems influence performance of the procurement function outcomes

EMPIRICAL REVIEW

Mwangata and Hapompwe (2024) examined the effect of e-procurement on procurement processes and performance in Zambia's government institutions, focusing on the Local Government Service Commission (LGSC). The study adopted a mixed-methods approach, targeting 50 respondents involved in procurement across different institutional levels, with purposive and simple random sampling techniques. Findings indicated that e-procurement practices were partially implemented, with varying levels of technological adoption and staff familiarity. Inferential analysis revealed that e-procurement significantly enhances efficiency, transparency, supplier management, cost savings, and data management within government institutions. The study concluded that investment in technological infrastructure, promotion of a supportive organizational culture, and continuous improvement mechanisms are critical to fully realize the benefits of e-procurement in public sector procurement processes.

Siddiqui, Abbas, Idrees, Khan and Minhas (2022) investigated the effect of e-procurement practices on supply chain management performance in the manufacturing sector in Pakistan. The study focused on four key e-procurement components: e-payment, e-tendering, e-invoicing, and e-customer relationship management. Findings indicated that traditional procurement processes were time-consuming and inefficient, while the adoption of e-procurement significantly streamlined procurement activities. Inferential analysis revealed that all four e-procurement variables positively impacted supply chain performance by reducing uncertainties, accelerating order fulfillment, and enhancing overall supply chain operations. The study concluded that e-procurement is essential for improving supply chain efficiency.

Janice and Kihara (2022) examined the influence of e-procurement on procurement performance in manufacturing firms in Nairobi County, Kenya. The study adopted a descriptive explanatory research design and targeted a population of 1,142 employees in procurement and IT departments, with a sample of 296 respondents selected using stratified random sampling. Findings indicated that e-procurement practices were increasingly adopted across the firms. Inferential analysis revealed that e-procurement positively influenced procurement performance by improving supplier coordination, reducing rogue buying, and enabling better pricing and product quality. The study concluded that manufacturing firms

should integrate e-procurement into their purchasing networks to enhance overall performance of the procurement function.

Chebet and Kihara (2022) sought to establish the influence e-procurement on procurement performance in manufacturing firms in Nairobi County. The study was grounded on technology acceptance model. This study used of a descriptive explanatory research design. The study population was 1,142 employees in the procurement and IT departments in the manufacturing firms. The study used the Yamane formula to calculate the study sample size. The study sample size was 296 respondents. The stratified random sampling was used to select the sample size. The study's primary data was obtained using semi-structured questionnaires. The researcher carried out a pilot study to ensure the data collection tool is reliable and valid. Quantitative data was analyzed using descriptive and inferential statistics. Descriptive statistics relating to measures of central tendency and measures of dispersion was used to describe the body of data. This included percentages, frequencies, mean and standard deviation. The study conducted a correlational analysis to evaluate the strength of relationship between the study variables. Multiple regression analysis was conducted. It was revealed that e-procurement had a positive influence on procurement performance in manufacturing firms. The result of the study indicated a significant impact of e-procurement practices on the procurement performance

Kunnapapdeelert and Thepmongkorn, (2021) conducted an empirical study on the e-procurement adoption in Thailand. Factor analysis was applied to indicate the factor affecting the implementation of e-procurement in Thailand. The results showed that most of the companies are ready to use e-procurement in the future. However, some companies do not have idea about the benefits and barriers of e-procurement adoption. It was also found that four main factors affecting e-procurement adoption are reliability of information technology and supplier performance, user acceptance of e-procurement systems, financial and integration of e-procurement systems, and top management support.

CONCEPTUAL FRAMEWORK

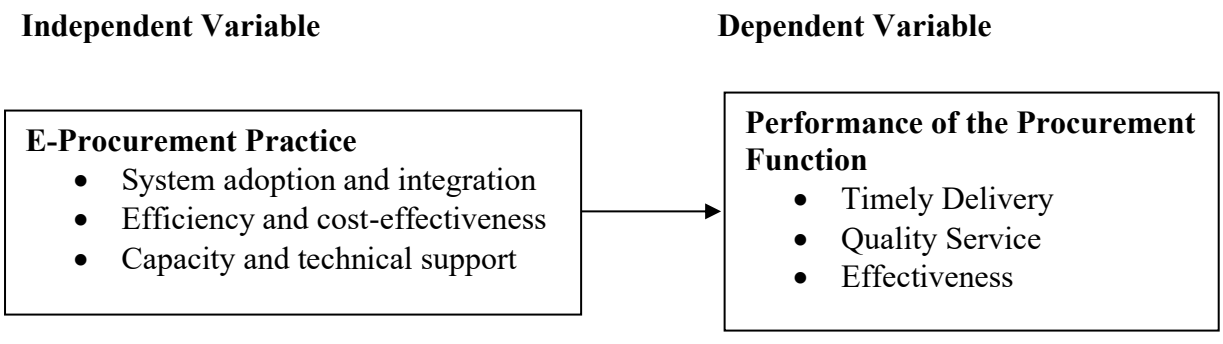

Figure 1: Conceptual Framework

RESEARCH METHODOLOGY

The study adopted a descriptive research design to examine the effect of e-procurement practices on the performance of the procurement function in the Ministry of Interior and Coordination of National Government, Nairobi, Kenya. The target population consisted of 232 supply chain officers from the 22 departments at the Ministry of Interior and Coordination of National Government headquarters in Nairobi, Kenya. From the study population of 232, a sample size of 147 was determined using Slovin's formula, and the study employed stratified random sampling to ensure proportional representation of supply chain officers across all departments. Primary data were collected through self-administered structured closed-ended questionnaires using both Google Forms and the drop-and-pick method.

The pilot study was conducted in the Ministry of Health, where 15 questionnaires were administered (representing approximately 10% of the sample size) to assess the reliability and validity of the research instrument. Validity was established through content validity assessments via expert and supervisor review, while reliability was evaluated using Cronbach's Alpha, with all constructs recording values above the 0.7 threshold. Both descriptive and inferential statistics were utilized for data analysis. Descriptive statistics, including percentages, frequencies, means, and standard deviations, were employed to summarize the characteristics of e-procurement practices and procurement function performance. Inferential statistics, specifically Pearson correlation analysis and multiple linear regression analysis, were applied to test the hypothesized relationship between e-procurement practices and the performance of the procurement function. Diagnostic tests involved the normality test, and homoscedasticity test, thereby ensuring the robustness of the results. Data analysis was conducted using the Statistical Package for Social Sciences (SPSS) version 25.

RESULTS

Response Rate

The researcher administered 147 questionnaires to the respondents at the Ministry of Interior and Coordination of National Government, out of which, 81 were successfully filled and returned for analysis thus giving the study 85% response rate as provided in Table 1.

Table 1: Response Rate

Response	Frequency	Percentage (%)
Expected response	147	100
Received response	81	55
Un-received response	66	45

Demographic Information

Age

The researcher sought to determine the age group of the respondents working Ministry of Interior and Coordination of National Government, Kenya. The findings are indicated in Table 2.

Table 2: Age Group

Category	Frequency	Percentage (%)
18-24 years	9	11
25-34 years	23	28
35-44 years	18	22
45-55 years	11	14
Above 55 years	20	25
Total	**81**	**100**

From the findings in Table 2, 11% of the respondents were aged 18–24 years, 28% were aged 25–34 years, 22% were aged 35–44 years, 14% were aged 45–55 years, and 25% were above 55 years. This distribution reveals that the majority of the respondents (28%) belonged to the 25–34 years age group, with the combined proportion of those aged 18–44 years representing 61% of the total sample. The age profile indicates a balanced composition among procurement officers in the Ministry, with notable representation across younger and older age brackets. A substantial presence in the 25–34 years group suggests adaptability to technological advancements, such as e-procurement systems and digital regulatory compliance tools. The significant proportion of respondents above 55 years contributes valuable long-term institutional expertise, which supports informed decision-making in complex governance contexts. These characteristics are advantageous in a public sector environment requiring both innovation and seasoned judgment to address regulatory demands, operational efficiencies, and procurement governance challenges critical to the Ministry's performance objectives.

Descriptive Findings

Descriptive Findings for E-Procurement Practices

The study sought to assess the respondents' level of agreement on the statements on e-procurement practices in the Ministry of Interior and Coordination of National Government, Kenya. The findings are presented in Table 3.

Table 3: E-Procurement Practices

Statement	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Std
The organization has fully integrated e-procurement systems into its procurement processes.	44.4	29.6	16.0	9.9	0	4.0864	1.0025
Integrating e-procurement systems streamlines processes, reducing manual effort and enhancing operational efficiency.	34.6	38.3	16.0	11.1	0	3.9630	.9804
E-procurement has reduced operational costs in the procurement process.	40.7	34.6	14.8	9.9	0	4.0617	.9791
E-procurement reduces procurement costs and time, directly improving performance.	50.6	27.2	12.3	7.4	2.5	4.1605	1.0660
Technical support for e-procurement systems is readily available when needed.	43.2	30.9	14.8	11.1	0	4.0617	1.0167
Adequate technical support ensures smooth e-procurement operations, minimizing disruptions and enhancing performance.	48.1	34.6	9.9	4.9	2.5	4.2099	.9838

SA=Strongly Agree, A=Agree, U=Undecided, D=Disagree, SD=Strongly Disagree

From the findings in Table 3, 44.4% of respondents strongly agreed that the organization has fully integrated e-procurement systems into its procurement processes, 29.6% agreed, 16.0% were undecided, 9.9% disagreed, and none strongly disagreed, with a mean of 4.0864 and a standard deviation of 1.0025. This implies that e-procurement systems are widely adopted and embedded within procurement operations in the ministry, which supports improved efficiency and transparency. These findings are consistent with Kiprotich and Ngugi (2021), who found that full integration of e-procurement systems significantly enhances procurement performance in Kenyan public institutions by improving process coordination and accountability.

From the findings, 34.6% of respondents strongly agreed that integrating e-procurement systems streamlines procurement processes by reducing manual effort and enhancing operational efficiency, 38.3% agreed, 16.0% were neutral, 11.1% disagreed, and none strongly disagreed, with a mean of 3.9630 and a standard deviation of 0.9804. This implies that automation through e-procurement improves workflow efficiency and minimizes procedural bottlenecks. The findings align with Munyiri *et al*. (2022), who established that automation of procurement processes through e-procurement reduces paperwork, minimizes errors, and improves turnaround time in public sector procurement.

The findings further show that 40.7% of respondents strongly agreed that e-procurement has reduced operational costs in the procurement process, 34.6% agreed, 14.8% were undecided, 9.9% disagreed, and none strongly disagreed, with a mean of 4.0617 and a standard deviation of 0.9791. This implies that e-procurement contributes to cost efficiency by reducing administrative expenses and minimizing procurement-related wastage. These findings are in agreement with Otieno and Ombaka (2023), who found that e-procurement adoption in public institutions leads to significant cost savings through reduced transaction costs and improved supplier competition.

In addition, 50.6% of respondents strongly agreed that e-procurement reduces procurement costs and time, directly improving procurement performance, 27.2% agreed, 12.3% were neutral, 7.4% disagreed, and 2.5% strongly disagreed, with a mean of 4.1605 and a standard deviation of 1.0660. This implies a strong perception that e-procurement enhances both cost and time efficiency, which are critical indicators of procurement performance. This finding is consistent with Wangari and Karanja (2021), who reported that e-procurement significantly improves timeliness and cost control in government procurement entities.

The findings also indicate that 43.2% of respondents strongly agreed that technical support for e-procurement systems is readily available when needed, 30.9% agreed, 14.8% were neutral, 11.1% disagreed, and none strongly disagreed, with a mean of 4.0617 and a standard deviation of 1.0167. This implies that technical support structures are largely in place, which facilitates effective utilization of e-procurement systems. Similar findings were reported by Mwangi and Kariuki (2022), who emphasized that availability of technical support is essential for successful implementation and sustained use of e-procurement systems in public organizations.

Finally, 48.1% of respondents strongly agreed that adequate technical support ensures smooth e-procurement operations by minimizing system disruptions and enhancing procurement

performance, 34.6% agreed, 9.9% were undecided, 4.9% disagreed, and 2.5% strongly disagreed, with a mean of 4.2099 and a standard deviation of 0.9838. This implies a strong positive perception that technical support plays a critical role in maximizing the benefits of e-procurement systems. The findings agree with Ndungu *et al*. (2024), who concluded that continuous technical support and system maintenance significantly enhance the effectiveness and performance outcomes of e-procurement in public sector institutions.

Descriptive findings for Performance of Procurement Function

The study sought to establish the respondents' level of agreement on the statements regarding performance of procurement function in the Ministry of Interior and Coordination of National Government, Kenya. The findings were as indicated Table 4.

Table 4: Performance of Procurement Function

	SA (%)	**A (%)**	**U (%)**	**D (%)**	**SD (%)**	Mean	Std
The organization accurately identifies procurement needs before initiating procurement processes.	39.5	33.3	14.8	11.1	1.2	3.9877	1.0547
Properly assessing procurement needs ensures resources are used efficiently and reduces wastage	46.9	27.2	14.8	9.9	1.2	4.0864	1.0630
Procurement planning is based on reliable forecasts of future demand.	28.4	50.6	9.9	11.1	0	3.9630	.9144
Accurate forecasting minimizes stock-outs and overstocking, improving performance of the procurement function.	29.6	34.6	11.6	21.0	3.7	3.6543	1.2162
Procurement plans are aligned with the organization's approved budget.	32.1	44.4	12.3	11.1	0	3.9753	.9484
Aligning procurement with budg*et al*locations ensures optimal use of financial resources and reduces delays	21.0	48.1	14.8	14.8	1.2	3.7284	1.0002

SA=Strongly Agree, **A**=Agree, **U**=Undecided, **D**=Disagree, **SD**=Strongly Disagree

The findings indicate that 39.5% of respondents strongly agreed that the organization accurately identifies procurement needs before initiating procurement processes, 33.3% agreed, 14.8% were neutral, 11.1% disagreed, and 1.2% strongly disagreed, with a mean of 3.9877 and a standard deviation of 1.0547. This implies that needs identification is largely

effective within the organization, which is critical for ensuring that procurement activities are demand-driven and aligned with operational requirements. These findings align with Kioko and Mwangangi (2021), who found that accurate identification of procurement needs significantly improves procurement performance by reducing emergency purchases and enhancing planning accuracy in public sector institutions.

From the findings, 46.9% of respondents strongly agreed that properly assessing procurement needs ensures efficient use of resources and reduces wastage, 27.2% agreed, 14.8% were neutral, 9.9% disagreed, and 1.2% strongly disagreed, with a mean of 4.0864 and a standard deviation of 1.0630. This implies a strong positive perception that needs assessment enhances efficiency and minimizes wastage. The findings are consistent with Odera and Wafula (2022), who established that systematic needs assessment in procurement enhances value for money and reduces resource leakages in public organizations.

The findings further show that 28.4% of respondents strongly agreed that procurement planning is based on reliable forecasts of future demand, 50.6% agreed, 9.9% were neutral, 11.1% disagreed, and none strongly disagreed, with a mean of 3.9630 and a standard deviation of 0.9144. This implies that demand forecasting is generally practiced and supports procurement planning, although some inconsistencies may still exist. These findings align with Mwikali and Kariuki (2023), who noted that reliable demand forecasting improves procurement performance by enhancing inventory planning and reducing uncertainty in public sector supply chains.

In addition, 29.6% of respondents strongly agreed that accurate forecasting minimizes stock-outs and overstocking, 34.6% agreed, 11.6% were neutral, 21.0% disagreed, and 3.7% strongly disagreed, with a mean of 3.6543 and a standard deviation of 1.2162. This suggests mixed perceptions regarding the effectiveness of forecasting practices, indicating that while forecasting exists, challenges in accuracy may still affect inventory balance. Similar findings were reported by Cheruiyot *et al*. (2021), who observed that weak forecasting accuracy in public procurement often leads to stock imbalances, negatively affecting procurement performance.

The findings also indicate that 32.1% of respondents strongly agreed that procurement plans are aligned with the organization's approved budget, 44.4% agreed, 12.3% were neutral, 11.1% disagreed, and none strongly disagreed, with a mean of 3.9753 and a standard deviation of 0.9484. This implies that budg*et al*ignment is largely achieved, which is essential for financial

discipline and effective execution of procurement activities. These findings are consistent with Mugo and Njeru (2022), who found that alignment of procurement plans with approved budgets enhances financial control and procurement efficiency in public sector organizations.

Finally, 21.0% of respondents strongly agreed that aligning procurement with budg*et al*locations ensures optimal use of financial resources and reduces delays, 48.1% agreed, 14.8% were neutral, 14.8% disagreed, and 1.2% strongly disagreed, with a mean of 3.7284 and a standard deviation of 1.0002. This implies that budg*et al*ignment is perceived to contribute positively to efficiency and timeliness, though some respondents still experience delays linked to budgetary constraints. The findings agree with Omondi and Otieno (2024), who argue that effective budget–procurement alignment enhances resource utilization and minimizes implementation delays in public sector procurement systems.

Diagnostic Tests

To justify the use of the regression model, pre-estimation tests were conducted. These tests included normality and Homoscedasticity tests to ensure the reliability of the regression analysis.

Normality Assumption Test

The normality assumption test was conducted to determine whether the data followed a normal distribution. This assumption was necessary to ensure that statistical inferences derived from regression analysis are valid. The findings are presented in Table 5.

Table 5: Normality Assumption Test Results

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
E-Procurement practices	.235	15	.075
Performance of procurement function	.246	15	.058

From the findings, the p-values for both variables were greater than the significance level of 0.05. This implies that the data were normally distributed and that the assumption of normality was met. This interpretation follows the standard rule for the Kolmogorov-Smirnov test (Pallant, 2020).

Inferential Statistics

Under inferential statistics the study conducted both correlation and regression analysis. The findings are indicated in table 6.

Table Error! No text of specified style in document.**6 : Correlation Matrix**

		E-Procurement practices
Performance of Procurement Function	Pearson Correlation	.834**
	Sig. (2-tailed)	.000
	N	81

The results revealed that E-Procurement practices showed a strong positive correlation with the performance of the procurement function, with a Pearson correlation coefficient of r = 0.834 and a p-value of 0.000. This implies that greater adoption of digital systems tends to yield superior procurement efficiency, cost reductions, and transparency. These results are consistent with Janice and Kihara (2022), who concluded that e-procurement practices enhance performance in manufacturing firms through streamlined processes and better coordination. Likewise, Chebet and Kihara (2022) observed that e-procurement significantly improves outcomes in Kenyan firms by minimizing manual efforts and operational costs.

Regression Coefficients

Table 7: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		β	Std. Error	Beta	t	Sig.
1	(Constant)	.859	.310		2.766	.007
	E-Procurement Practices	.451	.146	.307	3.091	.003

a. Dependent Variable: Performance of Procurement Function

From the findings, the constant (β_0) was 0.859, which indicates that when e-procurement practices are held constant, the performance of the procurement function would still stand at 0.859 units. This suggests that there are other underlying factors, not captured in the model, that contribute to a baseline level of procurement performance within the Ministry of Interior and Coordination of National Government. E-procurement practices also showed a positive and statistically significant effect on procurement performance, with an unstandardized coefficient of $\beta_1 = 0.451$ and a standardized beta of 0.307. This implies that a unit increase in

the adoption and effective use of e-procurement systems leads to a 0.451 unit improvement in procurement performance, holding other factors constant. The relationship was significant ($t = 3.091$, $p = 0.003$), indicating that automation and digitization of procurement processes enhance efficiency, reduce costs, and improve overall performance. From the findings, the derived regression model is expressed as:

$$\mathbf{Y = 0.859 + 0.451X}$$

Where:

Y = Performance of Procurement Function,

X = E-Procurement Practices

ε = Error Term

CONCLUSION

The study concludes that e-procurement practices constitute a fundamental and transformative driver of procurement function performance within the Ministry of Interior and Coordination of National Government. The adoption and effective utilization of digital procurement systems significantly enhances operational efficiency, accelerates procurement cycles, and fosters a culture of accountability and transparency in the management of public resources. The study further concludes that the integration of e-procurement platforms directly addresses the longstanding challenges of delayed acquisitions, inflated costs, and limited oversight that have historically undermined the Ministry's procurement operations. By automating procurement processes and enabling real-time monitoring, e-procurement systems reduce opportunities for irregularities and strengthen compliance with the Public Procurement and Asset Disposal Act. Consequently, sustained and strategic investment in digital procurement infrastructure, supported by continuous staff capacity development and robust technical support frameworks, is indispensable for achieving and sustaining high standards of procurement performance, public service delivery, and governance accountability within the Ministry and across Kenya's public sector institutions.

RECOMMENDATIONS

The study recommends that the Ministry of Interior and Coordination of National Government should prioritize the full and systematic integration of digital procurement platforms into all procurement activities, ensuring that the Integrated Financial Management Information System is utilized across all departments without exception. The Ministry should develop and implement a comprehensive and continuous staff training programme tailored to the diverse

technical competencies of procurement officers, with a focus on maximizing system utilization and minimizing operational errors arising from user unfamiliarity. Dedicated and well-resourced technical support units should be established within the Ministry to provide prompt, reliable, and responsive assistance whenever system disruptions or operational challenges arise, thereby ensuring seamless and uninterrupted procurement operations. Furthermore, policymakers and the Public Procurement Regulatory Authority should spearhead broader capacity-building initiatives and institutional frameworks that promote technology adoption and digital literacy across all public sector procurement entities, particularly in security-sensitive institutions where procurement efficiency is directly linked to national operational readiness and public confidence in governance.

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