



E-TENDERING AND SUPPLY CHAIN PERFORMANCE OF COUNTY GOVERNMENTS IN UPPER EASTERN COUNTIES, KENYA

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Abstract

This study examined the influence of e-tendering on supply chain performance among county governments in Kenya's Upper Eastern Region. The study focused on e-tendering practices and their contribution to effective procurement and supply chain operations. A cross-sectional survey design was adopted. The study targeted 217 officers from supply chain, finance and accounting, and ICT departments in five county governments: Samburu, Tharaka Nithi, Meru, Isiolo, and Marsabit. Using Yamane's formula, a sample of 141 respondents was determined and selected through stratified random sampling. Data were collected using structured questionnaires comprising five-point Likert-scale items and open-ended questions. A pilot study was conducted in Laikipia County to assess the validity and reliability of the research instrument. Of the 141 questionnaires distributed, 110 were successfully completed and analyzed, representing a 78.0% response rate. Quantitative data were analyzed using descriptive statistics and regression analysis with the aid of SPSS. The findings revealed a statistically significant positive

relationship between e-tendering and supply chain performance ($R = .564$, $p < .001$). Regression analysis further established that e-tendering significantly predicted supply chain performance ($\beta = .564$, $R^2 = .318$, $t = 7.092$, $p < .001$), explaining 31.8% of the variation in supply chain performance. The study concludes that effective e-tendering enhances supply chain performance by improving transparency, access to tender information, and reducing human interference in procurement processes. It recommends strengthening digital infrastructure, system reliability, and technical capacity to support effective implementation of e-tendering in county governments.

Keywords: E-Tendering; Supply Chain Performance; County Governments; E-Procurement; Public Procurement; Procurement Digitization

INTRODUCTION

Public procurement is a critical government function through which public institutions acquire goods, works, and services needed for service delivery. Information and communication technology (ICT) has become central to procurement reform because it improves the speed, accuracy, transparency, and traceability of procurement transactions. ICT-enabled procurement systems support real-time information sharing, electronic documentation, audit trails, and coordination between procuring entities and suppliers, making e-procurement important governance and supply chain tool for strengthening controls and reducing manual inefficiencies (OECD, 2021). E-tendering is particularly relevant within this transformation because it enables procurement entities to undertake tender-related activities electronically. In Kenya, e-procurement has been operationalized through systems such as the Integrated Financial Management Information System (IFMIS) and the Public Procurement Information Portal (PPIP), which support electronic tendering, supplier registration, bid submission, and contract monitoring (National Treasury, 2022). The adoption of these systems forms part of Kenya's broader procurement reforms aimed at improving efficiency, transparency, and value for money in public procurement (GoK, 2015).

The effectiveness of electronic tendering, however, depends on the digital environment in which procurement systems operate. Reliable internet connectivity, adequate network coverage, appropriate digital devices, and technical capacity are necessary for effective use of electronic procurement platforms (Communications Authority of Kenya, 2024). Although Kenya has made considerable progress in expanding internet access, connectivity remains uneven across the country, with rural and semi-arid counties experiencing greater challenges in bandwidth, reliability, and service costs (World Bank, 2023). These challenges are particularly

relevant to Kenya's Upper Eastern region, comprising Marsabit, Isiolo, Samburu, Tharaka Nithi, and Meru counties. The region faces ICT infrastructure constraints, including limited fibre-optic networks, fewer internet service providers, and frequent power interruptions. Such constraints can affect the reliability of online procurement platforms and may result in greater reliance on manual procurement processes (Communications Authority of Kenya, 2024). The implications for electronic tendering are significant because interruptions in connectivity can affect activities that depend on timely electronic access and transmission of procurement information. In counties where ICT readiness is relatively limited, delayed bid submissions, system downtime, and difficulties in tracking procurement activities can constrain the realization of the expected benefits of e-procurement. These conditions may consequently affect transparency, efficiency, supplier participation, and overall supply chain performance (PPRA, 2022). The variation in ICT readiness across counties therefore provides an important context for examining electronic tendering and supply chain performance. While digital procurement systems provide the technological framework for transforming tendering processes, differences in connectivity and technical capacity may influence how effectively these systems are utilized. The Upper Eastern region consequently provides an important setting for examining the contribution of e-tendering to supply chain performance under varying infrastructural conditions. Against this background, the study examined the influence of e-tendering on supply chain performance among county governments in Kenya's Upper Eastern region.

Statement of the Problem

Public procurement is a major component of public expenditure and an important mechanism through which governments deliver public services and manage public resources. In Kenya, the continued digitization of procurement through IFMIS was intended to improve transparency, reduce procurement cycle times, increase supplier participation, and strengthen accountability (National Treasury, 2022; PPRA, 2022). E-tendering, in particular, provides a digital platform through which tender opportunities are advertised, bids are submitted, and tender processes are managed, thereby reducing dependence on manual procedures. Despite these reforms, the expected improvements in procurement performance have not been fully realized. The Office of the Auditor-General reported persistent procurement and financial management irregularities in counties within the Upper Eastern region, including Marsabit, Isiolo, and Tharaka-Nithi. The reported weaknesses included unauthorized reallocations of funds, delayed and stalled projects, weak internal controls, and shortcomings in procurement planning and execution (OAG, 2025). Such weaknesses raise concerns about the effectiveness

of existing procurement systems in translating digital procurement reforms into improved supply chain performance.

The challenge is further reflected in the implementation of e-procurement itself. The Public Procurement Regulatory Authority reported that some procuring entities had not fully utilized the available IFMIS e-procurement modules, resulting in incomplete digitization and continued reliance on manual procurement processes (PPRA, 2023). For e-tendering, incomplete utilization can limit the expected benefits of electronic tender management, particularly where tender advertisement, bid submission, evaluation, and related activities are not consistently undertaken through the electronic platform. Empirical evidence suggests that e-tendering can contribute to improved procurement outcomes. Gichuhi and Waruguru (2020) found that e-tendering influenced procurement performance in a Kenyan public organization, while Otieno et al. (2021) reported a relationship between electronic tendering and supply chain performance in Homa-Bay County. Similarly, Luga et al. (2023) established a relationship between electronic tendering and supply chain performance in county governments in Western Kenya. These studies provide evidence of the potential contribution of e-tendering to procurement and supply chain outcomes, but their findings are drawn from different institutional and geographical contexts.

Consequently, limited empirical evidence exists on the influence of e-tendering on supply chain performance among county governments in Kenya's Upper Eastern region. The region presents a distinctive context because county governments operate under varying ICT infrastructure and connectivity conditions, which may affect the implementation and utilization of electronic tendering systems. The existing evidence therefore does not adequately explain whether e-tendering contributes to supply chain performance among county governments in this region. This study consequently examined the influence of e-tendering on supply chain performance among county governments in Kenya's Upper Eastern region.

Objectives of the Study

To evaluate the influence of e-tendering on supply chain performance of county governments in Upper Eastern counties, Kenya

Research Hypotheses

H₀₂ There is no significant influence of e-tendering on supply chain performance of county governments in Upper Eastern counties, Kenya

LITERATURE REVIEW

Principal Agent Theory

Principal-Agent Theory (PAT), developed by Jensen and Meckling (1976), explains relationships in which one party delegates responsibilities to another. The theory argues that differences in interests and information between principals and agents can create agency problems, particularly where principals cannot fully observe or monitor agents' actions. Eisenhardt (1989) notes that, monitoring and control mechanisms are therefore important in reducing information asymmetry and aligning agents' actions with organizational objectives.

In public procurement, county governments and citizens can be viewed as principals, while procurement officers' act as agents entrusted with public resources and procurement decisions. This relationship creates a need for mechanisms that improve transparency, monitoring, and accountability. E-tendering provides such a mechanism by moving tendering activities to electronic platforms, creating records of procurement transactions and making tender processes more traceable. It can consequently reduce information asymmetry and limit opportunities for discretionary conduct during tendering. Evidence from Kenyan public procurement also indicates that e-tendering can improve procurement performance and supply chain outcomes (Gichuhi & Waruguru, 2020; Luga et al., 2023).

The theory has nevertheless been criticized for placing excessive emphasis on opportunism and self-interest while giving insufficient attention to trust and intrinsic motivation (Perrow, 1986; Davis et al., 1997). Despite this limitation, PAT provides an appropriate theoretical foundation for this study because it explains how e-tendering can strengthen monitoring, transparency, and accountability between county governments and procurement agents, thereby contributing to improved supply chain performance.

Empirical Literature Review

E-tendering is an electronic component of public procurement through which activities associated with tendering are undertaken using digital platforms. The World Bank identifies e-tendering as part of the pre-award phase of electronic government procurement, alongside electronic publication, supplier registration, bid submission, evaluation, and award. Electronic procurement is intended to improve transparency, efficiency, competition, and access to procurement information by reducing reliance on manual processes and making procurement activities more visible and traceable (World Bank, 2022).

The contribution of e-tendering to procurement performance has been examined in different public sector settings. Gichuhi and Waruguru (2020) found that e-tendering influenced procurement performance in a geothermal development company in Nakuru, Kenya. The study

provides evidence that electronic tendering can contribute to improved procurement outcomes, although its focus on a geothermal development company limits its applicability to county governments. Further, Otieno et al. (2021) examined electronic tendering and supply chain performance in Homa-Bay County, Kenya, and found a positive relationship between electronic tendering and supply chain performance. The findings provide evidence from a county government setting, although the study was limited to one county. Luga et al. (2023) similarly examined electronic tendering and supply chain performance among county governments in Western Kenya and reported a positive contribution of electronic tendering to supply chain performance. These studies provide useful evidence on the relationship between e-tendering and supply chain outcomes but do not address the conditions prevailing in Kenya's Upper Eastern region.

Evidence from other settings also highlights the importance of the environment in which electronic tendering is implemented. Nkwabi and Matimbwa (2022) found that e-tendering improved transparency and accountability in local government authorities in Tanzania, but infrastructural and financial constraints affected implementation. Mutua and Kiarie (2023) likewise reported that e-tendering improved supplier participation, reduced tendering costs, and enhanced accountability in Machakos County Government. These findings suggest that the benefits associated with e-tendering may depend partly on the institutional and technological conditions supporting its use. Overall, the existing studies provide evidence that e-tendering can contribute to procurement efficiency, transparency, supplier participation, accountability, and supply chain performance. However, the evidence is drawn from different institutional and geographical settings, with limited attention to county governments operating under varying ICT infrastructure and connectivity conditions. In particular, there is limited empirical evidence on the influence of e-tendering on supply chain performance among county governments in Kenya's Upper Eastern region. The present study therefore examined the influence of e-tendering on supply chain performance in this context.

Conceptual Framework

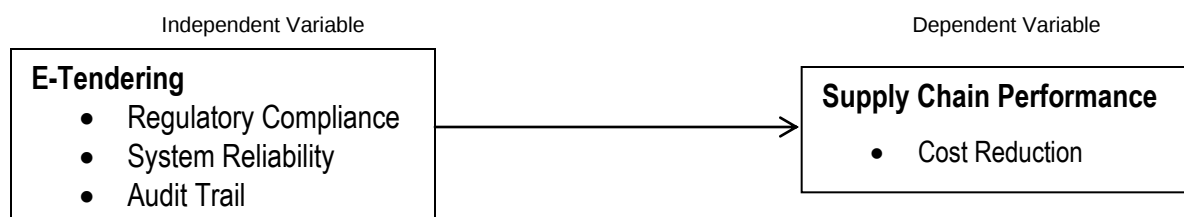


Figure 1: Conceptual Framework

The increasing adoption of electronic procurement has changed how tendering activities are conducted within public institutions. Understanding how these changes relate to supply chain outcomes requires a clear representation of the variables and their expected relationships. A conceptual framework provides this structure by organizing the key elements of a study and showing how they are expected to relate within a particular research context (McTaggart, 2021). In the present study, the framework links e-tendering with supply chain performance among county governments in the Upper Eastern Region of Kenya. The framework therefore provides the basis for examining the expected relationship between e-tendering and supply chain performance and guides the operationalization and empirical assessment of the study variables.

E-tendering digitizes key tendering activities, including tender advertisement, bid submission, evaluation, and contract award. By reducing reliance on manual procedures, electronic tendering can improve standardization, transparency, and compliance within procurement processes (Vaidya et al., 2006; Li et al., 2022). In the public sector, these features can strengthen accountability and reduce opportunities for discretionary practices during tendering. Institutional theory provides a basis for understanding the adoption of e-tendering because public organizations operate within regulatory environments that require compliance with established procurement rules and standards (Scott, 2014). Electronic tendering can support such compliance by embedding standardized procedures within procurement processes and reducing discretionary decision-making. Kihara and Wanyoike (2022) found that e-tendering enhanced transparency and accountability by reducing human interference in tender evaluation and improving access to tender opportunities.

The effectiveness of e-tendering also depends on the reliability of the systems through which tendering activities are conducted. System disruptions and inadequate technological infrastructure can interrupt procurement processes and create delays, while reliable systems support continuity and timely processing (Nguyen, 2021). Audit trails further strengthen accountability by providing traceable records of procurement activities, enabling procurement decisions to be reviewed and monitored (Boehmke et al., 2020). These considerations are particularly relevant in counties where ICT infrastructure and internet connectivity may vary. Where electronic tendering systems are reliable and accessible, procurement activities can be undertaken more efficiently, with greater transparency and traceability. Such improvements can contribute to better supply chain performance (Li et al., 2022). The present study therefore examines whether e-tendering contributes to supply chain performance among county governments in Kenya's Upper Eastern region.

RESEARCH METHODOLOGY

The study employed a cross-sectional survey design to examine the effect of e-tendering on supply chain performance in the Upper Eastern counties of Kenya. A cross-sectional survey design enables data to be collected from respondents at a particular point in time and is appropriate where the researcher seeks to establish relationships between variables in their existing setting (Kothari & Garg, 2019). The study covered Samburu, Tharaka Nithi, Meru, Isiolo and Marsabit counties, with the counties forming the units of analysis and officers from the supply chain, finance/accounting and ICT departments serving as the units of observation. The target population comprised 217 officers. Stratified random sampling was used to obtain a representative sample, with the population grouped by county and departmental category before respondents were selected. Makwana, Engineer, and Dabhi (2023) note that appropriate sampling enhances the representativeness of a study sample. Using Yamane's formula at a 5% margin of error, a sample of 141 respondents was obtained.

Table 1 Stratification of the Sample Size

County/ Participants	Supply Chain officers	Finance/accounting officers	ICT officers	Grand Total
Samburu	7	6	16	29
Tharaka Nithi	8	5	12	25
Meru	12	8	18	38
Isiolo	7	5	10	22
Marsabit	8	7	12	27
Totals	42	31	68	141

Source: Adopted from the counties Human Resource Departments, 2025

Data were collected using a structured questionnaire containing items on e-tendering and supply chain performance, measured on a five-point Likert scale. The questionnaire was pilot-tested using 10% of the sample in Laikipia County Government to assess its clarity and reliability. The pilot study was conducted outside the main study area to minimize response contamination, while the choice of Laikipia was informed by similarities in administrative and procurement arrangements. Pilot testing is useful in identifying weaknesses in a research instrument before the main data collection (Saunders, Lewis, & Thornhill, 2019), while a pilot sample of 5%–10% is considered adequate for this purpose (Sukserm, 2024). Reliability was assessed using Cronbach's Alpha, with a coefficient of 0.70 or higher considered acceptable (Tavakol & Dennick, 2011). The resulting reliability coefficients are presented in the subsequent findings and discussion section. The collected data were coded and analysed using SPSS. Descriptive statistics were used to summarize the responses, while Pearson correlation and

simple linear regression were used to establish the relationship and effect of e-tendering on supply chain performance. The analysis was preceded by diagnostic tests to assess the suitability of the data for regression analysis.

FINDINGS AND DISCUSSIONS

Pilot Testing Results

The pilot study was conducted in Laikipia County where a total of 14 questionnaires were administered to respondents drawn from relevant county departments, out of which 12 questionnaires were duly completed and returned, representing a response rate of 85.7%. The pilot study was undertaken outside the study area to minimize respondent bias while ensuring that the respondents operated within the same procurement framework regulated by the Public Procurement Regulatory Authority. The pilot exercise provided an opportunity to identify and correct ambiguities in the questionnaire and improve the overall quality of the research instrument before the main study.

The reliability analysis established that the e-tendering variable had a Cronbach's alpha coefficient of 0.734, based on six measurement items. This coefficient exceeded the recommended threshold of 0.70, indicating that the items used to measure e-tendering demonstrated acceptable internal consistency. The reliability of the scale therefore provides confidence that the responses obtained from the respondents were sufficiently consistent for subsequent statistical analysis. Consequently, the six e-tendering items were retained for the main study without modification or deletion.

Descriptive Statistics

Descriptive analysis was used to summarize respondents' perceptions of the study variables. Means and standard deviations were used, with the mean indicating the average response and the standard deviation showing the extent of variation in respondents' views (Field, 2018). The results are summarized in Table 2.

Table 2: Descriptive Statistics for E-Tendering

E-Tendering	N	Mean	SD
E-tendering has improved transparency in the tendering process.	110	3.90	.877
The use of e-tendering has reduced procurement processing time.	110	3.75	.683
E-tendering has enhanced accessibility of tender information to suppliers.	110	3.93	.601
The system minimizes human interference in tender evaluation.	110	4.20	.647
Unstable internet connectivity disrupts the submission and evaluation of tenders.	110	3.65	.971
Reliable network infrastructure enhances the efficiency of e-tendering processes	110	4.23	1.055
Average	110	3.94	0.810

The findings indicate a generally positive perception of e-tendering, with an overall mean of 3.94 (SD = 0.810). The highest-rated aspect was the role of reliable network infrastructure in enhancing e-tendering efficiency (M = 4.23, SD = 1.055), followed by the view that the system minimizes human interference in tender evaluation (M = 4.20, SD = 0.647). Respondents also agreed that e-tendering improves accessibility of tender information (M = 3.93, SD = 0.601), transparency (M = 3.90, SD = 0.877), and procurement processing time (M = 3.75, SD = 0.683). These results suggest that e-tendering is perceived to improve openness, accessibility and efficiency in the tendering process. However, unstable internet connectivity was also identified as a challenge, with respondents agreeing that it disrupts tender submission and evaluation (M = 3.65, SD = 0.971). The finding therefore suggests that although e-tendering is generally viewed positively, its effectiveness depends partly on reliable network infrastructure. The findings are consistent with Mwanja and Kihara (2024), who found that e-tendering improves transparency and accessibility while reducing human intervention in procurement processes. Similarly, Adusei and Agyekum (2023) reported that e-tendering enhances efficiency and accountability, although technological and connectivity challenges can limit its effectiveness.

Correlation Analysis

Pearson's product-moment correlation coefficient was used to assess the direction and strength of the linear association between the study variables. The coefficient, represented by r , ranges from -1 to $+1$, with values approaching either limit indicating stronger relationships. Correlation coefficients of 0.10–0.29 was considered weak, 0.30–0.49 moderate, and 0.50 or above strong.

Table 3: Correlation Analysis between E-Tendering and Supply Chain Performance

Variable		E-Tendering	Supply chain performance
E-Tendering	Pearson Correlation	1	.564
	Sig. (2-tailed)		.000
	N	110	110
Supply chain performance	Pearson Correlation	.564	1
	Sig. (2-tailed)	.000	
	N	110	110

The results indicate a positive and statistically significant relationship between e-tendering and supply chain performance ($r = 0.564$, $p = 0.000$). The positive correlation coefficient suggests that improvements in e-tendering practices are associated with improvements in supply chain performance. The relationship is strong and positive, indicating that higher levels of e-tendering adoption are associated with considerably better supply chain

performance. The significance value of 0.000, which is below the 0.05 threshold, indicates that the relationship is statistically significant and unlikely to have occurred by chance. The findings therefore suggest that e-tendering contributes positively and substantially to supply chain performance, implying that organizations that effectively implement electronic tendering systems are likely to realize significant improvements in procurement efficiency, transparency, competitiveness, and overall supply chain outcomes.

The findings are consistent with Omiti and Juma (2024), who found that e-tendering was positively associated with the performance of the County Government of Kisumu, particularly through increased supplier access and reduced tender award time. Similarly, Begombe, Mohamed, and Kavale (2024) established that e-tendering positively and significantly influences supply chain performance in selected Kenyan county governments. These findings support the present study by showing that electronic tendering can enhance procurement efficiency and contribute to improved supply chain outcomes.

Regression Analysis

Regression analysis was used to establish whether e-tendering significantly predicts supply chain performance. The analysis considered the model summary, ANOVA and regression coefficients to establish the explanatory power, overall significance and direction of the relationship between e-tendering and supply chain performance. Since the objective focused specifically on e-tendering, simple linear regression was applied.

Table 4: Model Summary on E-Tendering and Supply Chain Performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.564	.318	.311	2.753

Predictors: (Constant), E-tendering

Dependent Variable: Supply Chain Performance

The results show a strong positive relationship between e-tendering and supply chain performance ($R = 0.564$). The R Square of 0.318 indicates that e-tendering explains 31.8% of the variation in supply chain performance, while the remaining 68.2% is explained by other factors outside the model. The Adjusted R Square of 0.311 shows only a small difference from the R Square, suggesting that the model provides a relatively stable estimate of the explanatory contribution of e-tendering. Thus, although e-tendering accounts for a meaningful proportion of variation in supply chain performance, other organizational and operational factors also

contribute to the outcome. This finding is comparable with Luga, Fozia, and Omondi (2023), whose study of county governments in Western Kenya found that electronic tendering explained a substantial proportion of variation in supply chain performance.

Table 5: Analysis of Variance on E tendering and Supply chain performance

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	381.274	1	381.274	50.297	.000
	Residual	818.690	108	7.580		
	Total	1199.964	109			

Dependent Variable: Supply chain performance

Predictors: (Constant), E tendering

The ANOVA results indicate that the regression model examining the influence of e-tendering on supply chain performance was statistically significant ($F = 50.297$, $p = 0.000$). The F-statistic shows that e-tendering significantly improves the prediction of supply chain performance. Further, the p-value of 0.000 is less than the 0.05 level of significance, indicating that the influence of e-tendering on supply chain performance is statistically significant and unlikely to have occurred by chance.

Table 6: Regression Analysis on E-tendering and Supply Chain Performance

Coefficients ^a						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	13.313	1.388		9.588	.000
	E tendering	.403	.057	.564	7.092	.000

Dependent Variable: Supply chain performance

The coefficient results indicate a positive and statistically significant relationship between e-tendering and supply chain performance ($B = 0.403$, $\beta = 0.564$, $t = 7.092$, $p < 0.001$). The coefficient means that a one-unit increase in e-tendering is associated with an estimated 0.403-unit increase in supply chain performance. The statistical significance of the coefficient provides further evidence that e-tendering is an important predictor of supply chain performance. The finding agrees with Omiti and Juma (2024), who reported a positive relationship between e-tendering and the performance of Kisumu County Government and noted that e-tendering can improve supplier access and reduce the time required to award contracts.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The study sought to evaluate the influence of e-tendering on supply chain performance among county governments in the Upper Eastern Region of Kenya. The findings showed that e-tendering is generally viewed positively, particularly in improving transparency, widening access to tender information, reducing human interference in tender evaluation and making the tendering process more efficient. Respondents also recognized the importance of reliable network infrastructure in supporting e-tendering. However, unstable internet connectivity remained a challenge, particularly during tender submission and evaluation. These findings suggest that the value of e-tendering is not only in moving tendering activities from manual to electronic platforms, but also in creating a more open and structured process for suppliers and procurement officers.

The inferential results provided further support for the contribution of e-tendering to supply chain performance. E-tendering had a moderate positive relationship with supply chain performance ($R = 0.564$), while the model explained 31.8% of the variation in supply chain performance ($R^2 = 0.318$). The regression model was statistically significant ($F = 50.297$, $p < 0.001$), and e-tendering had a positive and significant regression coefficient ($B = 0.403$, $\beta = 0.564$, $t = 7.092$, $p < 0.001$). The findings therefore indicate that better implementation of e-tendering is associated with improved supply chain performance. The study concludes that e-tendering provides a useful mechanism for strengthening procurement efficiency and transparency in county governments, although its contribution is also dependent on factors beyond the electronic tendering platform itself.

The study recommends that county governments strengthen the infrastructure supporting e-tendering, particularly internet connectivity, system reliability, and technical support. This could be achieved through investment in stable and adequate internet infrastructure, regular maintenance and upgrading of e-tendering platforms, and establishment of responsive technical support mechanisms to address system failures promptly. Given that unstable internet connectivity was identified as a challenge during tender submission and evaluation, county governments should consider providing reliable connectivity at procurement offices and ensuring that the electronic procurement systems can accommodate tender submissions without frequent interruptions. Improving system reliability would minimize disruptions in procurement processes and enhance the timely completion of tendering activities.

County governments should also improve access to tender information for suppliers by ensuring that tender notices, requirements, deadlines, clarifications, and other relevant procurement information are posted on the electronic platforms in a timely and easily accessible manner. Procurement entities should maintain transparent and standardized procedures for

communicating with suppliers throughout the tendering process. This would widen supplier participation, reduce information asymmetry, and strengthen transparency in public procurement. Finally, county governments should continuously monitor the performance of their e-tendering systems and obtain feedback from both procurement officers and suppliers. Periodic reviews should assess system reliability, ease of use, accessibility of tender information, and challenges encountered during tender submission and evaluation. The feedback should be used to improve the functionality and responsiveness of the systems. Such continuous improvement would enable county governments to derive greater value from e-tendering and, consequently, strengthen procurement efficiency, transparency, supplier participation, and overall supply chain performance.

SCOPE FOR FURTHER STUDIES

The study focused on the influence of e-tendering on supply chain performance among county governments in the Upper Eastern Region of Kenya. The findings point to several areas that could be explored further. First, the study established that reliable internet connectivity and stable system infrastructure are important to the effective functioning of e-tendering. Future research could therefore examine digital infrastructure readiness and ICT capacity as independent factors to determine how they influence the adoption and effectiveness of e-tendering systems. Second, the study concentrated on e-tendering as one component of e-procurement. Future studies could examine other electronic procurement functions, such as e-contract management, supplier relationship management and e-catalogue systems, to provide a broader understanding of how digital procurement practices shape supply chain performance. Finally, since the study was limited to county governments in the Upper Eastern Region of Kenya, similar research could be undertaken in other regions and public sector institutions to determine whether the findings remain consistent across different organizational, technological and administrative settings.

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