

Effect of E-Tendering Practices on Procurement Performance of State Corporations in Uganda



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Abstract

Aim: This study investigated the effect of e-tendering practices on the procurement performance of state corporations in Uganda.

Methods: This study employed a descriptive research design. The target population consisted of 30 including procurement managers, accountants, and inventory department heads in the Ugandan State-owned corporations. Purposive sampling was used to select the procurement managers. Quantitative data was analyzed using SPSS Version 27 and analysis entailed Pearson's correlation and regression analysis. The respondents were selected purposively. Data was collected using an open-ended questionnaire which helped in collecting both quantitative and qualitative data. Qualitative data was analyzed thematically and presented in a narrative form. The analyzed data was presented in the form of tables.

Results: The results revealed a positive and significant relationship between e-tendering practices and the procurement performance of state corporations in Uganda. The null hypothesis was rejected, indicating that improvements in e-tendering positively impacted procurement performance.

Conclusion: It was concluded that e-tendering practices significantly influence the procurement performance in Ugandan state-owned corporations. The findings revealed a strong positive relationship between e-tendering and procurement performance. Challenges such as inadequate staff training, sticking to traditional methods and infrastructural limitations were identified as barriers to the effective implementation of e-tendering.

Recommendations: The study recommends that corporations prioritize regular training and capacity-building programs to enhance staff expertise and familiarity with e-tendering systems. Improving digital infrastructure by installing reliable internet to minimize system downtimes is essential. Additionally, procurement departments should work with e-tendering system service providers to develop more user-friendly interfaces and nurture prompt technical support to resolve system-related issues that may hamper effective procurement implementation.

Keywords: *E-tendering, procurement performance, State Corporations, Uganda.*

INTRODUCTION

E-tendering is a digital procurement approach that uses online platforms to oversee the entire tendering process, from advertising to bid submission to contract review and awarding (Tan, 2022). According to Ndubuaku and Jerry (2023), it is a process where electronic systems are utilized to manage the entire tendering process, from bid preparation to submission and evaluation, ensuring efficiency and transparency (Abdullahi *et al.*, 2023). Onumajuru *et al.* (2024) view e-tendering as an integral part of e-procurement, where buyers and suppliers interact electronically to streamline the procurement process, reduce costs, and increase competitiveness.

Procurement performance is the measurement and evaluation of the effectiveness and efficiency of procurement processes and activities within an organization (Changalima *et al.*, 2021). From a strategic perspective according to Plantinga *et al.* (2020), it involves aligning procurement activities with overall business goals, making sure that cost-effectiveness, value creation, and risk management are achieved. According to Faccia and Petratos (2021), procurement performance is measured by the timeliness, quality, and cost control in the sourcing process. It also evaluates supplier performance, including reliability, delivery adherence, and collaboration from an operational perspective. From a financial perspective view, procurement performance focuses on cost savings, budget adherence, and the optimization of procurement spend (Kumar & Ganguly, 2020). Customer-centric procurement assesses how well procurement meets the organization's internal or external needs, ensuring high-quality products and services are delivered when needed while maintaining supplier relationships and satisfaction (Lennartz, 2024).

Traditionally, procurement processes were time-consuming and prone to errors due to manual handling of bids, document storage, and communication (Wanjiku *et al.*, 2023). According to Nyokabi *et al.* (2023), e-tendering digitizes these tasks, which enables suppliers to submit bids online, simplifies document sharing, and automates the evaluation process leading to faster decision-making, and reducing procurement cycle times. E-tendering also reduces the risk of fraud and manipulation by providing a transparent, traceable record of all procurement submissions and evaluations (Sunmola & Shehu, 2020).

According to Marcilianus (2023), e-tendering enhances procurement performance by increasing competition and transparency, which leads to better supplier selection. Organizations can secure more favorable pricing and terms as suppliers from various regions or markets can easily participate (Boafo *et al.*, 2020). Additionally, e-tendering facilitates improved supplier performance management by providing real-time feedback and streamlining communication. This guarantees that the selected suppliers fulfill the requirements for quality, delivery, and service. (Wako *et al.*, 2024).

In Switzerland, state corporations are governed by the Federal Act on Public Procurement and are executed via platforms like Simap.ch, which ensures transparency and accessibility. The system supports open, selective, and restricted tender procedures, usable at both the federal and cantonal levels. The platform facilitates competition by providing a centralized hub for tender advertisements, enabling businesses to respond efficiently (Mélon & Spruk, 2020). According to Kumar (2020), to prevent corruption and ensure fair practices, Switzerland enforces integrity clauses and measures under the Ordinance on Public Procurement. To ensure compliance with thresholds, for instance, open tendering is preferred to maximize participation while selective and private procedures are used in specific contexts.

In China, state corporations' e-tendering practices have significantly evolved, aligning with the nation's push toward digital transformation and transparency in public procurement. These practices leverage advanced e-procurement platforms that facilitate end-to-end management of tenders, from advertisement to bid submission and evaluation (Sun *et al.*, 2022). State corporations in China utilize centralized online tendering systems for the standardization of procurement processes and compliance with procurement laws (Ndubaku & Jerry, 2023). Wang *et al.* (2021) argue that the integration of technologies like big data analytics and artificial intelligence in tender evaluation significantly enhances decision-making through the identification of the most competitive bids while mitigating risks of corruption or favoritism. Additionally, the centralized system allows for broader supplier participation, including small and medium enterprises, thus creating room for inclusivity and economic growth.

Among Uganda's state corporations, e-tendering has gained traction as part of the government's efforts to modernize public procurement and reduce corruption (Augustine, 2021). According to Owere (2021), the introduction of the Electronic Government Procurement (e-GP) system, managed by the Public Procurement and Disposal of Public Assets Authority (PPDA), has facilitated a more transparent, competitive, and efficient procurement process. Suppliers can use the system to place bids online, monitor the progress of their bids, and get alerts when tenders are completed. Despite these advancements, the practice faces problems such as limited internet access and technological infrastructure (Owere, 2021). Afolabi *et al.* (2022) point out that the implementation of e-tendering has been slowed by concerns over data security and the need for regular capacity-building initiatives to ensure that all stakeholders can effectively navigate the system.

The inefficiencies in Uganda's procurement performance have raised questions about the effectiveness of e-tendering in enhancing state enterprises' supply chains as a whole. Although earlier research has emphasized the theoretical advantages of e-tendering, there is no actual data on how these procedures affect procurement success in the Ugandan setting. This creates a gap in understanding the relationship between e-tendering practices and key performance indicators, such as cost-effectiveness, transparency, and timely delivery. Addressing this gap is essential to identify areas for improvement and provide actionable insights for optimizing procurement processes in state corporations.

LITERATURE REVIEW

Theoretical Review

Agency Theory

Agency theory revolves around the relationship between principals (owners) and agents (managers), where agents are tasked with making decisions on behalf of the principals (Jensen & Meckling, 1976). The theory addresses conflicts of interest, information asymmetry, and the alignment of goals between the two parties. It suggests that agents may not always act in the best interests of the principals due to differing objectives or the pursuit of personal gain. This misalignment can lead to inefficiencies and a lack of accountability in organizational processes. The theory offers a useful perspective in explaining e-tendering practices and procurement performance. E-tendering, which involves the digitalization of the procurement process, helps to reduce information asymmetry by making procurement data transparent and accessible to all

stakeholders (Changalima *et al.*, 2021). This transparency minimizes the opportunities for agents to act in their interests at the expense of the principals. Furthermore, e-tendering promotes accountability as it standardizes procurement procedures thus reducing the chances of unethical practices by the procurement personnel. The implementation of e-tendering aligns the actions of agents with the objectives of the state corporations, leading to improved procurement performance. Through this alignment, the theory sheds light on how digital tools can mitigate the principal-agent problem and enhance procurement outcomes in public sector organizations.

Technology Acceptance Model

The Technology Acceptance Model (TAM) explains how users come to accept and use a technology. The model is based on two key constructs: perceived usefulness and perceived ease of use. Perceived usefulness refers to the degree to which a person believes a particular technology will enhance their job performance. Perceived ease of use is the degree to which a person believes that using the technology will be free of effort. These two factors influence users' attitudes toward using the technology, influencing their intention to use and actual usage behavior (Sagnier *et al.*, 2020). When users perceive the e-tendering system as useful, believing it improves procurement processes and outcomes, they are more likely to adopt and use it consistently. If the system is perceived as easy to use, it reduces resistance to adoption and encourages regular usage. These perceptions directly influence the effectiveness of e-tendering practices, leading to improved procurement performance. TAM thus helps to understand the factors driving the successful implementation and utilization of e-tendering systems, which ultimately enhance the performance of procurement processes in public organizations.

Empirical Review

Gichuhi and Waruguru (2020) investigated the influence of e-tendering on procurement performance in the Geo-Thermal Development Company (GDC) in Kenya. The research adopted a descriptive research design and focused on the procurement and logistics department staff in the GDC Nakuru region, with a target population of 170 employees. A multi-stage sampling technique was employed, selecting a sample of 97 respondents. Primary data was collected using questionnaires, which were tested for validity and reliability, with Cronbach's alpha values exceeding 0.8, indicating high reliability. The study revealed that e-tendering had a positive and significant relationship with procurement performance. However, regression analysis showed that e-tendering did not significantly contribute to the variation in procurement performance, leading to the conclusion that while e-tendering plays a role, it is not a major determinant for enhancing procurement performance. The study recommended that GDC focus on integrating e-tendering into its operations to improve procurement performance.

Marcilianus (2020) assessed the impact of e-procurement on procurement performance at TANESCO HQ in Dar es Salaam, specifically examining the effects of e-tendering, e-awarding, e-ordering, and e-invoicing. The research utilized a descriptive research design and focused on 90 TANESCO employees from the finance and procurement departments as a population, with 73 respondents selected through purposive sampling. Data was collected using a questionnaire and analyzed through descriptive statistics and multiple linear regression analysis. The study found that e-tendering significantly improved the speed and efficiency of the procurement process, reduced administrative burden, and enhanced transparency.

Udeh *et al.* (2023) evaluated the impact of e-tendering on product operations. A descriptive survey design was adopted, with data collected through questionnaires administered to a total population of 323 SME owners and employees, of which 280 were accurately completed and returned. Data analysis employed descriptive statistics and Z-tests to test hypotheses. The findings revealed that e-tendering had a significant positive effect on product operations ($Z = 6.155$, $p < 0.05$). The study concluded that e-tendering positively influences production and operational performance in SMEs.

Jules (2022) assessed the effect of e-procurement adoption on public institutions in Rwanda using a descriptive design, data were collected from 96 employees, 21 suppliers, and 24 service providers in three district hospitals through questionnaires, interviews, and document reviews. The study found that public hospitals have implemented e-requisition, e-tendering, and supplier management extensively, driven by statutory requirements for online procurement. E-procurement practices significantly improved operational performance, governance, and market development.

Gathima and Njoroge (2020) examined the effect of e-tendering on the performance of the Nairobi City County Government. The study employed a descriptive and explanatory research design, targeting a population of 750 respondents from the finance, payment, and information technology departments. A sample of 75 respondents was selected using stratified random sampling. The findings revealed a positive and significant relationship between e-tendering practices and the performance of the Nairobi City County Government, with a correlation coefficient of 0.307 and a p-value of 0.041, indicating statistical significance at the 95% confidence interval.

METHODOLOGY

This study was informed by the Agency Theory and the Technology Acceptance Model. This research employed a descriptive research design. The population of the study consisted of 23 State Owned Enterprises in Uganda. The target population was the procurement managers, accountants, and inventory department heads in the Ugandan State-owned corporations. The study was a census of all the Ugandan State-owned corporations. The respondents were selected purposively. Data was collected using an open-ended questionnaire which helped in collecting both quantitative and qualitative data. The reliability of the questionnaire was evaluated using the Cronbach's Alpha. A Cronbach's alpha value of 0.7 was used as the threshold for reliability for this study. The Cronbach's Alpha for e-tendering was 0.76 while the Cronbach's Alpha for procurement performance was 0.797. Construct validity was examined which showed that the factor loadings for the constructs of the two variables were above 0.6. Quantitative data was analyzed using SPSS Version 27 and analysis entailed Pearson's correlation and regression analysis. The analyzed data was presented in the form of tables. On the other hand, qualitative data was analyzed thematically and presented in a narrative form.

RESULTS

Response Rate

The total number of questionnaires issued for data collection was 90. Out of these, 79 questionnaires were well filled and returned giving a response rate of 87.78%. Spooner (2003) noted that a response rate of 50% is satisfactory while 70% and above is considered good. Thus, the return rate of 87.78% is good for the study.

Table 1: Response Rate

Response	Frequency	Percent
Returned	79	87.78%
Unreturned	11	12.22%
Total	90	100%

Demographic Characteristics

The demographic characteristics of the respondents provide an overview of the population sampled for the study. The data analyzed included gender, age, education level, and years of experience

Respondents by Gender Distribution

The study participants indicated their gender.

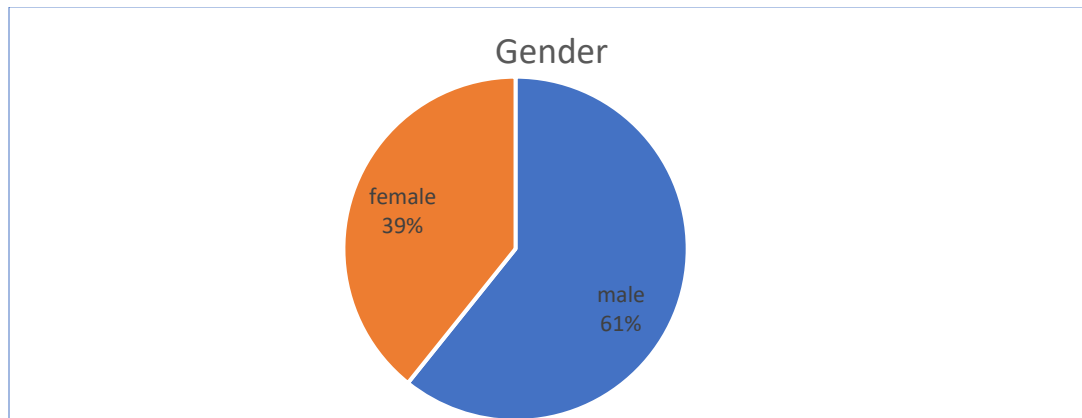


Figure 1: Gender Distribution

The study shows that males constituted the highest portion of respondents at 61%, while females accounted for 39%. This indicates a gender imbalance, with male respondents forming the majority. However, a significant proportion of female respondents demonstrates notable participation of women in managerial, accounting, and inventory roles within the state-owned enterprises.

Respondents by Age Distribution

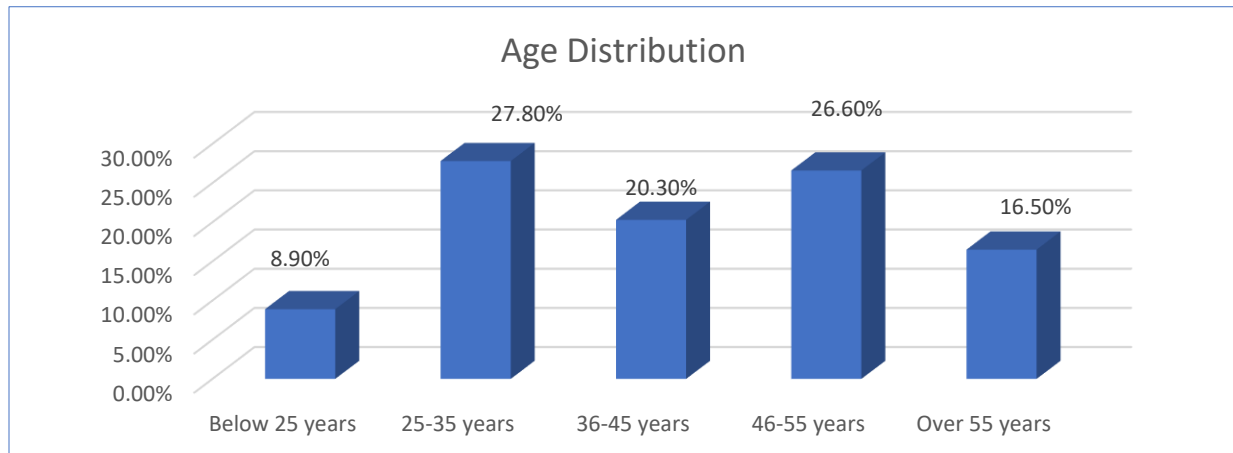


Figure 2: Age Distribution

The majority of respondents reported 27.8%, fell within the 25–35 years age bracket, followed closely by 26.6% in the 46–55 years category. Respondents aged 36–45 years accounted for 20.3%, while 16.5% were over 55 years. A smaller segment, 8.9%, was below 25 years. This age distribution indicates that most respondents are within the productive working age of 25–55 years, with a notable representation of experienced individuals aged over 55 years and a smaller proportion of younger participants under 25 years.

Respondents by Education Level

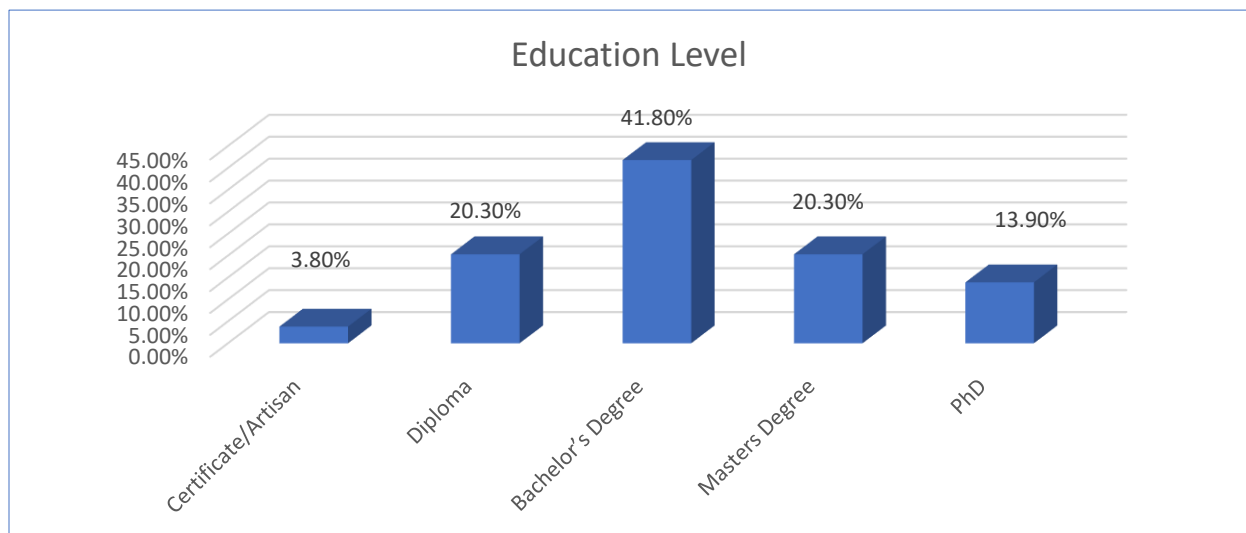


Figure 3: Education Level

The study revealed that the majority of respondents, 41.8%, held a Bachelor's Degree, indicating a highly educated workforce. Respondents with a Diploma and a Master's Degree each accounted for 20.3%, reflecting a significant presence of individuals with both mid-level and postgraduate qualifications. Additionally, 13.9% of the respondents had attained a PhD, showcasing advanced expertise, while a smaller proportion, 3.8%, held Certificate/Artisan qualifications. These results

suggest that the workforce is dominated by individuals with undergraduate and postgraduate education, with a smaller representation of those with technical or vocational qualifications.

Respondents by Years Worked

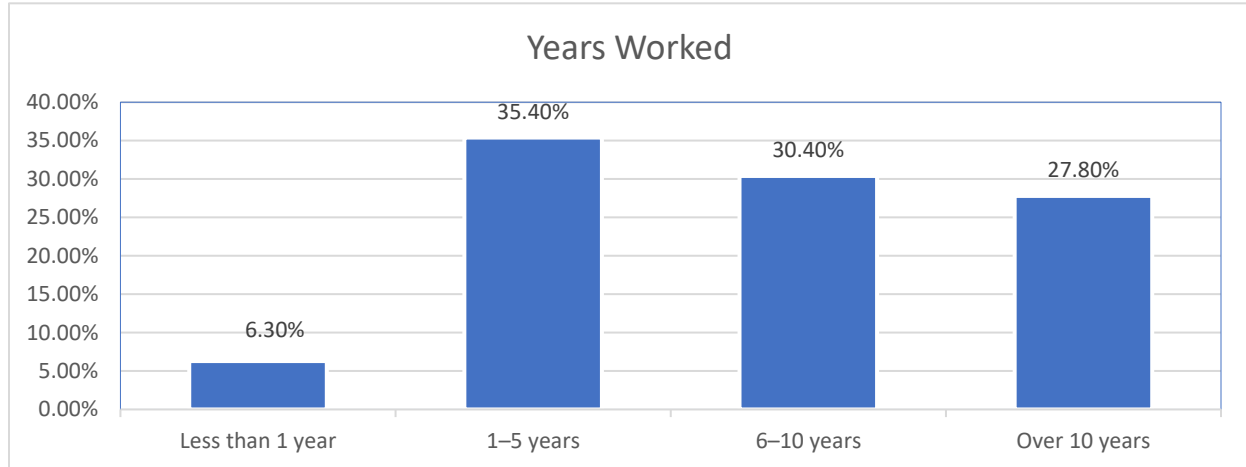


Figure 4 Years Worked

The majority of respondents reported having been working in their current firms for 1-5 years, constituting 35.40% of the responses. Following this, the next highest percentage was for those employed for 6–10 years with 30.4% falling into this category. The third highest percentage was for individuals employed for over 10 years, accounting for 27.8% of the responses. In contrast, a smaller percentage of respondents reported longer tenures, with less than 1 year of employment representing 6.3%.

Descriptive statistics

Descriptive Statistics for E-Tendering Practices

The respondents were asked to indicate their responses regarding e-tendering practices in their state corporations. The responses were to be provided in a 5-point Likert scale where 1= strongly agree, 2 disagree, 3=neutral, 4=agree, and 5= strongly agree. Findings are shown in Table 4.2

Table 2: Descriptive statistics for e-tendering practices

	SD	D	N	A	SA	M	Std Dev
Our organization uses an electronic platform for tendering processes	12.66%	10.13%	8.86%	27.85%	40.51%	3.73	1.41
All procurement processes in our organization are conducted through e-tendering systems	1.27%	2.53%	27.85%	50.63%	17.72%	3.81	0.8
Suppliers are required to submit bids exclusively through the e-tendering platform	3.80%	2.53%	1.27%	25.32%	67.09%	4.49	0.95

E-tendering is integrated into our organization's overall procurement framework	13.92%	12.66%	7.59%	11.39%	54.43%	3.8	1.54
The organization has a fully operational and accessible e-tendering platform for users	12.66%	7.59%	7.59%	41.77%	30.38%	3.7	1.32
Our organization provides training for employees on how to use the e-tendering system	8.86%	20.25%	11.39%	16.46%	43.04%	3.65	1.43
Technical support for the e-tendering system is readily available in our organization	16.46%	17.72%	10.13%	6.33%	49.37%	3.54	1.62
Our organization consistently updates and maintains the e-tendering system to ensure functionality	6.33%	6.33%	11.39%	37.97%	37.97%	3.95	1.15
overall mean						3.83	1.28

The findings in Table 2 showed that 68.38% of the respondents agreed that their organizations use an electronic platform for tendering processes. However, 22.79% disagreed and 8.86% neither agreed nor disagreed. This indicates that e-tendering was a common practice within the organizations. The mean score of 3.73 means that most of the respondents leaned toward agreement with this statement, though the standard deviation of 1.41 shows there is some variation in responses, implying that while e-tendering was used, it was not universally implemented across all the state corporations.

Additionally, 68.35% agreed that all the procurement processes in their state corporation were conducted through e-tendering systems. However, 3.8% disagreed and 27.85% of respondents remained neutral, suggesting that not all procurement processes may have been digitized. With a mean score of 3.81 and a low standard deviation of 0.8, this shows a strong agreement with the statement, though the neutral responses indicate that some of the corporations were relying on traditional tendering methods.

The majority of respondents (92.41%) agreed that their suppliers are required to submit bids exclusively through the e-tendering platform. Only 6.33% disagreed and 1.27% remained neutral. This suggests that e-tendering platforms were predominantly used for the submission of bids, confirming some exclusivity of these platforms for suppliers. The mean score of 4.49 with the relatively low standard deviation of 0.95, confirms that there was broad consensus on this practice, with minimal variation in responses.

Furthermore, 65.82% of the respondents agreed that e-tendering was well integrated into their organization's overall procurement framework. However, 26.58% disagreed while only 7.59% remained neutral which could mean that some respondents felt that e-tendering was not sufficiently integrated into the procurement framework or that there were limitations in its usage. The mean

score of 3.8, coupled with a standard deviation of 1.54, indicates that although a majority acknowledged the integration of e-tendering into their procurement systems, some organizations were still behind in fully integrating it into their procurement framework.

On the organizations having a fully operational and accessible e-tendering platform, 72.15% of respondents agreed, 20.25% disagreed and 7.59% were neutral, indicating that there might be issues with accessibility or functionality for some users. The mean score of 3.7 and standard deviation of 1.32 suggest that while the platform could be generally functional, there were concerns or inconsistencies regarding user accessibility.

Similarly, 59.5% of the respondents agreed that training was provided to employees on how to use the e-tendering system. However, 29.11% disagreed and 11.39% were neutral, indicating that some employees were not adequately trained on the system. With a mean score of 3.65 and a standard deviation of 1.43, the responses suggested a generally positive response, but the variation in responses depicts inconsistency across organizations in providing such training.

Further, 55.7% of respondents agreed that technical support for the e-tendering system was generally available when needed. However, 34.18% disagreed, and 10.13% remained neutral, showing that some users experienced difficulties in accessing technical support. The mean score of 3.54 and the standard deviation of 1.62 suggest that while technical support was available in most of the corporations, its availability and responsiveness varied.

The responses also revealed that 75.94% of the respondents concurred that the e-tendering system was regularly updated and maintained to ensure functionality. However, 12.66% disagreed with the statement and 11.39% were neutral, raising concerns about the system's maintenance in certain areas. According to Amakye (2023), regular system updates and maintenance are essential for ensuring the continued effectiveness and security of e-tendering platforms. The mean score of 3.95 and the standard deviation of 1.15 reflect general agreement with the statement but also highlight some variation in how consistently updates are perceived by different respondents.

The overall mean score of 3.83 suggests that e-tendering was adopted in most of the state corporations. However, there are areas with higher variability, particularly regarding technical support, employee training, and system accessibility. The standard deviation of 1.28 indicates a moderate level of disagreement or neutral responses across various aspects of e-tendering implementation showing that there is room for improvement.

Descriptive statistics for procurement performance

The respondents were asked to indicate their responses regarding procurement performance in their state corporations. The responses were to be provided on a 5-point Likert scale where 1= strongly agree, 2 disagree, 3=neutral, 4=agree, and 5= strongly agree. Findings are shown in Table 3.

Table 3: Descriptive Statistics for Procurement Performance

	SD (%)	D (%)	N (%)	A (%)	SA (%)	M	Std Dv
There is timely delivery of ordered goods and services in our organization.	12.66	7.59	8.86	30.38	40.51	3.78	1.38
The quality of the products and services acquired satisfies the requirements of our organization	0.00	0.00	27.85	48.10	24.05	3.96	0.72
Our procurement procedures have improved our relationships with suppliers.	6.33	7.59	5.06	22.78	58.23	4.19	1.22
There is adequate monitoring and evaluation of supplier performance	13.92	12.66	7.59	8.86	56.96	3.82	1.55
Stakeholders in our organization are satisfied with the procurement processes	13.92	6.33	7.59	39.24	32.91	3.71	1.36
There is accuracy in the quantities and specifications of goods delivered by suppliers	7.59	13.92	7.59	43.04	27.85	3.70	1.23
There is prompt resolution of procurement-related disputes	10.13	16.46	10.13	17.72	45.57	3.72	1.44
There is transparency in the procurement decision-making process.	5.06	6.33	8.86	43.04	36.71	4.00	1.09
Overall mean						3.86	1.25

The findings showed that 70.89% agreed that goods and services in their organizations were delivered on time, while 20.25% disagreed and 8.86% remained neutral. The mean score for this statement was 3.78, with a standard deviation of 1.38. The relatively high rate of agreement insinuates that delivery timelines in the corporations are mostly met. However, the notable proportion of disagreement points to potential issues, such as inconsistent supplier performance or logistical challenges. Timely delivery is crucial for operational efficiency, and delays can disrupt organizational processes (Mulongo, 2024).

For the statement regarding whether the quality of products and services meets organizational requirements, 72.15% of respondents agreed, 27.85% remained neutral, and none disagreed. The mean score was 3.96, with a standard deviation of 0.72, reflecting strong consensus on the quality of procured goods and services. The absence of disagreement indicates that suppliers generally met the quality standards expected by the corporations, not disregarding the neutral responses which suggest areas where quality might still be subject to improvement in some of the corporations.

In addition, 81.01% of respondents agreed that procurement procedures have improved relationships with their suppliers, while 13.92% disagreed, and 5.06% remained neutral. This item received a mean score of 4.19 and a standard deviation of 1.22. The few dissenting opinions could stem from isolated cases of poor supplier engagement or inconsistent implementation of procurement policies. Vaka (2024) suggests that effective procurement practices can enhance supplier relationships, nurturing collaboration and reliability.

About 65.82% of respondents agreed that there was adequate monitoring and evaluation of supplier performance in their corporations, 26.58% disagreed, and 7.59% neither agreed nor disagreed. The mean score was 3.82, with a standard deviation of 1.55. Agreeably, while a majority acknowledged supplier monitoring efforts, the percentage of disagreement and the wide variability point to gaps in the consistency or effectiveness of supplier performance. s

Responses to stakeholder satisfaction with the procurement process showed that 72.15% of respondents agreed, 20.25% disagreed, and 7.59% were neutral. The mean score was 3.71, with a standard deviation of 1.36. Furthermore, on whether goods delivered meet specified quantities and standards, 70.89% of respondents agreed, 21.51% disagreed, and 7.59% remained neutral. The mean score was 3.70, with a standard deviation of 1.23, showing general agreement. The disagreement could point to occasional errors in order fulfillment or communication issues between the organization and suppliers.

For the resolution of procurement-related disputes, 63.29% of respondents agreed, 26.59% disagreed, and 10.13% were neutral. The mean score was 3.72, with a standard deviation of 1.44. Disagreement could be attributed to delays or inefficiencies in dispute resolution mechanisms, indicating the need for streamlined and transparent processes. Latilo *et al.* (2024) argue that efficient dispute resolution is important for maintaining smooth procurement operations. Finally, regarding transparency in the procurement decision-making process in their corporations, 79.75% of respondents agreed, 11.39% disagreed, and 8.86% neither agreed nor disagreed. This item had a mean score of 4.00, with a standard deviation of 1.09, making it one of the highest-rated aspects. The strong agreement highlights a positive perception of fairness and openness in procurement practices, while the small percentage of disagreement suggests isolated cases of perceived opacity. Transparency is fundamental for accountability and trust in procurement processes (Muyonga, 2023)

The findings reveal that procurement performance in state corporations is generally well-regarded, with an overall mean score of 3.86 and a standard deviation of 1.25. High satisfaction was noted in areas such as the quality of goods and services, transparency in decision-making, and supplier relationships. However, areas such as the monitoring of supplier performance and the resolution of procurement disputes showed high variability in responses, showing areas for improvement.

Correlation Analysis

A correlation analysis was conducted to investigate the effect of e-tendering practices on the procurement performance of state corporations in Uganda. The findings are presented in Table 4

Table 4: Correlation Analysis

		Procurement performance	E-tendering
Procurement performance	Pearson Correlation	1	.748**
	Sig. (2-tailed)		0.000
E-tendering	Pearson Correlation	.748**	1
	Sig. (2-tailed)	0.000	

** Correlation is significant at the 0.01 level (2-tailed).

The study conducted a correlation analysis to determine the relationship between e-tendering practices and procurement performance of state corporations in Uganda. The results in Table 4.4. shows the strength and direction of the relationship between the two variables, the independent variable (e-tendering) and the dependent variable (procurement performance). The results reveal a strong positive correlation between e-tendering practices and the procurement performance of state corporations in Uganda ($r = 0.748$, $p=0.000$). This suggests that improved e-tendering practices are associated with better procurement performance in state corporations. The positive relationship indicates that as the implementation of e-tendering practices increases, procurement performance also improves, supporting the hypothesis that e-tendering contributes positively to procurement outcomes (Wanjiku *et al.*, 2023).

Regression Analysis

A regression analysis was conducted to determine whether e-tendering practices predict the procurement performance of state corporations in Uganda. The null hypothesis was that *e-tendering practices have no significant effect on the Procurement Performance of State Corporations in Uganda*. The findings are presented in Table 5

Table 5: Model Summary for E-tendering

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.748a	0.559	0.553	0.2693

a Predictors: (Constant), E-tendering

The results in Table 5 show that e-tendering practices have a significant effect on the procurement performance of state corporations in Uganda. The R Square value of 0.559 reveals that e-tendering practices explain 55.9% of the variation in procurement performance, while the remaining 44.1% is attributed to other factors not included in the model. The Adjusted R Square value of 0.553 confirms the robustness of the model, showing that the variance explained is not inflated by the predictor variable.

Table 6: ANOVA Results for E-tendering

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.072	1	7.072	97.514	.000b
	Residual	5.584	77	0.073		
	Total	12.656	78			

a Dependent Variable: Procurement performance

b Predictors: (Constant), E-tendering

The ANOVA results in Table 6 indicate that the regression model was a good fit and statistically significant in explaining the effect of e-tendering practices on the procurement performance of state corporations in Uganda as shown by F-statistic ($F=97.514$, $p=0.000$). These findings demonstrate that e-tendering practices significantly predict procurement performance, validating the model's robustness.

Table 7: Regression Coefficients for E-tendering

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	0.811	0.31		2.615	0.011
E-tendering	0.795	0.081	0.748	9.875	0

a Dependent Variable: Procurement performance

The regression coefficient results in Table 5 reveal that the constant term has an unstandardized coefficient of 0.811, with a standard error of 0.31, resulting in a t-value of 2.615 and a significance value of 0.011. This indicates that the constant term is statistically significant at the 5% level. The unstandardized coefficient for e-tendering is 0.795, with a standard error of 0.081. The standardized coefficient (Beta) for e-tendering is 0.748, and the t-value is 9.875, with a significance value of 0.000. These findings suggest that e-tendering has a strong positive impact on procurement performance, as the relationship is statistically significant. The Beta value of 0.748 implies that a unit improvement in e-tendering practices would lead to an improvement in procurement performance by 0.748 units. The null hypothesis that e-tendering practices have no significant effect on the Procurement Performance of State Corporations in Uganda was therefore rejected.

Qualitative Results

The qualitative analysis of the open-ended questions revealed key insights into the impact of e-tendering on procurement performance in Ugandan state-owned corporations. Respondents generally expressed that e-tendering has significantly streamlined procurement processes by reducing manual errors, improving transparency, and accelerating decision-making. Majority of the procurement managers indicated that the system has increased efficiency and enabled faster processing of tenders. The ease of tracking tendering stages and the automatic generation of reports were frequently cited as improvements that have positively impacted procurement performance.

However, several challenges in the use of the e-tendering system were identified by respondents. One of the main issues highlighted was the lack of sufficient training and awareness among staff, which led to difficulties in fully utilizing the system's capabilities. The respondents pointed out that some of the employees were resistant to training, especially those who were more accustomed to traditional methods. Technical issues, such as system downtime and limited access to reliable internet, were also cited as barriers to effective e-tendering implementation.

The respondents suggested that regular training and capacity building for staff would improve familiarity and efficiency with the e-tendering system. Many also recommended enhancing the infrastructure, particularly in terms of internet connectivity and system maintenance, to reduce technical disruptions. Additionally, procurement managers called for a more user-friendly interface and better customer support from the e-tendering software providers to address system-related issues promptly.

Discussions and findings

The study sought to examine the impact of e-tendering practices on procurement performance in Ugandan state-owned corporations. The findings revealed that e-tendering practices significantly influence procurement performance, as evidenced by the correlation and regression analysis results. These findings are consistent with that of Wako *et al.*, (2024) who established the transformative potential of e-tendering in streamlining procurement operations and enhancing procurement timeliness.

Qualitative responses further corroborated the positive impact of e-tendering, with respondents reporting reduced manual errors, improved tracking of tender progress, and faster decision-making. However, challenges were also noted, including technical barriers such as system downtime, insufficient internet connectivity, and limited user training. These findings align with Asiedu *et al.* (2023) who found that adequate infrastructure and capacity building are prerequisites for the successful implementation of e-procurement systems.

Based on the study's findings, it is evident that the adoption of electronic ordering practices is a predictor for procurement performance in state-owned corporations, but its effectiveness is hindered by technical and human-related challenges. Addressing these barriers through enhanced training, infrastructure upgrades, and continuous system improvement is essential to unlocking the full potential of e-tendering. The study shows the need for organizations to invest not only in technological solutions but also in capacity building and change management to ensure the successful adoption and sustainability of e-tendering practices.

CONCLUSION

It was concluded that e-tendering practices significantly influence the procurement performance in Ugandan state-owned corporations. The findings revealed a strong positive relationship between e-tendering and procurement performance, the system's ability to streamline processes and improve tracking and decision-making. Despite these benefits, challenges such as inadequate staff training, sticking on traditional methods and infrastructural limitations were identified as barriers to the effective implementation of e-tendering.

RECOMMENDATIONS

The study recommends that the corporations prioritize regular training and capacity-building programs to enhance staff expertise and familiarity with e-tendering systems. Improving digital infrastructure by installing reliable internet to minimizing system downtimes, is essential. Additionally, procurement departments should work with e-tendering system service providers to develop more user-friendly interfaces and nurture prompt technical support to resolve system-related issues that may hamper effective procurement implementation.

SIGNIFICANCE OF THE STUDY

The study makes a theoretical and practical contribution by showing the impact of e-tendering practices on procurement performance within Ugandan state corporations. The strong correlation ($r = 0.748$, $p = 0.000$) and predictive power of the regression model ($R^2 = 0.559$) indicates the capacity of e-tendering in enhancing procurement performance. From an Agency Theory perspective, these findings substantiate the role of e-tendering in mitigating principal-agent

problems by curbing information asymmetry and institutionalizing procurement governance structures that reinforce accountability and efficiency. Furthermore, the study supports the Technology Acceptance Model (TAM) by affirming that the perceived usefulness and ease of use of e-tendering systems drive adoption, even though constrained by the observed infrastructural and behavioral impediments. The study's empirical evidence of e-tendering as an enabler of procurement performance is an indicator of the urgency for systemic interventions to overcome implementation bottlenecks and rep the full benefits of digital procurement innovations in public sector governance.

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Conflict of Interest

The authors declare no conflict of interest.

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