

International Journal of **Supply Chain and Logistics**

(IJSCL)

**E-Procurement Implementation Drivers and
Procurement Performance of Non-Governmental Organization
in Nairobi County, Kenya**



**CARI
Journals**

E-Procurement Implementation Drivers and Procurement Performance of Non-Governmental Organization in Nairobi County, Kenya

 ^{1*}Everlyne Mawia Musili, ²Dr. Rebecca Mutia

^{1,2}School of Business, KCA University

Abstract

Purpose: The study aimed to investigate the relationship between the drivers of e-procurement implementation and the procurement performance of NGOs in Nairobi County, Kenya. The study specifically aimed at establishing the effect of top management, compliance requirement, technological advancement and procurement accountability on procurement performance of NGOs in Nairobi County, Kenya.

Methodology: The adopted a descriptive research design and targeted 93 international NGOs located in Nairobi County, which are organized into specific categories: energy, children, culture, disability, sports, health, education, agriculture, governance, environment, and youth. The procurement managers from each of these NGOs constituted the unit of observation. A census method was utilized for this investigation, with primary data collected through a questionnaire. The analysis involved both descriptive and inferential statistics. The Statistical Package for Social Sciences was employed for statistical analysis, and the results were presented using tables and figures.

Findings: The study established that top management support, compliance requirement, technological advancement and procurement accountability positively and significantly affects procurement performance of NGOs in Nairobi County, Kenya. The results bear the implications that increasing the aspects of each e-procurement implementation driver with one unit results to increase in the levels of procurement performance of NGOs with respective beta values.

Unique Contribution to Theory, Practice and Policy: The study recommends the management of NGOs to enhance the aspects of e-procurement implementation drivers comprising of top management support, compliance requirement, technological advancement and procurement accountability as they positively and significantly affect the procurement performance of the organizations. The study examines the direct influence of e-procurement implementation drivers comprising of top management support, compliance requirements, technological advancement, and procurement accountability on procurement performance specifically within NGOs in Nairobi County. It contributes to theory by integrating theories to explain how organizational, technological, and regulatory factors jointly shape procurement outcomes. The findings guide NGO management in improving efficiency, transparency, and accountability through enhanced e-procurement strategies. The study enriches the limited empirical literature on e-procurement adoption in the NGO sector and offers a basis for comparative and longitudinal studies.

Keywords: *Top Management, Compliance Requirement, Technological Advancement, Procurement Accountability, and Procurement Performance*

Background of the Study

Non-governmental organizations (NGOs) play a pivotal role in the socio-economic development of countries by delivering services in sectors such as poverty reduction, healthcare, education, environmental conservation, and human rights advocacy. Their effectiveness, however, is closely linked to the efficiency and transparency of their internal processes such as procurement. Procurement performance directly influences an NGO's capacity to meet programmatic objectives, optimize resource utilization, and maintain credibility with donors and stakeholders (Odoom, Obeng-Baah & Agyepong, 2022). Efficient procurement processes ensure that resources are allocated appropriately, operational disruptions are minimized, and organizational goals are achieved. Conversely, poor procurement performance can lead to resource wastage, project delays, and loss of stakeholder trust. Given that NGOs often operate under tight budgets and heightened accountability pressures, understanding the drivers of effective procurement implementation is crucial for enhancing organizational performance and sustainability.

"E-procurement implementation drivers" are the primary factors that influence an organization's successful adoption and utilization of electronic procurement systems (Opoku et al., 2022). E-procurement is the automation and simplification of procurement procedures, such as selecting suppliers, bidding, contract administration, and purchase transactions, through the utilization of digital technologies. A multitude of organizational, legal, and technological aspects impact the way e-procurement is executed in NGOs, thereby influencing its effectiveness and overall performance. These key drivers adopted in the study comprised of top management support, compliance requirements, technological advancement and procurement accountability. The study adopted the high-lightened due to limited empirical literature that seeks to assess the combined effect of the driver on e-procurement implementation in the context of NGOs.

Top management support is a vital factor that impacts the adoption of e-procurement. This concept includes the dedication, involvement, and strategic backing provided by top executives to facilitate the successful implementation of projects such as e-procurement. The success of these initiatives is largely contingent upon the commitment and participation of senior leadership (Lobong & Keji, 2020). When top management actively endorses and supports e-procurement, they facilitate resource allocation, staff training, and policy formulation that align with the system's requirements. Strong leadership ensures that there is strategic direction and that any challenges encountered during implementation are addressed proactively. Without adequate management support, e-procurement projects may face resistance from employees, lack funding, or fail to integrate effectively with existing organizational processes. Furthermore, leadership commitment signals to employees that the initiative is a priority, thereby reducing resistance to change. It also fosters a culture of innovation where digital transformation is embraced across the organization. Ultimately, sustained managerial support is necessary for ensuring long-term success and continuous improvement of e-procurement systems.

Another key driver is compliance requirements which refers to the need for organizations to adhere to established laws, regulations, policies, and standards governing procurement processes (Isango, 2024). Organizations operate in an environment that requires strict compliance with donor regulations, government procurement laws, and internal procurement policies. By offering consistent and verifiable procurement records, e-procurement solutions improve compliance by lowering the risk of corruption, fraud, and procedural infractions. The ability of an organization to successfully implement e-procurement depends on how well the system aligns with regulatory requirements and ensures transparency in procurement activities. Compliance-driven e-procurement adoption helps organizations meet reporting obligations and enhances credibility among donors, regulatory bodies, and stakeholders. Additionally, compliance strengthens accountability by ensuring that procurement practices follow due diligence and ethical standards. It reduces the chances of audit queries and penalties that may arise from non-compliance with procurement regulations. By embedding compliance mechanisms within e-procurement, NGOs can secure continued donor support and safeguard their reputation.

Technological advancement is another fundamental driver of e-procurement implementation. It refers to the continuous improvement and innovation in digital tools, systems, and infrastructure that enhance efficiency, accuracy, and speed in various operations. The availability and accessibility of digital infrastructure, including internet connectivity and procurement software, significantly influence e-procurement adoption (Mutangili, 2014). A well-developed technological environment enables seamless e-procurement systems integration with other organizational functions such as finance and logistics, thereby improving efficiency. However, the organization's ability to make investments in cutting-edge technologies, guarantee cybersecurity, and provide staff with the necessary training to adjust to digital systems for procurement determines how well e-procurement adoption goes. Technological readiness is essential in minimizing resistance to change and optimizing the benefits of automation in procurement processes. Moreover, continuous upgrades in technology allow NGOs to remain competitive and adopt global best practices in procurement. Organizations that fail to invest in technological advancement risk being left behind in efficiency and transparency standards. Therefore, technology is not only a driver but also a critical enabler of long-term sustainability in e-procurement.

The role of procurement accountability is fundamental in driving the implementation of e-procurement. It signifies the responsibility of organizations to guarantee transparency, efficiency, and integrity in their procurement operations by adhering to defined policies, regulations, and ethical norms. Accountability in procurement involves transparency, fairness, and ethical decision-making in acquiring goods and services (Boafo & Ahudey, 2020). E-procurement enhances accountability by availing a digital procurement transactions trail, which can be audited and monitored to ensure compliance with procurement standards. Organizations can minimize human errors, eliminate favoritism in supplier selection, and ensure that resources are used efficiently by automating procurement workflows. Improved procurement accountability not only enhances

operational integrity but also builds trust among stakeholders, including donors, beneficiaries, and regulatory authorities. Furthermore, accountability mechanisms reassure stakeholders that resources are being utilized for their intended purposes. They also promote a culture of responsibility, where procurement staff understand that their actions are traceable and measurable. This not only safeguards donor funds but also increases the overall legitimacy and sustainability of NGOs' procurement processes.

Statement of the Problem

Non-Governmental Organizations in Nairobi County play a vital role in socio-economic development by delivering services in health, education, poverty alleviation, and environmental protection (Mburu & Mutundu, 2023). However, many NGOs continue to face significant procurement inefficiencies, characterized by delays in supplier selection, contract approval, and payment processing due to reliance on manual, paper-based systems (Moshtari et al., 2021). These inefficiencies compromise operational effectiveness, increase the risk of errors and fraud, and undermine accountability, as evidenced by the Office of the Auditor-General (2023), which reported that over 40% of NGOs fail to adequately account for donor funds. E-procurement has been recognized as a transformative tool capable of enhancing transparency, reducing costs, and improving procurement performance (Waithaka & Kimani, 2021). Nevertheless, its successful implementation depends on critical drivers such as technological infrastructure, staff competencies, organizational readiness, and top management support. Despite acknowledgment of these factors, empirical evidence on their influence within NGOs in Nairobi County is scarce. The main problem, therefore, is the persistent inefficiency in NGO procurement systems, which hinders accountability and performance, highlighting the need to investigate the key drivers that facilitate effective e-procurement adoption.

Scholars present mixed views regarding the impact of e-procurement drivers on procurement performance. For example, Nawi and Deraman (2020) in a Malaysian context emphasized the role of technological readiness, whereas Chisanga (2024), in his study underscored managerial support as the most critical enabler. Okumu and Nderui (2024) examined e-procurement practices in NGOs but focused primarily on performance outcomes rather than the factors that drive successful implementation. These conflicting perspectives suggest a lack of consensus on which drivers matter most and under what circumstances. Moreover, existing studies are largely situated outside the NGO context or focus on different geographic regions, limiting their applicability to NGOs operating within Nairobi County. This reveals both a conceptual and contextual gap. The current study seeks to investigate the drivers of e-procurement implementation and their influence on procurement performance within NGOs in Nairobi County. The research gap therefore lies in the limited understanding of the relationship between e-procurement implementation drivers and procurement performance in the NGO sector, especially within the Nairobi County context. Existing studies either fail to focus on implementation drivers or do not adequately address the NGO operating environment. This leads to the key research question: To what extent do e-

procurement implementation drivers influence procurement performance among NGOs in Nairobi County, Kenya?

Objectives of the Study

- i. To establish the effect of top management support on procurement performance of NGOS in Nairobi County, Kenya
- ii. To determine the influence of compliance requirement on procurement performance of NGOS in Nairobi County, Kenya
- iii. To examine how technological advancement influence procurement performance of NGOS in Nairobi County, Kenya
- iv. To analyze the influence of procurement accountability on procurement performance of NGOS in Nairobi County, Kenya

Theoretical Review

Upper Echelons Theory

In 1984, Donald and Phyllis formulated the Upper Echelons Theory, asserting that the strategic decisions and outcomes of an organization are profoundly affected by the traits, backgrounds, and values of its senior leadership (Hambrick & Mason, 1984). According to the theory, decision-making at the highest levels of an organization is shaped by the cognitive base and values of top managers, which in turn affect performance, resource allocation, and overall organizational direction. The theory suggests that top executives do not make decisions in a vacuum; instead, their choices are influenced by factors such as education, experience, age, and personal values. These individual attributes shape the way they perceive organizational challenges and opportunities, ultimately guiding the strategies they implement (Abatecola & Cristofaro, 2018). In this regard, the Upper Echelons Theory underscores the human element in strategic management, emphasizing that leadership is both a cognitive and value-driven process. It also illustrates how organizational choices mirror the unique characteristics of leaders, thereby linking personal attributes to institutional outcomes. By doing so, the theory bridges the gap between leadership psychology and organizational performance, making it particularly relevant in understanding managerial influence on technological adoption.

The theory presents a comprehensive framework that aids in grasping the relationship between procurement performance and the support provided by top management. Given that e-procurement adoption requires significant organizational changes, including investment in technology, training, and process reengineering, the commitment and strategic vision of top management are critical for successful implementation. The acceptance and efficacy of e-procurement systems are significantly influenced by the attitudes, beliefs, and styles of leadership of NGO executives. When top management actively champions e-procurement initiatives, allocates necessary resources, and provides strategic direction, NGOs are more likely to experience improved procurement efficiency, cost savings, and transparency (Lobong & Keji, 2020). Furthermore, the willingness of

leaders to embrace digital transformation helps reduce resistance to change and builds organizational trust in new systems. Their actions set the tone for lower-level managers and staff, creating a culture that fosters innovation and accountability. Ultimately, leadership engagement serves as a catalyst that determines whether technological initiatives succeed or fail, making it central to procurement performance in NGOs.

Institutional Theory

In 1977, John Meyer and Brian Rowan introduced Institutional Theory, which asserts that organizations comply with rules, regulations, and conventions to ensure stability, obtain legitimacy, and access necessary resources. According to the notion, institutions determine what constitutes appropriate behavior, procedures, and structures in which organizations function (Scott & Lewis, 2017). These environments consist of regulatory, normative, and cultural-cognitive elements that influence organizational decision-making and operational frameworks. According to the theory, organizations do not solely act based on economic rationality or efficiency considerations; rather, they engage in practices that are consistent with the current institutional pressures to preserve their legitimacy and achieve social acceptance. The regulative, normative, and cultural-cognitive pillars are the three primary pillars identified by the theory as influencing organizational behavior (Mohamed, 2017). The regulative pillar refers to formal rules, laws, and compliance requirements enforced by regulatory bodies to ensure order and standardization in organizational processes. The normative pillar encompasses professional standards, industry best practices, and ethical expectations that organizations are expected to follow, while the cultural-cognitive pillar pertains to the common values, beliefs, and social structures that impact how organizations view and react to institutional demands.

The theory according to Picho (2017) highlights the influence of professional procurement standards and best practices in shaping procurement performance. A significant number of NGOs make concerted efforts to align with international procurement regulations as outlined by the United Nations, the World Bank, and other financial institutions. The adoption of e-procurement ensures adherence to these standards, facilitating competitive bidding, supplier transparency, and data-driven decision-making. From a cultural-cognitive perspective, the theory also emphasizes how procurement staff and organizational leadership perceive compliance requirements as a critical factor in procurement efficiency. A strong compliance culture fosters ethical procurement practices, reduces inefficiencies, and enhances overall organizational performance. The theory thus supports the study's objective on compliance requirement by explaining how compliance requirements influence procurement performance in NGOs. NGOs can enhance transparency, improve operational efficiency, and maintain credibility among stakeholders by aligning procurement processes with institutional expectations. The theory provides insight into how the obligation to conform to external regulations, internal policies, and industry best practices incentivizes the utilization of e-procurement, ultimately resulting in enhanced procurement performance.

Technology Acceptance Model

In 1986, Fred Davis introduced the Technology Acceptance Model (TAM), which highlights perceived usefulness and perceived ease of use as the two key factors that drive an individual's decision to adopt new technology. According to Mugo et al. (2017), perceived usefulness refers to the belief that a particular technology will enhance one's work performance, while perceived ease of use pertains to the belief that the technology will be easy to use. These two components significantly affect an individual's attitude towards the system, which subsequently influences their usage decisions and actual technology engagement. Additionally, external factors such as system architecture, organizational support, and technology infrastructure also impact perceived usefulness and ease of use, thereby affecting the overall adoption process. The model has therefore become one of the most widely applied frameworks in technology adoption studies across different sectors. In the context of e-procurement, it provides a systematic way of examining how employees develop positive or negative attitudes toward system adoption. This makes it a valuable foundation for investigating how NGOs in Nairobi County adopt and integrate digital procurement solutions into their operations.

The model offers a theoretical framework for comprehending the adoption and application of e-procurement technologies by NGOs. Since procurement procedures are essential to NGOs' efficacy, e-procurement integration can greatly improve efficiency, transparency, and accountability. TAM helps explain how employees within these organizations perceive and interact with e-procurement technology. If they find the system beneficial in improving procurement operations and easy to navigate, adoption rates will increase. Furthermore, the model highlights the link between technology acceptance and efficiency. NGOs are more inclined to include e-procurement into their operations if they believe it can shorten procurement cycle times, cut expenses, and enhance supplier management. Better procurement performance follows, guaranteeing prompt acquisition of the products and services required for program execution (Lazim et al., 2021). This indicates that the behavioral intentions of employees directly translate into tangible organizational outcomes. For NGOs that operate with limited resources, this efficiency gain can mean better resource allocation to core projects. As such, TAM provides both a behavioral and performance-based explanation for the role of e-procurement in enhancing organizational effectiveness.

Agency Theory

The theory formulated by Michael Jensen and William Meckling in 1976 highlights the possibility of conflicts of interest within contractual agreements. It suggests that when a principal grants authority or responsibilities to an agent, such as a manager or employee, tensions can arise (Zogning, 2017). Although agents are expected to prioritize the interests of principals, including owners or stakeholders, they may pursue their own goals, which can lead to issues referred to as 'agency problems.' The theory identifies two primary issues: moral hazard, in which agents may

engage in covert activities that endanger the principal's interests, and asymmetric information, in which agents are more aware of their conduct than principals. This dynamic can lead to inefficiencies and undermine organizational performance if not addressed appropriately. Therefore, Agency Theory has become a key foundation in governance literature, especially in contexts where accountability and transparency are paramount.

The procurement function in NGOs involves acquiring goods and services necessary for operational and programmatic activities. Since NGOs mostly depend on donor financing, procurement accountability is essential to guaranteeing that resources are spent effectively, openly, and in accordance with their original purpose. But since NGO procurement procedures are so complicated, agency issues frequently occur. These occur when procurement officials or managers (agents) put their own or outside interests ahead of the organization's goals, which can result in fraud, inefficient use of funds, and other issues. As noted by Budnik and Przedańska (2017), agency theory underscores the need for oversight systems that ensure the actions of procurement officers are in harmony with the objectives of the NGO and its funding sources. This is particularly critical in Nairobi County where NGOs handle large budgets with diverse stakeholders. Hence, strong oversight helps build donor confidence and secures sustained financial support.

Research Methodology

A descriptive research design was used for this research. This study specifically examined international NGOs that operate in Nairobi County. According to NGO Coordination Board (2024), there are 93 International NGOs operating in Nairobi County and classified into energy, children, culture, disability, sports, health, education, agriculture, governance, environment and youth. The observation unit consisted of procurement managers from each NGO. The study employed a census method. A questionnaire was utilized to obtain primary data for the study. The data analysis involved the application of both descriptive and inferential statistics. Inferential statistics featured regression and correlation methods, whereas descriptive statistics provided insights through mean and standard deviation calculations. The statistical software SPSS V24 was employed to generate the relevant statistics. To analyze the influence of the independent variable on the dependent variable, the study utilized multiple regression analysis. The model for this study is as illustrated below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where; Y = Procurement Performance of NGOs, β_0 = Regression constant or intercept, β_1 , β_2 , β_3 and β_4 are the independent variables unknown coefficients, X_1 = Top Management Support, X_2 = Compliance Requirement, X_3 = Technological Advancement, X_4 = Procurement Accountability and ε = Error term.

Descriptive Statistics

Descriptive statistics were employed in the study with the aim of providing description of the responses of the different aspects of the variables in the study and derived from the responded questionnaires. Prior generation of the statistics, the researcher formulated various statements on each of the variable. Respondents were requested to rate their level of agreement with the statements while applying a rating scale of 1-5 where 1 represents Strongly Disagree, 2 signifies Disagree, 3 indicates Neutral, 4 stands for Agree, and 5 denotes Strongly Agree. The descriptive statistics were arrived at by calculating the mean and standard deviation of the responses from each variable and getting the overall mean and standard deviation for a general conclusion on the level of agreement with the various statements.

Top Management Support

Table 1 outlines the descriptive results on top management support. The results shows that respondents were in neutral with the statements that top management ensured adequate budget allocation for e-procurement platforms (mean=2.519, std.dev=1.175), that financial resources are provided in a timely manner to support procurement operations (mean=2.671, std.dev=1.174) and that there was a clear financial strategy to sustain e-procurement initiatives (mean=2.797, std.dev = 1.275). Results further showed that respondents were unsure with the statements that top management supported regular training programs for procurement staff (mean=2.722, std.dev= 1.176), that continuous professional development opportunities in procurement technology was available to employees (mean=2.924, std.dev= 1.107) and that the management actively promoted the adoption of e-procurement systems (mean=2.797, std.dev=1.234). Respondents further showed neutrality on the statements that there were well-defined policies to guide employees through procurement changes (mean=2.924, std.dev=1.279) and that management fostered a culture of innovation in procurement processes (mean=2.823, std.dev=1.196). An overall mean response of 2.772 and std.dev of 1.202 implied a general neutrality level amongst respondents pertaining to the various aspects of top management support. The results were in tandem with Lobong and Keji (2020) who established that the success of institution's initiatives is largely contingent upon the commitment and participation of senior leadership.

TABLE 1 Descriptive Statistics on Top Management Support

Top Management Support	Mean	Std.Dev
Top management ensures adequate budget allocation for e-procurement platforms.	2.519	1.175
Financial resources are provided in a timely manner to support procurement operations.	2.671	1.174
There is a clear financial strategy to sustain e-procurement initiatives	2.797	1.275
Top management supports regular training programs for procurement staff	2.722	1.176
Continuous professional development opportunities in procurement technology are available to employees	2.924	1.107
The management actively promotes the adoption of e-procurement systems.	2.797	1.234
There are well-defined policies to guide employees through procurement changes	2.924	1.279
Management fosters a culture of innovation in procurement processes	2.823	1.196
Overall	2.772	1.202

Compliance Requirement

The descriptive results on compliance requirement outlined in table 2 shows that respondents were neutral with the statements that procurement effectiveness can still be achieved even when regulatory requirements are not fully adhered to (mean=2.582, std.dev=0.982) that non-compliance with donor procurement requirements does not always lead to funding risks (mean=2.759, std.dev=0.895), that compliance with ethical procurement standards through e-procurement does not necessarily enhance our organization's reputation (mean=2.785, std.dev=0.929) and that the e-procurement system does not always enforce ethical standards in procurement activities (mean=2.722, std.dev=1.073). Respondents however disagreed with the statements that there are times when the organization struggles to fully adhere to government procurement regulations in e-procurement processes (mean=2.392, std.dev=1.055), that compliance with local procurement laws does not necessarily improve efficiency in procurement performance (mean=2.468, std.dev=0.903) and that donor-imposed procurement guidelines are not always strictly followed in e-procurement transactions (mean=2.380, std.dev=0.965). On overall, respondents were neutral with the various statements on compliance requirements as shown by an overall mean of 2.584 and std.dev of 0.972. The results concurs with Abu et al. (2019) who established that regulatory compliance significantly influenced e-procurement adoption, with stringent regulatory frameworks driving higher compliance levels.

TABLE 2 Descriptive Statistics on Compliance Requirement

Compliance Requirement	Mean	Std.Dev
There are times when our organization struggles to fully adhere to government procurement regulations in e-procurement processes	2.392	1.055
Compliance with local procurement laws does not necessarily improve efficiency in procurement performance	2.468	0.903
Procurement effectiveness can still be achieved even when regulatory requirements are not fully adhered to	2.582	0.982
Donor-imposed procurement guidelines are not always strictly followed in e-procurement transactions	2.380	0.965
Non-compliance with donor procurement requirements does not always lead to funding risks	2.759	0.895
Compliance with ethical procurement standards through e-procurement does not necessarily enhance our organization's reputation	2.785	0.929
The e-procurement system does not always enforce ethical standards in procurement activities	2.722	1.073
Overall	2.584	0.972

Technological Advancement

The descriptive results on technological advancement presented in table 3 shows that respondents were neutral with the statements that e-procurement system in their organization was often incompatible with other internal systems (mean=2.671, std.dev=1.022), that the organization has not put in place adequate data protection measures for procurement information (mean=2.658, std.dev=0.973) and that the platforms used for processing procurement transactions in their organization are not secure (mean=2.785, std.dev=0.901). Additionally, respondents showed neutrality with the statements that mobile technology was rarely effective for accessing and managing procurement functions in our organization (mean=2.722, std.dev=1.025), that technological advancements had not significantly enhanced the speed and accuracy of procurement processes (mean=2.848, std.dev=0.864) and that system compatibility had not improved communication with vendors and other stakeholders (mean=3.013, std.dev=1.138). On overall, all respondents were neutral with the statements on technological advancement as depicted by an overall mean of 2.783 and std.dev of 0.987. The results concurs with Mutangili (2014) who revealed that a well-developed technological environment enables seamless e-procurement systems integration with other organizational functions such as finance and logistics, thereby improving efficiency.

TABLE 3 Descriptive Statistics on Technological Advancement

Technological Advancement	Mean	Std.Dev
The e-procurement system in our organization is often incompatible with other internal systems	2.671	1.022
Our organization has not put in place adequate data protection measures for procurement information	2.658	0.973
The platforms used for processing procurement transactions in our organization are not secure	2.785	0.901
Mobile technology is rarely effective for accessing and managing procurement functions in our organization	2.722	1.025
Technological advancements have not significantly enhanced the speed and accuracy of procurement processes	2.848	0.864
System compatibility has not improved communication with vendors and other stakeholders	3.013	1.138
Overall	2.783	0.987

Procurement Accountability

Table 4 provides an outline of the descriptive statistics on procurement accountability. According to the results, respondents disagreed with the statements that staff responsible for procurement in my NGO were not adequately familiar with the relevant policies and procedures (mean=2.215, std.dev=1.094), that the organization lacks clear job descriptions that specify procurement staff responsibilities (mean=2.089, std.dev=0.923) and that reporting structures for procurement-related activities in the NGO were unclearly defined (mean = 2.076, std.dev=0.888). Similarly, respondents showed disagreement with the statements that staff in the NGO feel discouraged from whistleblowing on procurement malpractices due to fear of victimization (mean=2.127, std.dev=0.868), that procurement decisions in the NGO were not always based on transparent evaluation criteria (mean=2.291, std.dev=0.963) and that suppliers were sometimes selected without an equitable and competitive bidding process (mean=2.013, std.dev=0.884). On the statement on whether procurement records were poorly maintained and often difficult to access for audit purposes, respondents showed a neutral stance as shown by a mean of 2.759 and standard deviation value of 1.028. There was however an overall disagree response amongst the respondents on statements on procurement accountability as depicted by a mean of 2.224 and std.dev of 0.950. The results tallies with findings from Chopra and Singh (2018) who established that accountability mechanisms, such as regular audits and transparent reporting, reduced procurement irregularities and enhanced cost efficiency, underscoring accountability's critical role in driving procurement success among NGOs.

TABLE 4 Descriptive Statistics on Procurement Accountability

Procurement Accountability	Mean	Std.Dev
The staff responsible for procurement in my NGO are not adequately familiar with the relevant policies and procedures	2.215	1.094
The organization lacks clear job descriptions that specify procurement staff responsibilities	2.089	0.923
Reporting structures for procurement-related activities in my NGO are unclearly defined	2.076	0.888
Staff in my NGO feel discouraged from whistleblowing on procurement malpractices due to fear of victimization	2.127	0.868
Procurement decisions in my NGO are not always based on transparent evaluation criteria	2.291	0.963
Suppliers are sometimes selected without an equitable and competitive bidding process	2.013	0.884
Procurement records are poorly maintained and are often difficult to access for audit purposes	2.759	1.028
Overall	2.224	0.950

Performance of NGOs

Table 5 displays the descriptive statistics on procurement performance of NGOs. According to the results, respondents were in agreement with the statements that the NGOs had experienced a decline in procurement costs due to the adoption of e-procurement (mean=3.759, std.dev=1.077), that the adoption of e-procurement had led to a substantial decrease in the costs related to conventional manual procurement practices (mean=3.646, std.dev=1.166) and that online procurement systems had helped in obtaining better supplier pricing through competitive bidding (mean=3.595, std.dev=1.225). Respondents further agreed with the statements that the use of e-procurement had significantly increased the correctness of orders that are placed (mean = 3.848, and std.dev=1.087), that there was a significant reduction in errors related to wrong quantities or specifications when using e-procurement (mean=3.747, std.dev=1.149), that the duration required to process procurement requests had notably decreased as a result of e-procurement (mean=3.747, std.dev=1.068) and that e-procurement had improved the speed of supplier selection and contract awarding (mean =3.886, std.dev=0.987). All respondents were in agreement with the statements on procurement performance of NGOs as shown by an overall mean of 3.747 and std.dev of 1.108. According to Paul et al. (2024), a well-performing procurement system ensures the optimal use of resources, minimizes wastage, and enhances service delivery to beneficiaries.

TABLE 5 Descriptive Statistics on Procurement Performance of NGOs

Procurement Performance of NGOs	Mean	Std.Dev
Our NGO has experienced a decline in procurement costs due to the adoption of e-procurement	3.759	1.077
The adoption of e-procurement has led to a substantial decrease in the costs related to conventional manual procurement practices	3.646	1.166
Online procurement systems have helped in obtaining better supplier pricing through competitive bidding	3.595	1.225
The use of e-procurement has significantly increased the correctness of orders that are placed	3.848	1.087
There is a significant reduction in errors related to wrong quantities or specifications when using e-procurement	3.747	1.149
The duration required to process procurement requests has notably decreased as a result of e-procurement	3.747	1.068
E-procurement has improved the speed of supplier selection and contract awarding	3.886	0.987
Overall	3.747	1.108

Inferential Statistics

Correlation Analysis

According to the correlation results presented in table 6, top management support and procurement performance of NGOs in Nairobi County, Kenya positively and significantly correlates. This is shown by a correlation value of 0.959 and a significant value of 0.000. The results bear the implications that enhancing top management support in the e-procurement implementation contributes to enhanced procurement performance of NGOs in Nairobi County, Kenya. The results are consistent with Lobong and Keji (2020) who established that the success of institution's initiatives is largely contingent upon the commitment and participation of senior leadership. The results also revealed that compliance requirement and procurement performance of NGOs in Nairobi County, Kenya positively and significantly correlates. This is shown by a correlation value of 0.866 and a significant value of 0.000. The results bear the implications that enhancing compliance requirement in the e-procurement implementation contributes to enhanced procurement performance of NGOs in Nairobi County, Kenya. The results are consistent with Abu et al. (2019) who established that regulatory compliance significantly influenced e-procurement adoption, with stringent regulatory frameworks driving higher compliance levels.

The results also established that technological advancement and procurement performance of NGOs in Nairobi County, Kenya positively and significantly correlates. This is shown by a correlation value of 0.897 and a significant value of 0.000. The results bear the implications that enhancing technological advancement in the e-procurement implementation contributes to enhanced procurement performance of NGOs in Nairobi County, Kenya. The results concurs with Maalim and Nyang'au (2019) who established that technology infrastructure greatly and positively affects the implementation of electronic procurement. The results further revealed that that

procurement accountability and procurement performance of NGOs in Nairobi County, Kenya positively and significantly correlates. This is shown by a correlation value of 0.820 and a significant value of 0.000. The results bear the implications that enhancing procurement accountability in the e-procurement implementation contributes to enhanced procurement performance of NGOs in Nairobi County, Kenya. The results tallies with findings from Chopra and Singh (2018) who established that accountability mechanisms, such as regular audits and transparent reporting, reduced procurement irregularities and enhanced cost efficiency, underscoring accountability's critical role in driving procurement success among NGOs.

TABLE 6 Correlation Results

		Top Management Support	Compliance Requirement	Technological Advancement	Procurement Accountability	Procurement Performance of NGOs
Top Management Support	Pearson Correlation	1				
Compliance Requirement	Pearson Correlation	.845	1			
Technological Advancement	Pearson Correlation	.863	.753	1		
Procurement Accountability	Pearson Correlation	.793	.719	.701	1	
Procurement Performance of NGOs	Pearson Correlation	.959	.866	.897	.820	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	79	79	79	79	79

Regression Analysis

A regression analysis was employed in the study to assess the extent to which the independent variables related with the dependent variable. The analysis was carried out at 95% confident level. The output of the regression analysis comprised of Model Summary, ANOVA and Model coefficient. The model summary was utilized to assess the degree of relationship between the independent variables (Top Management Support, Compliance Requirement, Technological Advancement and Procurement Accountability) and the dependent variable (Procurement Performance of NGOs). The model Summary was also utilized to assess the percentage accounted by the independent variables on the dependent variable. According to the results outlined in table 7, the R-Value was 0.976 implying existence of a very high relationship between the independent

variables and the dependent variable. The R-square value was 0.953 implying that the independent variables accounted for 95.3% in variations of the dependent variable.

TABLE 7 Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.976 ^a	.953	.951	.21198
Predictors: (Constant), Top Management Support, Compliance Requirement, Technological Advancement and Procurement Accountability			

The study incorporated the analysis of variance (ANOVA) aiming at assessing the statistical significance of the model linking the independent variables with the dependent variable. According to the results outlined in table 8, the significant value was 0.000. The value was below the significant value of 0.05 implying that the model was statistically significant for assessing the relationship between the independent and dependent variable.

TABLE 8 ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	67.6113	4	16.9028	376.1424	.000 ^b
Residual	3.3254	74	0.0449		
Total	70.9367	78			

a. Dependent Variable: Procurement Performance of NGOs

b. Predictors: (Constant), Top Management Support, Compliance Requirement, Technological Advancement and Procurement Accountability

The model coefficient results was incorporated in the study aiming at assessing how the dependent variable changes with a change in the independent variable. The results outlined in table 9 shows that top management support bears a positive and significant effects on procurement performance of NGOs in Nairobi County, Kenya. This is shown by a beta value of 0.504 and significant value of $0.000 < 0.05$. The results bear the implications that increasing the aspects of top management support in e-procurement implementation results to 0.504 units increase in the levels of procurement performance of NGOs in Nairobi County, Kenya. The results tallies with Mwangi and Omwenga (2019) findings who established a positive association between top management commitment and the effective practice of e-procurement. The results further established that compliance requirement bears a positive and significant effects on procurement performance of NGOs in Nairobi County, Kenya. This is shown by a beta value of 0.208 and significant value of $0.002 < 0.05$. The results bear the implications that increasing the aspects of compliance requirement in e-procurement implementation results to 0.208 units increase in the levels of procurement performance of NGOs in Nairobi County, Kenya. According Isango (2024), the ability of an organization to successfully implement e-procurement depends on how well the system aligns with regulatory requirements and ensures transparency in procurement activities.

The results also established that technological advancement bears a positive and significant effects on procurement performance of NGOs in Nairobi County, Kenya. This is shown by a beta value of 0.320 and significant value of $0.000 < 0.05$. The results bear the implications that increasing the aspects of technological advancement in e-procurement implementation results to 0.320 units increase in the levels of procurement performance of NGOs in Nairobi County, Kenya. The results concurs with Mutangili (2014) who revealed that a well-developed technological environment enables seamless e-procurement systems integration with other organizational functions such as finance and logistics, thereby improving efficiency. The results finally established that procurement accountability bears a positive and significant effects on procurement performance of NGOs in Nairobi County, Kenya. This is shown by a beta value of 0.200 and significant value of $0.003 < 0.05$. The results bear the implications that increasing the aspects of procurement accountability in e-procurement implementation results to 0.200 units increase in the levels of procurement performance of NGOs in Nairobi County, Kenya. According to Chopra and Singh (2018), accountability mechanisms, such as regular audits and transparent reporting, reduced procurement irregularities and enhanced cost efficiency, underscoring accountability's critical role in driving procurement success among NGOs.

TABLE 9 Model Coefficient

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	.476	.118		4.044	.000
Top Management Support	.504	.065	.514	7.707	.000
Compliance Requirement	.208	.065	.152	3.179	.002
Technological Advancement	.320	.064	.249	4.981	.000
Procurement Accountability	.200	.066	.128	3.051	.003

Dependent Variable: Procurement Performance of NGOs

Conclusion

The findings led to conclusions that top management in NGOs in Nairobi County plays a significant role in enhancing procurement performance by providing the necessary financial, strategic, and institutional support for e-procurement implementation. The findings also led to conclusion that compliance requirements play a critical role in enhancing procurement performance within NGOs in Nairobi County. The findings also led to conclusions that technological advancement positively and significantly affects procurement performance within NGOs in Nairobi County. Respondents acknowledged that their organizations had adopted compatible systems, implemented robust data protection measures, and utilized secure platforms for processing procurement transactions. The findings of the study led to conclusions that procurement accountability plays a significant role in enhancing procurement performance among NGOs in Nairobi County.

Recommendations

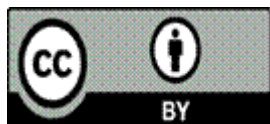
The study provides recommendations to the management of NGOs in Nairobi County to enhance procurement performance through targeted strategies aligned with the identified e-procurement implementation drivers. With regard to top management support, NGO leaders should strengthen their commitment to procurement initiatives by ensuring the continuous allocation of sufficient financial, strategic, and institutional resources. This includes developing and implementing clear strategies that sustain e-procurement systems, fostering a culture that embraces innovation, and investing in regular capacity-building programs to equip procurement staff with the necessary skills to adapt to evolving technological demands. In respect to technological advancement, the study recommends NGOs to continually invest in compatible, secure, and up-to-date e-procurement systems that promote operational efficiency and data security.

References

- Abatecola, G., & Cristofaro, M. (2018). Hambrick and Mason's "Upper Echelons Theory": evolution and open avenues. *Journal of Management History*, 26(1), 116–136.
- Abu, M., Rahman, Z., & Kassim, N. (2019). The impact of regulatory compliance on e-procurement adoption in NGOs in Malaysia. *Journal of Procurement Studies*, 12(3), 45–62.
- Bendickson, J., Muldoon, J., Liguori, E. W., & Davis, P. E. (2016). Agency theory: background and epistemology. *Journal of Management History*, 22(4), 437–449.
- Boafo, N. D., & Ahudey, E. (2020). Evaluating E-Procurement Impact In The Public Sector. *Archives of Business Research*, 8(5), 235–247.
- Budnik, A., & Przedańska, J. (2017). The Agency Theory Approach to the Public Procurement System. *Wroclaw Review of Law, Administration & Economics*, 7(1), 154–165.
- Chisanga, M. (2024). The Factors Affecting Electronic Government Procurement (EGP) Implementation in Zambia's City Councils: A case of the Lusaka City Council. *African Journal of Commercial Studies*, 4(1), 69–80.
- Chopra, S., & Singh, R. (2018). Role of accountability in public procurement: Impact on performance of non-governmental organizations in New Delhi. *Indian Journal of Public Administration*, 64(2), 123–139.
- Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons: The Organization as a Reflection of Its Top Managers. *The Academy of Management Review*, 9(2), 193.
- Isango, E. (2024). An Assessment of the Impact of E-Procurement Practices on Organizational Performance in Tanzania. *NG Journal of Social Development*, 14(2), 237–241.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305–360.
- King, W. R., & He, J. (2006). A meta-analysis of the technology acceptance model. *Information & Management*, 43(6), 740–755.
- Lazim, C., Ismail, N., & Tazilah, M. (2021). Application Of Technology Acceptance Model (Tam) Towards Online Learning During Covid-19 Pandemic: Accounting Students Perspective. *International Journal of Business, Economics and Law*, 24(1).

- Lobong, P., & Keji, J. (2020). Factors influencing e-procurement implementation in public sector in south sudan. *International Research Journal of Business and Strategic Management*, 1(1), 80–89.
- Maalim, N., & Nyang'au, S. (2019). Determinants For The Implementation Of Electronic Procurement Among Counties In The North Eastern Region, Kenya. *International Journal of Recent Research in Commerce Economics and Management*, 6(4), 170–176.
- Mburu, E. N., & Mutundu, K. K. (2023). Non-Governmental Organizations and the Socio-Economic Wellbeing of Project Beneficiaries. *International Journal of Scientific and Research Publications*, 13(2), 226–235.
- Mohamed, I. (2017). Some Issues In The Institutional Theory: A Critical Analysis. *International Journal Of Scientific & Technology Research*, 6(9), 150–156.
- Moshtari, M., Altay, N., Heikkilä, J., & Gonçalves, P. (2021). Procurement in humanitarian organizations: Body of knowledge and practitioner's challenges. *International Journal of Production Economics*, 233, 108017.
- Mugo, D., Njagi, K., Chemwei, B., & Motanya, J. (2017). The Technology Acceptance Model (TAM) and its Application to the Utilization of Mobile Learning Technologies. *British Journal of Mathematics & Computer Science*, 20(4), 1–8.
- Mutangili, S. K. (2014). An assessment of the adoption of e-procurement application systems on supply chain management environment in Kenya: A case of Zain Kenya Limited. *International Academic Journals*, 1 (1), 38-61
- Mwangi, P., & Omwenga, J. (2019). Influence Of Top Management Commitment On The Implementation Of E-Procurement In County Governments Of Kenya. *International Journal of Social Science and Humanities Research*, 7(2), 282–290.
- Nawi, M., & Deraman, R. (2020). E-Procurement in Malaysian Construction Industry: Benefits and Challenges in Implementation. *International Journal of Economics and Financial Issues*, 6(7), 329–332.
- NGO Coordination Board. (2024). *NGOCB-List of Compliant NGOs*. NGOCB. <https://registration.ngobureau.go.ke/#/index>
- Odoom, D., Obeng-Baah, J., & Agyepong, L. (2022). Non-Governmental Organizations and Development Service Provision: A Conceptual and Empirical Review. *PanAfrican Journal of Governance and Development (PJGD)*, 3(1), 50–83.
- Office of the Auditor-General. (2023). *Report Of The Auditor-General On Non-Governmental Organizations Co-Ordination Board For The Year Ended 30 June, 2023*. Office of the Auditor-General – Enhancing Accountability. <https://www.oagkenya.go.ke/wp-content/uploads/2024/07/NON-GOVERNMENTAL-ORGANIZATIONS-COORDINATION-BOARD.pdf>
- Okumu, P., & Nderui, D. (2024). Electronic Procurement Practices And Performance Of Healthcare Non-Governmental Organizations In Nairobi City County, Kenya. *International Journal of Social Sciences Management and Entrepreneurship*, 8(3), 210–226.
- Opoku, I., Asare, E., & Asamoah, K. (2022). Barriers and Drivers of Electronic Procurement adoption and Firm Performance: The case of Universal Banks in Ghana. *Barriers and Drivers of Electronic Procurement adoption and Firm Performance: The case of Universal Banks in Ghana*, 19(3), 58–82.

- Paul, P., Ogugua, J., & Louis, N. (2024). Advancing strategic procurement: Enhancing efficiency and cost management in high-stakes environments. *International Journal of Management & Entrepreneurship Research*, 6(7), 2100–2111.
- Picho, E. (2017). Institutional Politics and Performance Of Procurement In Tertiary Institutions In West Nile Sub-Region Of Uganda. *European Journal of Management and Marketing Studies*, 2(1), 140–166.
- Scott, C., & Lewis, L. (2017). *International Encyclopedia of Organizational Communication*. Wiley & Sons, Limited, John.
- Waithaka, R., & Kimani, J. (2021). Effect Of E-Procurement Practices On Supply Chain Performance. *Global Journal of Purchasing and Procurement Management*, 1(1), 32–42.
- Zogning, F. (2017). Agency Theory: A Critical Review. *European Journal of Business and Management*, 9(2), 1–8.



©2025 by the Authors. This Article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>)