International Journal of
Supply Chain and Logistics
(IJSCL)

Supplier Selection and Procurement Performance of Public Universities in Upper Eastern Region, Kenya

CARI Journals

International Journal of Supply Chain and Logistics

ISSN 2520-3983 (Online)

Vol. 9, Issue No.8, pp 1 - 18, 2025

www.carijournals.org

Supplier Selection and Procurement Performance of Public Universities in Upper Eastern Region, Kenya

[1*]Lydia Atieno Ogendo, [2]Mathias Nzomo Muinde, [3]Guyo Huka

[1]Masters Student, Meru University of Science and Technology

[2,3]Lecturer, Meru University of Science and Technology

https://orcid.org/0009-0005-7131-8811

Accepted: 15th Aug, 2025, Received in Revised Form: 27th Aug, 2025, Published: 10th Sep, 2025

Abstract

Purpose: The study sought to determine the effect of preliminary evaluation on procurement performance in public universities in upper eastern region, Kenya. The Internal Control Theory informed the theoretical foundation of the study.

Methodology: This study employed a quantitative research design to investigate the effect of preliminary evaluation on procurement performance in public universities situated in the Upper Eastern Region of Kenya. The target population of this study was 220 professionals in all public universities in the upper eastern region, Kenya and the respondents of this study were Stores and Procurement Officers, Finance and Accounting officers and user departments. The researcher further used Slovin's formula to derive a sample size of 142 respondents. Consequently, proportionate stratified sampling was used to determine the sample size from each stratum. The study used questionnaire as a tool of data collection. To determine the validity and reliability of the study instruments, a pilot study which comprised 10% of the study sample population was conducted in Embu University. Descriptive and inferential statistics were conducted to analyze the data and presentation done in form of charts and tables.

Findings: The study found that supplier evaluation significantly influences procurement performance in public universities. Preliminary evaluation showed a strong positive correlation ($r = 0.716$, $p < 0.05$), technical evaluation had a moderate correlation ($r = 0.437$, $p < 0.05$), while financial evaluation exhibited a weak but significant correlation ($r = 0.249$, $p < 0.05$). These results confirm that regulatory compliance, technical expertise, and financial capacity collectively enhance efficiency, reduce costs, and improve stakeholder satisfaction in procurement.

Unique contribution to theory, practice and policy: The study enriches procurement and supply chain management literature by empirically validating the Internal Control Theory and related procurement frameworks, demonstrating that preliminary evaluation is not merely a procedural step but a strategic determinant of procurement performance. It advances theoretical understanding by showing how early-stage controls mitigate risks, enhance accountability, and strengthen the link between supplier selection and procurement outcomes.

Keywords: *Procurement Performance, Preliminary Evaluation, Compliance, Risk Mitigation*

JEL Classification: L7

Introduction

Procurement is a core function that involves the acquisition of goods, services, or works from external sources to meet an organization's needs. In the journey of procurement and supplier selection, organizations begin by assessing their needs and objectives, followed by a meticulous search for potential suppliers Strag, (2023). The identified suppliers are then rigorously evaluated against various criteria to determine their suitability. Request for Proposals (RFPs) or Request for Quotations (RFQs) are often used to solicit bids, and negotiations with selected suppliers lead to the creation of formal contracts Chu et al., (2022). The ongoing management of supplier relationships, known as Supplier Relationship Management (SRM), is crucial for maintaining and improving the quality, performance, and value derived from these partnerships. Successful procurement and supplier selection processes are integral to an organization's ability to thrive in a dynamic and competitive business environment Sama et al., (2022).

Supplier selection is a crucial component of the procurement process, as it involves choosing the most suitable suppliers among potential candidates. The success of an organization's procurement efforts heavily depends on the choices made during supplier selection Saputro et al., (2022). The right suppliers can provide the desired quality, meet delivery timelines, and offer competitive pricing, while the wrong choices can result in inefficiencies, supply chain disruptions, and increased costs Changalima et al., (2023) which is observable world over. In Kenya, the effect of supplier selection on procurement performance in public universities is a critical factor influencing operational efficiency, service delivery, and financial stewardship within these institutions. Preliminary evaluation serves as a fundamental step in supplier selection processes, where universities conduct initial assessments of potential suppliers' credibility, track record, and compliance with regulatory requirements Coşkun et al., (2022). This preliminary screening helps universities identify suppliers that align with their strategic goals and operational needs, laying the groundwork for effective procurement partnerships Johnson et al., (2021).

Statement of the Problem

Supplier selection process has emerged to be one of the most significant stages in the profitability and procurement performance of any institution. Finding the optimal supplier who meets the institution’s requirements and ultimately contributes to procurement performance can be a demanding task. Further, the concerns relating to runaway expenditure in sourcing for services, goods and works in public sectors remains a daunting task in many procurement departments Edler et al., (2015). This is often characterized by delivery of poor-quality goods, incomplete projects and/orders, termination of contracts, undelivered services and increased delivery lead times. Similarly, poor supplier selection can lead to increased costs emanating from law suits as well as in repair and maintenance of assets. These effects have been reported by multiple researchers as

outlined by (Krop, 2016; Naibor & Moronge, 2018) who have indicated that there is a direct relationship between supplier selection and procurement performance.

However, whereas these studies have linked supplier selection to procurement performance; there lacks a comprehensive study on the various evaluation levels of supplier selection. Existing studies have looked at the county governments, hospitality industry and private sector. There remain gaps in supplier selection results in select institutions within the country which informed this study. To address this, the study seeks to evaluate the effect of preliminary evaluation on procurement performance in public Universities in upper eastern region in Kenya. To achieve this, the evaluation level is defined using unique metrics that will influence procurement performance as measured in terms of compliance, risk mitigation, strategic objectives and the overall procurement cost.

The study was guided by the following null hypothesis

$H_0$1: There is no significant effect of preliminary evaluation on procurement performance in public universities in upper eastern region, Kenya.

Literature Review

Theoretical Review

The widely adopted Internal Control Theory was developed by (COSO,1992 and later updated in 2013) to address the cause factors of fraudulent financial reporting. They made recommendations for public companies and their independent auditors, other regulators, and for educational institutions. The theory embraces the belief that internal control is a process executed by the relevant authorities within an organization to ensure effectiveness in such areas like proper financial reporting, efficient operations, quality control as well as compliance with applicable laws and regulations. It is the first line of defense that aims at guarding against scams and detecting errors. A strong system will not only ensure that the goals and objectives of the organization are met but will also assist in elevating its image Spira & Page, (2003). The necessity of control is not a new variable in business environment; Penrose, (1995) argues that the emergence and development of logical thoughts in recent decade requires a new attention to control over business resources. To realize this, they assert that cost-benefit analysis serves as a vital stop-gap measure in avoiding undesired pilferages and losses. Subsequently, the internal control ultimately helps managers achieve desired results through effective stewardship of resources.

In this study, the Internal Control Theory is greatly relevant in the preliminary evaluation stage of the procurement process. Ensuring compliance with applicable laws and regulations is a key metric in preliminary evaluation of suppliers. Similarly, the theory emphasizes that the goals and

objectives of the organization need to be met in the various processes which implies the realization of the strategic objectives of the organization. Since the theory focuses on critical cost-benefit analysis as stop-gap measure, risk mitigation strategies are applied thus the procurement of quality goods is guaranteed. Furthermore, quality is a critical measure of the overall procurement performance.

Conceptual Framework

Most academic research uses a conceptual framework at the outset because it helps to clarify the research questions and aim Wachiuri, (2019). The independent variables are preliminary evaluation while the dependent variable is procurement performance of Public Universities in Upper Eastern Region, Kenya.

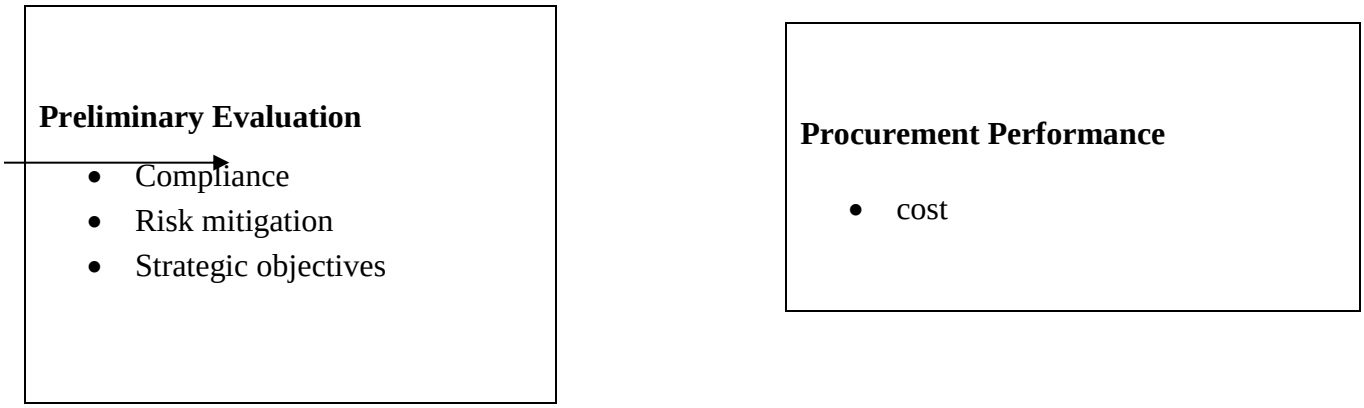

Figure 1: Conceptual Framework

Empirical Review

Preliminary evaluation forms the basis of supplier selection process in the supply chain management. It entails determining the supplier's potential and viability against the laid down requirements. These requirements may vary from one organization to the other and include such factors size, risk mitigation measures, strategic objectives, regulatory compliance and country specific registrations. However, this study considers preliminary evaluation from three parameters of compliance, risk mitigation and the organization strategic objectives and herein explores its worth from a broader perspective as presented in other related works.

In their descriptive study, Makori & Muturi (2018) explore the impact of supplier selection criteria focusing on regulations concerning public procurement among health institutions. The study was carried out in select health institutions in western Kenya namely Kisii Teaching and Referral Hospital, Bungoma Level 5 Hospital, Russia Kisumu Hospital, Migori Level 5 Hospital and Homabay Level 5 Hospital in a period of one month during which 32 respondents were used. They noted that regulatory compliance had a significant influence on the procurement and management of inventories in public health institutions and could influence the lead times and cost of medical supplies. For instance, they observe that a unit increase of regulatory bin cards would lead to a 0.643 increase in inventory management on healthcare facilities. Additionally, Makori & Muturi, (2018) found that handling the risks connected with the intricate competitive environment leads to accountability solutions leading to improved performance. Whereas their work clearly indicates the value of regulatory compliance among selected suppliers, the study cannot be generalized to other fields outside health institutions given the unique nature of medical supplies. Specifically, while the two entities (universities and health institutions) consider the basic regulatory compliance, they diverge in the details of the unique supplies desired in each.

Mutuku et al., (2021) studied the influence of supplier selection criteria on performance of public corporations in Kenya with a focus on the water resources authority. In this work, they define regulatory compliance from three metrics namely legal requirements, certification requirements and supplier selection. Their empirical results showed that there was a positive significant influence of regulatory compliance on organizational performance and that an increase in regulatory compliance leads to a positive increase in the organization performance. However, their study was institution based and similarly cannot be generalized to other divergent entities. Further, in his study Musau, (2015) studied the environmental factors affecting procurement performance in County Governments with a specific focus of Uasin Gishu County. Using the census approach, all the 105 staff were included in the study. They established that there was a positive correlation between the environmental factors and procurement performance. They further established that appropriate guidelines could be construed as the actions taken by the regulators to expedite implementation of compliance, thereby establishing a significant correlation between regulation compliance and organizational performance. Nevertheless, the reliance on only one public corporation and one county makes these works too narrow to be extended to other state corporations.

Owich & Odero, (2023) studied a sample of 81 staff members from four county referral hospitals in western Kenya to ascertain the effect of supplier risk management practices on the performance of supply chain. Their findings assert that supplier risk management is a vital tactic engaged to vary habits and controls, with the sole goal of eradicating or restraining the dire consequences that could crop up from procurement processes. In the work, they observed that supplier risk management had a substantial and positive correlation on supply chain performance and influences

the quality of products offered to an organization. Specifically, they observed that a one percent increase in supplier risk management would culminate into a 52.1% increase in the performance of the supply chain, while all other factors remained unchanged. By assessing this at the preliminary stage, it serves as a mechanism to reduce supplier risks to an acceptable level, recognizing that risks are unfavorable situations that can hinder an organization's ability to achieve its desired outcomes. This is so because the range of risks allied with procurement are wide, including concerns such as over-reliance on select providers, variations in material costs, poor product quality, supply chain perturbations, legal and regulatory apprehensions, among others Butt & Ahmad, (2019).

Additionally, other external factors such as political, environmental, fiscal policies, technological, political, market dynamics, and contractor failure risks can all increase the risks associated with supplier selection (Kamoni & Rotich, 2018; Munyuko, 2015). These risks accentuate the complexity of managing supply chains efficiently and effectively, while emphasizing the need for extra vigilance in the preliminary evaluation of suppliers. Consequently, assimilating risk management strategies into an organization’s procurement processes has been proven to boost the overall performance and thus making it an indispensable aspect in the general supply chain Hallikas & Lintukangas, (2016).

Chimwani et al., (2014) used descriptive research design with 60 respondents drawn from 7 departments in the state law office to explore the factors influencing procurement performance in the Kenyan public sector. Their empirical results indicate that legal framework, ICT and government policies are strongly correlated with procurement performance in Kenya with correlation coefficients of 0.959, 0.839 and 0.799 respectively. They further note that there are multiple success factors which affect procurement performance such as having a clear procurement strategy, embracing entrepreneurial and proactive approaches, and effective management information and control systems, among others. All these align with the specific organizational policies and strategic objectives which strongly influence the overall procurement performance. However, procurement performance is broader than envisaged in the study. Further, the utilization of only the state law office as a representative of public sector is misleading. Ali & Ismael (2017) looked at the strategic objectives pegged on organizational policies such as inventory stock policy, quality index policy and purchase order delivery policy. Their empirical results showed that there was a positive correlation between organizational policies and procurement performance in government ministries in Kenya. However, their work is not clear on which ministries the study was conducted from and the sample comprising of the data making it a challenge to generalize.

In summary, the need for preliminary evaluation in supplier selection cannot be underestimated. Whereas there are multiple other considerations that can be included in this stage, adequate vigilance in regulatory compliance, risk assessment and objective alignment with organizational

strategic objectives may influence procurement performance. Further, it is the basis for the subsequent evaluation stages such as technical and financial evaluations which are presented next.

Research Methodology

The study employed a quantitative research design. The choice of a quantitative approach allowed for the collection of numerical data that can be analyzed statistically to establish relationships between variables (Lesisa et al., 2018). The unit of analysis for the study comprised the three Public Universities in the Upper Eastern Region: Meru University of Science and Technology (MUST), Tharaka University (TU) and Chuka University (CU). The target population of the study was 220 respondents derived from Stores and Procurement Officers, Finance and Accounting officers and user departments. Further, stratified random sampling procedure was employed to select a sample to represent the entire population.

Table 1: Sample Size

Participants	**MUST**		**Tharaka University**		**Chuka University**	
	Target	*Sample*	*Target*	*Sample*	*Target*	*Sample*
Stores and Procurement Department	17	11	9	6	19	12
Finance and Accounting Department	6	4	5	3	8	5
User Departments	51	33	42	27	63	41
Total	**74**	**48**	**56**	**36**	**90**	**58**

The study used questionnaire as a method of data collection to the identified set of respondents. Closed ended and open-ended questionnaires were used to enable the researcher get feedback according to the research objectives. The instrument was physically dropped to the selected respondents and picked after two weeks to allow them time to read, understand and time to go through the questions Wachiuri, (2019). The study was further subjected to a pilot study before the actual study took place at the Embu University to ascertain the appropriateness of the questionnaire as opined by Viechtbauer et al., (2015). The University of Embu was considered appropriate for the pilot study since it was chartered in similar period in line with the universities that will form the basis of the unit of analysis. Data collection was done; data pieces were edited to make sure that the information given is consistent and accurate. The data collected was further coded for completeness and accuracy of information. Using the SPSS software, descriptive and inferential statistics analysis was conducted to establish the composite mean of the sub-scale which was then

be used in the regression and the effects of the independent variable on the dependent variable was established respectively. Lastly, the results were summarized and presented using tables and figures.

Research Findings and Discussions

Table 2: Response Rate

Item	Frequency	Percentage
Distributed questionnaires	142	100
Completed and returned questionnaires	134	94.4
Un returned questionnaires	8	5.6

A total of 134 questionnaires were filled out of the expected 142 questionnaires, translating to 94.4% while the unreturned questionnaires were 8 that amounted to 5.6 %. This study's response rate aligns with Nulty (2011) who noted that a 75% response rate is sufficient for conducting meaningful analysis and drawing valid inferences about a population.

Descriptive Analysis

Descriptive analysis played a crucial role in this study by helping to summarize and organize data in order to highlight the main characteristics of the sample and the key variables being examined. It provided an overview of patterns and trends within the dataset, forming a solid foundation for conducting more detailed statistical investigations as outlined by Gravetter & Wallnau, (2017). Mean and standard deviation were used to present the findings.

The respondents were required to rate each statement in regards to the preliminary evaluation in the public universities using a 5 points Likert scale, where a rate of 5 represented, Strongly Agree and 1 represented Strongly Disagree and the results were as indicated in Table 3.

Table 3: Descriptive Analysis Preliminary Evaluation

Preliminary Evaluation	N	Mean	SD
Supplier Compliance with Regulatory requirements increases trust and customer satisfaction	134	4.72	0.465
Supplier Compliance with Regulatory requirements reduces the lead times in the procurement process	134	4.13	0.734

Supplier Compliance with Regulatory requirements reduces the overall procurement cost	134	4.16	0.758
A supplier's alignment with the institutions' Strategic Objectives enhances trust and customer satisfaction	134	4.20	0.773
A supplier's alignment with the institutions' Strategic Objectives reduces the lead times in the procurement process	134	4.31	0.730
A supplier alignment with the institutions' Strategic Objectives reduces the overall procurement cost	134	4.08	0.694
Appropriate risk mitigation measures by a supplier leads to increased customer satisfaction and trust	134	4.40	0.626
Average score		4.27	0.704

Majority of the participants agreed with the statement supplier compliance with regulatory requirements increases trust and customer satisfaction with a mean of 4.72 and a standard deviation of 0.465, Supplier Compliance with Regulatory requirements reduces the lead times in the procurement process the mean was 4.13 and standard deviation 0.734. On the statement Supplier Compliance with Regulatory requirements reduces the overall procurement cost registered a mean of 4.16 and a standard deviation of 0.758. on the same breadth, a majority of respondents agreed with the statement a supplier's alignment with the institutions' Strategic Objectives enhances trust and customer satisfaction with a mean of 4.20 and a standard deviation of 0.773. on the statement a supplier's alignment with the institutions' Strategic Objectives reduces the lead times in the procurement process observed a mean of 4.31 and a standard deviation of 0.730. Further, the statement a supplier alignment with the institutions' Strategic Objectives reduces the overall procurement cost mean was 4.08 and the standard deviation 0.694, on the opinion appropriate risk mitigation measures by a supplier leads to increased customer satisfaction and trust had a mean of 4.40 and a standard deviation of 0.626. Appropriate risk mitigation measures by a supplier can lead to reduced overall procurement cost mean was 4.21 and standard deviation 0.757. lastly, appropriate risk mitigation measures by a supplier could reduce the lead times in the procurement process registered a mean of 4.22 and a standard deviation of 0.760.

The researcher sought to establish the preliminary evaluation factors that influence the procurement performance of public universities in Upper Eastern. The results showed that (32.8%) of the respondents indicated that financial stability of suppliers is critical at this stage and another 23.9% of the respondents affirmed evidence of the past performance is critical. According to the study 23.1% of the respondents confirmed that supplier capacity and capabilities is critical while 20.1% of the respondents indicated that compliance with regulatory regulations is acritical element during the preliminary evaluation stage. The study concurs with Kavinya & Kihara, (2018) study on the influence of supplier appraisal criteria on procurement performance of petroleum companies in Kenya that established that appraisal of supplier's financial status and quality of goods has a significant influence on procurement performance while technical capability and capacity have a positive but insignificant influence on procurement performance.

Procurement Performance

Table 4: Opinion of the respondents on the various aspects of procurement performance in public universities in upper eastern region

Procurement Performance	N	Mean	SD
The preliminary evaluation of suppliers directly impacts on customer satisfaction	134	4.48	0.622
The preliminary evaluation of suppliers directly impacts on the cost of goods and services supplied	134	4.07	0.621
The preliminary evaluation of suppliers directly influences the overall lead time	134	4.11	0.801
The technical evaluation of suppliers directly impacts on customer satisfaction	134	4.22	0.701
The technical evaluation of suppliers directly impacts on the cost of goods and services supplied	134	4.16	0.685
The technical evaluation of suppliers directly influences the overall lead time	134	4.00	0.813
The financial evaluation of suppliers directly impacts on customer satisfaction	134	4.35	0.707
The financial evaluation of suppliers directly impacts on the cost of goods and services supplied	134	4.06	0.783
The financial evaluation of suppliers directly influences the overall lead time	134	4.04	0.908
Average Score		**4.17**	**0.738**

Majority of the participants agreed with the statement the preliminary evaluation of suppliers directly impacts on customer satisfaction with a mean of 4.48 and a standard deviation of 0.622, the preliminary evaluation of suppliers directly impacts on the cost of goods and services supplied had a mean of 4.07 and standard deviation 0.621. On the statement the preliminary evaluation of suppliers directly influences the overall lead time registered a mean of 4.11 and a standard deviation of 0.801. Further, the statement the technical evaluation of suppliers directly impacts on customer satisfaction had a mean of 4.22and a standard deviation of 0.701. Similarly, on the statement the financial evaluation of suppliers directly impacts on customer satisfaction had a mean of 4.16 and a standard deviation of 0.685. Additionally, the technical evaluation of suppliers directly influences the overall lead time had a mean of 4.00 and the standard deviation 0.813. On the opinion the financial liquidity of a supplier may increase customer confidence and satisfaction had a mean of 4.35 and a standard deviation of 0.707. The financial evaluation of suppliers directly impacts on the cost of goods and services supplied mean was 4.06 and standard deviation 0.783. Lastly, the financial evaluation of suppliers directly influences the overall lead time had a mean of 4.04 and a standard deviation of 0.908.

The researcher sought to establish the significance of the supplier selection process to the procurement performance in the public universities in the upper eastern region. The results showed that 23.1% of the respondents indicated that the process help in getting competitive bidders, 22.4% of the participants indicated that it helps in getting right personnel for engagement, 18.7%

indicated there is a guaranteed quality goods and services, 17.2% affirmed that the process help to ascertain the lead times, 11.2% affirmed that help with the minimization of procurement risks while 7.5% responded that it establishes a long term supplier relationship in the public universities in the upper eastern region. These results concur with a study by Shombe & Ouma, (2020) that aimed at determining the influence of supplier selection practices on procurement performance of County Government of Kakamega and established that there exists a moderate significant relationship between supplier selection practices and procurement performance of County Government of Kakamega.

Correlation Analysis

Correlation analysis helps in identifying whether changes in one variable are linked to changes in another, either in the same or opposite direction Saunders et al. (2012). The study adopted the Pearson product moment of correlation. The value [size] of the absolute value indicates the degree [strength] of correlation whereby (r = .1 to .29 Low; r = .30 to .49 Moderate; r = .5 to 1.0 Large). Rubin & Babbie, (2010). The results are summarized below

Table 5: Pearson Product Moment Correlation of preliminary evaluation and procurement performance

Variable		Preliminary Evaluation	Procurement Performance
Preliminary Evaluation	Pearson Correlation	1	0.716
	Sig. (2-tailed)		.000
	N	134	134
Procurement Performance	Pearson Correlation	0.716	1
	Sig. (2-tailed)	.000	
	N	134	134

The correlation analysis revealed that preliminary evaluation and procurement performance were strongly and positively related ($r = 0.716$, $p = 0.000$) at the 95% confidence level. This statistical outcome substantiates the descriptive findings of the study, which indicated that regulatory compliance, alignment with institutional objectives, and effective risk mitigation at the preliminary evaluation stage play a critical role in enhancing procurement efficiency, reducing lead times, and minimizing costs. These results are consistent with Harun, Salema, and Matto (2025), who similarly established that performance-orientation culture, encompassing regulatory compliance, exerts a significant positive effect on compliance performance in public procurement contexts in Tanzania.

Regression Analysis

Regression analysis enables the researcher to analyze how variations in the independent variables influence the outcome variable, supporting both prediction and interpretation of patterns Arkes, (2023). A simple regression analysis was performed using the least squares method, focusing on interpreting the R^2 value to assess how much of the variation in the dependent variable could be explained by the independent variable. Further, the study used analysis of variance (ANOVA) which is a combination of arithmetical models and the associated valuation procedures used to examine the variances among group means in a sample. Here, F-values were examined to evaluate the significance of the regression coefficients and the overall adequacy of the model in order to reject or fail to reject the research hypotheses.

The regression model of the study is presented algebraically as follows:

$PP= \beta_0+\beta_1 X_1 +\varepsilon$

Where;

β_0=Constant

β_i = the coefficient for X_i

X_1=Preliminary Evaluation

ε= Error term (the residual error of the regression)

Table 6: Model Summary on preliminary evaluation and procurement performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.716[a]	0.513	0.509	4.889
a Predictors: (Constant), Preliminary Evaluation				

The above table shows the correlation coefficient (R) was 0.716, the coefficient of determination (R^2) was 0.513 and the adjusted R square was 0.509. Therefore, coefficient of determination showed that preliminary evaluation alone accounted to 51.3% of variations on procurement performance. Further, the adjusted R square showed that all the independent variables together, preliminary evaluation explains 50.9% of variations on procurement performance. This suggests that preliminary evaluation is a strong predictor of procurement performance. Similar findings were reported by a study on the effect of supplier evaluation on procurement performance in government ministries in Rwanda, which established that supplier quality commitment, financial capability, competence, and ICT integration collectively explained about 66.1% of the variance in

procurement performance (Niyibizi & Mulyungi, 2018). In another related study on factors affecting procurement performance in Awassa Textile Share Company, procurement planning, staff competence, procurement procedure, and resource allocation were found to explain 55.3% of the variation in procurement performance (Mulugeta, 2016). These studies affirm that evaluation mechanisms are indeed strong predictors of procurement performance, with explanatory power consistently ranging between 50% and 66%, which aligns with the current study findings.

Table 7: Analysis of Variance in Relation to Preliminary Evaluation

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3323.495	1	3323.495	139.017	.000[b]
	Residual	3155.728	132	23.907		
	Total	6479.224	133			

a. Dependent Variable: Procurement Performance
b. Predictor: (Constant), Preliminary Evaluation

The regression results of the analysis of variance (ANOVA) showed an F-statistic of 139.017 which was significant at 5% significance level (p-value 0.000<0.05). Therefore, the null hypothesis H01: There is no significant effect of preliminary evaluation on procurement performance in public universities in upper eastern region, Kenya was rejected and the study arrived at a conclusion that the model of the predictor variable (preliminary evaluation) was statistically significant at 5% confidence level. Similar findings have been made in other studies: for example, in a study of tender evaluation process influence on operational performance of service state corporations in Kenya, the ANOVA results showed a significant F-statistic (p-value < 0.05), supporting rejection of the null hypothesis that tender evaluation does not significantly influence operational performance (Obura, 2024). Also, in a study on influence of procurement planning on effectiveness of purchasing activities at Kenya Police College, ANOVA results likewise indicated that procurement planning significantly influences performance (Oenga, 2023).

Table 8: Regression Coefficient of Preliminary evaluation and procurement performance

Coefficients [a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.700	3.333		.510	.001
	Preliminary Evaluation	1.029	.087	.716	11.791	.000

a. Dependent Variable: Procurement Performance

The model results showed that regression equation $Y = \beta_0 + \beta_1 X_1 + \varepsilon$ translated to $Y = 1.70 + 1.029X_1 + \varepsilon$. This implied that holding all the factors constant, preliminary evaluation had a constant of 1.70 implying that there exist other explanatory variables that result to variations in

procurement performance other than the study variable (preliminary evaluation). The regression results indicated that preliminary evaluation had a statistically significant effect on procurement performance (p-value 0.000<0.05). Holding other factors constant, a unit change in preliminary evaluation would lead to change in procurement performance by 1.029. This implied that 1 unit change in preliminary evaluation results in 1.029-unit change in procurement performance in public university in the upper eastern region, Kenya. This finding mirrors Mwangi (2021) who reported a regression equation $Y = 1.532 + 0.591X + \varepsilon$, showing that a one-unit increase in procurement cost optimization leads to a 0.591 unit increase in firm performance, all else held constant, and that the coefficient was statistically significant ($p < 0.05$). In another Kenyan study on Evaluation Prequalification Practices on Performance of the Procurement Department at Moi University, Koros and Kwasira, (2021) found a coefficient of 0.125 ($p = 0.000<0.05$) for evaluation prequalification, indicating that a unit increase in evaluation prequalification yields a 0.125 unit increase in procurement department performance.

Conclusion and Recommendation

The study established that preliminary evaluation has a statistically significant influence on procurement performance in public universities in Kenya's Upper Eastern Region. The correlation results indicated a strong positive relationship, while regression analysis showed that preliminary evaluation accounts significantly to the variation in procurement performance. The regression coefficient further confirmed that improvements in preliminary evaluation directly enhance procurement outcomes. More specifically, procurement performance was strengthened when universities ensured strict compliance with statutory and institutional requirements, incorporated risk mitigation measures during supplier assessments, and aligned supplier selection processes with their broader strategic objectives. These findings underscore that a rigorous and structured preliminary evaluation process plays a pivotal role in driving efficiency, accountability, and service delivery in higher education procurement systems. Lastly, the study recommends that public universities strengthen their procurement systems by giving greater attention to preliminary evaluation. Institutions should prioritize strict compliance with statutory and institutional requirements to enhance accountability and transparency in supplier selection. In addition, universities should embed comprehensive risk mitigation measures at the evaluation stage to minimize supplier-related uncertainties and ensure reliability in service delivery. Finally, supplier assessments should be closely aligned with institutional strategic objectives so that procurement decisions not only meet immediate operational needs but also contribute to long-term efficiency, cost-effectiveness, and institutional growth.

Areas for Further Research

The findings affirm the relevance of internal control theory and highlight that early-stage vetting explains a notable share of performance outcomes. Policy-wise, the Public Procurement Regulatory Authority (PPRA) should strengthen guidelines and standardize frameworks for preliminary evaluation to promote accountability and transparency. In practice, procurement officers should focus on rigorous compliance checks, structured risk assessment, and alignment with strategic goals to drive efficiency and reliability in service delivery. Future research could examine the role of digital procurement systems and e-supplier vetting or extend the analysis to sectors such as healthcare and county governments for comparative insights.

REFERENCES

Ali, A. I., & Ismael, D. N. (2017). *Role of Strategic Sourcing Process on Procurement Performance in Government Ministries in Kenya*. *5*(4).

Arkes, J. (2023). *Regression Analysis: A practical introduction* (2nd ed.). Routledge.

Butt, A. S., & Ahmad, A. B. (2019). Personal relationship and conflicts in supply chains: Exploration of buyers and suppliers in Australian manufacturing and service sector. *Benchmarking*, *26*(7).

Changalima, Ismail, I., & Mchopa, A. (2023). *Effects of supplier selection and supplier monitoring on public procurement efficiency in Tanzania: A cost-reduction perspective*.

Chimwani, B. I., Iravo, M. A., & Tirimba, O. I. (2014). Factors influencing procurement performance in the Kenyan public sector: Case Study of State Law Office. *International Journal of Innovation and Applied Studies ISSN*, *9*(4).

Chu, L. Y., Rong, Y., & Zheng, H. (2022). The strategic benefit of request for proposal/quotation. *Operations Research*, *70*(3), 1410-1427.

Coşkun, S. S., Kumru, M., & Kan, N. M. (2022). An integrated framework for sustainable supplier development through supplier evaluation based on sustainability indicators. *Journal of Cleaner Production*, *335*, 130287.

COSO. (2013). *Internal Control—Integrated Framework*. Committee of Sponsoring Organizations of the Treadway Commission.

Edler, J., Rolfstam, M., Tsipouri, L., & Uyarra, E. (2015). Risk management in public procurement of innovation: a conceptualization. In Public Procurement for Innovation (pp. 87-109). Edward Elgar Publishing.

Gravetter, F. J., & Wallnau, L. B. (2017). *Statistics for the behavioral sciences* (10th ed.). Cengage Learning.

Hallikas, J., & Lintukangas, K. (2016). Purchasing and supply: An investigation of risk management performance. *International Journal of Production Economics*, *171*.

Harun, M., Salema, G., & Matto, M. (2025). Achieving desired compliance performance in public procurement: Does embedding a culture of performance orientation matter? *Future Business Journal,* 11(1), Article 51.

Johnson, F., Leenders, M. R., & Flynn, A. E. (2021). *Purchasing and supply management*. McGraw-Hill Education.

Kamoni, P. M., & Rotich, G. (2018). Factors affecting the effectiveness of the supply chain of subsidized fertilizer in Kenya: A case study of the National Cereals and Produce Board. *International Journal of Social Sciences and Entrepreneurship, 1*(7), 140–165.

Kavinya, L., & Kihara, A. (2018). Influence of supplier appraisal criteria on procurement performance of petroleum companies in Kenya: A case of Dalbit Petroleum Limited. *Academic Journal of Social Sciences and Education*, 6(4).

Koros, C. C., & Kwasira, J. (2021). Influence of evaluation prequalification practices on performance of the procurement department at Moi University. *International Journal of Strategic Management, 2*(2), 14-27.

Krop, M., & Iravo, M. A. (2016). *Effects of supplier selection on the implementation of projects in public sector: A case of West Pokot County Government*. [Unpublished manuscript]. Retrieved from institutional repository.

Lesisa, T. G., Marnewick, A., & Nel, H. (2018). The Identification of Supplier Selection Criteria Within a Risk Management Framework Towards Consistent Supplier Selection. *IEEE International Conference on Industrial Engineering and Engineering Management, 2019-December*.

Makori, J. K., & Muturi, W. (2018). Influence of inventory management practices on performance of procurement function in health institutions in Kenya. A survey of selected public health institutions in western Kenya. *International Academic Journal of Procurement and Supply Chain Management, 3*(1).

Mulugeta, D. (2016). Factors affecting procurement performance in the case of Awassa Textile Share Company. *Global Journal of Management and Business Research*, 16(3), 19–27.

Munyuko, C. W. (2015). Effects of Supply Chain Risk Management on Organization Performance: Case of Andy Forwarders Services Limited. *International Journal of Academic Research in Business and Social Sciences, 5*(3).

Musau, E. G. (2015). Environmental Factors Affecting Procurement Performance in County Governments: A Case of Uasin Gishu County. *International Journal of Business and Management Invention ISSN*, *4*(1).

Mutuku, S. M., Ochieng, V. O., & Sang, W. (2021). *Influence of supplier selection criteria on performance of public corporations in Kenya: A case of Water Resources Authority*. St. Paul's University, Kenya.

Mwangi, N. W. (2021). Influence of Procurement Cost Optimization on Performance of Manufacturing Firms in Kenya. *International Academic Journal of Procurement and Supply Chain Management*, *3*(2), 193-214.

Naibor, G. S., & Moronge, M. (2018). Influence of supplier selection criteria on performance of manufacturing companies in Kenya. *The Strategic Journal of Business & Change Management*, *5*(1), 355–377.

Niyibizi, E., & Mulyungi, P. (2018). Effect of supplier evaluation on procurement performance in government ministries in Rwanda: A case of Ministry of Health. *International Journal of Research in Management, Economics and Commerce*, 8(7), 49–56.

Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: What can be done? Assessment & Evaluation in Higher Education, 33(3), 301–314.

Obura, C. O. (2024). *Public procurement implementation and operational performance of service state corporations in Kenya* (Unpublished PhD thesis). Rikinstitute.

Oenga, N. O. (2023). Influence of procurement plan on the effectiveness of purchasing activities at Kenya Police College.

Owich, J. A., & Odero, J. A. (2023). Supplier Risk Management Practices and Performance of Supply Chain in the Health Sector in Kenya. *African Journal of Empirical Research*, *4*(2).

Penrose, E. (1995). The Theory of the Growth of the Firm. In *The Theory of the Growth of the Firm*. https://doi.org/10.1093/0198289774.001.0001.

Rubin, A., & Babbie, E. R. (2010). *Research methods for social work* (7th ed.). Brooks/Cole, Cengage Learning.

Sama, H., Ndunguru, P., & Nsimbila, P. (2022). Transaction costs and competitive tendering in public procurement: Moderating role of integrity. *African Journal of Business Management*, *16*(6).

Saputro, T. E., Figueira, G., & Almada-Lobo, B. (2022). A comprehensive framework and literature review of supplier selection under different purchasing strategies. *Computers & Industrial Engineering*, *167*, 108010.

Saunders, M. N., & Lewis, P. (2012). Doing research in business & management: An essential guide to planning your project. Pearson. London.

Shombe E. O., & Ouma, D. (2020). Influence of supply chain management practices on procurement performance of County Government of Kakamega, Kenya. *The Strategic Journal of Business & Change Management*, 7(3), 80 – 88.

Spira, L. F., & Page, M. (2003). Risk management: The reinvention of internal control and the changing role of internal audit. *Accounting, Auditing & Accountability Journal*, *16*(4).

Strag, G. (2023). Improving supplier selection process in indirect purchases – Case Study (Master's thesis). Theseus.

Viechtbauer, W., Smits, L., Kotz, D., Budé, L., Spigt, M., Serroyen, J., & Crutzen, R. (2015). A simple formula for the calculation of sample size in pilot studies. Journal of clinical epidemiology, 68(11), 1375-1379.

Wachiuri, E. W. (2019). *Influence of supplier evaluation criteria on the performance of state corporations in Kenya*. JKUAT.