



The Strategic
**JOURNAL of Business & Change
MANAGEMENT**

ISSN 2312-9492 (Online), ISSN 2414-8970 (Print)

www.strategicjournals.com

Volume 11, Issue 3, Article 046

**INFLUENCE OF CONTRACTORS' EVALUATION CRITERIA ON PROCUREMENT PERFORMANCE IN THE STATE
DEPARTMENT OF ROADS IN THE UPPER EASTERN REGION, KENYA**

Gaichugi Lenity Mutwiri, Dr. Ruth Kanyaru, PhD & Adel Kanyiri

INFLUENCE OF CONTRACTORS' EVALUATION CRITERIA ON PROCUREMENT PERFORMANCE IN THE STATE DEPARTMENT OF ROADS IN THE UPPER EASTERN REGION, KENYA

¹ Gaichugi Lenity Mutwiri, ² Dr. Ruth Kanyaru, PhD & ³ Adel Kanyiri

¹ MBA Student, Supply Chain Management, Kenya Methodist University, Kenya

² Lecturer, Supply Chain Management, Kenya Methodist University, Kenya

Accepted: September 2, 2024

DOI: <http://dx.doi.org/10.61426/sjbcm.v11i3.3054>

ABSTRACT

The success of road construction projects measured by quality, timeliness, and budget largely hinges on contractor performance. This study aimed to examine how various contractor evaluation criteria affect procurement performance, specifically focusing on the financial capability, technical capacity, contractor experience and organizational capacity of contractors in the State Department of Roads in the Upper Eastern Region of Kenya. A descriptive research design was adopted, targeting 93 management-level employees from three parastatals: the Kenya Urban Roads Authority (KURA) with 23 employees, the Kenya Rural Roads Authority (KERRA) with 40 employees, and the Kenya National Highways Authority (KENHA) with 30 employees. Primary data was collected through questionnaires administered via a drop-and-pick-later method, allowing respondents one week to complete them before collection for analysis. The data collected were both quantitative and qualitative. Quantitative data were analyzed using descriptive and inferential statistics. SPSS (Version 22) was used for calculations, and a regression model assessed the relationship between the independent variables and procurement performance. The findings revealed that financial capability, including cash flow management and bonding capacity, significantly affects procurement performance. Technical capacity, particularly workforce competence (mean = 4.98), is also critical. Contractor experience has a strong correlation with performance (mean = 4.60), whereas the impact of organizational capacity is variable, highlighting the importance of scalability and flexibility (mean = 4.46). In conclusion, financial stability, technical skills, and experience are essential for improving procurement performance, while the effectiveness of organizational capacity varies. The State Department of Roads should focus on strengthening financial vetting processes, supporting technical training and technological advancements, prioritizing experienced contractors, and evaluating organizational flexibility. Future research could investigate the effects of regulatory policies on contractor performance and explore the role of emerging technologies such as AI and blockchain in enhancing procurement efficiency.

Key Words: Financial Capability, Technical Capacity, Organization Capacity, Experience, Evaluation

CITATION: Gaichugi, L., M., Kanyaru, R., & Kanyiri, A. (2024). Influence of contractors' evaluation criteria on procurement performance in the state department of roads in the upper eastern region, Kenya. *The strategic Journal of Business & Change Management*, 11 (3), 729 – 745. <http://dx.doi.org/10.61426/Sjbcm.v11i3.3054>

INTRODUCTION

Procurement performance is a critical aspect of infrastructure development worldwide. According to recent statistics by the World Bank (2020), inefficient procurement practices can lead to significant financial losses, with an estimated 20-25% of project costs lost due to corruption and mismanagement globally. This underscores the importance of robust evaluation criteria and transparent procurement processes in ensuring the efficient allocation of resources and successful project execution.

Countries in Asia such as Singapore, Malaysia, and Indonesia have made strides in enhancing procurement performance through stringent evaluation criteria and transparent processes. For example, Singapore's efficient procurement system, known for its integrity and efficiency, has implemented measures to prevent corruption and ensure fair competition (Chou, 2019). Similarly, Malaysia and Indonesia have undertaken reforms to improve procurement practices and promote infrastructure development (Ahmad, 2021).

European countries like Germany, Norway, Holland, and Finland have well-established procurement frameworks characterized by transparency, accountability, and efficiency (Eurostat data, 2021). The United Kingdom, with its sophisticated procurement system governed by the Public Contracts Regulations, aims to ensure fair competition and transparency in public sector procurement (UK Government, 2020). However, challenges such as delays and cost overruns persist, necessitating continuous improvement in procurement practices.

In Africa, countries like Nigeria, Ghana, and South Africa face challenges related to corruption, inefficiency, and inadequate infrastructure investment in procurement processes. Transparency International (2021) identifies corruption as a significant impediment to effective procurement across Africa. Recent statistics indicate that corruption remains pervasive in public procurement across the continent. Regionally,

countries like Uganda and Tanzania share similar challenges, necessitating efforts to address institutional weaknesses and capacity constraints (World Bank, 2020).

Zooming into Kenya, the State Department of Roads oversees road infrastructure development and maintenance. However, challenges such as corruption, inefficiency, and inadequate investment persist, impacting procurement performance and project outcomes (Africa Infrastructure Country Diagnostic, 2021). Understanding the evaluation criteria used by the department and their impact on procurement efficiency is essential for addressing these challenges and improving infrastructure development in the Upper Eastern Region.

Statement of the Problem

The procurement process within the State Department of Roads in the Upper Eastern Region of Kenya as in the practice in all other government agencies and ministries should be characterized by a rigorous evaluation of contractors based on established criteria. According to conventional procurement practices, contractors should be assessed not only on their technical capacity but also on their financial capability, experience, and organizational capacity (Ngowi et al., 2018). This evaluation process aims to select only the most qualified and competent contractors for road construction projects. By doing so, it is anticipated that procurement performance will improve, leading to better project outcomes.

However, despite the established norms and conventions, the current situation in the State Department of Roads in the Upper Eastern Region of Kenya reveals significant shortcomings in contractors' evaluation criteria and procurement performance. Reports indicate that the evaluation process often lacks comprehensive assessments of contractors' financial capability, technical capacity, experience, and organizational capacity (Orodho & Mwenda, 2020). Instead, procurement decisions are sometimes influenced by factors such as political connections, resulting in the selection of contractors who may not possess the necessary

qualifications or resources for successful project execution.

While some studies have examined procurement practices in Kenya's public sector, there remains a gap in empirical research specifically focusing on the evaluation criteria used for contractors in the State Department of Roads, especially in the Upper Eastern Region. Existing literature primarily discusses general challenges in public procurement without delving into the specific variables influencing contractor selection and procurement performance in this context. Therefore, this study addressed this gap by investigating the relationship between contractors' financial capability, technical capacity, experience, organizational capacity, and procurement performance within the State Department of Roads in the Upper Eastern Region of Kenya, thus contributing to the enhancement of procurement practices and infrastructure development in the region.

Purpose of the Study

The purpose of this study was to examine contractors' evaluation criteria and procurement performance in the State Department of Roads in the Upper Eastern Region, Kenya. The study was guided by the following specific objectives;

- To assess the effect of financial capability of contractor on procurement performance in the State Department of Roads in the Upper Eastern Region, Kenya.
- To evaluate the effect of technical capacity of contractor on procurement performance in the State Department of Roads in the Upper Eastern Region, Kenya.
- To explore the effect of contractor's experience on procurement performance in the State Department of Roads in the Upper Eastern Region, Kenya.
- To assess the effect of contractor's organizational capacity on procurement

performance in the State Department of Roads in the Upper Eastern Region, Kenya.

The research hypotheses were;

- **HO₁**: There is no statistically significant relationship between financial capability of contractor and procurement performance in the State Department of Roads in the Upper Eastern Region, Kenya.
- **HO₂**: There is no statistically significant relationship between technical capacity of contractor and procurement performance in the State Department of Roads in the Upper Eastern Region, Kenya.
- **HO₃**: There is no statistically significant relationship between contractor's experience capacity and procurement performance in the State Department of Roads in the Upper Eastern Region, Kenya.
- **HO₄**: There is no statistically significant relationship between organizational capacity and procurement performance in the State Department of Roads in the Upper Eastern Region, Kenya.

LITERATURE REVIEW

Resource-Based Theory

The Resource-Based Theory, initially developed by Penrose in 1959, emphasizes that a firm's resources and capabilities are central to its competitive edge and overall performance. According to Penrose, firms possess unique resources—both tangible and intangible—that they can leverage to secure a sustainable competitive advantage (Penrose, 1959).

A core concept of the Resource-Based Theory is the VRIN framework, which asserts that resources must be valuable, rare, inimitable, and non-substitutable to drive long-term competitive advantage. Valuable resources help firms to seize opportunities and defend against threats, while rarity ensures that these resources are not widely available to competitors. The characteristics of inimitability and

non-substitutability make it challenging for rivals to duplicate or replace these resources, thus reinforcing the firm's competitive position (Barney, 1991).

In the context of the current study on contractors' evaluation criteria and procurement performance in the State Department of Roads in the Upper Eastern Region, Kenya, the resource-based theory addresses the variables of financial capability, technical capacity, experience, and organizational capacity of contractors. Financial capability relates to the availability of financial resources, which are essential for acquiring equipment, materials, and labor.

Principal-Agent Theory

Principal-Agent Theory, introduced by Jensen and Meckling in 1976, is designed to analyze situations where one party (the principal) hires another party (the agent) to act on their behalf. This theory is particularly useful for understanding the conflicts of interest and issues that arise due to differing objectives and information imbalances between the principal and the agent (Jensen & Meckling, 1976).

The theory highlights two key problems: moral hazard and adverse selection. Moral hazard occurs when agents, motivated by their own interests, may act in ways that are detrimental to the principal's goals. Adverse selection, on the other hand, arises when agents have more information than the principals, leading to potentially poor decision-making and inefficiencies (Eisenhardt, 1989).

The theory finds applications in various contexts, including corporate governance, finance, and procurement. In procurement, Principal-Agent Theory is particularly relevant in the selection and evaluation of contractors. It helps in designing contracts and incentive structures that align the interests of contractors with those of the procuring agency, mitigating agency problems and ensuring optimal performance (Eisenhardt, 1989).

Transaction Cost Economics (TCE) Theory

Transaction Cost Economics (TCE) Theory, formulated by Oliver E. Williamson in the 1970s,

examines the costs associated with transactions between economic agents and seeks to understand the mechanisms through which firms make decisions regarding the allocation of resources, particularly in the context of contracting out activities (Williamson, 1975). At its core, TCE posits that firms face transaction costs related to the negotiation, monitoring, and enforcement of contracts, and that these costs influence organizational structure and governance mechanisms.

One of the central arguments of TCE is that firms engage in economic transactions to minimize transaction costs, which include search and information costs, bargaining costs, and enforcement costs (Williamson, 1981). TCE suggests that firms choose governance structures, such as hierarchical control or market exchange, based on the relative efficiency of coordinating transactions internally versus externally. The theory also emphasizes the role of asset specificity, uncertainty, and opportunism in shaping transaction costs and governance choices (Williamson, 1985).

TCE helps in understanding how transaction costs influence the choice of contractors and procurement strategies. For instance, high asset specificity in road construction projects may necessitate long-term relationships with contractors to minimize transaction costs associated with renegotiation and adaptation. By considering transaction costs, procurement practices can be tailored to enhance efficiency and effectiveness in contractor selection and project delivery (Williamson, 1985).

Institutional Theory

Institutional Theory, introduced by Meyer and Rowan in 1977, explores how institutions—such as norms, regulations, and cultural values—influence organizational behavior and practices. The theory posits that organizations adapt to these institutional pressures in order to gain legitimacy and enhance their chances of survival within their environment. It emphasizes the significant role that

external institutional forces play in shaping organizational structures, processes, and strategies.

One of the key arguments of Institutional Theory is that organizations adopt institutionalized practices to signal legitimacy and gain acceptance from stakeholders. These practices become taken-for-granted routines that guide organizational behavior and decision-making (DiMaggio & Powell, 1983). Institutional pressures, such as coercive, mimetic, and normative pressures, drive organizations to conform to institutionalized norms and practices.

Institutional Theory has diverse applications across fields such as organizational sociology, management, and public administration. In the context of procurement, the theory provides insights into how institutional factors influence procurement practices, regulations, and norms. It helps policymakers understand the institutional context in which procurement decisions are made and the factors that shape organizational behavior in procurement processes (DiMaggio & Powell, 1983).

Empirical Literature Review

Khaemba and Otinga (2019) examined the factors that determine procurement performance within the Bungoma County Government in Kenya. The study was based on efficiency theory and the resource-based view, employing a descriptive survey design. To collect data, structured questionnaires were distributed to a target group of 113 participants, with a sample size of 88 respondents determined using Yamane's formula. The study validated its instruments through a pilot test involving 10 senior management officers from the neighboring Busia County, ensuring content validity and reliability through Cronbach's alpha. Descriptive statistics were used to summarize the data, while inferential statistics were analyzed using SPSS 23. The study achieved a response rate of 92.05%, making the findings applicable to a broader population. The results revealed that supplier financial capability and supplier evaluation significantly impacted procurement performance in Bungoma County. The study concluded that

suppliers with strong financial resources positively influence procurement performance by ensuring timely delivery of goods and services. Moreover, a thorough supplier evaluation process helps the county government secure reliable suppliers who can maintain quality standards. The current study will build on these findings by investigating the role of contractors' financial capability in influencing procurement performance within the State Department of Roads in the Upper Eastern Region, Kenya.

Nyaga (2020) conducted a study focused on the impact of project implementation practices on the performance of projects supported by the Uwezo Fund in Isiolo County. The objective was to understand the challenges that project implementation practices pose to project performance. The research was anchored in stakeholder theory, public choice theory, and human capital theory. Using a descriptive research design, the study sampled 147 respondents out of 232 Uwezo Fund-supported groups. The findings highlighted that technical capacity played a critical role in project implementation and management, with educational levels influencing both stakeholder relations and entrepreneurship. The study recommended improvements in project funding procedures, reducing the time taken to process loans, and offering business support services to project beneficiaries. Additionally, it emphasized the need for effective management structures, alongside monitoring and evaluation practices, to ensure the sustainability and enhancement of projects. In the current study, the researcher aims to assess the effect of contractors' technical capacity on procurement performance in the State Department of Roads in Kenya's Upper Eastern Region.

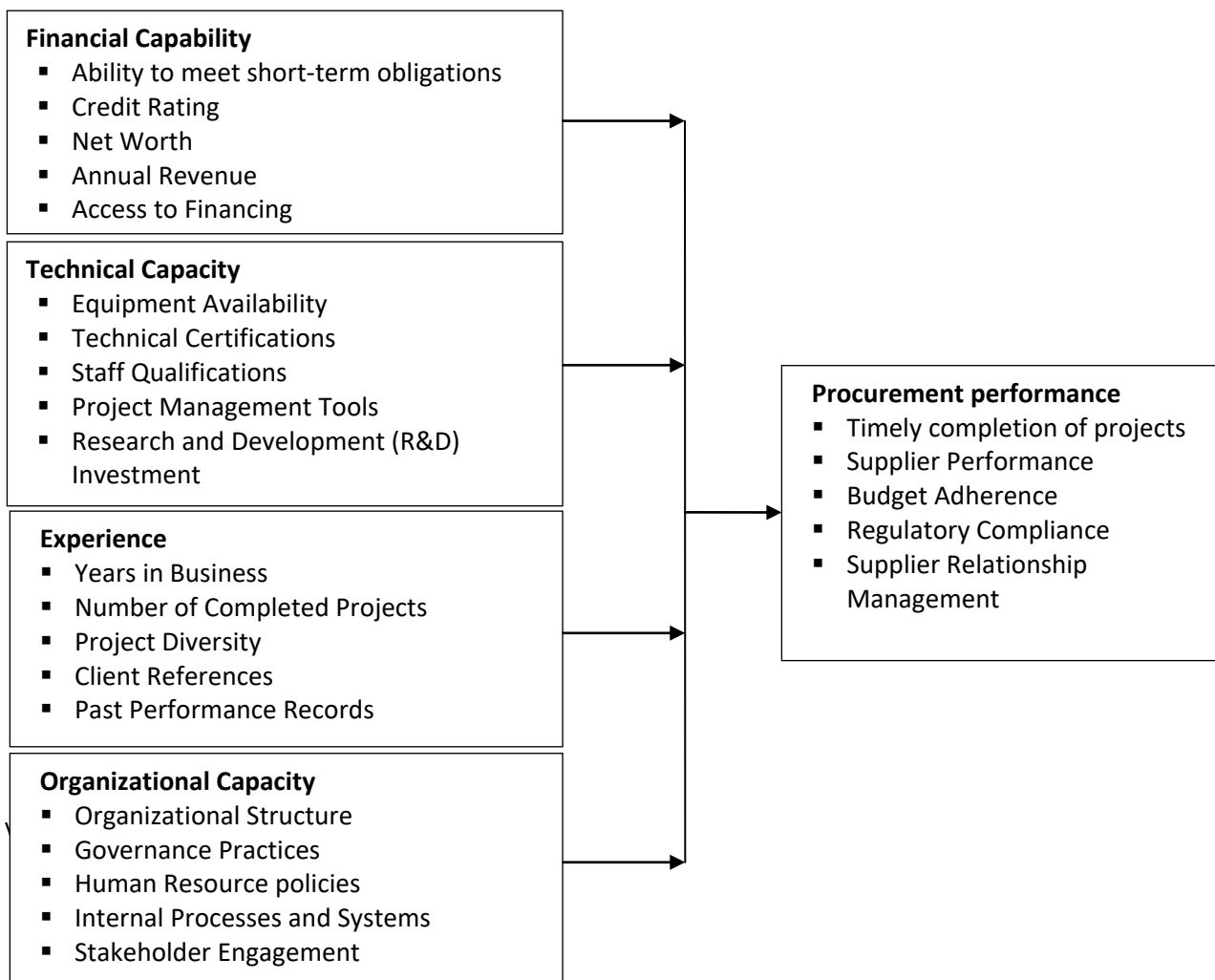
Wanjiku (2019) explored how strategic procurement practices impact organizational performance, with a focus on the Kenya School of Revenue Administration (KESRA). Utilizing a descriptive correlational research design, the study involved 87 employees from KESRA. Data was

gathered via questionnaires and analyzed using SPSS software. The results highlighted significant relationships between supplier management, technology utilization, organizational capacity, and organizational performance. Specifically, supplier management, technology utilization, and organizational capacity accounted for 11.1%, 19.1%, and 34.9% of the variance in organizational performance, respectively. The study concluded that strategic procurement practices are essential for achieving optimal organizational performance

and recommended continuous identification of strategic drivers, investment in research and development, and enhancement of employee skills to improve organizational outcomes. The current research will focus on assessing how organizational capacity influences procurement performance.

Conceptual Framework

In the context of this study, the conceptual framework delineates the key elements under examination.



Independent Variables

Dependent Variable

Figure 1: Conceptual Framework

METHODOLOGY

The researcher utilized a descriptive research design. The target population included 93 management-level employees from the State Department of Roads in the Upper Eastern Region. These employees were distributed across three parastatals: Kenya Urban Roads Authority (KURA), with 23 employees; Kenya Rural Roads Authority (KERRA), with 40 employees; and Kenya National Highways Authority (KENHA), with 30 employees. Primary data was gathered through questionnaires.

The study gathered both quantitative and qualitative data. For quantitative data, descriptive and inferential statistical techniques were employed, including the calculation of means, percentages, ranges, correlation coefficients,

standard deviations, and frequencies. Qualitative data was analyzed using content analysis, with a focus on identifying key themes and narratives. Quantitative data was processed through various statistical methods, while qualitative data was summarized using thematic analysis. Responses were counted, and statistical calculations were conducted using SPSS (Version 22).

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

Response Rate

The study targeted a sample of 93 employees of State Department of Roads in the Upper Eastern Region, Kenya. Table 1 shows the study response rate.

Table 1: Study Response Rate

Questionnaires distributed	Number of questionnaires completed and returned	Response Rate
93	72	77.4%

Descriptive Analysis of study Variables

The study investigated contractors' evaluation criteria namely, financial capability of contractor, financial capability of contractor, contractor's experience, and contractor's organizational capacity.

Financial Capability of Contractor and procurement performance

The research evaluated the impact of a contractor's financial capability on procurement performance as shown in Table 2.

Table 2: Financial Capability of Contractor Descriptive Analysis

Statement	Mean	Std. Deviation
The financial stability of contractors positively influences the timely completion of road projects	3.78	1.67
Contractors with higher credit ratings consistently deliver higher-quality work compared to those with lower credit ratings.	3.71	1.71
Effective cash flow management by contractors leads to better procurement performance and reduces delays in project execution.	3.93	1.63
Contractors with adequate bonding capacity are more likely to complete projects within budget and on schedule.	4.29	0.64
The previous financial performance of contractors is a reliable predictor of their future success in executing road projects.	4.14	0.68
Composite Mean		3.96

The analysis of the data reveals important insights into how various aspects of contractors' financial capability affect procurement performance in road projects within the State Department of Roads in the Upper Eastern Region of Kenya. The factor indicating that the financial stability of contractors

positively influences the timely completion of road projects received a mean score of 3.78, suggesting a general agreement that financial stability is important for project timeliness, although the high standard deviation of 1.67 reflects considerable variation in opinions, aligning with the work of

Khaemba and Otinga (2019), who argue that financial stability is crucial for ensuring that projects are completed on schedule. Similarly, contractors with higher credit ratings, who consistently deliver higher-quality work compared to those with lower credit ratings, received a mean score of 3.71, indicating moderate agreement that credit ratings are indicative of quality; however, the high standard deviation of 1.71 suggests diverse views among respondents, supported by Ahmad, Shafiq, and Umar (2019), who emphasize the impact of financial metrics on contractor performance, though opinions on the exact correlation between credit ratings and quality may vary.

Effective cash flow management by contractors, which scored a mean of 3.93, is seen as leading to better procurement performance and reduced delays, and the high standard deviation of 1.63 reflects varied opinions on the impact of cash flow management, indicating that while many recognize its importance, experiences and perceptions differ, supporting the findings of Mushori (2020), who highlights the critical role of cash flow management in maintaining project timelines and performance. Similarly, the factor indicating that contractors with adequate bonding capacity are more likely to complete projects within budget and on schedule received a high mean score of 4.29, and this strong agreement, coupled with a low standard deviation of 0.64, suggests that bonding capacity is widely

recognized as a key factor for completing projects successfully, consistent with the observations of Khandira (2020), who notes that bonding capacity significantly impacts a contractor's ability to manage project budgets and schedules effectively.

Finally, the factor suggesting that the previous financial performance of contractors is a reliable predictor of their future success in executing road projects had a mean score of 4.14. This high score indicates a strong consensus on the importance of past financial performance as a predictor of future success. The low standard deviation of 0.68 supports this view and aligns with the work of Basri and Suryahadi (2017), who argue that historical financial performance is a good indicator of future project outcomes.

The composite mean of 3.96 reflects a general agreement on the importance of various financial capability factors in influencing procurement performance. This score integrates the varied perspectives on financial stability, credit ratings, cash flow management, bonding capacity, and past performance, providing a comprehensive view of their impact on procurement outcomes.

Technical capacity of contractor and procurement performance

The study investigated the effect of contractor's technical capacity on procurement performance as presented in Table 3.

Table 3: Technical capacity of contractor descriptive analysis

Statement	Mean	Std. Deviation
Contractors with a proven track record of completing similar road projects positively impact procurement performance in terms of quality and efficiency.	3.98	0.98
The competence and skills of a contractor's workforce are critical factors in achieving high procurement performance and project success.	4.98	0.92
The use of modern equipment and technology by contractors enhances the efficiency and quality of road construction projects.	3.63	1.38
Contractors with robust quality assurance and control systems are more likely to meet project specifications and standards, thereby improving procurement performance.	3.10	0.89
Strong project management capabilities in contractors lead to better planning, execution, and completion of road projects within the stipulated time and budget.	3.72	1.48
	3.85	0.79
Composite Mean		3.88

The data analysis sheds light on the impact of various technical capacities of contractors on procurement performance within the State Department of Roads in the Upper Eastern Region of Kenya. The factor that contractors with a proven track record of completing similar road projects positively impacting procurement performance had a mean score of 3.98, reflecting a general agreement that prior success in similar projects is beneficial, although opinions vary, as indicated by a standard deviation of 0.98; this finding is consistent with research by Mushori (2020), who highlights that a history of successful projects is a key predictor of future performance. Furthermore, the high mean score of 4.98 for the competence and skills of a contractor's workforce underscores the strong consensus on its critical role in achieving high procurement performance, this supports the views expressed by Ngari (2017), who emphasizes that workforce competence significantly influences project success. Additionally, the use of modern equipment and technology by contractors for enhancing efficiency and quality had a mean of 3.63 and a high standard deviation of 1.38 suggesting diverse opinions about the impact of technology, aligned with findings from Arnfalk and Bjornfot (2019), who observe that while technology can improve performance, its effectiveness often depends on its application and context.

For quality assurance and control systems, the mean score of 3.10 shows less agreement on their importance for meeting project specifications and standards. This is somewhat at odds with Basri and Suryahadi (2017), who argue that robust quality control systems are crucial for ensuring that projects meet required standards. The factor concerning strong project management capabilities received a mean score of 3.72, suggesting a general agreement that effective project management contributes to better planning, execution, and completion of projects. The high standard deviation of 1.48 indicates notable variation in responses. This observation is supported by Chou (2016), who emphasizes that effective project management practices are essential for achieving successful project outcomes. The composite mean of 3.88 reflects an overall moderate agreement on the impact of technical capacity on procurement performance. This score integrates the varied opinions on factors such as technology use and quality assurance, providing a balanced view of their influence on procurement outcomes.

Contractor's experience and performance

The study explored the influence of a contractor's experience on procurement performance as analyzed in Table 4.

Table 4: Contractor's experience descriptive statistics

Statement	Mean	Std. Deviation
Contractors who have successfully completed similar road construction projects tend to perform better in terms of quality and efficiency in procurement activities.	4.21	1.79
The number of years a contractor has been in operation positively correlates with their ability to deliver road projects on time and within budget.	4.60	0.98
Contractors with strong reputations and positive references are more likely to achieve superior procurement performance in road construction projects.	3.49	1.92
Contractors with specialized expertise in road construction contribute to higher procurement performance by delivering projects that meet specific technical requirements.	4.28	0.67
A history of successful project outcomes is a reliable indicator of a contractor's capability to enhance procurement performance in future road projects.	4.71	0.81
Composite Mean		4.11

The data analyzed provides valuable insights into how contractor experience impacts procurement performance in the State Department of Roads in the Upper Eastern Region of Kenya. The factor with the highest mean score, indicating a strong positive correlation, is that contractors with more years of operation are better able to deliver road projects on time and within budget. This high mean score of 4.60 and low standard deviation of 0.98 suggest a consensus that experienced contractors tend to be more reliable, as supported by Ahmad, Shafiq, and Umar (2019), who highlight the significant role of contractor experience in performance.

Conversely, the factor relating to contractors having strong reputations and positive references received a lower mean score of 3.49, accompanied by a high standard deviation of 1.92. This variation indicates mixed opinions among respondents about the impact of reputation and references on procurement performance. The differing views might stem from varying personal experiences or the different levels of importance placed on reputation. Hassan, Ahmed, and Omwenga (2023) also note that while reputation can be influential, its effect might differ based on context.

Another factor, focusing on contractors who have successfully completed similar road construction projects, received a mean score of 4.21. This reflects general agreement that past success in similar projects is a good indicator of future performance. Despite this positive outlook, the standard deviation of 1.79 reveals some variation in opinions regarding its importance. This finding is in

line with Hassan, Ahmed, and Omwenga (2023), who suggest that past performance plays a significant role, though its impact can vary.

Specialized expertise in road construction scored a mean of 4.28, indicating a strong consensus that technical skills are crucial for meeting project requirements and improving procurement performance. This is supported by Chepkosgei Kenduiywo and Kirui (2018), who emphasize the role of technical expertise in successful project outcomes.

Lastly, the factor indicating that a history of successful project outcomes is a reliable indicator of a contractor's future performance received the highest mean score of 4.71. This strong agreement reflects the belief that previous successes are a key predictor of future effectiveness. The low standard deviation of 0.81 shows a high level of consensus on this point. The views align with Khaemba and Otinga (2019) and Oprong (2020), who stress the importance of past performance for future success. The composite mean of 4.11 reinforces the overall agreement that contractor experience significantly affects procurement performance, integrating these perspectives into a comprehensive view of contractor effectiveness in road projects.

Contractor's organizational capacity and Procurement performance

The researcher examined the impact of a contractor's organizational capacity on procurement performance and data collected was as analyzed in Table 5.

Table 5: Contractor's organizational capacity descriptive analysis

Statement	Mean	Std. Deviation
A well-defined organizational structure leads to improved procurement performance	1.42	1.11
The ability of contractors to retain skilled personnel is crucial for achieving high procurement performance in road construction projects	3.40	1.35
Management systems within a contractor's organization enhance the effectiveness and efficiency of procurement activities	3.91	1.97
Strong governance practices in contractor organizations contribute to better decision-making and procurement performance in road projects.	4.26	1.00
Contractors with scalable and flexible organizational capacity can better adapt to project demands, thereby improving procurement performance.	4.46	0.92
Composite Mean		3.6

The data analysis reveals critical insights into the influence of contractors' organizational capacity on procurement performance in road projects within the State Department of Roads in the Upper Eastern Region of Kenya.

The factor related to a well-defined organizational structure in contractors, which scored a mean of 1.42, indicates a low level of agreement on its impact on procurement performance. The high standard deviation of 1.11 suggests considerable variation in responses. This may imply that respondents do not see a well-defined organizational structure as significantly influencing procurement performance, or that its impact is less pronounced compared to other factors. This finding contrasts with the views of Revellino and Mourik (2017), who argue that a clear organizational structure is fundamental to effective procurement processes.

The ability of contractors to retain skilled personnel received a mean score of 3.40, reflecting moderate agreement on its importance for high procurement performance. The standard deviation of 1.35 shows some variability in opinions, indicating that while retaining skilled personnel is recognized as important, its impact on procurement performance might not be uniformly perceived. This finding is consistent with the observations by Onyango (2016), who emphasizes that skilled personnel are essential for successful project execution.

Management systems within a contractor's organization scored a mean of 3.91, indicating a moderate to high level of agreement on their role in enhancing the effectiveness and efficiency of procurement activities. The high standard deviation

of 1.97 suggests significant variation in opinions about the effectiveness of management systems. This aligns with the work of Chou (2016), who highlights the critical role of management systems in optimizing procurement performance.

Strong governance practices in contractor organizations, which received a mean score of 4.26, are seen as contributing to better decision-making and procurement performance. The lower standard deviation of 1.00 indicates a high level of agreement on the importance of governance practices. This finding supports the views of Oprong (2020), who argues that strong governance is crucial for improving decision-making and overall project performance.

Finally, contractors with scalable and flexible organizational capacity, which scored a mean of 4.46, are perceived as better able to adapt to project demands and thereby improve procurement performance. The low standard deviation of 0.92 reflects a strong consensus on the significance of scalability and flexibility. This supports the findings of Wanjiku (2019), who emphasizes that adaptability and flexibility are key to meeting project demands and achieving successful procurement outcomes.

The composite mean of 3.6 reflects an overall moderate agreement on the impact of organizational capacity factors on procurement performance. This score integrates varied opinions on aspects such as organizational structure, personnel retention, management systems, governance practices, and scalability, providing a comprehensive view of their influence on procurement outcomes.

Procurement performance

Table 5: Procurement Performance Descriptive Analysis

Statement	Mean	Std. Deviation
Projects are consistently completed on schedule, contributing positively to the overall procurement performance.	3.75	1.63
The execution of projects meets or exceeds the required quality standards, reflecting effective procurement performance.	3.79	0.64
Cost management practices are in place, ensuring that projects are completed within the allocated budget.	4.32	0.95
Satisfaction among stakeholders are achieved due to the efficient and effective procurement processes.	4.02	1.03
The procurement cycle time is minimized, enhancing the efficiency and responsiveness of the procurement process.	3.12	1.37
Projects are consistently completed on schedule, contributing positively to the overall procurement performance.	4.38	0.94
Composite Mean		3.89

The analysis of procurement performance data reveals key insights into how various factors affect outcomes in road projects managed by the State Department of Roads in the Upper Eastern Region of Kenya.

The factor indicating that projects are consistently completed on schedule, contributing positively to procurement performance, received a mean score of 3.75. This suggests a moderate agreement that timely project completion positively impacts procurement performance, although the high standard deviation of 1.63 reflects substantial variability in opinions. This is consistent with findings by Otinga (2022), who notes that timeliness in project execution is crucial for procurement success.

Meeting or exceeding required quality standards scored a mean of 3.79, showing a moderate to high level of agreement that quality execution reflects effective procurement performance. The low standard deviation of 0.64 indicates relatively uniform opinions on this factor. This supports the observations by Ngari (2017), who highlights the importance of adhering to quality standards in ensuring successful project outcomes.

Cost management practices, which received a mean score of 4.32, are recognized as critical for ensuring that projects are completed within the allocated

budget. The lower standard deviation of 0.95 indicates a strong consensus on the importance of cost management for effective procurement performance. This finding aligns with the work of Bawole, Ohemeng, and Agyeiwaah (2017), who emphasize that effective cost management is essential for staying within budget and achieving procurement objectives. Satisfaction among stakeholders, achieved through efficient and effective procurement processes, received a mean score of 4.02. This reflects a high level of agreement on the role of stakeholder satisfaction in procurement performance, with a standard deviation of 1.03 indicating some variability in responses. This is supported by the work of Revellino and Mourik (2017), who argue that stakeholder satisfaction is a key indicator of procurement success.

Finally, the procurement cycle time, which scored a mean of 3.12, indicates less agreement on its role in enhancing procurement efficiency and responsiveness. The high standard deviation of 1.37 suggests significant variability in opinions, indicating that while some view cycle time as an important factor others may see it as less critical. This variability in perception is also noted by Chou (2016), who suggests that the impact of procurement cycle time can vary depending on the

context and specific procurement practices. The composite mean of 3.89 reflects a general agreement on the importance of various factors in influencing procurement performance. This overall score integrates diverse opinions on project scheduling, quality execution, cost management, stakeholder satisfaction, and procurement cycle time, providing a balanced view of their impact on procurement outcomes.

Inferential Analysis

Inferential analysis was applied to test the hypotheses regarding the relationship between contractor evaluation criteria (including financial

capability, technical capacity, contractor experience, and organizational capacity) and procurement performance within the State Department of Roads in the Upper Eastern Region, Kenya.

Correlation Analysis

To determine the relationships between the study's independent variables and the dependent variable, Pearson correlation analysis was conducted. The results are summarized in Table 6.

Table 6: Correlation Analysis

Variable	Procurement Performance	Financial Capability of Contractor	Technical Capacity of Contractor	Contractor's Experience	Contractor's Organizational Capacity
Procurement Performance	Pearson Correlation	1.00	.753	.732	.747
	Sig. (2-tailed)	-	.045	.046	.045
	N	72	72	72	72
Financial Capability	Pearson Correlation	.753	1.00	.671	.746
	Sig. (2-tailed)	.045	-	.051	.042
	N	72	72	72	72
Technical Capacity	Pearson Correlation	.732	.671	1.00	.532
	Sig. (2-tailed)	.046	.051	-	.051
	N	72	72	72	72
Contractor's Experience	Pearson Correlation	.747	.746	.532	1.00
	Sig. (2-tailed)	.045	.042	.051	-
	N	72	72	72	72
Contractor's Organizational Capacity	Pearson Correlation	.751	.591	.539	.731
	Sig. (2-tailed)	.045	.053	.049	.057
	N	72	72	72	72

The results in Table 6 show that all four independent variables had a positive correlation with procurement performance. The contractor's financial capability exhibited the strongest correlation with procurement performance ($r = 0.753$), supporting hypothesis H01. Similarly, the contractor's organizational capacity showed a strong positive correlation ($r = 0.751$), aligning with hypothesis H04. Additionally, the contractor's

experience ($r = 0.747$) and technical capacity ($r = 0.732$) also demonstrated strong positive correlations, supporting hypotheses H03 and H02, respectively.

Multiple Regression Model

A multiple regression model was applied to assess the relationship between the independent variables and procurement performance. The findings are detailed in Table 7.

Table 7: Model Fitting Information

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.7937	.6299	.5864	6.7705

Table 7 indicates that the adjusted R-squared value is 0.5864, suggesting that the independent variables (financial capability of the contractor, technical capacity, contractor experience, and organizational capacity) collectively explain 58.64% of the variance in procurement performance. This result provides

evidence against the null hypotheses (H01, H02, H03, and H04).

Analysis of Variance (ANOVA)

The ANOVA results, shown in Table 8, assess how well the model fits the data.

Table 8: Analysis of Variance

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	24.68	3	8.227	3.632	.0069
Residual	45.29	20	2.265		
Total	69.97	23			

The significance level of 0.0069 (< 0.05) indicates that the independent variables statistically and significantly predict procurement performance, leading to the rejection of the null hypotheses (H01, H02, H03, and H04).

Regression

Regression analysis results are summarized in Table 9, showing the impact of each independent variable on procurement performance.

Table 9: Regression Coefficient Analysis

Model	Unstandardized Coefficients	Standardized Coefficients	T	Sig.
(Constant)	2.057	1.681	2.30	.040
Financial capability of contractor	1.070	.071	.328	4.573
Technical capacity of contractor	2.063	.112	.210	2.341
Contractor's experience	1.343	.211	.067	.379
Contractor's organizational capacity	.068	.232	.075	.623

Y= 2.057 + 1.070X₁+2.063X₂+1.343X₃+0.068X₄+e
whereby

Y is Procurement performance; X₁ is financial capability of contractor; X₂ is technical capacity of contractor; X₃ is Contractor's experience; X₄ is Contractor's organizational capacity and e = model significance. The coefficients provide insight into how each variable affects procurement performance, with particular emphasis on the significance of financial capability.

The financial capability of contractors demonstrates a robust positive effect on procurement performance, with an unstandardized coefficient of

1.070 and a standardized coefficient of 0.328. The t-value of 4.573 and a significance level of 0.040 indicate that this variable has a statistically significant impact on procurement performance. This finding supports the notion that financial resources are crucial for enhancing procurement performance, aligning with previous research on the determinants of contractor performance (Umar, 2019).

In contrast, the technical capacity of contractors, with an unstandardized coefficient of 2.063 and a standardized coefficient of 0.210, shows a positive but less pronounced effect. The t-value of 2.341

and a significance level of 0.379 suggest that while technical capacity is relevant, its impact on procurement performance is not as significant as financial capability. This is consistent with findings that technical skills are important but may not always be the primary driver of procurement success (Kenduiwo & Kirui, 2018).

The coefficients for contractor experience and organizational capacity reveal weaker associations with procurement performance. The unstandardized coefficient for contractor experience is 1.343, with a standardized coefficient of 0.067, and a t-value of 0.379 and a significance level of 0.623. Similarly, the organizational capacity has an unstandardized coefficient of 0.068 and a standardized coefficient of 0.075, with a t-value of 0.623 and a significance level of 0.623. These results suggest that while experience and organizational capacity contribute to procurement performance, their effects are relatively minimal compared to financial capability (Kariuki & Paul, 2019; Otinga, 2022).

CONCLUSION AND RECOMMENDATIONS

Based on the findings, the following conclusions were drawn:

The financial capability of contractors significantly impacts procurement performance. Contractors with strong financial stability, effective cash flow management, and adequate bonding capacity are more likely to complete road projects on time, within budget, and with higher quality. The composite mean of 3.96 indicates a general agreement that financial aspects, such as past financial performance and credit ratings, play a crucial role in influencing procurement outcomes.

The technical capacity of contractors, including workforce competence, the use of modern technology, and strong project management capabilities, is vital for achieving high procurement performance. The composite mean of 3.88 reflects moderate agreement on the importance of technical factors, with particular emphasis on the skills and experience of the workforce, which

received the highest mean score of 4.98, underscoring its critical role in project success.

Contractor experience is a strong determinant of procurement performance. The composite mean of 4.11 suggests a strong consensus that contractors with more years of operation, a history of successful projects, and specialized expertise are more likely to deliver projects on time, within budget, and to the required quality standards. The highest mean score of 4.71 for past project outcomes further reinforces the belief that experience is a reliable predictor of future performance.

The organizational capacity of contractors, particularly in terms of governance practices, scalability, and flexibility, has a significant influence on procurement performance. The composite mean of 3.60 indicates moderate agreement on the importance of these organizational factors, with the highest mean score of 4.46 for scalability and flexibility, highlighting their importance in adapting to project demands and improving procurement outcomes.

The State Department of Roads should strengthen the financial vetting process of contractors by ensuring they possess sufficient financial stability, including strong cash flow management and bonding capacity. This can be achieved by implementing more rigorous financial assessments and requiring contractors to demonstrate past financial performance. Ensuring contractors' financial capability will contribute to timely project completion and higher procurement performance.

Contractors should be encouraged to invest in continuous training programs for their workforce and upgrade their equipment and technology to enhance technical capacity. The State Department of Roads can support this by offering incentives or creating partnerships for skill development. Emphasizing technical competence and modern technology will improve the quality and efficiency of road projects.

When selecting contractors for road projects, the State Department of Roads should give preference to those with substantial experience and a proven track record. Contractors with extensive experience tend to deliver more reliable and timely results. This can be done by setting minimum experience thresholds and considering contractors' historical performance data during the bidding process.

Contractors should focus on enhancing their organizational capacity, particularly in terms of scalability and flexibility, to adapt to varying project demands. The State Department of Roads can encourage this by including adaptability as a criterion in contractor evaluations. This will ensure that contractors are better equipped to handle unforeseen challenges, leading to improved procurement performance.

Impact of Regulatory Policies on Contractor Performance in Public Procurement: Future research could explore how regulatory policies and frameworks influence the performance of contractors in public procurement, particularly in road projects. This study could examine the effectiveness of current regulations in ensuring contractor compliance and their impact on procurement performance, identifying potential gaps or areas for policy improvement.

Effect of Technological Innovation in Enhancing Procurement Performance: Another area for further research could focus on influence of emerging technologies on procurement performance. This study could investigate how these technologies can be integrated into the procurement processes of public sector road projects to improve efficiency, transparency, and overall project outcomes.

REFERENCES

- Ahmad, H., Shafiq, M., & Umar, H. (2019). Determinants of contractors' performance: Evidence from Malaysia. *Cogent Business & Management*, 6(1), 1603404.
- Arnfolk, P., & Bjornfot, A. (2019). Digitalization and public procurement in the European Union: Evaluating the use of e-procurement and e-tendering in Finland, Sweden, and Germany. *International Journal of Public Sector Management*, 32(2), 124-144.
- Basri, M. A., & Suryahadi, S. (2017). Public procurement and local development: Evidence from Indonesia. *Public Administration and Development*, 37(5), 358-371.
- Bawole, J. N., Ohemeng, F. L. K., & Agyeiwaah, E. (2017). Public procurement and national development: A case study of the Ghanaian public procurement law. *International Journal of Public Sector Management*, 30(3), 268-282.
- Chepkosgei Kenduiywo, T., & Kirui, C. (2018). Technical capacity on implementation of construction projects in Kajiado County, Kenya. *International Journal of Management and Commerce Innovations*, 6(2), 255-257
- Chou, J. (2016). Public procurement in Singapore: legal challenges and pragmatic responses. *International Journal of Public Sector Management*, 29(1), 17-34.
- Eurostat. (2020). Public procurement statistics. European Union. <https://ec.europa.eu/eurostat/web/public-procurement>
- Hassan, Ahmed & Omwenga, Jane Queen. (2023). Contract Management and Procurement Performance of State Corporation in Kenya. *International Journal of Social Science and Humanities Research (IJSSHR) ISSN 2959-7056 (o); 2959-7048 (p)*. 1. 47-73. 10.61108/ijsshr.v1i1.9.

- Kariuki, S., & Paul, S. N. (2019). Influence of contract management practices on procurement performance of County Government in Kenya. *International Journal of Recent Research in Commerce Economics and Management (IJRRCCEM)*, 6(4), 222-228
- Khaemba, D. W., & Otinga, H. N. (2019). Influence of supplier financial capability and evaluation on procurement performance in the county government of Bungoma, Kenya. *The Strategic Journal of Business & Change Management*, 6 (2), 1669 –1682.
- Khandira, D. A. (2020). Project Organisation Framework and Implementation of Road Construction Projects in Kisumu County, Kenya. Master's thesis, Kenyatta University.
- Mushori, James. (2020). Evaluation of Contractors' Financial Ability: A Remedy for Performance of Road Construction Infrastructural Projects for Sustainable Cities. *Journal of Sustainable Development*. 13. 10.5539/jsd.v13n6p86.
- Ngari, C. (2017). Effect of Contractor Knowledge and Experience on Cost Estimation in Plant Infrastructure Projects in Kenya. *International Journal of Science and Research (IJSR)*, 6(6)
- Nyaga, G. N. (2020). Influence of project implementation practices on performance for Uwezo fund supported projects in Isiolo County, Kenya (Master's thesis, University of Nairobi).
- Onyango, S. A. (2016). Perceived influence of contractor selection considerations on timely completion of public works projects in Kisumu County Government, Kenya. Master of Business Administration Thesis, University of Nairobi.
- Oprong, N. (2020). Influence of contractors' capacity on implementation of road infrastructure projects in Meru County, Kenya. Master's thesis, University of Nairobi.
- Otinga, E. J. (2022). *Influence of contractors' experience, obstruction of road construction sites and project specification changes on completion of road construction projects in Kakamega County*. Master's thesis, University of Nairobi
- Revellino, S., & Mourik, R. M. (2017). Towards a model to measure the integrity of public procurement processes. *International Journal of Public Sector Management*, 30(1), 43- 59.
- Transparency International. (2020). Corruption perceptions index 2020. <https://www.transparency.org/en/cpi/2020/index/nzl>
- UK Government. (2015). Public Contracts Regulations 2015. UK Government Legislation. http://www.legislation.gov.uk/ukxi/2015/102/pdfs/ukxi_20150102_en.pdf
- Wanjiku, F. (2019). *Effect of strategic procurement practices on organizational performance in public organizations: A case of Kenya School of Revenue Administration*. United States International University - Africa
- World Bank. (2017). Benchmarking public procurement. World Bank Group. <https://openknowledge.worldbank.org/handle/10986/28573>
- World Bank. (2019). Benchmarking public procurement in Africa: Assessing public procurement systems in 10 African countries. World Bank Group. <https://openknowledge.worldbank.org/handle/10986/33201>