

Effect of Procurement Planning on the Procurement Performance of Maritime Parastatals in Mombasa County

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Abstract

This study investigated the influence of procurement planning on the procurement performance of maritime government-owned parastatals in Mombasa County, Kenya. Guided by objectives, the research assessed the effects of need identification, need specification, sourcing strategies, and resource allocation on procurement performance. The theoretical framework was underpinned by the Knowledge-Based View, Institutional Theory, Strategic Choice Theory, and Resource-Based View. A descriptive correlational research design was employed, targeting a population of 94 senior and middle-level management staff from the Technical, Procurement, and Finance departments across selected maritime parastatals in Mombasa County. A sample size of 76 respondents was utilized. Data were collected using self-administered Likert-scale questionnaires and analysed using SPSS (Version 23) through both descriptive and inferential statistics. The findings revealed a significant positive relationship ($p < 0.05$) between all investigated procurement planning components and procurement performance. Specifically, effective need identification, particularly through user department involvement, significantly enhanced performance. Clear and standardized need specifications, aligned with market and legal requirements, were confirmed to improve procurement outcomes. Sourcing strategies that include thorough market research and careful cost analysis had a notable positive effect on procurement performance. Resource allocation, supported by adequate budgets and technical know-how, showed the greatest positive impact, although gaps in staff skills and time management were evident. The study found that strong procurement planning—covering accurate needs identification, clear specifications, strategic sourcing, and effective resource use—is vital for better performance in parastatals. It recommends involving stakeholders in identifying needs, preparing standardized and legally compliant specifications, improving sourcing through market and risk analysis, and managing resources to address skill and time issues. Further research could look at the long-term results of applying these approaches across different public sector organizations.

Key Words: Need identification, Need specification, Sourcing strategy, Resource allocation, Procurement planning, Maritime parastatals, Procurement performance

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1. Introduction

According to the Office of the Auditor-General (2017), procurement planning remains a persistent challenge for maritime state-run corporations operating in Mombasa County, particularly those with mandates in transport and maritime such as the Kenya Maritime Authority (KMA), the Kenya National Shipping Line (KNSL), and the Kenya Ports Authority (KPA). These institutions are critical to Kenya's economic infrastructure, yet they continue to face performance inefficiencies, many of which are linked to inadequate procurement planning and execution. For instance, in the fiscal year 2016/2017, the Kenya Maritime Authority reported a deficit of Ksh 124 million, an improvement from the Ksh 181 million deficit recorded the previous year. However, this improvement still reflected deep-rooted financial mismanagement and weak procurement practices, which raised concerns about the ability of procurement planning to enhance performance in such maritime parastatals.

Audit reports for the financial years ending 2017, 2018, and 2019 have consistently revealed systemic breaches of public procurement regulations, particularly the requirement for entities to prepare and adhere to annual procurement plans (National Audit Office of Tanzania [NAOT], 2018; NAOT, 2019; NAOT, 2020). These reports indicate that several parastatals procured goods and services that were not included in their approved plans, leading to inefficiencies, service delivery delays, cost overruns, and compromised accountability and transparency. The repeated flouting of procurement regulations has therefore had a direct negative effect on operational performance.

Empirical evidence underscores the positive influence of effective procurement planning on organizational performance. Studies by Zwikael (2019), Walker et al. (2019), and Hazra and Mahadevan (2019) demonstrate that aligning procurement activities with organizational goals enhances service delivery efficiency and optimizes resources. Conversely, Mora et al. (2017) caution that poor implementation of procurement planning results in operational inefficiencies such as increased costs, reduced service quality, and delayed supplies. More recently, Wambua (2023) and Kibet and Ngeno (2022) have reaffirmed the significance of procurement planning in improving procurement performance. Kibet and Ngeno (2022) established a direct link between procurement planning and reduced procurement cycle times in public entities, while Wambua (2023) observed that when procurement needs are misaligned with approved plans, county-based state corporations persistently underperform.

Despite these findings, a significant gap remains in the understanding of procurement planning and performance within the maritime and port sector in Mombasa County. While studies conducted in Kenya, such as those by Barasa et al. (2015) and Kingoo (2013), have examined procurement practices, they have tended to treat procurement planning and performance as generalized concepts without offering specific insights into the unique, logistics-intensive operational environments of KPA, KNSL, and KMA. Furthermore, although recent reforms—such as the roll-out of the Integrated Financial Management Information System (IFMIS) and the Government Procurement Reform initiative—were introduced to streamline procurement processes across Kenya, there has been limited

assessment of their actual implementation and outcomes within Mombasa's parastatals. This disconnects between theoretical procurement frameworks and their practical execution highlights the need for a focused inquiry into the factors contributing to procurement performance shortfalls in these critical state corporations.

It is against this background that the current study investigates how procurement planning influences procurement performance in maritime state corporations based in Mombasa County, focusing on the Kenya Maritime Authority, the Kenya National Shipping Line, and the Kenya Ports Authority. The study seeks to pinpoint the actual causes of performance gaps, assess the alignment between organizational goals and procurement strategies, and provide actionable recommendations aimed at enhancing procurement outcomes within these essential government organizations.

1.2 Research Hypothesis

- H₀₁: There is no significant effect of need identification on procurement performance of maritime parastatals in Mombasa County.
- H₀₂: There is no significant effect of need specification on procurement performance of maritime parastatals in Mombasa County.
- H₀₃: There is no significant effect of sourcing strategy on procurement performance of maritime parastatals in Mombasa County.
- H₀₄: There is no significant effect of resource allocation on procurement performance of maritime parastatals in Mombasa County.

2. Literature Review

2.1 Theoretical Framework

A theoretical framework provides the foundation for understanding a study's subject area and organizing its key concepts (Kivunja, 2015). It supports the interpretation of past research, clarifies the relationships between variables, and guides data analysis (Swanson, 2017). In this study, the framework draws on the Knowledge-Based View (KBV), Institutional Theory, Strategic Choice Theory (SCT), and Resource-Based View (RBV) to explain the link between procurement planning and performance in Mombasa County parastatals.

Knowledge-Based View (KBV)

Proposed by Penrose (1959) and refined by Wernerfelt (1984), KBV identifies knowledge as a key organizational resource. In procurement, it underpins the process of identifying needs by drawing on employee expertise, organizational goals, internal data, and market intelligence (Schutze, 2020). The study found that involving user departments in need identification significantly improved procurement performance, supporting KBV's view that integrating diverse knowledge enhances accuracy and outcomes.

Institutional Theory

Developed by Meyer and Rowan (1977), Institutional Theory focuses on adherence to established rules and norms to gain legitimacy. In procurement, it is relevant to need specification, where standardization and compliance ensure transparency and accountability (Ashworth et al., 2019). The study's findings—strong support for standardized, legally compliant specifications—reflect the theory's emphasis on formalized practices to reduce risks and improve performance.

Strategic Choice Theory (SCT)

Introduced by Child (1972), SCT highlights the role of managerial decisions in shaping organizational strategy. In procurement, it relates to sourcing strategies, including supplier selection, risk management, and market engagement (Schiele et al., 2017). The study found that sourcing strategies such as market analysis, cost evaluation, and targeted supplier selection had a strong positive effect on performance, reinforcing SCT's view that deliberate managerial choices directly influence outcomes.

Resource-Based View (RBV)

Advanced by Penrose (1995) and Wernerfelt (1991), RBV argues that unique resources and capabilities form the basis of competitive advantage. In procurement, this includes budgeting, technical expertise, supplier networks, and technology (Teece, 2016). The study confirmed that adequate and timely resource allocation strongly correlates with better procurement performance, while gaps in staff competency and time management highlight areas where resource capacity must be strengthened in line with RBV principles. Thus, the study aligns with its objective by demonstrating how the effective allocation and deployment of resources enhance procurement outcomes through the lens of RBV.

2.2 Conceptual Framework

A conceptual framework as stated by Varpio et al. (2020) is a structure outline that depicts interaction between variables that are relevant to an investigation. Procurement performance in this case becomes the dependent variable while the four independent variables are: need identification, need specification, sourcing strategy, and resource allocation.

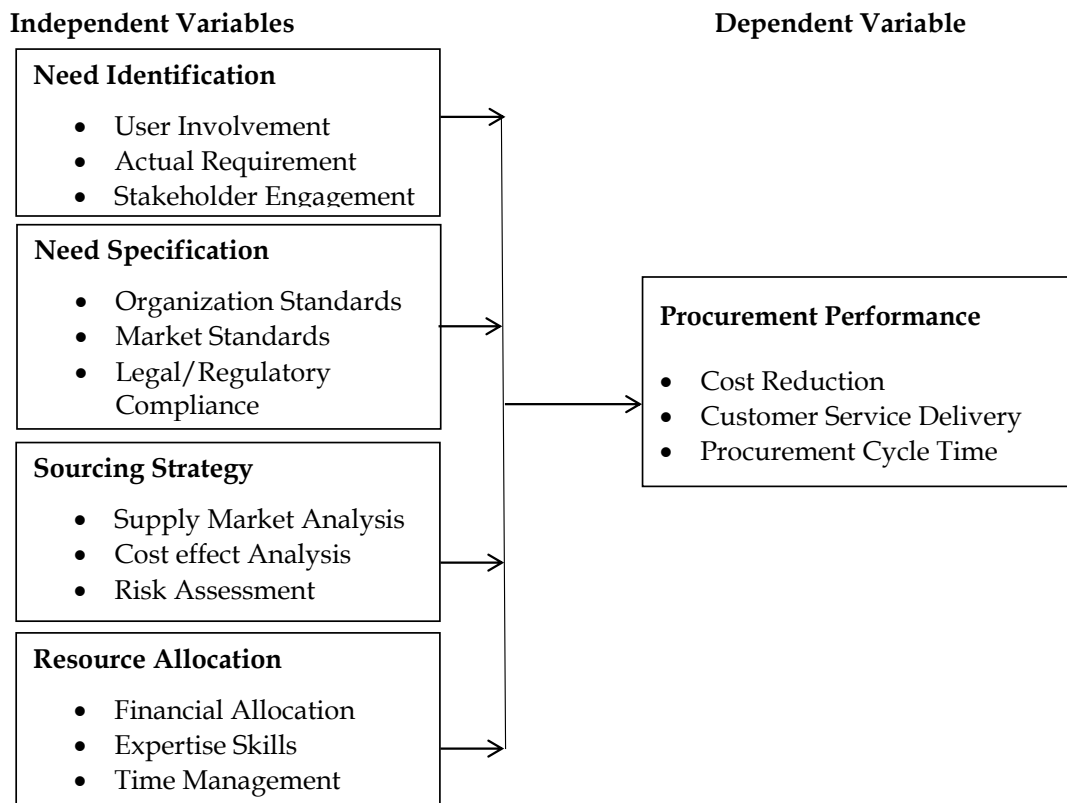


Figure 1: Conceptual Framework

2.3 Empirical Review

Empirical studies consistently demonstrate that effective need identification enhances procurement performance by improving accuracy, communication, and alignment with organizational goals. Zhang and Hu (2022) in China's manufacturing sector and Mwangi and Otieno (2021) in Kenya's public sector both established that involving requisition units in identifying needs minimizes procurement errors and reduces lead times. Similarly, Ahmed and Hassan (2020) found that in Egypt's health sector, aligning identified needs with supplier expectations reduces mismatches and promotes timely deliveries. Findings from India (Sharmo & Rao, 2022) and South Africa (Nelson & Edwards, 2021) further confirm that robust need identification enhances efficiency and strengthens coordination between procurement and user departments. Collectively, these studies emphasize that comprehensive need identification forms the foundation of effective procurement planning and performance.

Clear and comprehensive need specification is also pivotal to procurement success. Wang et al. (2021) in Australia and Lopez and Martinez (2022) in Spain showed that precise specifications reduce delays, cost overruns, and improve supplier negotiations. Similar evidence from Singh and Sharma (2021) in India and Patel and Patel (2021) in the United Kingdom revealed that accurate specifications enhance supplier compliance, minimize quality defects, and shorten lead times. Lee and Kim (2022) in South Korea added that well-articulated specifications foster product consistency and reliable supplier performance. These

findings affirm that standardized and detailed specifications eliminate ambiguity, promote transparency, and ensure procurement goals are effectively achieved.

A strong empirical link also exists between sourcing strategy and procurement performance. Brown and Taylor (2022) in the U.S. retail sector found that strategic sourcing enhances cost savings and supplier performance, while Kim and Park (2021) in South Korea demonstrated that aligning sourcing strategies with business goals fosters innovation and efficiency. Studies from Nigeria (Adeyemi & Adebayo, 2020) and Canada (Johnson & Martin, 2022) further highlight that sustained supplier relationships, risk mitigation, and market intelligence are crucial in reducing disruptions and improving procurement quality. García and Rodríguez (2022) reinforced this view by linking supplier relationship management and market analysis to better procurement outcomes across Europe. Overall, these findings validate that sourcing strategies grounded in risk assessment, supplier collaboration, and data-driven market engagement are key drivers of sustainable procurement performance.

Finally, empirical evidence supports that strategic resource allocation—financial, human, and technological—is central to effective procurement. Johnson and Martin (2022) in Canada, García and Rodríguez (2021) in Europe, and Patel and Patel (2020) in India all found that adequate funding, skilled personnel, and technological investment improve efficiency, compliance, and supplier evaluation. Likewise, Brown and Wilson (2022) in Australia and Lee and Choi (2021) in South Korea observed that investment in procurement training and technology enhances coordination and reduces cycle times. Collectively, these studies show that resource allocation is not merely supportive but an integral enabler of transparency, cost efficiency, and overall procurement performance.

3. Methodology

3.1 Research Design

This section presents the systematic procedures and approaches that guided the study in investigating the research problem. It outlines the research design, target population, sampling techniques, data collection instruments, and methods of data analysis employed. The methodology provides a logical framework that ensures the study's validity, reliability, and replicability, thereby facilitating an objective and comprehensive understanding of the phenomena under investigation. The function of research design has been stated by Ott and longnecker (2015) as being to facilitate the objectives of a study by collecting sufficient data using minimal expenditure of time, money and effort. This investigation utilized a descriptive method. Research design has been stated by Kothari (2017) as a strategy for information gathering and interpretation in a manner that maximizes finding relevance as derived from research questions. Questionnaire are better placed in supporting this descriptive research. In support, Vogt, Gadner and Haeffele (2016) describes descriptive design as a component of cross-sectional study that can assist in tackling questions including “how”, “what” and “why” concerning the studied phenomena. Determinants such as identification of demand, specification of needs, procurement strategy and resource assignment were examined to

establish the manner in which they affect procurement outcomes within parastatals in the county of Mombasa. This yielded measurable and quantifiable characteristic of this phenomenon.

3.2 Target Population

Sampling Technique

The study used proportionate stratified random sampling; a probability method that ensures all subgroups in a population are fairly represented. In this approach, the population is divided into distinct “strata” with shared characteristics, and a random sample is taken from each (Zikmund, 2017). This was suitable for the diverse target group, which included employees from the Kenya Ports Authority (KPA), Kenya National Shipping Line (KNSL), and Kenya Maritime Authority (KMA), working in different departments and roles within procurement.

The population was first grouped into three categories based on job roles: Technical staff, Procurement staff, and Finance staff. Using Slovin’s formula, a sample of 76 respondents was drawn from the total 94 employees. Proportional allocation ensured that each department and institution was represented according to its size in the overall population. This approach maintained balance in selection and strengthened the reliability of the findings across all three parastatals.

4. Research Findings and Discussion

This section presents the results obtained from the data analysis and provides an in-depth discussion of the findings in relation to the study objectives and existing literature. It interprets the patterns, relationships, and trends revealed by the data, offering explanations and insights into their significance. The discussion connects the empirical results to the theoretical framework, highlighting how the findings support or contradict previous studies. Overall, this section aims to provide a clear understanding of how the analyzed data addresses the research hypothesis and contributes to the broader body of knowledge on the topic.

4.1 Pilot Results

Reliability:

Cronbach’s Alpha was used to test internal consistency among variables using data from 67 respondents. All constructs recorded alpha values above the 0.7 threshold: need identification (0.786), need specification (0.759), sourcing strategy (0.839), resource allocation (0.781), and procurement performance (0.835). These results indicate high reliability of the research instruments, consistent with Daud et al. (2018), who suggest values between 0.70–0.80 represent good reliability, while values above 0.80 indicate strong internal consistency.

Validity:

Construct validity was assessed using the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity based on 8 pilot respondents. The KMO value of 0.527, though mediocre, exceeded the minimum acceptable level of 0.5, indicating adequate sampling adequacy for factor analysis (Kaiser & Rice, 2020). Bartlett's test yielded a significant Chi-square ($\chi^2 = 68.697$, $p = 0.000$), confirming sufficient intercorrelation among variables. Overall, the findings demonstrate that the instrument possessed acceptable construct validity and was suitable for further analysis.

4.2 Pearson's Correlation

Pearson correlation was used to find out how closely the independent and dependent variables were linked to one another. The Pearson correlation coefficient was used to test for linearity assumption. The value of a Pearson correlation coefficient (also known as Pearson's R) might be any values between -1 and +1. A negative number denotes a positive correlation, whereas a positive value denotes a negative one. Positive r values show a positive correlation between the two variables; that is, when the independent variable increases, the dependent variable also increases. A lower r value indicates a stronger negative relationship, and the converse is true when the independent variable is larger. In the absence of any association, it can be assumed that the variables are unrelated. Results are presented in Table 1.

Table 1: Pearson's Correlation

		Procurement Performance	Need identification	Need specification	Sourcing strategy	Resource allocation
Procurement Performance	Pearson	1				
	Correlation					
	Sig. (2-tailed)					
Need identification	N	67				
	Pearson	.359**	1			
	Correlation					
Need specification	Sig. (2-tailed)	.003				
	N	67	67			
	Pearson	.440**	.098	1		
Sourcing strategy	Correlation					
	Sig. (2-tailed)	.000	.306			
	N	67	67	67		
Resource allocation	Pearson	.392**	.388**	.284**	1	
	Correlation					
	Sig. (2-tailed)	.001	.201	.112		
	N	67	67	67	67	
	Pearson	.445**	.557**	.200*	.405**	1
	Correlation					
	Sig. (2-tailed)	.000	.077	.134	.095	
	N	67	67	67	67	67

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

* Correlation is significant at the 0.05level (2-tailed).

The Pearson correlation analysis (Table 1) reveals that each dimension of procurement planning is positively and significantly associated with overall procurement performance. Specifically, need identification exhibits a moderate positive correlation ($r = 0.359$, $p = 0.003$), indicating that more systematic processes for recognizing and articulating organizational needs tend to coincide with higher performance levels. Need specification shows an even stronger association ($r = 0.440$, $p < 0.001$), suggesting that clearly defined technical and quality requirements enable parastatals to achieve better procurement outcomes. Likewise, sourcing strategy correlates at $r = 0.392$ ($p = 0.001$), underscoring the importance of targeted supplier selection and contract management in driving efficiency and value. Finally, resource allocation has the highest observed correlation ($r = 0.445$, $p < 0.001$), implying that adequate budgeting, staffing, and time devoted to procurement tasks are closely linked to superior performance.

These findings align with recent empirical studies in public-sector procurement. Li and Xie (2021) demonstrated that organizations employing structured need identification frameworks—complete with stakeholder workshops and requirement-tracing—realize measurable gains in timeliness and cost control. Similarly, Zhang et al. (2022) found that well-articulated specifications and robust resource provisioning were key predictors of procurement success in Chinese municipal agencies. Together, this body of work confirms that the four dimensions examined here—not only individually but also in combination—play a critical role in enhancing the effectiveness, efficiency, and transparency of procurement operations in parastatals.

4.3 Multiple linear Regression Results

Model Summary

In this study, a regression analysis was conducted to explore how procurement planning (independent variables) relates to procurement performance (dependent variable). The results are found in Table 2.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.563a	.317	.273	.38066
Predictors: (Constant), Need Identification, Need Specification, Sourcing Strategy and Resource Allocation				

The model summary in table 2 of the regression analysis reveals that the combined effect of Need Identification, Need Specification, Sourcing Strategy, and Resource Allocation yields a multiple correlation coefficient of $R = 0.563$, indicating a moderate positive relationship with Procurement Performance. The corresponding R^2 of 0.317 shows that these four procurements planning dimensions together explain 31.7 percent of the variation in

procurement performance, while the adjusted R^2 of 0.273 provides a more conservative estimate—accounting for model complexity and sample size—by indicating that roughly 27.3 percent of procurement performance variance would generalize beyond our dataset. The standard error of the estimate (0.38066) suggests that, on average, our predictions deviate from the observed procurement performance scores by less than half a point on the procurement performance scale.

Although some might view an R^2 of just under one-third as modest, it is well within the acceptable range for social-science and public-sector research, where multiple unmeasured factors often influence outcomes (Cohen et al., 2014). For context, a study by Mrope and Namusonge (2014) on procurement processes in Babati District Council, Tanzania, reported an R^2 of only 0.037, whereas research conducted by Niyitanga et al. (2020) at Rwanda Military Hospital found a much higher R^2 of 0.495. As Ozili (2023) notes, R^2 values between 0.10 and 0.50 are generally considered satisfactory in empirical social-science modelling—provided that the included predictors are statistically significant. In this study, with all four predictors meeting conventional significance thresholds, the model’s explanatory power demonstrates that a focused set of procurement-planning variables can meaningfully predict procurement performance in Mombasa County’s parastatals.

Analysis of Variance

An analysis of variance (ANOVA) serves as a statistical method to ascertain if the means across multiple groups exhibit equality. Consequently, the t-test extends its applicability beyond pairwise comparisons. The F distribution, also known as the F test, assesses the ratio of two variances to determine their equality. Detailed findings are summarized in Table 3.

Table 3: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.166	4	1.041	7.187	.000 ^b
	Residual	8.984	62	.145		
	Total	13.150	66			

a. Dependent Variable: Procurement Performance

b. Predictors: (Constant), Need Identification, Need Specification, Sourcing Strategy and Resource Allocation

The ANOVA results in Table 3 assess the overall explanatory power of our multiple regression model. With a calculated F-statistic of 7.187 and an associated p-value of <0.001 , the model—which jointly includes Need Identification, Need Specification, Sourcing Strategy, and Resource Allocation—demonstrates a highly significant ability to predict Procurement Performance. In practical terms, this means that these four procurements planning dimensions, when considered together, explain a meaningful portion of the variance in procurement performance for Mombasa’s parastatals. This finding is consistent with Harland et al. (2021), who showed that combining strategic procurement practices into a single

predictive framework yields statistically significant improvements in procurement performance within public entities. Likewise, recent advances in digital procurement—often termed “Procurement 4.0”—have been shown to strengthen the predictive validity of such models, as automation and data analytics enhance the alignment between procurement planning inputs and procurement performance outputs (Corboş et al., 2023). Together, these studies underscore that a holistic, integrated approach to procurement planning not only matters at the individual-variable level but also produces robust, model-wide effects on organizational effectiveness.

Regression Coefficients

The coefficient of correlation, typically denoted as r , is a statistical metric used to measure both the strength and direction of a linear association between variables. Detailed findings are found in table 4.

Table 4: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	1.244	0.315		3.949	0.102
	Need Identification	0.238	0.082	0.173	2.902	0.002
	Need Specification	0.228	0.072	0.206	3.167	0.004
	Sourcing Strategy	0.395	0.143	0.317	2.762	0.003
	Resource Allocation	0.312	0.111	0.276	2.811	0.012

a. Dependent Variable: Procurement Performance

Multiple linear regression equation: $Y = 1.244 + 0.238X_1 + 0.228X_2 + 0.395X_3 + 0.312X_4$

The regression model presented in table 4 explains how variations in each procurement-planning dimension translate into changes in overall procurement performance. The constant term—or intercept—of 1.244 (Std. Error = 0.315, $t = 3.949$, $p = 0.102$) represents the expected baseline level of procurement performance when all four predictors are held at zero. Because its p -value exceeds the 0.05 threshold, this intercept is not statistically significant and does not meaningfully contribute to the model’s explanatory power.

Turning to the independent variables, each unstandardized coefficient (B) quantifies the expected change in procurement performance for a one-unit increase in the corresponding predictor, holding all else constant. Need Identification carries a coefficient of 0.238 ($\beta^* = 0.173$, $t = 2.902$, $p = 0.002$), indicating that improving the accuracy and clarity with which organizational needs are identified is associated with a 0.238-point increase in procurement performance. This finding aligns with Onyango’s (2020) emphasis on embedding robust needs-assessment processes into institutional budgeting frameworks to curb misallocation and corruption.

Need Specification follows closely, with $B = 0.228$ ($\beta^* = 0.206$, $t = 3.167$, $p = 0.004$). Precisely defining technical requirements, quality standards, and delivery timelines enhances clarity for suppliers and thereby boosts procurement performance—echoing Benaya's (2020) observations in Tanzanian public-sector procurements that user-informed specifications drive greater value for money.

Among the four predictors, Sourcing Strategy exerts the strongest effect ($B = 0.395$; $\beta^* = 0.317$, $t = 2.762$, $p = 0.003$). This underscores the critical role of strategic supplier selection, contract design, and market engagement in elevating procurement outcomes—consistent with Nyamai and Ismail's (2021) findings that strategic sourcing practices significantly improve efficiency in state corporations.

Finally, resource Allocation ($B = 0.312$; $\beta = 0.276$, $t = 2.811$, $p = 0.012$) was significant at the 5% level, showing a positive link between adequate budgets, personnel, and time, and procurement performance. Nonetheless, significance alone does not guarantee optimal impact—its effectiveness may still be influenced by factors such as inefficiencies in resource utilization, bureaucratic delays, or misalignment between allocated resources and actual procurement needs (Thai, 2017). Josephine and Kimencu (2020) similarly found that in Nairobi's local government procurement units, well-planned resource distribution enhanced service delivery, but also noted that the benefits diminished when accountability and oversight mechanisms were weak. In summary, Resource Allocation was significant alongside the other three predictors, confirming that the collective influence of needs analysis, specification, sourcing strategy, and resource provisioning is essential for parastatals in Mombasa County to achieve cost-effective, timely, and high-quality procurement outcomes.

4.4 Discussion of Findings and Implications

Need Identification and Procurement Performance:

The study confirms earlier literature asserting that user involvement in need identification enhances procurement accuracy and goal alignment. Consistent with Khan & Khalid (2020), Musanzikwa (2021), and Njeru & Ondiek (2021), the results show that structured and participatory need identification reduces errors and supports efficiency. The findings also align with Odhiambo & Gitahi (2021), reinforcing that systematic framework in need analysis yield measurable procurement gains.

Need Specification and Procurement Performance:

The results strongly support previous studies (Mwangi & Waithaka, 2020; Ochieng & Rambo, 2020) that emphasize standardized and clear specifications as essential for effective supplier engagement and consistent performance. The significant correlation and regression outcomes mirror Kamau & Kagiri (2021) and Kiptoo & Mburu (2022), confirming that well-defined specifications enhance transparency, competitiveness, and delivery efficiency in procurement.

Sourcing Strategy and Procurement Performance:

Findings are consistent with Mwangi & Karanja (2021) and Musyoka & Muturi (2020), who highlight that strategic sourcing—through supplier market analysis and cost benchmarking—improves transparency and cost-effectiveness. Supporting Kariuki & Bett (2022) and Chepkirui & Odhiambo (2021), the results reaffirm that strategic supplier selection and contract management are critical to procurement success. However, consistent with Njuguna & Waiganjo (2021), the study also notes that the effectiveness of sourcing depends on regular policy reviews and adaptive risk management.

Resource Allocation and Procurement Performance:

The study's findings align with Ouma & Mwangangi (2020) and Wekesa & Karanja (2022), confirming that adequate financial and human resources strengthen procurement transparency and efficiency. It further supports Kioko & Njuguna (2021) and Mutunga & Waiganjo (2021), who found that resource sufficiency minimizes delays and risks. Echoing Gikonyo & Mwangi (2020) and Njagi & Kamau (2023), the study notes that resource adequacy must be complemented by capacity building to optimize performance.

5. Conclusions and Recommendations

This section provides a summary of the key findings derived from the study and presents the main conclusions drawn in relation to the research objectives. It synthesizes the insights gained from the analysis to highlight the overall implications of the study. Based on these conclusions, practical and policy-oriented recommendations are proposed to guide stakeholders, practitioners, and future researchers. The aim is to translate the research outcomes into actionable strategies that can inform decision-making and promote further inquiry within the study area.

5.1 Conclusions

Need Identification on Procurement Performance

Highlighted in this study are the essential roles of involving the user department in identification of needs so as to enhance procurement performance. The outcome suggests that when actively engaged, user departments are able to identify needs that improve procurement outcome. The process of identifying needs when conducted effectively greatly contributes to accuracy and clarity, which in the end results in procurement operations becoming successful. This stresses the vital nature of bringing together relevant departments at an early stage within the procurement process, making sure that there is well articulation of needs resulting in enhanced procurement performance.

Need Specification on Procurement Performance

Underscored by the study are the essentials of standardizing specifications so as to increase procurement performance. The respondents emphasized that procurement success

and consistency are greatly contributed by legal compliance, market alignment, and standardization. The respondents also noted that improving procurement outcomes was also dependent on providing a clear definition of technical requirements, quality standards and timelines for deliveries. Highlights of the findings are that well defined specifications play an important role in making sure there is efficiency and clarity in the process of procurement which in the end results in better outcomes hence performance.

Sourcing Strategy on Procurement Performance

Highlighted by this study are the important roles played by sourcing strategies in increasing procurement performance specifically through cost evaluation and market analysis. Suggestions from the findings are that to improve procurement outcomes, it is important to include proactive market engagement, effective contract management, and targeted supplier selection. In as much as there lacks consensus on how these strategies are effective, risk based planning and strategic cost review are areas that present opportunities for more fine turning as well as development of policy and training.

Resource Allocation on Procurement Performance

This study confirms that to enhance procurement performance, it is crucial to strategically provide guidance in the allocation of resources, timely allocate and allocate adequate resources. The key elements identified as being important in enhancing procurement outcomes include effective planning, sufficient technical expertise and budgeting. Nevertheless, there are challenges in regards to time management and competency of staff that require targeted capacity building initiatives. When these areas are focused on, overall efficiency and procurement performance can be achieved when an organization maximizes on their resource allocation processes.

5.2 Recommendations

Need Identification and Procurement Performance

This study recommends that to enhancing procurement performance, organizations need to better user departments involvement in the process of needs identification. This can be attained through development of more collaborative and structured frameworks between user department and teams in charge of procurement. Capacity should be built to make sure both parties are at the same understanding level and are able to accurately articulate needs of the organization. Further, organizations should transparently and systematically process the needs identified to provide clarity. This will ultimately result in procurement outcomes that are efficient.

Need Specification and Procurement Performance

This study recommends that organizations need to put a lot of emphasis on implementing and developing specification standards that are both clear and aligned with legal and market standards. Organizations are therefore required to prioritize training for the

procurement staff on a regular basis. The relevant departments should make sure they comply with internal specifications and also streamline the process of specification. Further, organizations should focus on continuously improving the definitions of technical requirements as well as quality standards so as to enhance procurement outcomes.

Sourcing Strategy and Procurement Performance

Further, organizations need to refine their strategies on sourcing by emphasizing more on reviewing cost strategically and planning based on risk. So as to optimize procurement performance, this study recommends that teams associated with procurement should improve their techniques in market analysis, criteria for selecting suppliers and enhance contract management practices. Additionally, strengthening a proactive strategy towards market engagement and sustaining flexibility in sourcing strategies. This will assist in enhancing efficiency and effectiveness in procurement.

Resource Allocation and Procurement Performance

This study recommends that organizations need to focus on strategic and timely allocation of resources. This will make sure that planning, technical expertise, and budgets are sufficiently in place. Capacity building should be invested in by organizations so as to tackle the challenge associated with management of time and staff competency. Further, managers in the procurement department need to closely work with others to enhance time and staff allocation to procurement activities. This will make sure that resources are adequately availed in support of optimized procurement outcomes.

5.3 Managerial Implications

Several significant implications have been identified by the findings in this study that can be used by managers of an organization to assist in enhancing the practices in procurement and ultimately enhance procurement performance. The first to be highlighted by this study is the importance of user department's involvement in the process of identifying needs. Managers need to recognize the importance of collaboration throughout the organization as a means of fostering procurement performance. All relevant department need to be engaged so as to accurately articulate their needs. This can result in procurement strategies that are better tailored and effective, hence better alignment with actual departmental needs and as a result, improving the ultimate procurement outcomes. Clear communication channels should be prioritized by managers, between various departments and procurement teams. This will ensure clear and well-articulated needs identification. Emphasized by this study are the values brought by standardization of specifications. The adoption of clear and standardized defined technical and quality specifications for the entire procurement process. By so doing, managers can make sure that suppliers have better understanding of what is expected. This can result in more consistency and procurement outcomes of high quality. Furthermore, concentration on adherence with market standards and regulatory frameworks will assist in mitigating risk and making sure that procurement

processes are both effective and transparent. With regards to sourcing strategies, managers should emphasize on selecting suppliers strategically, effectively managing contracts, and engaging markets proactively. It's suggested in this study that these practices have a direct impact on value and procurement efficiencies. Managers in the procurement department should always refine and elevate the organizations sourcing strategies. This ensures they continuously align with conditions in the market and goals of the organization. More opportunities should be explored by managers so as to enhance strategic review of costs and embed risk-based planning within the process of procurement. This will mitigate against uncertainties and increase resilience in procurement.

In regards to allocation of resources, the findings of the study suggests that adequate allocation of resources including time, staffing and budgets, are important for maximizing procurement performance. There is need for managers to make sure that procurement professionals in their organizations are adequately allocated time, have an adequate budget and have sufficient technical expertise to effectively carry out procurement activities. Further, the challenges of managing time and competency can be addresses through development programs and training. These will strengthen their capabilities, overall resulting in better procurement outcomes and decisions. Lastly, a holistic approach needs to be adopted by managers through integration of effective identification of needs, allocation of resources, strategic sourcing, and clear specification so as to optimize procurement performance. The organization will need to invest in strategic alignment, development of staff, and continuous process improvement. When a manager takes these steps, they can ensure that procurement functions are able to effectively contribute to the broader goals of the organization, through value creation, cost saving and driven efficiency.

5.4 Suggestions of Further Research

To enhance on procurement performance, this study explored areas for further studies that have been derived from the recommendations and conclusions. One important research area that potentially presents itself is on the technological impact on identification of needs in procurement. Particularly, studies in the future can investigate the manner in which technological tools including systems of automated procurement and artificial intelligence can influence efficiency and accuracy of the process of needs identification. Interrogating technology and how it can be used to streamline communication between researchers, procurement teams and user department can provide insight on how to optimize the process of need identification and overall procurement outcomes. Another area of interest to research on would be on what role supplier relationship management (SRM) and strategic sourcing play in procurement performance. The study would investigate how sustainable supplier relationships impact cost control, quality assurance and timelines for delivery. This would provide valuable insight on how procurement success is influenced by contributions of sourcing strategies. Further, studies could focus on the utilization of digital platforms in collaboration with suppliers. This could additionally enhance procurement performance and bolster relationships with suppliers. Additionally, future investigations could look into

allocation of resources within various sectors, particularly by conducting a comparative study to be able to understand the impact of procurement performance within public and private sectors. This comparison drawn from the different sectors will highlight various technical expertise, staffing and budgeting, hence providing a researcher with an understanding on how allocation of resources influences outcomes of procurement and be able to identify the applied best practices within these setups. This study highlighted competency of staff as a challenge. This presents an opportunity for future exploration. The study could look at the effectiveness of capacity building and training programs for procurement personnel. The study could explore manner in which targeted programs are aligned with skills including assessment of risk, contract management, and strategic sourcing, all of which could contribute to enhancement of procurement performance. Comprehending the impact of these programs can assist organizations to increase their efficiency in execution, decision making, and capacities of procurement teams.

Additionally, studies can explore risk-based procurement planning. Studies in the future can look at how risk in the process of procurement is identified, assessed and mitigated by organizations, as well as the role it plays in enhancing procurement performance. Specific focus can be on uncertainties of procurement teams when presented with volatilities of the market and supplier performance. This could be insightful by divulging the contributions of risk management strategies on procurement outcome success. Finally, this study presented differences of procurement practices in various cultures. In future, research can examine the influence of cultural norms on procurement strategies, supplier negotiations, and decision making. This could provide valuable insight on factors related to culture that affect procurement practices and performance, specifically within multinational organizations or regions with a cultural landscape.

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