ETHICAL PROCUREMENT PRACTICES, LEAD-TIME VARIATION, AND ORGANIZATIONAL PERFORMANCE: EVIDENCE FROM KENYA MEDICAL SUPPLIES AUTHORITY (KEMSA)

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ABSTRACT

The Kenya Medical Supplies Authority (KEMSA) has faced persistent challenges in achieving optimal performance, partly due to unethical procurement practices and lead-time variations. This study investigates the influence of ethical procurement practices specifically transparency, confidentiality, and accountability on organizational performance at KEMSA. The research also examines how variations in lead time moderate the relationship between these ethical practices and performance. A sequential explanatory mixed-method design was employed, targeting 149 respondents from key departments within KEMSA. Data collection utilized structured questionnaires, followed by descriptive statistics, regression, and moderation analyses. The study found that transparency and confidentiality positively influence performance, with transparency (β=0.423, p=0.000) being the most significant predictor. Accountability showed a weaker, yet positive, relationship. The moderating role of lead-time variation was also confirmed, as significant changes in R-square values across regression models demonstrated its impact. The findings suggest that KEMSA could enhance performance by fostering greater transparency, confidentiality, and accountability, especially by mitigating the effects of lead-time variation. Future research should focus on exploring other ethical dimensions, such as fairness and declaration of interest, and their impact on procurement performance.

Keywords: Ethical Procurement, Transparency, Confidentiality, Accountability, Lead Time Variation, Organizational Performance

INTRODUCTION

The integrity and efficiency of public procurement systems are critical to the success of many public institutions globally. In particular, the healthcare sector is highly dependent on efficient procurement systems to ensure the timely and cost-effective provision of medical supplies. The Kenya Medical Supplies Authority (KEMSA) serves as a pivotal institution responsible for the procurement, storage, and distribution of essential medical supplies to public health facilities across the country. However, KEMSA's operations have been marred by significant challenges, including unethical procurement practices and lead-time variation, which have negatively impacted its performance. This study explores the role of ethical procurement practices and the moderating effect of lead-time variation on organizational performance, with a focus on KEMSA.

Public procurement is often prone to ethical challenges, as it involves the use of substantial public resources. Ethical procurement ensures that procurement activities are conducted transparently, with accountability, confidentiality, and fairness (Basheka & Tumutegyereize,

2020). Within the context of healthcare, unethical procurement practices can have detrimental effects, leading to the misallocation of resources, corruption, and inefficiencies in the delivery of essential medical services. For instance, in 2020, KEMSA was embroiled in a scandal involving the misappropriation of COVID-19 medical supplies, leading to significant public outcry and investigations by the Ethics and Anti-Corruption Commission (EACC) (Malalo, 2020). Such events highlight the critical need for adherence to ethical procurement standards to maintain the integrity of procurement processes.

Ethical procurement encompasses transparency, accountability, and confidentiality. Transparency ensures that all procurement activities are conducted openly, with stakeholders having access to the necessary information to foster trust and accountability (Mbithi & Wasike, 2019). On the other hand, accountability requires procurement officers to justify their decisions and actions, ensuring that public resources are utilized responsibly and efficiently (Mchopa et al., 2019). Lastly, confidentiality is critical in protecting sensitive information, such as supplier data, to prevent conflicts of interest and corruption (Sengbeh, 2015).

Lead-time variation refers to the inconsistency in the time taken to complete various procurement processes, such as bid preparation, awarding contracts, and delivery intervals (Rushton, Croucher, & Baker, 2014). In the healthcare sector, lead-time variation can result in delays in the delivery of medical supplies, compromising the quality of healthcare services provided. At KEMSA, prolonged lead times have been cited as one of the major factors affecting its performance, particularly in the wake of the COVID-19 pandemic, where delays in procurement and delivery of medical supplies severely impacted the organization's ability to meet demand (Kombe, 2020).

Effective lead-time management is essential in maintaining the efficiency of supply chains. In the healthcare sector, lead times directly impact the availability of medical supplies, which in turn affects patient outcomes (Harland et al., 2019). For instance, a delay in the delivery of essential medicines can lead to stockouts in hospitals, compromising patient care. Moreover, extended lead times can increase costs due to higher inventory holding and transportation expenses (Tarty, 2012). Therefore, managing lead-time variation is crucial in enhancing organizational performance, particularly in institutions such as KEMSA, which play a critical role in the country's healthcare system.

Despite the existence of legislative frameworks such as the Public Procurement and Asset Disposal Act (2015) in Kenya, KEMSA continues to face challenges in implementing ethical procurement practices. Unethical practices such as corruption, conflicts of interest, and lack of transparency have led to the misappropriation of public funds and delays in the delivery of medical supplies, thus hindering KEMSA's ability to fulfill its mandate effectively (Wagner, 2013). For instance, the mismanagement of COVID-19 funds and procurement activities has highlighted the vulnerabilities in KEMSA's procurement systems, raising questions about the integrity of its operations (Igunza, 2020).

The variation in lead times further exacerbates the challenges faced by KEMSA. Lead-time variations, particularly in the procurement of essential medical supplies, have been identified as a key factor contributing to inefficiencies in KEMSA's operations. These variations result in delays in the delivery of critical medical supplies, which in turn affects the organization's performance and its ability to meet the healthcare needs of the population (Li et al., 2019).

This study seeks to contribute to the ongoing discourse on the role of ethical procurement practices in enhancing organizational performance, with a focus on KEMSA. By examining the impact of ethical procurement practices such as transparency, accountability, and confidentiality on organizational performance, this research aims to provide insights into how public institutions can improve their procurement systems to enhance efficiency and effectiveness. Furthermore, the study explores the moderating role of lead-time variation, providing a deeper understanding of how variations in procurement processes affect the overall performance of public institutions.

The findings of this study will be of significant value to policymakers, procurement officers, and healthcare administrators, particularly in the public sector. By highlighting the challenges posed by unethical procurement practices and lead-time variation, the study provides recommendations for improving procurement processes in public institutions, with a focus on enhancing transparency, accountability, and efficiency. Additionally, the study contributes to the existing body of knowledge on public procurement and supply chain management, offering valuable insights for future research in this area.

The study focuses on KEMSA, a critical institution in Kenya's healthcare system responsible for the procurement, storage, and distribution of medical supplies to public health facilities across the country. The research examines the role of ethical procurement practices and lead-time variation in enhancing organizational performance, with a specific focus on KEMSA's procurement processes. The study is grounded in the theoretical frameworks of ethical procurement, supply chain management, and public sector performance. It employs both primary and secondary data to analyze the impact of ethical procurement practices and lead-time variation on KEMSA's performance.

By focusing on KEMSA, this study provides a comprehensive understanding of the challenges faced by public procurement systems in Kenya, particularly in the healthcare sector. The findings of the study are expected to inform policy recommendations aimed at improving the integrity and efficiency of procurement processes in public institutions, thus enhancing the delivery of essential services to the population.

In conclusion, the role of ethical procurement practices and lead-time variation in enhancing organizational performance is critical, particularly in public institutions such as KEMSA. Addressing the challenges posed by unethical procurement practices and lead-time variation is essential for improving the efficiency of procurement processes and ensuring the timely delivery of essential services to the public. Through this study, KEMSA's procurement

processes are scrutinized to provide actionable recommendations for improving organizational performance and enhancing the integrity of public procurement systems.

LITERATURE REVIEW

Theoretical Literature

The relationship between ethical procurement practices and organizational performance is grounded in several theoretical frameworks. The Agency Theory (Eisenhardt, 1989) is a key foundation, which posits that conflicts arise when there is a discrepancy between the goals of the principals (stakeholders) and the agents (procurement officers). The theory highlights the importance of implementing transparency, accountability, and confidentiality to mitigate such conflicts, thereby ensuring that agents act in the best interest of principals.

Another relevant theoretical framework is the Virtue Theory. This theory focuses on the character and integrity of the individual in the procurement process, suggesting that procurement officers should possess virtues such as honesty, transparency, and fairness to perform ethically in their roles. This framework aligns closely with ethical procurement practices, as it emphasizes moral judgment and personal responsibility in decision-making.
Lastly, Procurement Contracts Theory underscores the importance of clear and transparent contracts in mitigating risk and fostering accountability. This theory stresses the need for well-structured contracts to enforce procurement policies and ensure confidentiality of supplier information, which are vital to maintaining ethical procurement practices. Ethical contracts also address the lead-time variations that often arise in procurement processes, further reinforcing organizational performance.

Empirical Literature

The empirical literature on ethical procurement practices has focused on key pillars such as transparency, confidentiality, accountability, and lead-time variation, all of which are essential in driving performance improvements, especially within healthcare organizations like the Kenya Medical Supplies Authority (KEMSA).

Transparency and Performance

Transparency is integral to ensuring that the procurement process is fair and open, reducing the risks of corruption and unethical behavior. Studies by Sengbeh (2015) suggest that transparency involves clearly communicating the processes and criteria for awarding contracts to all relevant stakeholders. Transparent practices such as open tendering processes, external oversight, and information sharing among suppliers are critical for ensuring the integrity of procurement systems and fostering public trust. In the context of KEMSA, transparency in procurement has been linked to improved organizational performance. Specifically, an open tendering process and consistent external oversight ensure that procurement activities adhere to ethical standards.

Furthermore, the empirical analysis by Msanze (2017) reveals that transparency significantly enhances the procurement performance of public hospitals by promoting accountability and

reducing delays in the procurement process. Msanze's study emphasizes the role of transparent practices such as open tendering in minimizing inefficiencies and enhancing the timely delivery of medical supplies.

Confidentiality and Performance

Confidentiality in procurement involves safeguarding the sensitive information of suppliers and ensuring that it is not shared without permission. According to Sacconi (2010), maintaining confidentiality is crucial in public procurement as it prevents the misuse of supplier data, thereby reducing the risks of corruption and unethical behavior. Confidentiality is operationalized through practices such as securely storing procurement documents and obtaining supplier consent before sharing information with third parties.

Empirical studies have shown that confidentiality has a positive effect on procurement performance. For instance, Marinagi, Trivellas, and Reklitis (2015) found that confidentiality significantly enhances supply chain performance in public hospitals by ensuring that supplier information is handled appropriately, thus preventing potential conflicts of interest. In the case of KEMSA, protecting the confidentiality of suppliers' personal and business information has been identified as a key factor in enhancing organizational performance.

Accountability and Performance

Accountability in procurement refers to the obligation of procurement officers to justify their actions and decisions. Sengbeh (2015) defines accountability as the proper documentation of procurement transactions, adherence to standard procedures, and ensuring that procurement activities are conducted in compliance with established ethical guidelines. Accountability ensures that procurement officers are held responsible for their actions, which helps mitigate corruption and fraud.

Agwor and Akani (2017) argue that accountability is fundamental to improving organizational performance, particularly in public institutions where procurement officers are often subject to scrutiny by external regulators. Their study suggests that strict adherence to procurement procedures and accurate documentation of all procurement activities enhance transparency and improve overall performance. KEMSA's procurement officers are expected to maintain high levels of accountability by documenting all procurement transactions and following procurement standards, which contributes to the organization's ability to meet its performance targets.

Lead-Time Variation and Performance

Lead-time variation refers to the inconsistency in the time it takes to complete procurement activities, from placing an order to receiving goods. This variation can affect the efficiency of the supply chain, particularly in sectors such as healthcare, where timely delivery of supplies is critical. According to Rushton, Croucher, and Baker (2014), lead-time variation significantly impacts logistical efficiency, customer satisfaction, and business performance.

Empirical studies have shown that lead-time variation has a moderating effect on the relationship between ethical procurement practices and performance. For instance, Ndubi et al.

(2016) found that variations in lead times often result in delays in the delivery of medical supplies, which negatively affects organizational performance. In the case of KEMSA, managing lead-time variation is essential for ensuring that medical supplies are delivered on time, thus enhancing the organization's performance. The study by Magenda (2017) highlights the need for efficient inventory management and inbound logistics to mitigate the adverse effects of lead-time variation.

The literature reviewed demonstrates a strong connection between ethical procurement practices and organizational performance. Transparency, confidentiality, and accountability have been consistently shown to positively affect procurement performance by reducing inefficiencies, enhancing trust among stakeholders, and preventing unethical practices. Lead-time variation, on the other hand, serves as a moderating factor, influencing the strength of the relationship between ethical procurement and performance outcomes.

Knowledge Gap

Despite the extensive research on ethical procurement practices, there remains a gap in understanding how lead-time variation specifically affects the performance of public healthcare institutions like KEMSA. Future studies should explore how variations in lead times influence other aspects of the supply chain, such as cost savings and resource allocation, to provide a more comprehensive understanding of procurement performance.

RESEARCH METHODOLOGY

Research Design

The study employed a sequential explanatory mixed methods research design, integrating both quantitative and qualitative approaches. This design allowed for the collection of quantitative data first, followed by qualitative data, enhancing the understanding of the relationships among ethical procurement practices, lead time variations, and organizational performance. By utilizing methodological triangulation, the study aimed to validate findings from multiple perspectives, thereby improving the credibility and reliability of the results (Gupta & Gupta, 2022; Pandey & Pandey, 2021).

Target Population

The target population consisted of 147 staff members at the Kenya Medical Supplies Authority (KEMSA), located in Nairobi City County. The respondents were drawn from five key departmental units: Procurement, Finance, Operations, Warehousing, and Distribution and Business Development. This population was selected due to the diversity of roles and responsibilities within the organization (Mugenda & Mugenda, 2003).

Sampling Techniques and Sample Size

A stratified random sampling technique was employed to ensure representation from the different departments. Given the manageable size of the target population, a census method was adopted, including all 147 respondents in the study. This approach ensured comprehensive

data collection from all relevant divisions, maximizing the depth of insights gained (Trochim, 2021).

Data Collection Techniques

Primary data was collected using structured questionnaires designed to capture quantitative data on various aspects of ethical procurement practices and performance metrics. The questionnaires included sections on demographics, transparency, confidentiality, accountability, and lead time variation, utilizing a 5-point Likert scale to quantify respondents' perceptions. The data collection process was facilitated by two trained research assistants, ensuring consistency and accuracy during the administration of the questionnaires (Kombo, 2007).

Before the main study, a pilot study was conducted with 15 respondents to refine the questionnaire for clarity and effectiveness. The main data collection followed the acquisition of necessary permissions from KEMSA and relevant authorities, ensuring ethical compliance throughout the research process.

Validity and Reliability

The study assessed content validity by soliciting feedback from supervisors and experts to ensure that the questionnaire items accurately reflected the study's constructs. Reliability was evaluated using Cronbach's alpha, with a threshold of 0.70 or higher indicating acceptable internal consistency among the measurement items (Mukherjee, 2019).

Data Analysis Techniques

Data collected were processed using SPSS Version 25.0. Initial analyses included descriptive statistics to summarize respondent demographics and key variables. The study focused on the moderating role of lead time variation on the relationship between ethical procurement practices and performance through multiple regression analysis. This method was essential for hypothesis testing and evaluating predictive relationships while controlling for potential confounding variables (Gupta & Gupta, 2022).

Regression Analysis Steps:

1. **Test of Regression Assumptions**: Assumptions such as normality, linearity, and multicollinearity were rigorously tested to ensure the validity of the regression model. For instance, the Shapiro-Wilk test assessed normality, while linearity was evaluated through significance tests of deviations from linearity. Multicollinearity was assessed using Variance Inflation Factor (VIF) measures.
2. **Model Estimation**: The regression model included performance as the dependent variable and various factors as independent variables, with coefficients calculated to gauge the impact of changes in predictors on performance outcomes.
3. **Inferential Statistics**: Correlation and regression analyses were employed to explore associations among variables, providing deeper insights into the interactions between ethical procurement practices and organizational performance.

RESULTS

The study's results reveal significant findings regarding the relationships between ethical procurement practices and performance at the Kenya Medical Supplies Authority (KEMSA), including the moderating role of lead-time variation. The analysis showed that **transparency** has a substantial positive effect on performance ($\beta = 0.423$, $p < 0.000$), indicating that enhancing transparency in procurement processes can significantly boost KEMSA's performance. This finding aligns with previous research by Ullah et al. (2016) and Emueje and Tochi (2020), which also highlighted the critical role of transparency in improving organizational performance.

The second significant finding is related to confidentiality**,** which demonstrated a positive relationship with performance ($\beta = 0.191$, $p = 0.031$). This suggests that maintaining confidentiality in procurement practices is essential for achieving high performance, corroborating findings from Marinagi et al. (2015). Conversely, accountability showed an insignificant positive effect on performance ($\beta = 0.143$, $p = 0.098$). Thus, while accountability practices exist, they do not statistically influence KEMSA's performance. This outcome contrasts with Agwor and Akani (2017), who argued for the importance of accountability in enhancing performance. Furthermore, the moderating effect of lead-time variation on these relationships was confirmed. The R-square values indicated an increase in the model fit from 0.428 (Model 1) to 0.505 (Model 5) as lead-time variation was included, confirming its role in influencing the relationship between ethical procurement practices and performance.

Discussion

The findings indicate that ethical procurement practices significantly influence the performance of KEMSA, highlighting the integral role of transparency and confidentiality. As supported by the results, transparency ($r = 0.612$, $p = 0.000$) not only correlates positively with performance but also acts as a critical factor in enhancing operational efficiency and effectiveness. This emphasizes the necessity for KEMSA to adopt more transparent practices, such as open tendering and regular audits, to bolster trust among stakeholders and improve performance outcomes. The significance of confidentiality ($r = 0.286$, $p = 0.002$) aligns with previous studies suggesting that protecting supplier information enhances relationships and performance within the supply chain.

These findings suggest that KEMSA should prioritize maintaining the confidentiality of supplier data to foster collaboration and trust, which ultimately leads to improved performance metrics. The insignificant effect of accountability ($r = 0.077$, $p = 0.404$) raises questions about its implementation within KEMSA. While accountability is essential for ethical procurement, this study suggests that its current practices may not be effectively translated into performance outcomes. This observation aligns with Hussein and Shale (2014), indicating a potential gap in the application of accountability measures within KEMSA. Moreover, the moderating role of lead-time variation illustrates its influence on the relationships between ethical procurement practices and performance. This suggests that KEMSA faces challenges related to inventory management and logistics that can obscure the impact of ethical procurement on overall

performance. Consequently, improving lead-time management could enhance the effectiveness of transparency, confidentiality, and accountability in achieving better performance outcomes.

Conclusion and Recommendations

In summary, the study concludes that ethical procurement practices specifically transparency and confidentiality positively influence KEMSA's performance. While accountability was found to have an insignificant effect, the study highlights the importance of integrating ethical procurement practices to enhance organizational efficiency and performance.

Recommendations for KEMSA and policymakers include:

1. **Enhancing Transparency**: Implementing advanced technology to support open tendering processes and conducting regular external audits to ensure accountability and transparency in procurement practices.
2. **Strengthening Confidentiality Measures**: Establishing strict protocols for handling supplier information and ensuring that supplier data is secured against unauthorized access.
3. **Reassessing Accountability Practices**: Conducting a thorough review of accountability measures to ensure that they effectively translate into performance improvements. Training sessions could be beneficial for procurement officers to understand the importance of documenting procurement activities and justifying decisions made during the procurement process.
4. **Managing Lead Time Variation**: Developing strategies to reduce lead-time variation, such as improving communication with suppliers and optimizing inventory management practices. This can help mitigate the adverse effects of fluctuations on performance

Overall, implementing these recommendations can significantly enhance KEMSA's performance through improved ethical procurement practices, thereby contributing to the efficiency of Kenya's healthcare supply chain.

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