

SUSTAINABLE PROCUREMENT PRACTICES ON PERFORMANCE OF STATE CORPORATIONS IN NAIROBI CITY COUNTY, KENYA

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ABSTRACT

Purpose of the study: The study examined the effect of sustainable procurement practices on the performance of State Corporations in Nairobi City County, Kenya.

Methodology: The study utilized a descriptive research design. Data collection was done through questionnaires and interviews. Descriptive statistics was used to summarize the data, while inferential statistics provided deeper insights into the relationships between sustainable procurement practices and organizational performance. SPSS was used for the analysis.

Findings: The study highlights that sustainable procurement practices significantly influence the performance of state corporations in Nairobi County, Kenya, with procurement planning, information technology, supplier management, and ethical considerations all playing critical roles. While procurement planning and supplier management contribute positively to efficiency and cost savings, gaps remain in policy clarity and stakeholder engagement. Information technology enhances data management and strategic decision-making, though its full potential in resource allocation and sustainability requires further exploration. Ethical procurement practices are crucial for maintaining transparency and integrity.

Conclusion: The study concludes that sustainable procurement practices significantly influence the performance of state corporations in Nairobi County, Kenya, with procurement planning, information technology, supplier management, and ethical standards all contributing meaningfully to operational efficiency, cost savings, transparency, and strategic decision-making.

Recommendations: The study recommends that state corporations should strengthen stakeholder engagement and policy clarity by developing structured frameworks that ensure procurement policies are well-communicated and accessible to all relevant parties. Moreover, it is recommended that state corporations should establish robust oversight mechanisms that promote transparency and accountability while strengthening ethics training programs to encourage adherence to best practices and reduce unethical procurement behaviors such as favoritism and bribery.

Keywords: *Sustainable procurement practices, performance, state corporations, Nairobi city county, Kenya*

BACKGROUND TO THE STUDY

Public procurement serves as a fundamental pillar of economic development and governmental efficiency, with the Organization for Economic Co-operation and Development (OECD) emphasizing that procurement processes carry profound economic and political implications requiring optimization for maximum efficiency and economy (Kamau & Odhiambo, 2003). Effective procurement demands comprehensive understanding by all stakeholders-including government bodies, procuring entities, suppliers, professional organizations, academic institutions, and the general public-to ensure resources are deployed strategically toward projects that deliver sustained benefits to society. Projects, defined by Chandra (2010) as investment activities involving current or future fund outlays with expectations of extended benefit streams, become particularly significant when executed through public financial resources by government bodies mandated to achieve specific objectives for public benefit.

The procurement methodology selection process significantly influences project outcomes, with Walker and Rowlinson (2008) noting that procurement choices should be guided by project typology and supply chain collaboration levels, while warning that unstructured selection processes may inadvertently lead to inappropriate procurement systems that impede benefit realization and potentially cause project failure (Ambrose & Tucker, 1999). Inappropriate procurement strategies frequently result in cost and time overruns, claims, and disputes, whereas appropriate strategies

facilitate optimal solutions regarding cost, time, and quality while contributing positively to performance targets (Huimin, David & Wang, 2014). The strategic importance of public procurement has gained increasing recognition globally, with countries acknowledging procurement's vulnerability to mismanagement and corruption, prompting integration of procurement into broader strategic government frameworks through instruments such as annual procurement plans (Mahmood, 2010).

According to OECD (2007) benchmarks, public procurement accounts for approximately 16% of most countries' GDP during normal economic periods, though this proportion varies significantly across regions, with African nations like Uganda and Tanzania experiencing procurement expenditures of 10% of GDP and up to 70% of total government spending (Woolcock, 2008). Beyond wealth generation, public procurement serves multiple purposes including environmental conservation and cultural cohesion, with its contemporary importance amplified by market liberalization, globalization, and technological advancement that have expanded local procurement to global business contexts (Bianchi & Guidi, 2010). Throughout the 1980s and early 1990s, many countries performed poorly in meeting public service objectives due to malfunctioning procurement systems, leading to reform initiatives aimed at creating effective procurement frameworks built on four foundational pillars: legislative and regulatory frameworks, institutional frameworks and management capacity, procurement functions, market practices, and integrity standards (Agaba & Shipman, 2006).

Governments facing decreasing finances and unrelenting budget restrictions have encountered mounting pressure to reduce costs without compromising missions, making competitive purchase practices that leverage private sector efficiencies essential cost-cutting mechanisms, particularly as national governments often serve as sole customers for certain products or services (Khi, 2009). E-procurement has emerged as a prominent solution advocated by numerous governments to lower transaction costs associated with managing multiple supplier orders (Tonkin, 2007), while public sector practices requiring departments to utilize numerous suppliers encourage competition and transform supplier relationships and electronic integration techniques (MacManus, 2002). Procurement officials must continuously balance conflicting objectives involving quality-cost tradeoffs, timeliness-cost considerations, socio-economic objectives, competition factors, and risk management, with good procurement practices promoting efficiency and enhanced service delivery (Basheka & Kabatereine, 2013).

Regional perspectives reveal significant procurement challenges in developing countries, where attention to project management has intensified as organizations across sectors allocate substantial

resources to project portfolios (Brown & Hyer, 2010). Poor planning has emerged as a major constraint in successful public project implementation, particularly evident in India where time and cost overruns have retarded economic development (Chandra, 2010), while Nigerian local government projects have suffered from inadequate planning, quality manpower shortages, financial constraints, and insufficient monitoring (Oladipo, 2008). Procurement processes in developing countries often hinder project success due to inherited administrative arrangements from Western nations that fail to account for different cultural contexts, historical experiences, and construction expertise levels (Ofori, 2000; Frimpong et al., 2003). In developing nations, public procurement represents an essential component of service delivery, consuming disproportionately high percentages of total expenditure-60% in Kenya, 58% in Angola, 40% in Malawi, and 70% in Uganda-far exceeding the global average of 12-20% and necessitating robust accountability mechanisms given taxpayer fund sources (Basheka & Bisangabasaija, 2010).

Kenya's public procurement legal framework, anchored in the Public Procurement and Asset Disposal Act (PPADA) 2015 alongside related regulations, aims to professionalize procurement practice while maximizing economy and efficiency, promoting fair competition, ensuring procedural integrity and fairness, increasing transparency and accountability, enhancing public confidence, and supporting local industry and economic development (PPRA, 2015). The PPADA applies comprehensively to all purchases of goods, works, and services, as well as property disposal by public entities ranging from national government to independent constitutional commissions, judiciary, public universities, state corporations, county governments, and other public institutions (PPADA, 2015).

Despite reform efforts, Kenya's procurement system continues experiencing corruption, secrecy, inefficiency, and unaccountability challenges resulting in substantial resource wastage, with internal management inefficiencies preventing devolved funds from achieving desired results, evidenced by poverty level increases from 56% to 60% between 2002 and 2008, service delivery failures, and fund misappropriation by corrupt officials (Kamau & Odhiambo, 2003; Wanjiru, 2008). Sustainable procurement practices have emerged as critical considerations, with substantial variations observed across public sector agencies in implementation approaches, as local authorities demonstrate particular strength in supporting local and small suppliers while health and education sectors show varying engagement levels with environmental sustainability aspects (Stephen & Walker, 2007).

Sustainable procurement implementation encompasses product lifecycle approaches emphasizing environmentally conscious design and life cycle assessment, enabling design teams to select less toxic, environmentally friendly materials and processes (Srivastava, 2007). Green procurement

principles extend across supply chains, with purchasing departments serving as important change agents for environmental initiatives, as demonstrated by manufacturers implementing waste reduction, energy conservation, recycling, and emission minimization strategies (Duber Smith, 2005; Preuss, 2001). Major retailers like Wal-Mart have committed to comprehensive sustainability goals including 100% renewable energy supply, zero waste creation, and sustainable product offerings, launching business strategies to dramatically reduce environmental impact while enhancing competitiveness (Plambeck, 2007).

Despite extensive literature on procurement practices globally and regionally, significant knowledge gaps persist regarding how sustainable procurement practices specifically influence performance outcomes among state corporations in Kenya's unique institutional context. While previous studies have examined procurement planning (Basheka, 2009), ethical practices (Ndolo & Njagi, 2014), and general procurement effectiveness (Makabira & Waiganjo, 2014), limited research has comprehensively integrated procurement planning, information technology adoption, supplier selection processes, and ethical considerations within a unified analytical framework focusing on state corporations in Nairobi County.

The current study addressed this gap by employing a descriptive research design to examine how critical procurement dimensions collectively influence organizational performance among state corporations, utilizing both quantitative and qualitative methodologies to generate practical insights for policy formulation and operational improvement. Given the substantial public resources channeled through state corporations and persistent challenges including cost overruns, project delays and accountability deficits documented in recent reports, understanding the specific mechanisms through which sustainable procurement practices drive performance outcomes becomes imperative for enhancing public service delivery, strengthening governance frameworks, and ensuring efficient resource utilization in Kenya's public sector landscape.

STATEMENT OF THE PROBLEM

The Kenyan public procurement system has evolved from a largely crude unregulated system to a highly regulated system (PPOA, 2009). Despite the progress made, the Kenyan procurement system still faces a myriad of challenges. World Bank Report (2009) indicated that, the average project funds absorption rate was less than 10% per annum which was attributed to a constrained procurement process. According to KNBS status report (2009), tendering and procurement procedures have become conduits through which some suppliers, contractors, Members of Parliament and their political allies fleece hundreds of millions of shillings from the constituency kitties through procurement processes.

Common abuses range from establishing personal fronts or ghost companies which are awarded project tenders un-procedurally and use the opportunity to inflate prices of goods and services (TISA, 2011).

Malala (2011) found out that, 88 % of projects were behind schedule for which there was expression by the respondents that, the procurement process derailed public organisation projects performance and the community needed to be involved in-order to realize ownership and acceptability. Omanga (2010) study on factors affecting the implementation of public organisation funded projects (cited in Malala, 2011) found out that, the public organisation projects fail because the procurement is not transparently done. As procurement oversees the management of finance resource in form of inventory (projects inputs) this has a direct impact on the performance of public organisation funded projects. Shiundu (2010) in his study in Kasarani Constituency (cited in Malala, 2011) reported that, 60 % of projects were behind schedule and this delay was attributed to the procurement process. Considering some of these studies and taking into considering that procurement is a process, studies and reports have generally not addressed the specifics of procurement that affect the performance of projects funded by public organisation.

RESEARCH OBJECTIVES

The study was guided by the following objectives;

- i. To establish the effect of procurement planning on the performance of state corporations in Nairobi County, Kenya, Kenya.
- ii. To determine the effect of Information Technology on performance of state corporations in Nairobi County, Kenya, Kenya.
- iii. To assess the effect of Supplier Section on performance of state corporations in Nairobi County, Kenya, Kenya.
- iv. To establish the effect of Procurement Ethical Issues on performance of state corporations in Nairobi County, Kenya, Kenya.

LITERATURE REVIEW

Theoretical Review

The study was anchored on three key theories: Principal-Agent Theory, Institutional Theory, and Legitimacy Theory, which collectively provide a comprehensive framework for understanding the dynamics of procurement practices and their impact on the performance of state corporations in Nairobi County, Kenya. Principal-Agent Theory: The Principal-Agent Theory, developed by

economists to explain relationships in which one party (the principal) delegates work to another (the agent) who acts on the principal's behalf, is central to this study (Lawal, 2013). The theory posits that agents make decisions and exert effort to achieve outcomes for principals, though their interests may not always align, potentially leading to agency problems (Edgar & Shipman, 2015). In organizational contexts, shareholders (principals) rely on managers (agents) to make operational decisions such as cost minimization and revenue maximization. The theory also emphasizes mechanisms to align incentives and reduce self-interested behavior, particularly in areas where agents control significant expenditures, such as procurement (Lionjanga, 2014; Ejite, 2015). For the current study, Principal-Agent Theory underpins the investigation of how managers' procurement decisions influence organizational performance in state corporations, highlighting the importance of accountability and alignment between decision-makers and organizational goals.

Institutional Theory: Institutional theory, as described by Ejite (2015), examines how external pressures from formal and informal institutions influence organizational behavior. Organizations often conform to established norms, regulations, and policies to gain legitimacy and acceptance, even when such compliance may not result from active choice. In the context of public procurement, for instance, the Public Procurement and Disposal Act (PPDA, 2005) mandates proper record-keeping and adherence to procurement protocols, reflecting institutional pressures. This theory is relevant to the current study as it helps explain why state corporations adopt sustainable procurement practices, not only to improve efficiency but also to comply with legal and regulatory frameworks, thereby maintaining organizational legitimacy and minimizing risks of non-compliance.

Legitimacy Theory: Legitimacy Theory, articulated by Wilmshurst and Frost (2000) and Suchman (1995), suggests that organizations operate under a social contract that requires their actions to be perceived as appropriate and acceptable by stakeholders and the broader society. In government procurement, legitimacy is critical because unethical practices, corruption, or cronyism can undermine public trust. Organizations are therefore motivated to engage in transparency, disclosure, and ethical procurement practices to build and maintain their legitimacy (Magness, 2006). In this study, legitimacy theory provides a framework for understanding how ethical procurement practices and transparency measures influence stakeholder perceptions and contribute to the overall performance and credibility of state corporations in Nairobi County.

Conceptual Framework

A conceptual framework is a structure of concepts and or theories which are put together as a map for the study and it shows the relationship of research variables (Mugenda and Mugenda, 2014). Figure 1 presents the conceptual framework.

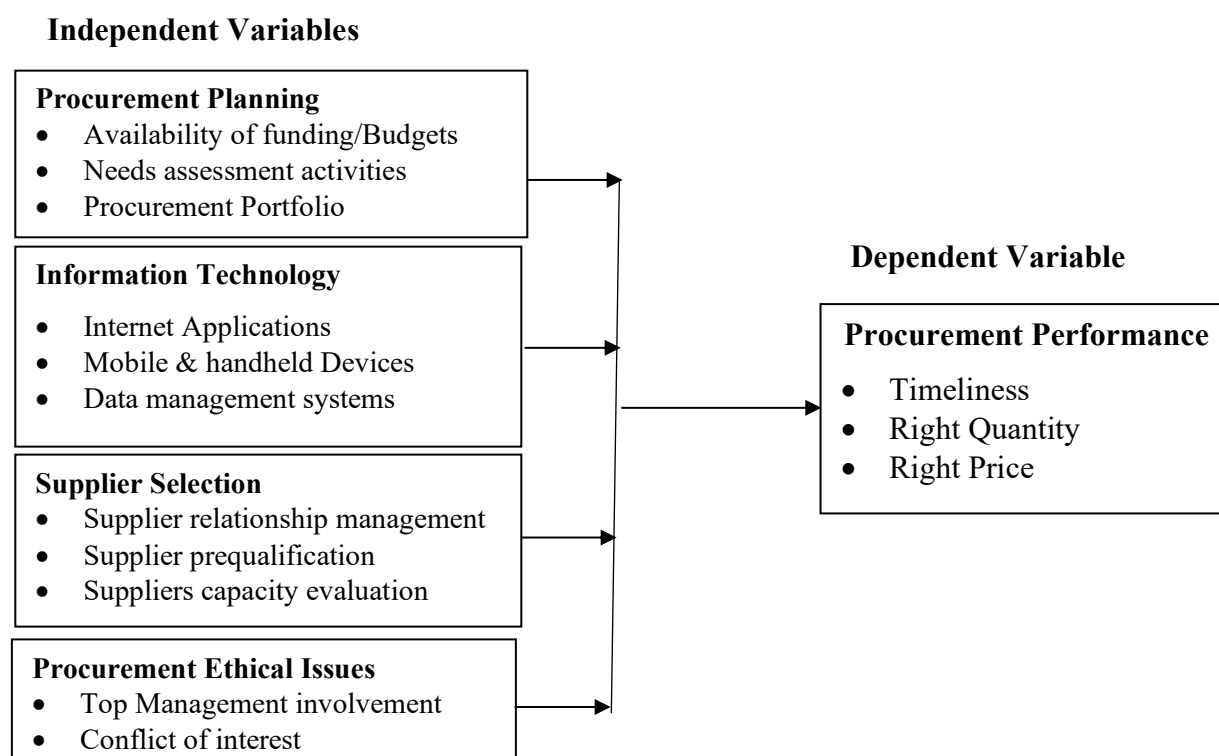


Figure 1: Conceptual Framework

Empirical Review

The study of procurement practices and their impact on organizational performance has been widely explored both internationally and locally. Ricarda (2016) examined procurement practices in Geneva's electronics sector and found that enhancing procurement practices is crucial for creating smooth and efficient global supply chains. Similarly, Aleman and Guerro (2016) researched procurement practices in SMEs within global supply chains in Switzerland and concluded that while many SMEs focus on fair pricing, they are often excluded from the benefits of good procurement practices. This gap in literature highlights the need for better monitoring and evaluation of procurement practices to ensure that they contribute to both economic and social development.

In Rwanda, Caritas, Julius, and Zenon (2016) analyzed the influence of procurement practices on public procurement management, specifically in the construction of the Bugesera District office. Their

findings showed that procurement planning and practices played a key role in improving the performance of the construction project. Locally, Makabira and Waiganjo (2014) investigated procurement practices in Kenya's National Police Service and found that procurement practices, especially planning and control, significantly enhanced operational performance by preventing unnecessary stocking of materials and improving service delivery.

Karanja and Kiarie (2015) explored the impact of procurement practices on organizational performance in Kenya's private sector, particularly at Guaranty Trust Bank. Their research found that procurement practices significantly contributed to the bank's performance, especially in terms of saving costs that would otherwise be lost. Mokogi, Mairura, and Ombui (2015) examined state-owned enterprises in Nairobi and found that procurement practices were essential in enhancing the performance of these corporations, further confirming the critical link between procurement practices and organizational success. Procurement planning has long been recognized as an essential factor in improving organizational performance.

Ezeh (2012) defines procurement planning as a strategic process that involves identifying what needs to be procured, determining how best to meet organizational needs, and setting clear timelines. This process ensures that limited resources are used effectively, ultimately enhancing organizational efficiency. Basheka (2004) highlights that procurement has evolved from a transactional function (purchasing) to a strategic one, with procurement now being central to the success of organizations, especially in the context of global market complexities. Ethical procurement practices are also fundamental to improving organizational performance. Robert (2011) stresses that procurement must deliver value for money, with a focus on fairness, equity, and public interest. His findings suggest that procurement ethics play a vital role in generating higher returns and improving firm performance. Ethical procurement practices, such as transparency and adherence to procurement laws, are crucial for fostering trust and enhancing operational effectiveness. IDASA (2010) also emphasized that ethical procurement practices contribute to resource savings and efficient supply chain management, which ultimately boosts organizational performance.

Finally, studies have demonstrated that the overall effectiveness of procurement systems is vital for organizational performance. Turban et al. (2000) argue that the proper management of procurement functions, including supplier relationship management and the adoption of technology, is key to achieving efficiency and enhancing performance. Delaney et al. (2006) identified several performance indicators such as customer satisfaction, market performance, and employee satisfaction, all of which are positively influenced by good procurement practices. Additionally, green procurement practices

that ensure high-quality, environmentally friendly products contribute to customer satisfaction and improved performance (Chong & Ooi, 2008). The need for strategic procurement practices, clear policies, and robust supplier relationships is thus essential for improving the performance of both private and public organizations.

RESEARCH METHODOLOGY

The study employed a descriptive research design targeting 187 employees across 243 state corporations in Nairobi County, with stratified random sampling yielding 151 respondents from procurement, top management, marketing, finance, and human resources departments. Primary data was collected through structured and semi-structured questionnaires, supplemented by secondary data from literature and organizational records, with a pilot study of 27 respondents testing instrument feasibility. Reliability was confirmed through Cronbach's Alpha coefficients (0.7-0.9 range for all constructs), while content validity was established through expert review. Data analysis utilized SPSS version 29, combining descriptive statistics (mean, standard deviation, variance) and inferential statistics (regression, correlation, t-tests, ANOVA, chi-square), with the regression mode

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + e$$

Procurement planning (X_1), information technology (X_2), supplier selection (X_3), procurement ethical issues (X_4) and performance (Y)

RESEARCH FINDINGS AND DISCUSSIONS

This chapter looks at the findings of the research together with their discussions. Inferential and descriptive statistics have been employed in the analysis of data. Descriptive statistics such as means, percentages, and inferential statistics like multiple regression and correlation. The study's main objective is to examine the relationship between sustainable procurement practices on performance of state corporations in Nairobi County, Kenya.

Response Rate

One hundred and fifty-one questionnaires were handed out to employees at the 243 state corporations in Kenya, comprising of Procurement department, Top management, marketing department, Accounts & finance department and the HR department because they are specialists in the area of procurement management. From the 151 questionnaires distributed the study received 132 of them having been filled to satisfactory levels. As shown in Table 1, the questionnaires returned added up

to 87.7% response rate that was taken to be excellent. This is because according Mugenda and Mugenda (2013), a research achieves a response good enough to proceed with when it attains a 50% response rate, it is sufficient when it is at 60% any response above 70% is considered excellent. Posting an 87.7% response rate the study's response can be employed in the realization of other goals such as reporting.

Table 1: Response Rate

Questionnaire	Frequency	Percent
Returned	132	87.7
Un-returned	19	12.3
Total	151	100.0

Descriptive Analysis

In this section Likert scale questions are presented by the study where research participants were required to tell their opinion on a number of statements concerning Procurement Planning relates to Sustainable procurement practices on performance of state corporations in Nairobi County, Kenya.. The research utilized a five-point Likert scale ranked as follows, 1-strongly disagree, 2-disagree, 3-moderate, 4-agree, 5-strongly agree. The standard deviations and means employed in the interpretation of the findings where a mean value of 1-1.4 was strongly disagree, 1.5-2.4 disagree, 2.5-3.4 neutral, 3.5-4.4 agree and 4.5-5 strongly agree. Standard deviation measures the level to which the responses deviate from the mean. A standard deviation greater than two is considered to be large and suggests that respondents held varied opinions on the other hand, when research participants had similar opinions a value less than 2 was recorded.

Procurement Planning

The study found that respondents generally agreed that procurement planning in state corporations enhances operational efficiency, leads to cost savings, and improves service delivery, while stakeholder involvement, policy clarity, and sustainable procurement practices received more mixed perceptions (means range from 3.10 to 4.21, with a five-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree) as summarized in Table 2.

Table 2: Procurement Planning Frequencies

Procurement Planning	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	Std. Dev.
1. Procurement planning in state corporations enhances operational efficiency.	-	5.6	23.5	37.8	13.1	3.78	.739
2. Effective procurement planning leads to cost savings in state corporations.	-	-	19.1	41.0	38.9	4.21	0.741
3. Procurement planning improves service delivery at the State corporations in Nairobi County, Kenya.	-	2.8	38.6	32.3	26.3	3.82	.885
4. The involvement of stakeholders in procurement planning positively impacts performance.	13.1	10.4	23.9	35.5	17.1	3.33	1.132
5. Clear procurement policies contribute to better decision-making within state corporations.	8.4	23.9	23.5	31.1	13.1	3.17	1.178
6. Sustainable procurement practices improve long-term organizational performance.	8.0	23.9	26.3	33.5	8.4	3.10	1.105

Information Technology

The study found that respondents generally perceived Information Technology as a positive contributor to performance in state corporations, with varying degrees of agreement across different dimensions (means range from 3.02 to 3.71), and a five-point Likert scale was used where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree, as summarized in Table 3

Table 3: Information Technology Frequencies

Information Technology	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	Std. Dev.
1. The implementation of advanced IT systems enhances the operational efficiency of the State corporations in Nairobi County, Kenya.	15.1	13.9	35.5	24.7	10.8	3.02	1.195
2. Integration of IT solutions into procurement practices leads to improved cost management within state corporations.	13.5	8.8	10.8	43.8	24.1	3.54	1.306
3. Effective use of IT in data management and reporting increases transparency and accountability in organizational performance.	5.2	23.9	19.1	20.7	31.1	3.49	1.291
4. Adopting IT-enabled procurement systems improves strategic decision-making and service delivery at the State corporations in Nairobi County, Kenya.	4.8	15.9	7.6	47.0	24.7	3.71	1.145
5. Information Technology fosters sustainable procurement practices and effective resource allocation in state corporations.	4.8	29.9	5.2	41.8	18.3	3.39	1.223

Supplier Section

The study found that respondents generally viewed the Supplier Section as effective in enhancing performance in state corporations, particularly in evaluating and selecting suppliers (mean = 4.30) and minimizing procurement delays (mean = 3.91), while perceptions were more mixed regarding cost savings (mean = 3.31) and promotion of sustainable procurement practices (mean = 3.15), based on a five-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree, as summarized in Table 4.

Table 4: Supplier Section Frequencies

Supplier Section	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	Std. Dev.
1. The Supplier Section effectively evaluates and selects suppliers, ensuring high-quality resources for the organization.	2.0	2.8	11.6	30.7	53.0	4.30	0.922
2. A well-structured Supplier Section minimizes procurement delays and enhances overall operational efficiency at state corporations in Nairobi county, Kenya.	5.6	7.2	5.6	53.8	27.9	3.91	1.058
3. The Supplier Section contributes to cost savings by leveraging competitive supplier negotiations and efficient sourcing practices.	5.6	27.1	19.1	27.5	20.7	3.31	1.229
4. Performance metrics and feedback from the Supplier Section are effectively utilized to inform strategic decision-making within state corporations in Nairobi county, Kenya.	10.4	2.8	19.1	41.8	25.9	3.70	1.188
5. The Supplier Section actively promotes sustainable procurement practices by engaging suppliers that adhere to environmental and ethical standards.	21.9	-	29.1	39.0	10.0	3.15	1.284
6. Effective communication and collaboration within the Supplier Section enhance supplier performance and improve overall service delivery at state corporations in Nairobi county, Kenya.	7.6	5.6	17.9	52.6	16.3	3.65	1.061

Procurement Ethical Issues

The study found that respondents generally perceived procurement ethical issues as critical to performance in state corporations, with strong agreement on enforcing ethical guidelines (mean = 4.04) and recognizing the negative impact of unethical practices (mean = 4.08), while transparency (mean = 3.27), ethics training (mean = 3.80), and oversight mechanisms (mean = 3.25) received more mixed responses, based on a five-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree, as summarized in Table 5.

Table 5: Procurement Ethical Issues Frequencies

Procurement Ethical Issues	Strongly Disagree	Disagree	Neither Agree nor Agree	Strongly Agree	Mean	Std. Dev.	
1. The enforcement of clear ethical guidelines in procurement processes improves the overall performance of state corporations.	2.8	2.0	13.5	51.8	29.9	4.04	0.875
2. Transparent and accountable procurement practices contribute positively to the trust and efficiency of state corporations in Nairobi County.	8.0	18.7	16.3	51.8	5.2	3.27	1.177
3. Unethical procurement practices, such as favouritism and bribery, significantly hinder operational effectiveness within state corporations.	2.8	-	12.4	56.6	28.3	4.08	0.809
4. Regular ethics training and awareness programs for procurement staff enhance adherence to ethical standards and improve organizational performance.	2.8	-	25.5	37.8	13.9	3.80	0.780
5. The existence of robust oversight mechanisms for procurement processes reduces ethical breaches and fosters better performance in state corporations.	10.4	14.3	26.7	37.5	11.2	3.25	1.150

Performance of State Corporations in Nairobi County, Kenya

The study found that respondents generally perceived effective procurement practices as pivotal to the performance of state corporations in Nairobi County, with high agreement on operational efficiency (mean = 4.14) and sustainable procurement practices (mean = 4.24), while disciplined cost management (mean = 3.87), innovative procurement strategies (mean = 3.60), and transparency and accountability (mean = 3.96) received moderately positive responses, based on a five-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree, as summarized in Table 6.

Table 6: Performance of State Corporations in Nairobi County, Kenya

Performance of State Corporations in Nairobi County, Kenya	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	Std. Dev.
1. The overall operational efficiency of state corporations in Nairobi County is significantly enhanced by effective procurement systems.	-	-	10.4	64.9	24.7	4.14	0.3376
2. Robust financial performance in state corporations is a direct outcome of disciplined cost management in procurement practices.	5.6	-	16.7	337.0	20.7	3.87	0.929
3. Innovative procurement strategies positively impact the service delivery performance of state corporations in Nairobi County.	2.0	13.1	21.5	49.4	13.9	3.60	0.951
4. Sustainable procurement practices contribute to long-term improvements in the performance of state corporations in Nairobi County.	2.8	-	12.4	40.6	44.2	4.24	0.874
5. Transparency and accountability in procurement processes are key determinants of overall performance in state corporations.	2.8	-	22.7	47.0	27.5	3.96	0.869

Correlation Analysis

The study found that sustainable procurement practices are strongly associated with the performance of state corporations in Nairobi County, Kenya, as evidenced by the correlation analysis. Procurement Ethical Issues demonstrated the strongest positive relationship with organizational performance ($r = 0.800$, $p = 0.000$), indicating that adherence to ethical standards is critical for achieving operational effectiveness and long-term viability. Information Technology also showed a strong positive correlation with performance ($r = 0.763$, $p = 0.000$), highlighting the importance of effective resource allocation and digital systems in enhancing efficiency. The Supplier Section exhibited a substantial correlation with performance ($r = 0.700$, $p = 0.000$), emphasizing the role of supplier management in supporting organizational outcomes, while Procurement Planning showed a moderate positive correlation ($r = 0.653$, $p = 0.000$), suggesting that clear planning and vision contribute to sustained success. These findings are consistent with prior research emphasizing integrated approaches to procurement, strategic oversight, and resource management (Rahman & Ahmed, 2022; Patel & Mehta, 2024; Chen et al., 2023; Kim & Park, 2022).

Furthermore, the analysis revealed strong interrelationships among the independent variables themselves. Information Technology and Supplier Section displayed a very strong correlation ($r = 0.872$, $p = 0.000$), reflecting a close interaction between technological resources and strategic supplier oversight. Procurement Ethical Issues also correlated strongly with both Information Technology ($r = 0.804$, $p = 0.000$) and Procurement Planning ($r = 0.780$, $p = 0.000$), indicating that ethical

compliance is intertwined with effective resource use and organizational vision. These interconnections underscore the integrated nature of sustainable procurement practices, where ethical standards, technological support, planning, and supplier management collectively influence the performance of state corporations. Overall, the results support a holistic approach to procurement strategy to enhance operational efficiency, accountability, and long-term organizational outcomes (Wang & Li, 2023; Zhang et al., 2024).

Table 7: Correlation matrix for all variables

Correlations		Performance of State Corporations	Procurement Planning	Information Technology	Procurement Ethical Issues	Supplier Section
Performance of State Corporations	Pearson Correlation	1.000				
	Sig. (2-tailed)					
	N	132				
Procurement Planning	Pearson Correlation	.653**	1.000			
	Sig. (2-tailed)	0				
	N	132	132			
Information Technology	Pearson Correlation	.763**	.598**	1.000		
	Sig. (2-tailed)	0	0			
	N	132	132	132		
Procurement Ethical Issues	Pearson Correlation	.800**	.780**	.804**	1.000	
	Sig. (2-tailed)	0	0	0		
	N	132	132	132	132	
Supplier Section	Pearson Correlation	.700**	.617**	.872**	.760**	1.000
	Sig. (2-tailed)	0	0	0	0	
	N	132	132	132	132	132

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

Diagnostic Tests

The study found that the assumptions for regression analysis were satisfactorily met, as indicated by the diagnostic tests. Test of Sampling Adequacy showed a Kaiser-Meyer-Olkin (KMO) value of 0.882, which is considered excellent, while Bartlett's Test of Sphericity was significant ($\chi^2 = 17896.745$, $p = 0.000$), confirming that the data were suitable for factor analysis and that the sampling strategy effectively captured the underlying structures of the variables (Kim & Lee, 2023; Liu et al., 2024).

Test of Normality using the Shapiro-Wilk test revealed that all independent variables—Procurement Planning (Statistic = 0.811, $p = 0.672$), Information Technology (Statistic = 0.926, $p = 0.518$), Supplier Section (Statistic = 0.779, $p = 0.394$), and Procurement Ethical Issues (Statistic = 0.845, $p = 0.466$)—had p -values above 0.05, indicating that the data were normally or approximately normally distributed and suitable for regression analysis (Ghasemi & Zahediasl, 2012; Razali & Wah, 2011).

Test of Multicollinearity assessed the interrelationships among the independent variables using Variance Inflation Factor (VIF) and tolerance values. All VIF values were below the threshold of 5 (Procurement Planning = 2.424, Information Technology = 2.142, Supplier Section = 3.387, Procurement Ethical Issues = 2.014) and all tolerance values exceeded 0.2, indicating that multicollinearity was not a concern in the dataset (Kimaku et al., 2021). Mean centering was applied to further minimize potential multicollinearity.

These diagnostic results collectively confirm that the regression assumptions—sampling adequacy, normality, and independence among predictors—were met, supporting the validity and reliability of the subsequent inferential analysis for evaluating the effect of sustainable procurement practices on the performance of state corporations in Nairobi County, Kenya.

Multiple Regression Analysis

To determine how procurement planning affects performance of state corporations in Nairobi County, Kenya, the study computed multiple regression analysis. The results were placed on three tables presented and discussed in coming subsections.

Model Summary

The study found that the Model Summary (Table 8) indicated a strong explanatory power of the independent variables on the performance of state corporations in Nairobi County, Kenya, with an R^2 value of 0.877. This means that 87.7% of the variation in organizational performance can be attributed

to changes in Procurement Planning, Information Technology, Procurement Ethical Issues, and Supplier Section, while the remaining 12.3% is influenced by factors not included in the study. These results demonstrate that the selected independent variables collectively provide a robust basis for predicting performance outcomes.

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.936 ^a	.877	.868	.033767
a. Predictors: (Constant), Supplier Section , Information Technology , Procurement Planning , Procurement Ethical Issues				

Analysis of Variance

The ANOVA results (Table 9) further confirmed the significance of the model, with an F-calculated value of 92.716 and a p-value of 0.000, which is below the 0.05 threshold. This implies that the regression model is statistically significant and that Procurement Planning, Information Technology, Procurement Ethical Issues, and Supplier Section are valid predictors of performance in state corporations. The results indicate that these variables collectively have a meaningful impact on organizational outcomes, justifying their inclusion in the predictive model.

Table 9: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1.233	4	.308	92.716	.000 ^b
1 Residual	0.173	128	.003		
Total	1.406	132			
a. Dependent Variable: Performance of State Corporations in Nairobi County, Kenya					
b. Predictors: (Constant), Supplier Section , Information Technology , Procurement Planning , Procurement Ethical Issues					

The regression coefficients (Table 10) were used to fit the regression model for predicting performance, expressed as:

$$Y = 1.347 + 0.347X_1 + 0.196X_2 + 0.338X_3 + 0.279X_4$$

where Y = Performance of State Corporations in Nairobi County, Kenya; X_1 = Procurement Planning; X_2 = Information Technology; X_3 = Procurement Ethical Issues; X_4 = Supplier Section; and ε = error term. Procurement Planning had a significant positive effect on performance ($\beta = 0.347$, $p = 0.001$), indicating that a unit increase in procurement planning improves performance by 0.347 units. Supplier Section also positively influenced performance ($\beta = 0.279$, $p = 0.013$), suggesting that effective supplier management enhances performance by 0.279 units. Procurement Ethical Issues contributed significantly as well ($\beta = 0.338$, $p = 0.018$), highlighting that adherence to ethical procurement

practices enhances organizational transparency, trust, and overall effectiveness, leading to a 0.338-unit improvement in performance. Information Technology, although having a slightly smaller effect, was still significant ($\beta = 0.196$, $p = 0.041$), showing that IT systems improve decision-making and operational efficiency, contributing 0.196 units to performance.

Collectively, these regression results underscore that all four dimensions—Procurement Planning, Supplier Section, Procurement Ethical Issues, and Information Technology—play a crucial and complementary role in enhancing the performance of state corporations. The constant value of 1.347 indicates the baseline performance level when all independent variables are at zero, emphasizing the inherent capacity of the organizations prior to the influence of these variables. Overall, the findings demonstrate that a multidimensional approach to procurement, integrating strategic planning, supplier management, ethical compliance, and IT support, is vital for driving sustainable improvements in organizational performance in the public sector. These results align with prior studies that emphasize the strategic importance of procurement practices in enhancing operational efficiency, cost savings, transparency, and long-term organizational effectiveness (Smith et al., 2021; Adeyemi, 2023; Jain & Sharma, 2023; Williams & Gonzalez, 2021).

Table 10: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig. (P-value)
	B	Std. Error	Beta		
(Constant)	1.347	0.258		5.221	.000
Procurement Planning	0.347	0.103	0.439	3.369	.001
1 Information Technology	0.196	0.077	0.226	2.545	.041
Procurement Ethical Issues	0.338	0.138	0.402	2.449	.018
Supplier Section	0.279	0.108	0.327	2.583	.013

a. Dependent Variable: Performance of State Corporations in Nairobi County, Kenya

CONCLUSION

The study concludes that sustainable procurement practices significantly influence the performance of state corporations in Nairobi County, Kenya, with procurement planning, information technology, supplier management, and ethical standards all contributing meaningfully to operational efficiency, cost savings, transparency, and strategic decision-making. While procurement planning and supplier management demonstrate strong positive impacts, gaps remain in stakeholder engagement, policy clarity, and the full utilization of information technology for resource allocation and sustainability,

with ethical issues-particularly favoritism and bribery-emerging as major obstacles to procurement efficiency despite existing oversight mechanisms and ethics training programs showing inconsistent effectiveness across organizations. Moreover, it is concluded that that a more cohesive, integrated approach combining procurement planning, technology adoption, ethical reinforcement and supplier collaboration is essential to enhance the sustainable procurement framework in state corporations. Strengthening these elements through structured policies, enhanced IT systems, robust ethical oversight, improved stakeholder engagement, and active supplier collaboration can drive long-term organizational success, ensuring state corporations maintain efficiency, cost-effectiveness, transparency, and ethical accountability in their procurement operations.

RECOMMENDATIONS

The study recommends that state corporations should strengthen stakeholder engagement and policy clarity by developing structured frameworks that ensure procurement policies are well-communicated and accessible to all relevant parties, while investing in training programs that equip employees with the necessary skills to implement procurement strategies effectively and emphasizing sustainable procurement practices through comprehensive planning aligned with long-term corporate objectives. Organizations should prioritize the integration of advanced IT systems that enhance efficiency, transparency, and strategic decision-making, ensuring IT-driven procurement solutions are user-friendly and tailored to specific organizational needs to optimize data management, cost control, and IT-enabled resource allocation, thereby reducing skepticism and reinforcing confidence in technology's long-term benefits for sustainable procurement.

Moreover, it is recommended that state corporations should establish robust oversight mechanisms that promote transparency and accountability while strengthening ethics training programs to encourage adherence to best practices and reduce unethical procurement behaviors such as favoritism and bribery. Organizations should refine supplier management strategies to ensure cost-saving measures and sustainability efforts are actively integrated into procurement frameworks, fostering ethical procurement and structured collaboration with suppliers to drive long-term success while maintaining operational integrity, efficiency, and cost-effectiveness across all procurement operations.

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