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Sustainable Procurement Practices and Performance of State Corporations in Kisii County, Kenya

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ABSTRACT

Purpose: This study sought to establish the relationship between sustainable procurement practices and the performance of state corporations in Kisii County, Kenya. The study was guided by the following specific objectives: to assess the effect of sustainable sourcing practices, supplier sustainability evaluation, sustainable contract management, and sustainable information technology infrastructure on the performance of state corporations. The study was anchored on four theories: Institutional Theory, Stakeholder Theory, Resource-Based View, and the Technology Acceptance Model.

Methodology: A descriptive research design was adopted. The target population comprised procurement officers, finance managers, and departmental heads across 15 state corporations operating in Kisii County. The target population was 150 employees. A sample of 109 respondents was selected using stratified random sampling. Data was collected using structured Likert-scale questionnaires and analyzed using descriptive statistics, correlation, and multiple regression analysis.

Findings: The findings revealed that all four sustainable procurement practices had a positive and statistically significant influence on organizational performance. Notably, sustainable sourcing and supplier sustainability evaluation were strongly correlated with improved service delivery, cost efficiency, and regulatory compliance.

Unique Contribution to Theory, Policy and Practice: Based on these findings, the study recommends institutionalizing sustainability criteria in procurement decisions, enhancing supplier evaluation mechanisms, embedding sustainability clauses in contracts, and investing in e-procurement technologies. These measures are essential for aligning procurement functions with Kenya's development agenda and global sustainability goals.

Keywords: *Supplier Environmental Assessment, Sustainability Evaluation, Contract Management, Procurement Practices, Sourcing Practices*

INTRODUCTION

Background of the Study

Sustainable procurement has become an increasingly important strategy in both public and private sectors worldwide, driven by the need to promote environmental stewardship, social responsibility, and long-term economic viability. According to the United Nations Environment Programme (UNEP, 2020), public procurement accounts for 12–30% of GDP in most countries, making it a powerful tool for governments to lead by example in sustainability initiatives. Developed countries such as Sweden, the United Kingdom, and Canada have institutionalized sustainable procurement frameworks that incorporate life cycle costing, environmental compliance, and social inclusion criteria into procurement decisions (Walker & Brammer, 2009). These efforts have resulted in improved service delivery, reduced carbon emissions, and better stakeholder trust.

In Asia, countries like China and South Korea have made significant strides by integrating green procurement into national policy, particularly for construction, energy, and transportation sectors. Zhu & Wang (2018) observe that green supply chain management in Chinese state-owned enterprises has led to notable improvements in organizational performance, including cost reduction and enhanced operational efficiency. Similarly, South Korea's Green Procurement Act has increased the use of eco-labeled products in public institutions by more than 50% since its implementation (OECD, 2017). These global trends underscore the increasing recognition of procurement as a vehicle for sustainable development and improved institutional performance.

In the African context, the implementation of sustainable procurement has gained traction, although progress remains uneven across countries. For instance, South Africa has integrated sustainable procurement into its national framework under the Public Finance Management Act, promoting environmental compliance and black economic empowerment (Ambe & Badenhorst-Weiss, 2012). Likewise, Rwanda and Ghana have introduced e-procurement platforms and supplier sustainability evaluations to improve transparency and reduce corruption in public procurement (Akenroye et al., 2013). However, studies show that many African countries still face challenges such as low institutional capacity, lack of awareness, and inadequate policy enforcement, which hinder the full adoption of sustainable procurement practices (Ujakpa, 2018).

Sustainable procurement has emerged as a critical strategy for improving efficiency, accountability, and long-term value in public institutions. Sustainable procurement refers to the process of acquiring goods, services, and works with a view to achieving value for money while incorporating environmental, social, and economic considerations (Obadia & Iravo, 2016). In Kenya, the government has introduced several frameworks to promote sustainability in procurement, including the Public Procurement and Asset Disposal Act (2015), which emphasizes transparency, environmental protection, and social responsibility. Despite these policy efforts, the uptake of sustainable procurement practices among state corporations remains uneven, especially outside Nairobi and other urban centers.

State corporations in counties such as Kisii are still facing challenges in integrating sustainable procurement into their core operations. Many continue to rely on traditional procurement practices that prioritize cost and speed over long-term environmental and social impacts (Owuor & Kibati, 2019). A study by Mwangi and Karanja (2020) revealed that only 30% of public entities in Western Kenya conduct any form of supplier sustainability evaluation or implement green sourcing strategies. Moreover, technological adoption, particularly in e-procurement systems and sustainable contract management tools, remains low due to limited budget allocations, capacity gaps, and resistance to change (Polong, 2022). These challenges not only hinder performance but also expose institutions to reputational, financial, and environmental risks.

Statement of the Problem

Public procurement plays a vital role in fostering sustainable development, particularly within state-owned enterprises and government entities. However, in Kenya, the adoption of sustainable procurement practices by state corporations remains significantly low. According to the Public Procurement Regulatory Authority (PPRA, 2022), only 35% of public institutions have incorporated sustainability dimensions such as environmental, social, and economic considerations into their procurement processes. This presents a major challenge to both effective service delivery and the country's commitment to sustainable development goals (SDGs).

In Kisii County, state corporations continue to grapple with persistent procurement inefficiencies, poor contract performance, and unsustainable supplier relationships. The Office of the Auditor-General (2021) reported that at least 45% of procurement contracts awarded by state corporations in Kisii were either delayed, over-budget, or terminated prematurely due to poor contract and supplier management practices. Additionally, procurement reviews by Transparency International (2020) showed that weak supplier sustainability evaluation and limited use of e-procurement systems contribute to high risks of fraud, wastage, and substandard goods delivery in Kenyan public institutions.

A study by Walker and Brammer (2012) in the UK found that organizations integrating sustainability into procurement improved cost-efficiency and supplier innovation by up to 30%. Similarly, Zhu and Wang (2018) concluded that green supply chain practices significantly enhance corporate performance in manufacturing firms across China. In South Africa, Amemba et al. (2013) found that sustainable procurement contributed positively to risk mitigation and value for money in public sector procurement. In the Kenyan context, few empirical studies have explored this relationship. For example, Korir (2020) found that sustainable sourcing practices had a significant impact on operational performance in Kenya Pipeline Company. Likewise, Ombaka and Mwangi (2016) reported that sustainable contract management improved project success rates in Nairobi City Water and Sewerage Company. However, these studies focused mainly on parastatals in Nairobi and major urban centers, leaving counties such as Kisii under-researched. Furthermore, the Kenya Institute of Supplies Management (KISM, 2023) revealed that only 28%

of procurement professionals in state corporations had been trained on sustainable procurement, and fewer than 22% of entities used any form of digital or green procurement systems. This study, therefore, seeks to bridge this gap by investigating the relationship between sustainable procurement practices and performance of state corporations in Kisii County, Kenya.

General Objective of the Study

The general objective of the study was to establish the relationship between sustainable procurement practices and performance of state corporations in Kisii County, Kenya.

Specific Research Objectives

The study was based on the following research objectives;-

i. To assess the effect of sustainable sourcing practices on performance of state corporations in Kisii County, Kenya.

ii. To examine the effect of supplier sustainability evaluation on performance of state corporations in Kisii County.

iii. To determine the effect of sustainable contract management on performance of state corporations in Kisii County.

iv. To assess the influence of sustainable information technology infrastructure on the performance of state corporations in Kisii County, Kenya.

LITERATURE REVIEW

Theoretical Review

This study is anchored on four key theories that provide a foundation for understanding the relationship between sustainable procurement practices and organizational performance. These include: Stakeholder Theory, Resource-Based View (RBV), Institutional Theory, and Technology Acceptance Model (TAM). Each theory is relevant to different dimensions of sustainable procurement practices and complements the others to offer a comprehensive theoretical grounding.

Stakeholder Theory

Originally developed by Edward Freeman (1984), Stakeholder Theory emphasizes the importance of considering the interests and influence of all stakeholders in organizational decision-making, not just shareholders (Freeman, 2010). Stakeholder theory posits that organizations must operate in a manner that accounts for the needs and expectations of various stakeholders such as suppliers, customers, government agencies, communities, and employees. It stresses ethical management and long-term value creation rather than short-term financial gain. Freeman and Velamuri (2010) demonstrated how businesses that integrated stakeholder interests into their strategies achieved higher levels of sustainability.

Mukabi, (2019) used stakeholder theory to study public participation in procurement processes and found that considering stakeholder interests improved procurement accountability and organizational legitimacy. A limitation of stakeholder theory is its broadness, which may lead to conflicting interests that are difficult to balance. However, the theory is still valuable because it promotes inclusive and responsible procurement practices that align with sustainable development goals. This theory supports the supplier sustainability evaluation and sustainable sourcing aspects of the study by highlighting the importance of including environmental and social criteria in procurement decisions. It helps explain why state corporations must evaluate suppliers not just on cost, but on their broader impact on stakeholders such as local communities and the environment.

Resource-Based View (RBV) Theory

The Resource-Based View was introduced by Jay Barney (1991) and Wernerfelt (1984). It focuses on the internal resources and capabilities of a firm as the primary source of competitive advantage. RBV argues that organizations achieve superior performance when they possess valuable, rare, inimitable, and non-substitutable (VRIN) resources. These resources can include skilled personnel, robust IT systems, supplier networks, and sustainability competencies. Barney (2001) found that firms with advanced procurement systems and trained staff could outperform rivals by reducing costs and increasing efficiency.

Oboge, Kwendo, & Odero, (2024) applied RBV to assess how internal capacities influenced sustainable supply chain performance in manufacturing firms in Nairobi and confirmed a positive link. The RBV has been criticized for underplaying external environmental factors. However, in combination with stakeholder theory and institutional theory, RBV remains crucial in highlighting the internal strengths required for sustainable procurement (Newbert, 2007). RBV justifies the inclusion of sustainable IT infrastructure and sustainable contract management as critical internal resources that enhance performance. In Kisii County, where many state corporations struggle with capacity and digital infrastructure, the RBV framework helps explain how these internal capabilities can lead to better procurement outcomes.

Institutional Theory

Institutional Theory was popularized by DiMaggio and Powell (1983) and Meyer and Rowan (1977). It emphasizes the role of external pressures and norms in shaping organizational behavior. The theory argues that organizations conform to rules, regulations, and cultural expectations within their environment to gain legitimacy, access resources, and avoid sanctions. It highlights three types of isomorphism: coercive (laws and regulations), mimetic (imitation of successful peers), and normative (professional standards). Mokamba and Were (2021) applied institutional theory to examine public procurement reforms in Kenya and found that compliance with regulatory frameworks significantly influenced procurement performance.

Otieno (2020) found that government pressure led to increased adoption of green procurement in state agencies. The theory does not fully account for innovation and strategic choices by organizations. However, its emphasis on external influence is essential in the public sector, where legal and policy frameworks dictate procurement behavior (Scott, 2004). Institutional theory supports this study by explaining why state corporations in Kisii County may adopt sustainable procurement practices in response to government policy (coercive), professional bodies like KISM (normative), or benchmarking with better-performing corporations (mimetic). It underpins the importance of compliance and legitimacy in procurement decisions.

Technology Acceptance Model (TAM) Theory

Developed by Fred Davis (1989), the Technology Acceptance Model explains how users come to accept and use new technology based on two factors: perceived usefulness and perceived ease of use. TAM argues that if individuals believe a technology will enhance their job performance and is easy to use, they are more likely to adopt it. It's widely applied in studies of digital transformation, including e-procurement and information systems. Masoud (2022) used TAM to study the adoption of e-procurement systems in county governments in Kenya and found that user perceptions significantly influenced implementation success.

Musyoka (2023) confirmed that perceived usefulness of IT platforms enhanced procurement transparency and supplier management in public universities. TAM focuses on individual behavior rather than organizational or environmental factors. However, when integrated with RBV and institutional theory, it adds value by addressing the human-technology interaction necessary for effective sustainable procurement (Venkatesh & Davis, 2000). TAM is critical in explaining the sustainable IT infrastructure component of this study. In Kisii County, state corporations must adopt procurement information systems that promote transparency, tracking, and sustainability. TAM helps to understand barriers and drivers behind the use of such systems.

Conceptual Framework

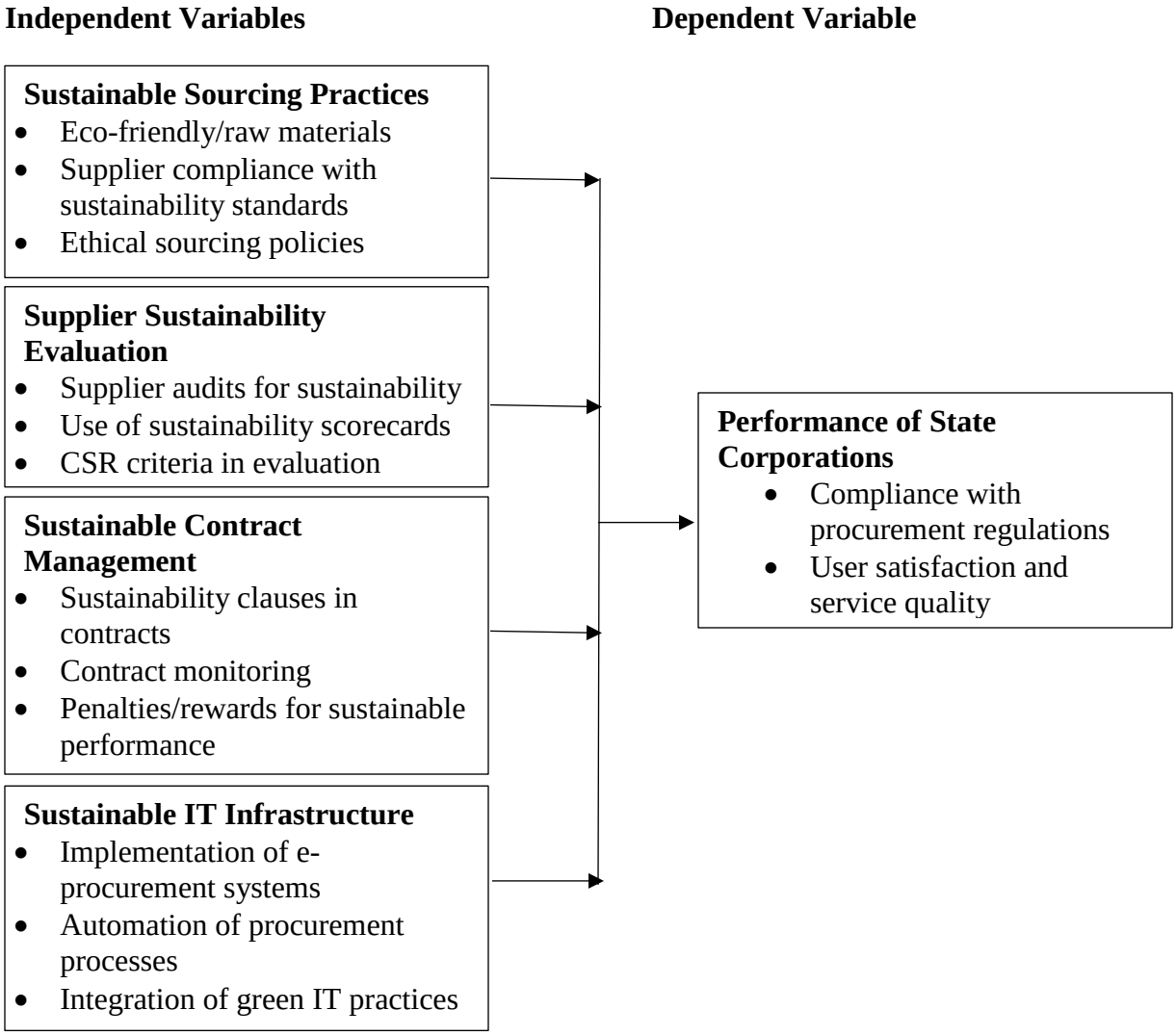

Figure 1: Conceptual Framework

Empirical Review

Sustainable Sourcing Practices and Performance of State Corporations

Walker and Brammer (2012) conducted a study in the UK public sector and found that organizations that adopted green and ethical sourcing practices achieved enhanced supplier relationships, cost efficiencies, and public trust. Zhu, Sarkis, and Lai (2013), in a study of Chinese manufacturing firms, observed that firms using sustainable sourcing significantly reduced operational costs and improved environmental performance, which translated into better organizational competitiveness and compliance.

Wambui and Njoroge (2021) focused on parastatals in Nairobi revealed that sustainable sourcing practices were weakly implemented, with only 32% of organizations integrating environmental or ethical criteria into their supplier selection process. However, those that had adopted such practices reported improved procurement efficiency, better alignment with Sustainable Development Goals (SDGs), and higher levels of service delivery. In Kisii County, a performance audit by the Office of the Auditor-General (2021) identified poor sourcing practices as a major contributor to delays and cost overruns in several state projects, suggesting a link between unsustainable sourcing and poor institutional performance. Despite this growing evidence, sustainable sourcing remains underutilized in many Kenyan state corporations, largely due to lack of awareness, limited technical capacity, and perceived high implementation costs (KISM, 2023). However, scholars like Mutai (2020) argue that the long-term benefits such as enhanced transparency, supplier accountability, and environmental impact reduction far outweigh the initial investment required to implement sustainable sourcing.

Supplier Sustainability Evaluation and Performance of State Corporations

A study by Amemba et al. (2013) on Kenyan public procurement identified the lack of supplier sustainability evaluation frameworks as a major hindrance to procurement effectiveness. The study emphasized that many public organizations focused narrowly on price and delivery timelines, ignoring key aspects such as suppliers' environmental certifications, ethical labor practices, or waste disposal mechanisms. In a more targeted study, Mutai and Okello (2020) examined supplier sustainability evaluation practices in Kenyan parastatals and found a significant positive correlation between supplier vetting based on sustainability indicators and organizational efficiency, including fewer project delays and better quality assurance.

Ombaka and Mwangi (2016) conducted a study on Nairobi City Water and Sewerage Company and found that sustainable supplier evaluation contributed to better project implementation and fewer supplier-related disputes. They recommended the institutionalization of ESG (Environmental, Social, and Governance) criteria in public procurement evaluation frameworks to improve transparency and accountability. In Western Kenya, Wekesa and Ondieki (2021) analyzed county government procurement practices and found that counties that evaluated suppliers on sustainability grounds had better procurement outcomes in terms of value for money, reduced corruption, and community support.

Sustainable Contract Management and Performance of State Corporations

Ombaka & Mwangi (2016), in a study on Nairobi City Water and Sewerage Company, found that the inclusion of sustainability clauses in contracts led to improved project completion timelines, reduction in resource wastage, and increased supplier accountability. The study concluded that contract monitoring mechanisms such as sustainability scorecards, independent audits, and penalty-reward structures were critical in reinforcing sustainable procurement behavior and boosting performance.

Mukabi (2019) conducted a study on public universities in Kenya and established that institutions that monitored supplier compliance with environmental standards and ethical labor practices recorded higher levels of efficiency and service delivery. The researchers emphasized that sustainable contract enforcement ensures long-term value creation and strengthens compliance with national procurement policies.

Mogoi & Osoro (2022) examined the effect of green contract management on the operational performance of parastatals. Their findings indicated that organizations that engaged in joint contract reviews with suppliers and emphasized lifecycle costing in contracts realized greater cost savings and improved procurement outcomes. The study recommended regular contract sustainability audits as a best practice.

Information Technology Infrastructure and Performance of State Corporations

Awuor (2024) conducted a study on the adoption of e-procurement in Kenyan county governments and found that IT infrastructure positively influenced procurement performance by reducing paperwork, shortening procurement cycles, and minimizing corruption through digital audit trails. Similarly, Musyoka (2023), in a study involving public universities in Kenya, established that institutions that implemented automated procurement systems experienced better inventory control, enhanced supplier communication, and improved decision-making capabilities.

Zhu, Sarkis, and Lai (2013) examined green supply chain practices among manufacturing firms in China and reported that IT-enabled procurement practices were key drivers of environmental and economic performance. Their findings support the argument that technological platforms, when properly deployed, reduce resource wastage and facilitate supplier sustainability monitoring. In South Africa, Arula, (2021) found that the implementation of e-procurement systems in state-owned enterprises led to a 25% reduction in procurement cycle time and significantly improved service delivery outcomes.

RESEARCH METHODOLOGY

This study adopted a descriptive research design. The target population comprised 150 employees, distributed across the various corporations. This study adopted a stratified random sampling technique. To determine the sample size, Yamane's (1967) formula was used hence a sample of 109 respondents. The primary data collection instrument used in this study was a structured questionnaire. In this study, both descriptive and inferential statistical techniques were employed to analyze data collected from respondents regarding sustainable procurement practices and the performance of state corporations in Kisii County. The completed questionnaires were first checked for completeness and consistency. The responses were then coded and entered into the Statistical Package for the Social Sciences (SPSS) version 26, which was used to facilitate statistical analysis. Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarize demographic characteristics of respondents and provide an

overview of the patterns in responses related to each variable. This analysis helped in understanding the distribution and central tendencies of sustainable procurement practices and performance levels in the organizations studied. To test the relationships between the independent variables (sustainable sourcing, supplier sustainability evaluation, contract management, and IT infrastructure) and the dependent variable (performance of state corporations), inferential statistics were applied.

RESULTS AND DISCUSSION

Response Rate

In this study, a total of 109 questionnaires were distributed to staff members in procurement, finance, and administrative departments across various state corporations in Kisii County. Out of these, 103 questionnaires were correctly filled and returned, while 6 were either incomplete or not returned. This represents a response rate of 94.5%, which is considered excellent for academic research and well above the minimum threshold of 60% recommended by Babbie (2010) for survey studies.

Table 1: Response Rate

Description	Frequency	Percentage (%)
Questionnaires Not Returned/Incomplete	6	5.5
Questionnaires Returned	103	94.5
Questionnaires Distributed	109	100

The high response rate was attributed to effective follow-up strategies, assurance of confidentiality, and the researcher's engagement with respondents during the data collection process. This strong response provides a solid foundation for data analysis and enhances the validity of the study results.

Descriptive Analysis on Study Variables

Descriptive Analysis for Sustainable Sourcing Practices

This section presents descriptive statistics related to respondents' perceptions of sustainable sourcing practices in state corporations in Kisii County. The table below presents the results;-

Table 2: Descriptive Analysis for Sustainable Sourcing Practices

Statement	SA	A	N	D	SD	Mean	Std. Dev.
Our organization prioritizes suppliers who use eco-friendly or recyclable materials.	38	42	13	7	3	3.91	0.89
We require our suppliers to comply with recognized sustainability standards (i.e., ISO 14001, Fair Trade).	33	39	17	10	4	3.76	0.92
Ethical sourcing policies (i.e., anti-child labor, fair wages) are integrated into supplier selection.	29	36	20	12	6	3.69	0.94
Procurement decisions consider both environmental and social impacts.	35	41	16	8	3	3.88	0.85
Our procurement team receives training on sustainable sourcing practices.	22	34	25	14	8	3.52	0.97

The survey results indicate a positive trend toward sustainable procurement practices: eco-friendly supplier preference (M=3.91, SD=0.89), consideration of environmental/social impacts (M=3.88, SD=0.85), and compliance with sustainability standards (M=3.76, SD=0.92). However, integration of ethical sourcing policies (M=3.69, SD=0.94) and procurement staff training (M=3.52, SD=0.97) showed variability, highlighting areas for improvement in enforcing policies and providing consistent training (Zhu & Wang, 2018; Rotich et al., 2015; Kioko & Were, 2020).

Descriptive Analysis for Supplier Sustainability Evaluation

The table below summarizes the findings from the respondents on how their organizations evaluate suppliers using sustainability criteria.

Table 3: Descriptive Analysis for Supplier Sustainability Evaluation

Statement	SA	A	N	D	SD	Mean	Std. Dev.
Our organization conducts regular sustainability audits of suppliers.	30	36	20	12	5	3.69	0.96
Supplier sustainability scorecards are used during evaluations.	27	34	23	13	6	3.63	0.98
Evaluation criteria include corporate social responsibility (CSR) performance.	35	40	13	10	5	3.87	0.91
Environmental impact is a formal component of supplier performance assessment.	33	38	17	10	5	3.81	0.93
Suppliers are required to provide documentation on their sustainability practices.	28	37	21	12	5	3.74	0.94

Sustainability audits showed a mean of 3.69 (SD = 0.96), indicating general agreement but inconsistent implementation. The use of sustainability scorecards had a mean of 3.63 (SD = 0.98), reflecting moderate usage. CSR inclusion in evaluations had the highest mean of 3.87 (SD = 0.91), emphasizing strong consideration. Environmental impact as a metric had a mean of 3.81 (SD =

0.93), and documentation requirements had a mean of 3.74 (SD = 0.94), indicating varying enforcement.

Descriptive Analysis for Sustainable Contract Management

Respondents were asked to indicate their level of agreement with various aspects of sustainable contract management practices in their organizations and the results are as shown below.

Table 4: Descriptive Analysis for Sustainable Contract Management

Statement	SA	A	N	D	SD	Mean	Std. Dev.
Most procurement contracts include specific sustainability clauses.	31	39	18	10	5	3.78	0.95
We actively monitor contracts for compliance with environmental and social standards.	30	37	20	11	5	3.75	0.96
Contracts include penalties for failure to meet sustainability requirements.	26	35	22	14	6	3.59	1.00
Suppliers with excellent sustainability performance are rewarded or prioritized.	28	36	21	13	5	3.68	0.96
Sustainability compliance is tracked throughout the contract lifecycle.	27	38	19	13	6	3.66	0.97

Sustainability clauses in contracts were reported with a Mean of 3.78 (SD = 0.95), indicating frequent inclusion. Monitoring environmental/social compliance had a Mean of 3.75 (SD = 0.96), with some inconsistencies noted. Penalties for non-compliance scored 3.59 (SD = 1.00), highlighting limited enforcement. Rewards/incentives for sustainability showed a Mean of 3.68 (SD = 0.96), while lifecycle compliance tracking had a Mean of 3.66 (SD = 0.97), reflecting moderate implementation.

Descriptive Analysis for Sustainable Information Technology Infrastructure

Respondents were asked to indicate their agreement with statements about the use of IT in sustainable procurement practices and the results are as presented below;-

Table 5: Descriptive Analysis for Sustainable Information Technology Infrastructure

Statement	SA	A	N	D	SD	Mean	Std. Dev.
The organization has adopted an e-procurement system.	36	41	15	7	4	3.91	0.91
Procurement processes are largely automated through IT platforms.	32	39	17	10	5	3.78	0.94
The use of IT in procurement has reduced paper usage and improved environmental efficiency.	34	40	16	9	4	3.87	0.92
Staff are well-trained on the use of sustainable IT systems in procurement.	26	34	23	13	7	3.60	1.00
Green IT practices (e.g., energy-efficient systems, e-invoicing) are encouraged.	29	36	21	12	5	3.70	0.96

The adoption of e-procurement systems had a high mean of 3.91 (SD = 0.91), reflecting widespread implementation. Automation of procurement processes scored 3.78 (SD = 0.94), indicating partial automation. The reduction in paper use had a mean of 3.87 (SD = 0.92), showing positive environmental impact. Training on IT systems scored 3.60 (SD = 1.00), highlighting uneven availability. Encouragement of green IT practices had a mean of 3.70 (SD = 0.96), suggesting room for improvement.

Descriptive Analysis for Performance of State Corporations

Table 6: Descriptive Analysis for Performance of State Corporations

Statement	SA	A	N	D	SD	Mean	Std. Dev.
The organization has recorded noticeable procurement cost savings in recent years.	31	37	20	10	5	3.77	0.95
Most procurement-related projects are completed within the planned timelines.	29	35	22	12	5	3.69	0.97
The organization complies fully with national procurement laws and regulations (i.e., PPADA, 2015).	36	40	14	9	4	3.93	0.89
User departments are satisfied with the procurement function's responsiveness.	28	39	18	13	5	3.72	0.96
Sustainable procurement practices have improved service delivery.	30	36	19	12	6	3.74	0.97

Procurement cost savings had a mean of 3.77 (SD = 0.95), indicating efficiency improvements. Project timeliness scored 3.69 (SD = 0.97), reflecting moderate consistency. Compliance with PPADA (2015) had the highest mean of 3.93 (SD = 0.89), showing strong adherence. User department satisfaction was 3.72 (SD = 0.96), suggesting functional procurement systems. The impact of sustainability on service delivery had a mean of 3.74 (SD = 0.97), highlighting positive outcomes.

Inferential Statistics

The study employed both Pearson correlation analysis and multiple linear regression analysis.

Correlation Analysis

Pearson correlation was conducted to assess the linear association between sustainable procurement practices and performance.

Table 7: Correlation Analysis

Variables	Sustainable Sourcing	Sustainability Evaluation	Contract Management	Sustainable IT Infrastructure	Performance
Sustainable Sourcing	1				
Sustainability Evaluation	.611**	1			
Contract Management	.587**	.603**	1		
Sustainable IT Infrastructure	.541**	.567**	.591**	1	
Performance	.653**	.642**	.624**	.608**	1

Note: Correlation is significant at the 0.01 level (2-tailed)

There are significant positive correlations between sustainable practices and the performance of state corporations. Sustainable sourcing practices ($r = .653$, $p < 0.01$) improve performance through cost savings and compliance. Supplier sustainability evaluation ($r = .642$, $p < 0.01$) enhances performance by reducing procurement fraud and increasing transparency. Sustainable contract management ($r = .624$, $p < 0.01$) boosts performance by ensuring accountability through sustainability clauses. Additionally, sustainable IT infrastructure ($r = .608$, $p < 0.01$) improves procurement efficiency and sustainability, supporting findings by Awuor (2024) and others on the importance of green practices in procurement.

Regression Analysis

Regression analysis was conducted to examine the influence of the four sustainable procurement practices (independent variables) on the performance of state corporations (dependent variable).

Table 8: Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	0.857	0.735	0.723	0.391

Predictors: (Constant), X_1, X_2, X_3, X_4 b. Dependent Variable: Y

R = 0.857: Indicates a very strong positive correlation between the independent variables and performance. $R^2 = 0.735$: Suggests that 73.5% of the variation in performance of state corporations is explained by the combined effect of the four sustainable procurement practices. Adjusted $R^2 = 0.723$: Adjusts for the number of predictors and confirms a high model fit. The remaining 26.5% of the variation may be explained by factors not included in this model. This indicates a robust

predictive model, supporting the assertion by Walker & Brammer (2009) that comprehensive sustainable procurement strategies are strongly linked to performance in public institutions.

ANOVA Results

The ANOVA test assesses whether the regression model as a whole is statistically significant i.e., whether the independent variables, taken together, reliably predict the dependent variable.

Table 9: ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Regression	31.570	5	7.8925	51.65	.000**
Residual (Error)	11.382	98	0.1161		
Total	42.952	103			

Significance level: $p < 0.05$, df = degrees of freedom

Dependent variable: Performance of State Corporations

Predictors: Sustainable Sourcing, Supplier Evaluation, Contract Management, IT Infrastructure

The results of the ANOVA test show that the overall regression model is statistically significant ($F = 51.65$, $p < 0.001$). This means that the combination of sustainable sourcing, supplier evaluation, contract management, and IT infrastructure significantly predicts the performance of state corporations in Kisii County. The independent variables reliably explain the variation in the dependent variable validating the study's conceptual framework and theoretical foundations.

Table 10: Regression Coefficients

Predictor Variable	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t-value	Sig. (p-value)
(Constant)	0.534	0.198	—	2.697	0.008
Sustainable Sourcing Practices	0.301	0.075	0.327	3.843	0.000**
Supplier Sustainability Evaluation	0.266	0.078	0.288	3.410	0.001**
Sustainable Contract Management	0.212	0.082	0.226	2.585	0.011*
Sustainable IT Infrastructure	0.197	0.079	0.208	2.494	0.014*

Note:

*p < 0.05 (significant)

**p < 0.01 (highly significant)

The analysis shows that sustainable procurement practices positively influence performance in state corporations. The constant term (B = 0.534, p = 0.008) suggests a baseline level of performance, even without procurement practices. Sustainable sourcing practices (B = 0.301, p = 0.000) have the strongest impact, with a one-unit increase leading to a 0.301-unit improvement in performance. Supplier sustainability evaluation (B = 0.266, p = 0.001) also significantly boosts performance, with a 0.266-unit increase per unit change in evaluation practices. Sustainable contract management (B = 0.212, p = 0.011) and sustainable IT infrastructure (B = 0.197, p = 0.014) further enhance performance, though to a lesser extent. These findings emphasize the importance of procurement reforms, particularly in sourcing, supplier evaluation, contract management, and IT infrastructure, aligning with previous studies on procurement practices and public sector performance improvements.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The study concludes that sustainable procurement practices significantly enhance the performance of state corporations in Kisii County. Key findings indicate that sustainable sourcing practices, such as prioritizing suppliers who adhere to environmental standards and ethical sourcing policies, lead to improved operational outcomes. Supplier sustainability evaluation through audits and scorecards ensures accountability, reduces risks, and strengthens procurement cycles. Sustainable contract management, including the integration of sustainability clauses and regular monitoring, contributes to better oversight, timely deliveries, and reduced disputes, fostering long-term value. Additionally, the adoption of sustainable IT infrastructure, such as e-procurement platforms, boosts operational efficiency, reduces paperwork, and improves procurement transparency. Overall, integrating sustainability into procurement processes fosters improved performance and supports organizational goals.

Recommendations

The study recommends that state corporations adopt and enforce sustainable sourcing policies, focusing on environmentally friendly materials, ethical labor practices, and local supplier engagement. Procurement officers should be trained to integrate environmental and social factors into supplier selection, using frameworks like ISO 20400. Supplier sustainability evaluation tools, such as scorecards and CSR audits, should be developed and used in procurement decisions. The Public Procurement Regulatory Authority (PPRA) should establish sustainability thresholds for tender evaluations. Clear sustainability clauses should be incorporated into contracts, with regular monitoring to ensure compliance. Additionally, state corporations should prioritize e-procurement systems and green IT practices to enhance procurement performance while minimizing

environmental impact. Lastly, the Public Procurement and Asset Disposal Act (PPADA) should be reviewed to include stronger sustainability requirements, and regulators should conduct periodic audits to ensure compliance with sustainable procurement standards.

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