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Governance and Leadership as Moderators of the Relationship Between Strategic Procurement and Service Delivery in Public Hospitals Kisii County, Kenya

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Abstract

Background: Efficient strategic procurement is vital for timely healthcare service delivery, especially in public hospitals facing supply chain constraints. In Kenya, procurement inefficiencies persist despite regulatory reforms, often undermining Universal Health Coverage (UHC) goals.This study examined how governance and leadership moderate the relationship between strategic procurement practices—specifically strategic sourcing, e-procurement, and supplier relationship management—and service delivery in Level 4 and 5 hospitals in Kisii County. Methods: A descriptive cross-sectional survey design was employed. Using stratified and purposive sampling, 267 hospital staff were selected from five public hospitals. Data were collected via semi-structured questionnaires and analyzed using descriptive statistics, Pearson correlation, and hierarchical regression to test moderating effects. Results: Strategic sourcing ($r = 0.575$, $\beta = 0.357$, $p < 0.001$) and supplier relationship management ($r = 0.598$, $\beta = 0.217$, $p < 0.001$) were significantly associated with improved service delivery. E-procurement had a significant correlation ($r = 0.653$) but was not significant in the combined regression model ($\beta = 0.057$, $p = 0.159$). Governance and leadership significantly moderated the effects of strategic sourcing ($\beta = 0.072$, $p < 0.001$) and supplier relationship management ($\beta = 0.025$, $p = 0.015$), but not e-procurement. Conclusion: Strategic sourcing and robust supplier engagement are critical to enhancing service delivery in public hospitals. Strong governance and leadership amplify the impact of these practices. Strengthening institutional governance and investing in supplier partnerships are recommended to improve healthcare service delivery.

Keywords: Strategic Procurement, Service Delivery, Public Hospitals, Governance, Kenya, E-procurement, Supplier Relationship Management

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Introduction

Public procurement accounts for a substantial share of national expenditure, representing approximately 12% of GDP in OECD countries and nearly 30% in developing economies (OECD, 2019). Globally, over $9.5 trillion is spent annually on procurement, with significant investments directed toward the health sector; for instance, the World Bank allocated over $4 billion in 2021 to support COVID-19 vaccine procurement across 51 low- and middle-income countries (World Bank, 2021). Health spending has steadily increased, reaching $8.5 trillion or 9.8% of global GDP in 2019 (DFID, 2019; WHO, 2020).

Despite these investments, access to essential medicines in sub-Saharan Africa remains limited due to persistent stock-outs and overreliance on out-of-pocket expenditure, particularly in private facilities (Mackintosh et al., 2018). In Kenya, the scarcity of essential drugs has been linked to patients resorting to unlicensed outlets, raising the risk of consuming substandard and falsified medicines (Toroitich et al., 2022). Weak procurement practices, financing constraints, and fragmented supply chains further exacerbate the disparity in drug availability between public and private providers (Yenet et al., 2023; WHO, 2010; United Nations, 2012).

Strategic procurement practices—which emphasize long-term value over transactional efficiencies—have been shown to enhance healthcare delivery when well-aligned with institutional goals (Swinder & Sheshadri, 2011; Hong & Kwon, 2012). However, studies from South Africa and Malawi reveal that procurement inefficiencies—such as long lead times, poor supplier management, and tendering delays—contribute to recurrent drug shortages and poor service delivery outcomes (Modisakeng, 2020; Kanyoma & Khomba, 2013).

Quality service delivery depends on timely access to essential drugs, adequate staffing, and robust procurement systems (WHO, 2010; Mackintosh et al., 2018). In many African hospitals, chronic stock-outs, understaffing, and inadequate infrastructure undermine patient satisfaction and public trust (Yenet et al., 2023; Modisakeng et al., 2020). Strengthening procurement systems, particularly through strategic sourcing, e-procurement technologies, and supplier relationship management, is therefore essential for improving efficiency and responsiveness in service delivery (Kanyoma & Khomba, 2013; Ramachandran, 2018).

In Kenya, the Public Procurement and Asset Disposal Act (2015) seeks to improve transparency and accountability in procurement through regulatory oversight mechanisms such as the Public Procurement Regulatory Authority (PPRA) and the Kenya Medical Supplies Authority (KEMSA) (PPRA, 2020; KEMSA, 2020). However, persistent resource constraints and administrative inefficiencies continue to affect procurement outcomes, particularly in county-level hospitals (Mbiu, 2016).

Kisii County is a case in point, with a diverse network of public health facilities—including 14 hospitals and 84 dispensaries—facing recurring procurement-related service bottlenecks (Kisii.go.ke, 2020). Kisii Teaching and Referral Hospital (KTRH), the county's flagship facility, grapples with long procurement lead times, limited automation, and poorly trained procurement staff (Magak & Muturi, 2016; Okong'o & Muturi, 2017). These issues result in frequent stock-outs, affecting the timeliness and quality of patient care (Nyakerario & Nyangweso, 2016).

Modern procurement practices such as strategic sourcing aim to consolidate purchasing power and forge long-term partnerships for better cost-effectiveness (Ramachandran, 2018). E-procurement systems promote transparency and efficiency through digitized processes (Mackay & Cuomo, 2020), while effective supplier relationship management fosters collaboration, information sharing, and responsiveness (Ng'ang'a, 2014; Shonhe, 2017). However, the effectiveness of these strategies often depends on governance and leadership, which moderate their impact on health outcomes (Lai, 2013; Yadav, 2014).

Therefore, this study seeks to assess how governance and leadership influence the relationship between strategic procurement practices and service delivery in Level 4 and 5 hospitals in Kisii County.

Methods

Design and Setting

A descriptive cross-sectional design was employed in Level 4 and 5 public hospitals in Kisii County.This design allowed the assessment of governance and leadership in relation to procurement practices across Level 4 and 5 hospitals in Kisii County. A **mixed-methods approach** was used, incorporating both quantitative (structured questionnaires) and qualitative (interviews and observations) data to enhance the robustness and depth of the findings.

The research was conducted in **Kisii County, Kenya**, focusing on public Level 4 and 5 hospitals. These facilities serve a high-density population of over 1.2 million people and face considerable procurement and service delivery challenges, making them a critical area for evaluating healthcare governance and procurement effectiveness.

Sample and Sampling

The study targeted a total population of **336 hospital staff** working in Level 4 and 5 public hospitals in Kisii County, including **hospital administrators, departmental heads, procurement officers, and section heads**. These staff members were selected based on their direct involvement in procurement processes such as planning, specification development, evaluation, and supervision of service delivery. Their critical roles in both strategic procurement and operational decision-making made them ideal respondents for the study. A total sample of **267 respondents** was drawn using a combination of **purposive and stratified random sampling techniques**. Specifically, **purposive sampling** was used to select all 11 hospital administrators due to their strategic leadership roles in procurement and health service management. The remaining categories—departmental heads, procurement officers, and section heads—were sampled using **stratified random sampling**, which allowed proportional representation of each stratum and minimized sampling bias.

$n = N/ (1 + N (e)^2)$

n = the sample size

N = the population size

e = the acceptable sampling error at 95% *confidence level =0.05*

Since the researcher purposively selected all 11 administrators the Yamane formula was applied to the remaining number of the population. N= 336-11=325; 325 staff from the remaining 3 departments was considered.

$n = 325 / (1 + 325 (0.05)^2)$

$n = 179$

To provide 30% for non-respondents;

$1 - 0.3 = 0.7$

$n = 179/0.7 = 256.$

The study sample size for the 3 strata is 256 staff.

Sample size per stratum was calculated as population per stratum –N_{ij} divided by 325(population for 3 employee groups) multiplied by 256 (study sample size) to generate n_{ij} (sample size per stratum);

$n_{ij} = N_{ij} /325 * 256$

i = 1-3 (staff strata; 1- departmental heads, 2-Procurement staff, 3-Section heads)

j = 1-5 (hospital 1-KTRH, 2- Gucha, 3-Nyamache, 4- Nduru, 5- Keumbu).

The total study sample size is the 11 hospital administrators that were purposively selected added to 256 being the sample size of the remaining three strata group of staff (departmental heads, procurement staff and section heads) which totals 267 sample of employees.

Data Collection and Analysis:

Primary data were collected using a **structured questionnaire** designed to capture both demographic information and responses related to strategic procurement practices, governance, and service delivery. The questionnaire consisted of closed-ended items rated on a **5-point Likert scale**, ranging from "Strongly Disagree" to "Strongly Agree," to allow for nuanced measurement of attitudes, perceptions, and experiences among the respondents. This instrument was chosen for its ability to efficiently gather standardized data across a large sample while ensuring respondent anonymity and ease of completion. To ensure the reliability of the tool, a **pilot study** was conducted at Kisii County Hospital involving 10% of the sample size, after which necessary refinements were made to improve clarity and relevance. The internal consistency of the questionnaire was assessed using **Cronbach's alpha**, yielding a high reliability coefficient of **0.89**, which indicates excellent internal consistency and suitability for social science research.

Data analysis was conducted using **SPSS**, employing both descriptive and inferential statistical techniques to examine the relationships among key study variables. **Descriptive statistics**, including means, standard deviations, frequencies, and percentages, were used to summarize the demographic characteristics of respondents and to provide an overview of responses to the main study constructs. **Inferential analysis** involved the use of **Pearson correlation** to assess the strength and direction of associations between strategic procurement practices and service delivery. To test the predictive relationships and determine the influence of individual variables, **multiple linear regression analysis** was conducted. Furthermore, **hierarchical regression analysis** was applied to examine the **moderating effect of governance and leadership** on the relationship between procurement practices and service delivery. Throughout the research process, ethical standards were strictly observed. Informed consent was obtained from all participants, data confidentiality and anonymity were maintained, and official approvals were secured from relevant institutional and county health authorities prior to data collection.

Results

Table 1:Background characteristics of the Respondents

Name of Facility	Percentage (%)
Kisii Teaching and Referral Hospital	49.28%
Nduru Subcounty Hospital	9.14%
Nyamache Subcounty Hospital	19.35%
Gucha Sub County Hospital	10.74%
Keumbu Subcounty Hospital	11.49%
Designation	Percentage (%)
Procurement staff	76.56%
Departmental head	13.88%
Hospital administrator	9.57%
Education Level	
Bachelor Degree	77.85%
Masters Degree	17.37%
Option 1college/ University Diploma	4.78%
Years Worked	Percentage (%)
4 – 6 years	28.71%
1 – 3 years	28.23%
More than 9 years	23.92%
7 – 9 years	14.35%
Less than 1 year	4.78%

The background characteristics of the respondents in Table 1 reveal that nearly half (49.28%) were drawn from **Kisii Teaching and Referral Hospital**, while **Nyamache Subcounty Hospital** contributed 19.35%, followed by **Keumbu** (11.49%), **Gucha** (10.74%), and **Nduru Subcounty Hospital** (9.14%). In terms of designation, a majority of respondents (76.56%) were **procurement staff**, while **departmental heads** and **hospital administrators** constituted 13.88% and 9.57% respectively. Regarding education level, **77.85%** held **Bachelor's degrees**, **17.37%** had **Master's degrees**, and **4.78%** possessed **diplomas**. In terms of work experience, most respondents had worked for **1–6 years** (56.94%), with 28.71% having **4–6 years** and 28.23% having **1–3 years** of experience. Additionally, 23.92% had **more than 9 years**, 14.35% had **7–9 years**, and a

small proportion (4.78%) had **less than one year** of work experience. This distribution suggests that the study sample was well-represented across facilities and roles, with a highly educated and experienced workforce.

	Strategic Procurement Sourcing	SA	A	N	D	SD
1	Single sourcing strategy has influenced availability of adequate drugs for quality health care services	50 (23.92%)	70 (33.49%)	39 (18.66%)	50 (23.92%)	0 (0.0%)
2	Single sourcing strategy helps in emergency delivery of medical suppliers whenever quick response is required to enhance health care services.	89 (42.58%)	90 (43.06%)	10 (4.78%)	10 (4.78%)	10 (4.78%)
3	Multi-sourcing strategy provides a variety of choice of medical supplies for various needs thus reducing a dependency and risk in health care services.	129 (61.72%)	60 (28.71%)	20 (9.57%)	0 (0.0%)	0 (0.0%)
4	Multi sourcing strategy increases competition among supplies leading to better quality of service	100 (47.85%)	99 (47.37%)	10 (4.78%)	0 (0.0%)	0 (0.0%)
5	Outsourcing strategy increases focus on core competence to enhance quality health care service.	79 (37.8%)	70 (33.49%)	50 (23.92%)	0 (0.0%)	0 (0.0%)
6	Outsourcing strategy enhance development of strategic partnership to grow the quality of health care services.	79 (37.8%)	110 (52.63%)	10 (4.78%)	0 (0.0%)	0 (0.0%)
	E-Procurement					
1	ICT infrastructure has enabled efficiency of paperless communication to enhance healthcare services	109 (52.15%)	80 (38.28%)	0 (0.0%)	10 (4.78%)	0 (0.0%)
2	ICT infrastructure enable management of stock levels that reduce stock outs by enhancing timely procurement	89 (42.58%)	90 (43.06%)	20 (9.57%)	0 (0.0%)	0 (0.0%)
3	E-procurement procedures (e-tendering, e-sourcing, e-payment) enhance timely purchases and availability of medical supplies	40 (19.14%)	89 (42.58%)	50 (23.92%)	10 (4.78%)	0 (0.0%)
4	The Hospital E-procurement system is well integrated with supplies to enhance response on need basis.	60 (28.71%)	59 (28.23%)	50 (23.92%)	30 (14.35%)	0 (0.0%)
5	ICT knowledge/skills among hospitals staff enhance information sharing on procurement needs thus ensuring timely purchases	89 (42.58%)	60 (28.71%)	40 (19.14%)	10 (4.78%)	0 (0.0%)
6	Technological knowledge enhance the efficiency of access and distribution of medical supplies.	99 (47.37%)	70 (33.49%)	20 (9.57%)	0 (0.0%)	10 (4.78%)
.	Supplier Relationship Management					

1	Supplier contract management procedure have enhanced timely deliveries of medical supplies	90 (43.06%)	89 (42.58%)	20 (9.57%)	0 (0.0%)	0 (0.0%)
2	Supplier contract management improves implementation and monitoring of medical procurement contracts.	110 (52.63%)	79 (37.8%)	20 (9.57%)	0 (0.0%)	0 (0.0%)
3	Frequent supplier development through seminars and knowledge sharing has enhanced innovation of medical supplies	79 (37.8%)	120 (57.42%)	0 (0.0%)	10 (4.78%)	0 (0.0%)
4	Supplier development mitigate the gap between the current need and change in technology of medical supplies.	70 (33.49%)	129 (61.72%)	10 (4.78%)	0 (0.0%)	0 (0.0%)
5	Supplier collaboration increases transparency and coordination leading to faster response to medical supply need.	49 (23.44%)	110 (52.63%)	30 (14.35%)	10 (4.78%)	10 (4.78%)
6	Supplier collaboration improves faster response to changing market conditions for medical supplies.	79 (37.8%)	90 (43.06%)	30 (14.35%)	0 (0.0%)	0 (0.0%)
	Service Delivery	1 (SA)	2 (A)	3 (N)	4 (D)	5 (SD)
1	Availability of adequate drugs and medical supplies has improved.	79 (37.8%)	90 (43.06%)	31 (14.83%)	0 (0.0%)	0 (0.0%)
2	Procurement sourcing strategy affects availability of medical supplies.	80 (38.28%)	99 (47.37%)	20 (9.57%)	0 (0.0%)	0 (0.0%)
3	Quality of health care service delivery has reduced the number of deaths	119 (56.94%)	80 (38.28%)	10 (4.78%)	0 (0.0%)	0 (0.0%)
4	High quality medical supplies improves patient outcomes	60 (28.71%)	89 (42.58%)	60 (28.71%)	0 (0.0%)	0 (0.0%)
5	Delivery lead time increases stock out and low patient response	40 (19.14%)	89 (42.58%)	40 (19.14%)	30 (14.35%)	10 (4.78%)
6	Timely health care service delivery has improved	40 (19.14%)	129 (61.72%)	20 (9.57%)	20 (9.57%)	0 (0.0%)

The findings in table 2 show varied perceptions toward strategic procurement sourcing practices among healthcare staff. In terms of single sourcing, about 57% of respondents (23.92% strongly agree, 33.49% agree) affirmed that it has positively influenced the availability of adequate drugs for quality health care, although 23.92% disagreed and 18.66% remained neutral—indicating a divided view on its effectiveness. Notably, 85.64% of respondents (42.58% strongly agree, 43.06% agree) supported its role in facilitating emergency delivery of medical supplies, which is essential in urgent care scenarios. In contrast, multi-sourcing strategies received overwhelming support, with 90.43% agreeing that it reduces dependency and risk by offering a broader selection of medical supplies. Similarly, a combined 95.22% agreed or strongly agreed that multi-sourcing increases supplier competition, thereby enhancing service quality. As for outsourcing strategies, about 71.29% agreed that it allows hospitals to concentrate on core competencies, with another 23.92% remaining neutral. The

strategic importance of outsourcing in fostering partnerships was widely recognized, as 90.43% agreed that it enhances quality of health services through collaboration.

The results highlight strong endorsement of ICT infrastructure and e-procurement systems in enhancing procurement efficiency. Over 90% of respondents agreed that ICT has improved paperless communication and the management of stock levels, both critical in preventing stock-outs and delays. E-procurement systems such as e-tendering, e-sourcing, and e-payment were recognized by 61.72% (19.14% strongly agree, 42.58% agree) as facilitating timely purchases and availability of medical supplies, although 23.92% remained neutral—indicating room for optimization. The integration of hospital e-procurement systems with supplier systems was acknowledged by 56.94% as supportive of need-based responses, though nearly a quarter were neutral and 14.35% disagreed. Respondents also emphasized the role of ICT knowledge in enhancing procurement communication (71.29% agreed) and the broader benefits of technological knowledge in ensuring efficient access and distribution of medical supplies (80.86% agreed).

The data reflect strong support for effective supplier management practices. A combined 85.64% of respondents affirmed that supplier contract management enhances timely deliveries, and 90.43% recognized its role in improving contract monitoring and implementation. Frequent supplier development through training and knowledge sharing was highly valued, with 95.22% acknowledging its contribution to innovation in medical supplies. Similarly, 95.21% agreed that supplier development helps bridge the gap between healthcare needs and technological changes. On supplier collaboration, 76.07% agreed it improves transparency and responsiveness to supply needs, although a small fraction (9.56%) disagreed. Moreover, 80.86% agreed that collaboration with suppliers enables faster adjustment to shifting market conditions, showing the importance of strong relationships for procurement adaptability and resilience.Service Delivery

Overall, respondents expressed high satisfaction with the outcomes of procurement practices on service delivery. About 80.86% of participants agreed that drug and medical supply availability had improved, supporting better health outcomes. An even higher proportion (85.65%) felt that procurement strategies directly influenced supply availability, while 95.22% agreed that improved healthcare service quality had contributed to a reduction in mortality. However, responses were more varied on the role of high-quality supplies in patient outcomes, with 28.71% strongly agreeing and another 28.71% remaining neutral—suggesting differing perceptions on clinical impact. Concerning delivery lead times, opinions were more split; while 61.72% agreed that delays can increase stock-outs and lower patient responsiveness, 19.14% were neutral and 19.13% disagreed, indicating the need for further investigation. Lastly, timely healthcare delivery was positively rated, with 80.86% acknowledging improvements, although 9.57% were neutral and another 9.57% disagreed.

Table3: Correlation table

Performance Outcomes	Service Delivery	Supplier Relationship Management
Pearson Correlation	1	0.598
Sig. (2-tailed)		0.000
N	209	209
Performance Outcomes	Service Delivery	E-Procurement
Pearson Correlation	1	0.653
Sig. (2-tailed)		0.000
N	209	209
Performance Outcomes	Service Delivery	Strategic Sourcing
Pearson Correlation	1	0.575
Sig. (2-tailed)		0.0
N	209	209.0

The results from the correlation analysis (Table 3) demonstrate significant positive relationships between strategic procurement practices and performance outcomes in public hospitals. The strongest association was observed between **e-procurement and performance outcomes**, with a **Pearson correlation coefficient of 0.653 ($p < 0.001$)**, indicating a strong and statistically significant relationship. This suggests that improvements in e-procurement systems—such as ICT infrastructure, e-tendering, and digital stock management—are strongly linked to better service performance. Additionally, **supplier relationship management** showed a moderately strong correlation with performance outcomes (**$r = 0.598$, $p < 0.001$**), implying that practices like contract monitoring, supplier development, and collaboration contribute significantly to hospital efficiency and responsiveness. Similarly, **strategic sourcing** practices—such as multi-sourcing and outsourcing—also demonstrated a significant positive correlation with performance outcomes (**$r = 0.575$, $p < 0.001$**), although slightly lower than the other two constructs. Collectively, these findings confirm that enhancing strategic procurement components is associated with improved service delivery and operational effectiveness in healthcare settings.

Table 4 :Multiple Regression Summary (Model 1)

Predictor	Coefficient (β)	p-value
SPS_mean	0.357	< 0.001
EP_mean	0.057	0.159
SRM_mean	0.217	< 0.001

$R^2 = 0.387$, Adjusted $R^2 = 0.377$

The multiple regression analysis was conducted to assess the combined impact of three procurement strategies Strategic Procurement Sourcing (SPS), E-Procurement (EP), and Supplier Relationship Management (SRM) on service delivery in Level 4 and 5 public hospitals in Kisii County. The results revealed that the overall model explained approximately 38.7% of the variation in service delivery ($R^2 = 0.387$), with an adjusted R^2 of 0.377. This indicates a moderately strong model fit, suggesting that the combined effects of the three procurement strategies meaningfully influence healthcare service delivery outcomes.

Within the model, strategic procurement sourcing (SPS_mean) remained a significant predictor, with a regression coefficient (β) of 0.357 and a p-value of less than 0.001. This confirms that SPS has a consistently strong and positive effect on service delivery, even after controlling for other procurement dimensions. Likewise, supplier relationship management (SRM_mean) also retained its significance in the combined model ($\beta = 0.217$, $p < 0.001$), reinforcing the notion that strong supplier engagement and coordination mechanisms enhance healthcare outcomes.

e-procurement (EP_mean), which was found to be statistically significant in its simple linear regression analysis, did not remain significant in the multiple regression model ($\beta = 0.057$, $p = 0.159$). This shift can be attributed to the shared variance between EP and the other predictors. In simple linear regression, EP was examined in isolation, where its positive effect on service delivery was apparent. However, in the multiple regression model, once SPS and SRM were included—both of which have stronger direct associations with service delivery—the unique contribution of EP diminished.

This suggests that the apparent influence of e-procurement on service delivery may be mediated through or confounded by strategic sourcing and supplier relationship practices. Further, the study assessed the moderating effect of governance and leadership on service delivery and the results are shown in table 5 bellow

Table 5: Moderation Model Summary (Model 2)

Interaction Term	Coefficient	p-value
SPS × GP	0.072	< 0.001
EP × GP	-0.008	0.348
SRM × GP	0.025	0.015

$R^2 = 0.534$: Model explains 53.4% of the variation in service delivery — stronger than Model 1.

In this analysis, a moderation model was used to evaluate whether governance and leadership (GP) influence the strength of the relationship between strategic procurement practices and service delivery. The goal was to determine if the institutional and regulatory environment in public hospitals amplifies or diminishes the effectiveness of different procurement strategies.

The findings revealed that the model explained 53.4% of the variance in service delivery ($R^2 = 0.534$), representing a substantial improvement from the previous multiple regression model (Model 1), which had an R^2 of 0.387. This indicates that governance and leadership factors contribute significantly to the explanatory power of the model, reinforcing their critical role in public procurement and healthcare delivery systems.

Analysis of interaction terms showed that the interaction between strategic procurement sourcing and governance (SPS × GP) was statistically significant ($\beta = 0.072$, $p < 0.001$). This suggests that effective governance mechanisms, such as oversight, transparency, and policy enforcement, strengthen the positive influence of strategic sourcing on service delivery. In environments with strong governance structures, the impact of sourcing strategies is amplified, resulting in more consistent and improved access to medical supplies and services.

On the other hand, the interaction between e-procurement and governance (EP × GP) was not statistically significant ($\beta = -0.008$, $p = 0.348$). This finding implies that governance and leadership structures do not significantly alter the relationship between e-procurement practices and service delivery. The utility of digital procurement tools may be more dependent on infrastructure or technical capacity than on governance oversight alone.

Additionally, the interaction between supplier relationship management and governance (SRM × GP) showed a significant positive effect ($\beta = 0.025$, $p = 0.015$). This highlights that effective governance practices also enhance the benefits derived from strong supplier partnerships. For instance, leadership that promotes ethical standards, accountability, and consistent monitoring is likely to support transparent and responsive supplier engagement, leading to better outcomes in healthcare procurement.

4. Discussion

The findings of this study underscore the critical role of strategic procurement practices in enhancing service delivery in public health facilities. The correlation and regression results demonstrated significant and positive associations between strategic procurement sourcing, supplier relationship management, and service delivery outcomes. These findings align with prior research by **Thai (2001)** and **Ambe and Badenhorst-Weiss (2011)**, who emphasized that strategic sourcing and supplier engagement are pivotal in improving public procurement performance and ensuring consistent delivery of quality health services.

Strategic procurement sourcing emerged as the most significant predictor of service delivery, both in the simple and multiple regression models. This result corroborates **Schiele (2007)**, who argued that strategic sourcing not only ensures better quality and pricing through competitive procurement but also strengthens organizational agility in responding to fluctuating supply needs. Similarly, the strong association between supplier relationship management and service delivery confirms the work of **Cousins et al. (2008)**, who highlighted that trust-based partnerships and ongoing supplier development lead to more reliable and innovative supply chains, especially in complex sectors like healthcare.

Interestingly, while e-procurement was initially significant in the simple regression, it lost significance in the multiple regression model. This suggests that its effect may be indirect or intertwined with other procurement dimensions. A similar observation was made by **Neupane et al. (2012)**, who noted that e-procurement's impact is often contingent on organizational readiness and infrastructure capacity. Moreover, when governance and leadership were introduced as moderators, the explanatory power of the model improved markedly ($R^2 = 0.534$), echoing findings by **OECD (2016)** and **Hunja (2003)**, which stress the importance of strong institutional frameworks in enhancing procurement efficiency.

The moderation analysis further revealed that governance significantly amplified the effects of strategic sourcing and supplier relationship management, but not e-procurement. This implies that institutional oversight and leadership integrity are especially critical in traditional procurement dimensions. Similar insights were reported by **Mutava and Okello (2017)** in their study on procurement reforms in Kenya, highlighting that governance failures—such as poor accountability—often undermine public service delivery regardless of digital system adoption.

Conclusion

This study highlights that strategic procurement practices—particularly strategic sourcing and supplier relationship management—play a vital role in enhancing service delivery in Level 4 and 5 public hospitals in Kisii County. The findings demonstrate that while e-procurement contributes positively in isolation, its effectiveness is less pronounced when other procurement dimensions are considered concurrently, suggesting the need for better integration and capacity support. Moreover, the moderating role of governance and leadership underscores the importance of strong institutional oversight in amplifying the impact of procurement strategies on health outcomes. Strengthening procurement systems, therefore, requires not only adopting best practices in sourcing and supplier engagement but also ensuring ethical, transparent, and accountable leadership to support sustainable healthcare delivery improvements.

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