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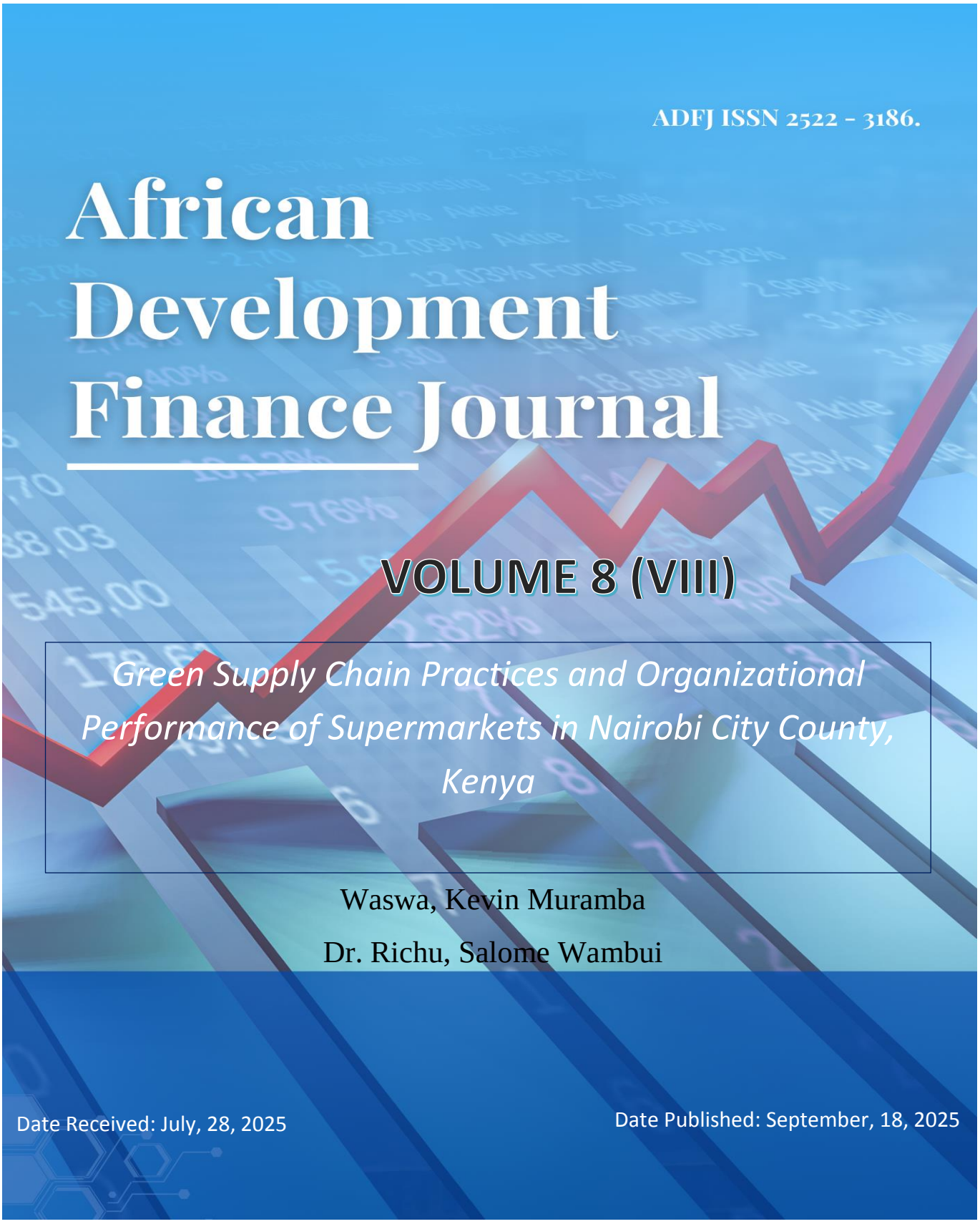

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Green Supply Chain Practices and Organizational Performance of Supermarkets in Nairobi City County, Kenya

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Abstract

Growing concerns over the long-term environmental effects of resource extraction, value addition, and distribution have driven organizations to adopt Green Supply Chain Practices (GSCPs). Beyond reflecting environmental responsibility, GSCPs may influence organizational performance outcomes. This study examined the relationship between GSCPs, green purchasing, green packaging, green warehousing, and reverse logistics, and organizational performance of supermarkets in Nairobi City County, Kenya. Further, the study sort to find out the level of adoption of these GSCPs. Descriptive research design was employed, targeting a population of 64 supermarkets. Based on the structure of supermarkets and study variables, five respondents were picked from each, giving 320 respondents. Primary data were collected using structured questionnaires, analyzed using descriptive and inferential statistics. Response rate of 56.25% was achieved. The results revealed a positive and statistically significant relationship between GSCPs and organizational performance. The GSCPs collectively accounted for 49.1% of the variation in organizational performance ($R^2 = 0.491$). The study recommends supermarkets to implement GSCPs to enhance performance. Green packaging practices should be critically reviewed to prevent potential negative impacts on performance. These findings contribute to literature by empirically establishing the strategic value of GSCPs and providing practical insights for policymakers and retail managers.

Keywords: *Green Supply Chain Practices, Organizational Performance, Supermarkets, Nairobi City County, Kenya*

1. Introduction

In recent years, organizations have increasingly been required by both institutional and market actors to integrate environmental concerns into their operations (Saeed & Kersten, 2019). Regulatory pressures from government agencies and growing consumer activism, such as product boycotts, have compelled firms to adopt sustainable practices across their value chains. These practices not only mitigate adverse environmental impacts but also influence organizational outcomes in both financial and non-financial dimensions (Gitau, Abayo, & Kibuine, 2020). Financial outcomes may include profitability and sales growth, while non-financial outcomes cover aspects such as customer satisfaction, market reputation, and product diversification. Tseng

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et al. (2019) emphasize that sustainability initiatives must be implemented strategically and efficiently to create value without undermining competitiveness. Within this context, Green Supply Chain Practices (GSCPs), encompassing green purchasing, green packaging, green warehousing, and reverse logistics, have emerged as critical mechanisms through which organizations can meet their environmental commitments while simultaneously leveraging them as strategic resources for performance improvement (Zhou, Xu, & Shaikh, 2019). Firms are thus shifting from narrow profit-maximization objectives toward holistic goals that emphasize sustainable value creation (Grainger-Brown & Malekpour, 2019). The GSCPs contribute to sustainable value creation by improving product quality, enhancing resource efficiency, and reducing waste (Khan et al., 2022). Moreover, they strengthen stakeholder relationships, which often translate into improved commercial performance and customer loyalty (Wang, Zhang, & Zhang, 2020). By aligning with market preferences for environmentally friendly products, firms adopting GSCPs gain competitive advantage, improve operational efficiency, and foster long-term growth (Astawa et al., 2021).

Supermarkets face a dynamic and highly competitive retail environment characterized by fluctuating consumer preferences, increased regulatory pressures, and shifting market structures (Stanton & Nandonde, 2022; KIPPRA, 2022; Chao, 2019; Ongaya, 2022). The supermarkets are however strongly preferred for convenience, product availability, service quality, and competitive pricing (Makhitha & Khumalo, 2019). While GSCPs such as green purchasing, green packaging, green warehousing, and reverse logistics have been associated with improved profitability, enhanced service delivery, and reduced waste in various sectors (Suaedi et al., 2023; Arab et al., 2022), their adoption in the supermarket industry has been uneven (Odour, 2019). Studies conducted in global contexts (Qorri et al., 2018), as well as in Kenyan food and beverage processing firms (Bor, 2021) and tea manufacturers (Mugo, 2017), confirm the positive influence of GSCPs on organizational performance. However, evidence specific to Kenya's supermarket sector remains scarce. This is critical since the sector has experienced mixed performance outcomes, with successful entrants like Carrefour contrasting with the collapse of Uchumi, Nakumatt, and Choppies (Watima, 2020). Given supermarkets' central role in Kenya's food and household goods distribution and their vulnerability to both environmental and operational inefficiencies, it is imperative to investigate how GSCPs affect their performance. Against this

background, the study sought to investigate the relationship between GSCPs and organizational performance among supermarkets in Nairobi City County, Kenya.

1.1 Research Problem

The GSCPs represent organizational initiatives within supply chain functions aimed at reducing environmental harm while advancing sustainability (Gonzalez et al., 2022). These practices require firms to reconfigure operations by embedding ecological concerns across product life cycles, including procurement, packaging, warehousing, and reverse logistics (Islam et al., 2017). By addressing sustainability at these critical stages, organizations mitigate ecological risks while simultaneously generating operational efficiencies and long-term economic value (Dubey et al., 2017). Organizational performance, on the other hand, refers to the extent to which firms achieve strategic and operational objectives, often measured through financial indicators such as profitability and cost reductions, as well as non-financial outcomes like customer satisfaction, innovation capacity, and process efficiency (Hassan, 2023; Mukhsin & Suryanto, 2021). Recent evidence suggests that integrating sustainability-oriented practices into supply chains enhances competitiveness by improving efficiency, reducing waste, and strengthening stakeholder relationships (Agyabeng-Mensah et al., 2020; Khan et al., 2022). Consequently, GSCPs are increasingly regarded as strategic resources that not only safeguard the environment but also contribute to improved organizational outcomes. Despite this recognition, empirical findings on the relationship between GSCPs and organizational performance remain fragmented. Many studies have examined GSCPs in manufacturing industries or developed economies (Zhou, Xu & Shaikh, 2019; Tseng et al., 2019), with limited focus on the retail sector in developing countries. Yet, supermarkets represent a critical supply chain node where consumer preferences, regulatory pressures, and environmental concerns converge (Astawa et al., 2021). In Kenya, for instance, supermarkets are under increasing pressure from regulators, consumers, and advocacy groups to adopt sustainable practices. However, the extent to which these practices translate into measurable organizational performance remains underexplored, leading to uncertainty among managers regarding the strategic value of GSCPs. Therefore, this study seeks to address this knowledge gap by investigating the relationship between GSCPs and organizational performance among

supermarkets in Nairobi City County, Kenya. By doing so, the study contributes empirical evidence from an African retail context, expanding the scope of sustainability research beyond manufacturing and developed markets, while providing practical insights into how supermarkets can leverage GSCPs to enhance both environmental stewardship and organizational competitiveness.

1.2 Research Objectives

i. To assess the level of adoption of green supply chain practices among supermarkets in Nairobi City County, Kenya.
ii. To investigate the relationship between green supply chain practices and organizational performance among supermarkets in Nairobi City County, Kenya.

2. Literature Review

This study is anchored in the Resource-Based View (RBV) and Institutional Theory. The RBV, as articulated by Barney (1991) and further developed by Wernerfelt (1984), posits that organizations achieve sustainable competitive advantage by leveraging resources that are valuable, rare, inimitable, and non-substitutable. Within the supermarket context, GSCPs, such as eco-efficient procurement, waste reduction initiatives, and sustainable logistics, can function as such strategic resources, enhancing operational efficiency, brand reputation, and market differentiation (Hart, 1995). Institutional Theory, advanced by Scott (1995) and North (1991), asserts that organizational practices are shaped by institutional pressures arising from both internal and external environments. These include coercive pressures, legal and regulatory requirements; mimetic pressures, imitation of successful competitors; and normative pressures, industry norms and professional standards (DiMaggio & Powell, 2000; Oliver, 1997). While these pressures can impose compliance costs, organizations that effectively navigate and align with them often improve legitimacy, stakeholder trust, and overall performance. Integrating the RBV and Institutional Theory, this study conceptualizes GSCPs as strategic capabilities that not only satisfy institutional demands but also generate competitive advantage and improved performance outcomes in the highly competitive and turbulent Kenyan supermarket sector.

Green supply chain practices which include green purchasing, green packaging, green warehousing and reverse logistics are implemented to minimize environmental impacts while maximizing resources use (Ozaskin & Gorener, 2023). Adaptation of green into organizational practices is motivated by the need for environmental and economic sustainability. Environmental sustainability as explained by Khan, Nafees, Rahman and Saeed (2021) is necessary if human society is to continue to derive its wants and needs from the environment while not outstripping its capacity to regenerate and replenish. For this purpose, organizations have incorporated green thinking into their strategies to accomplish economic goals while paying close regard to environmental concerns (Samad et al., 2021). The logic behind green adaptation in firms is that it facilitates competitiveness while protecting and conserving the environment through which resources and productive activities take place. According to Ricardianto et al. (2021), the installation of GSCPs has been one of the ways green thinking has been established in organizations. Green purchasing is the foremost activity in ensuring that procured inputs are environmentally sustainable and contribute towards organizational objectives. Firmansyah, Qadri and Arfiansyah (2021) argued that due to purchasing activities forming the first part of value chains, its influence extended throughout other stages. The practice is described as applying green thinking in purchasing activities and comprises the selection of materials and items that are environmentally friendly (Chin et al., 2020; Opondi, 2021; Andyani, Triyuni & Puspita 2023; Nekmahmud et al., 2020).

The utilization of packages that can be recycled and reused without causing human or environmental harm in all stages of a product's lifecycle is known as green packaging (Pinto, 2023). Green packaging aims to maintain the integrity of a product by securing it from the entry of foreign materials and from exposing the outer environment to it (Bor, 2021; Sony, 2019). Fundamentally, green packages are identified by their reusability and recyclability attributes (Khan et al., 2022; Abdullah, Mohamad and Thurasamy, 2019). The creation and execution of practices that contribute towards reducing energy and material losses and resource wastage within warehouses is known as green warehousing (Oloruntobi et al., 2023. Green warehousing practices consisted of targeted reduction in space-related costs through the elimination of excess inventory and disposal of scrap materials (Zhou, Xu & Muhammad, 2019; Ibrahim & Fernando, 2023). The backward flow of goods from users to the point of origin is known as reverse logistics and it may

take place at various points of a good's lifecycle (Zouari, 2019). Reversed flow of goods is done for waste management and value replenishment purposes. Reverse logistics frames product value as variable and can be rekindled or brought out if the process is efficient and effective (Lukasik, Kusminska & Olszanska, 2021; Yesim & Yavas, 2023). Information sharing is an essential practice in reverse logistics as it ensures the reverse logistics process is not hampered by poor communication (Ribeiro, De Oliveira & Aprigliano, 2020).

Organizations allocate resources to develop and implement systems, processes, and practices aimed at creating value. Performance is multidimensional, reflecting financial, customer, internal process, and learning outcomes (Bentes et al., 2012; Kaplan & Norton, 1992). Financial gains may be reflected in profitability, customer satisfaction in delivery efficiency and low product returns, operational efficiency in waste reduction, and learning outcomes in reduced rework costs. The GSCPs have been shown to enhance operational, economic, and environmental performance (Habib et al., 2022). These practices not only attract environmentally conscious customers, boosting sales and market share (Suaedi et al., 2023), but also improve delivery efficiency and reduce product returns (AlBrakat et al., 2023). Moreover, GSCPs contribute to waste minimization (Namagembe et al., 2019) and cost reductions through continuous process improvement (Hidayat et al., 2022).

Previous studies on GSCPs reveal mixed findings and notable gaps. Nderitu (2016) found that reverse logistics, green technology adoption, supplier evaluation, and CSR improved performance in Kenyan manufacturing, though CSR's inclusion may have skewed results. Sahoo and Vijayvargy (2021) reported non-significant effects for green purchasing and internal environment management, with eco-design influencing operations and investment recovery boosting environmental performance, highlighting methodological gaps. Jeruto (2022) linked recycling and reverse logistics to performance but omitted waste minimization. Sang (2022) showed operational gains in Kenyan universities but excluded economic and environmental metrics, while Dido and Shale (2023) confirmed positive effects of green sourcing and marketing in state corporations, differing from the private sector context. Foreign studies, including Soyege et al. (2023) in Nigeria and Altaf et al. (2020) in India, identified varying influential GSCPs but revealed contextual and conceptual gaps.

Additionally, Agyabeng-Mensah et al. (2021) found better results when GSCPs were combined with TQM than JIT, indicating mediating effects, and Liahuka and Noemi (2022) reported improved economic and environmental performance in Sub-Saharan Africa through GSCPs, though their systematic review approach limited empirical depth.

2.1 Conceptual Framework

The study examined the variables outlined in the conceptual model depicted in Figure 1. The independent variables comprised four Green Supply Chain Practices, namely green purchasing, green packaging, green warehousing, and reverse logistics. Organizational performance, the dependent variable, was evaluated using three indicators: profitability measures, service delivery efficiency, and levels of waste reduction.

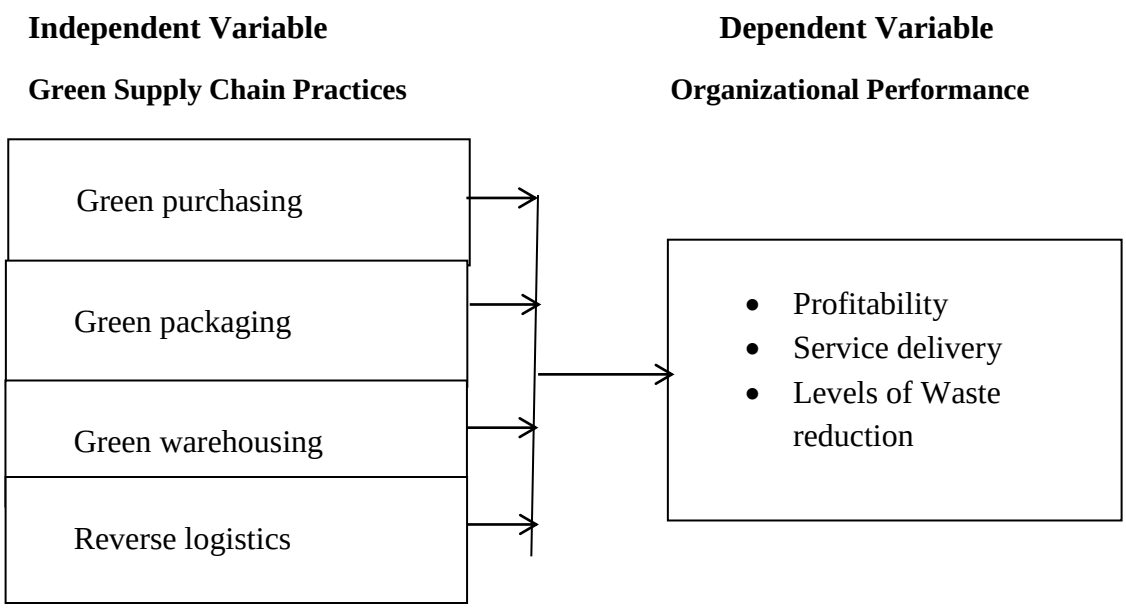

Figure 1: Conceptual Framework

From the conceptual framework, a research hypothesis was developed for the study:

2.2 Research Hypothesis

H_0: There is no significant relationship between green supply chain practices and Organizational performance among supermarkets in Nairobi City County, Kenya.

3 Research Methodology

This study employed a descriptive research design to assess how the GSCPs influence the organizational performance of supermarkets in Nairobi City County. The target population comprised 64 supermarkets listed by the Retail Trade Association of Kenya (2023) and the State Department for Trade (2017), with a census approach adopted due to the small population size. Primary data was collected through structured questionnaires distributed to environmental sustainability, supply chain, warehouse, logistics, and operations managers using the "drop and pick" method, thus targeting 320 respondents. This method allowed sufficient time for completion, with follow-up reminders issued to enhance the response rate. Data was entered, coded, cleaned, and analyzed using SPSS, applying descriptive statistics and inferential statistics, regression analysis at a 5% significance level, to determine the relationship between GSCPs and organizational performance. The study adopted a regression equation of the form:

$y=\alpha+\beta_1x_1+\beta_2x_2+\beta_3x_3+\beta_4x_4+\varepsilon$

Where:

Y= Organizational Performance

X_1= Green purchasing

X_2= Green packaging

X_3= Green warehousing

X_4=Reverse logistics

α= Constant of the model

B_1- β_4= regression coefficients

4 Results and Discussion of the Findings

Out of the 320 questionnaires administered, five per each of the 64 supermarkets in the target population, 180 were duly completed and returned, representing a response rate of 56.25%, which is considered adequate for survey-based research in organizational studies (Babbie, 2021).

4.1 Descriptive Analysis of Green Supply Chain Practices

The study sought to evaluate the utilization of GSCPs by supermarkets in Nairobi City County. This was enabled by a series of questions rating the extent to which GSCPs were implemented by supermarkets. The questions were rated using a 5 point Likert scale where a rating of 1 indicated the practices not being implemented, and a rating of 5 indicated GSCPs being implemented at a very large extent. The study analysed the responses by deriving their means and standard deviation. The overall means and standard deviations are captured in Table 1.

Table 1: Overall Means and Standard Deviations on GSCPs Adoption

S/No.	Green Supply Chain Practice	Overall Mean	Std. Dev.	Ranking
1	Green Purchasing Practices	3.3500	1.0680	4
2	Green Packaging Practices	3.4426	1.1067	2
3	Green Warehousing Practices	3.4361	1.0973	3
4	Reverse Logistics Practices	3.5037	1.0757	1
	OVERALL (composite)	3.4331	1.0869	

The mean scores for the four variables ranged between 3.3500 and 3.5037 on the measurement scale, indicating that respondents generally rated the constructs at a moderately high level. The highest mean (M = 3.5037, SD = 1.0757) suggests relatively stronger agreement or practice in that area, while the lowest mean (M = 3.3500, SD = 1.0680) indicates comparatively lower but still moderate uptake. The standard deviations (SD = 1.0680–1.1067) are fairly consistent across variables, implying moderate variability in responses, which suggests that while there is some divergence of opinion among respondents, perceptions and practices are relatively homogeneous across the supermarkets. The overall mean score, also referred to as a composite, (M = 3.4331) suggests that, on average, the adoption of green supply chain practices among supermarkets in Nairobi City County is moderate to moderately high. The overall standard deviation (SD = 1.0869) indicates moderate variability in responses, implying some differences in the extent of adoption across firms but with a generally consistent application pattern. This aggregated measure provides a baseline for the subsequent regression analysis, which evaluates how variations in GSCP adoption relate to differences in organizational performance.

The rankings of the GSCPs show that the supermarkets in Nairobi City County, Kenya, have embraced to a large extent the reverse logistics practices, followed by green packaging practices,

green warehousing practices, and lastly, the least adopted is the green purchasing practices. Majority of retailers, the supermarkets, and fast moving consumer goods have adopted the sale-or-return policy which confirms why reverse logistics is the ranked as the number one GSCP. The rest of the rankings may be attributed to other issues like costs, environmental concerns, policies and regulations, among others (Ampofo et al., 2021; Ogutu & Awino, 2019; Mafini & Loury-Okoumba, 2018).

4.2 Relationship between Green Supply Chain Practices and Organizational Performance

The study conducted a regression analysis to investigate whether GSCPs and organizational performance shared a significant relationship and to determine the exact nature of the relationship across the various types of GSCPs. The results of the regression analysis are presented in three sections: the Model Summary (Table 2), which outlines the explanatory power of the model; the Analysis of Variance (ANOVA) results (Table 3), which assess the statistical significance of the overall model; and the Coefficient Analysis (Table 4), which details the magnitude and direction of the relationship between the independent and dependent variables.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.700[a]	.491	.479	.42362

a. Predictors: (Constant), Reverse Logistics, Green Purchasing, Green Packaging, Green Warehousing

The model summary indicates a correlation coefficient (R) of 0.700, suggesting a strong positive relationship between the combined GSCPs, reverse logistics, green purchasing, green packaging, and green warehousing, and the organizational performance of the supermarkets. The R Square value of 0.491 implies that approximately 49.1% of the variance in organizational performance is explained by these predictors. Overall, these results suggest that GSCPs are substantial predictors of organizational performance, though other unexamined factors account for the remaining 50.9% of the variance.

Table 3: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.237	4	7.559	42.123	.000[b]
	Residual	31.405	175	.179		
	Total	61.641	179			

a. Dependent Variable: Organizational Performance

b. Predictors: (Constant), Reverse Logistics, Green Purchasing, Green Packaging, Green Warehousing

The Analysis of Variance (ANOVA) results show that the regression model is statistically significant in predicting organizational performance from Reverse Logistics, Green Purchasing, Green Packaging, and Green Warehousing. The regression sum of squares (SS = 30.237) accounts for a substantial portion of the total variability in performance (Total SS = 61.641), while the residual sum of squares (SS = 31.405) represents the unexplained variation. The Mean Square for regression (7.559) divided by the Mean Square for residual (0.179) yields an F-statistic of 42.123, which is highly significant ($p < 0.001$). This confirms that, collectively, the four green supply chain practices significantly improve the explanatory power of the model compared to a model with no predictors.

Table 4: Coefficient Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.929	.212		4.375	.000
	Green purchasing	.317	.060	.353	5.264	.000
	Green packaging	-.024	.065	-.026	-.365	.716
	Green warehousing	.254	.065	.283	3.930	.000
	Reverse Logistics	.221	.062	.247	3.583	.000

a. Dependent Variable: Organizational Performance

The findings from coefficient analysis are outlined in the explanatory equation, of the form:

$$y=\alpha+\beta_1x_1+\beta_2x_2+\beta_3x_3+\beta_4x_4+\varepsilon$$

Organizational Performance= 0.929 + 0.317 Green Purchasing + 0.254 Green Warehousing + 0.221 Reverse Logistics +e

The explanatory model consists of GSCPs found to statistically influence the organizational performance of supermarkets in Nairobi City County. Green purchasing has a positive and statistically significant relationship with the organizational performance of supermarkets in Nairobi City County (β_1=0.317, 0.05>0.000). The implication of the finding is that when green purchasing practices are implemented by a unit, the organizational performance of supermarkets is predicted to increase by 0.317 units. The model outlines green warehousing has a positive and statistically significant relationship with organizational performance (β_3=0.254, 0.05>0.000). The results therefore suggest that when Nairobi City County supermarkets increase green warehousing practices by a unit, their organizational performance is predicted to rise by 0.254 units. The model points out to reverse logistics having a positive and significant relationship with the organizational performance of supermarkets in Nairobi City County (β_4=0.221, 0.05>0.000). The results suggest that a unit increase in the application of reverse logistics by supermarkets in Nairobi City County has a statistically significant influence on their organizational performance equal to 0.221 units. Contrastingly, green packaging's relationship with organizational performance was found to be negative and insignificant suggesting that its influence would have no bearing on supermarkets in Nairobi City County (β2=-0.024, 0.05<0.716).

The findings indicated that GSCPs have a significant relationship with organizational performance. These results are consistent with Sang (2022) whose investigation highlighted their significance in the organizational performance of Universities in Kenya. Further, the findings on the positive and significant relationship of green purchasing and green warehousing are consistent with Soyege, Makinde and Akinlabi (2023) whose findings determined that the practices positively and significantly influenced the performance of FMCPs retailers among Nigerian organizations. However, the study's results regarding the negative and insignificant relationship of green packaging contrasted those determined by Altaf, Ali and Weber (2020) where it emerged eco-packing practices positively and significantly related with the organizational performance of Indian manufacturers. The study found that reverse logistics positively and significantly related

with organizational performance in Nairobi City supermarkets. Similar findings were arrived upon in an analysis conducted by Jeruto (2022) among food and beverage manufacturers in Kenya.

The study hypothesized that there is no significant relationship between Green Supply Chain Practices (GSCPs) and organizational performance among supermarkets in Nairobi City County, Kenya. Based on the empirical findings and preceding discussions, this null hypothesis is rejected. The results provide evidence of a positive and statistically significant association between GSCPs—specifically green purchasing, green packaging, green warehousing, and reverse logistics—and organizational performance, as measured by profitability, service delivery, and waste reduction. These findings suggest that the adoption of GSCPs contributes meaningfully to enhancing performance outcomes within the supermarket sector in Nairobi City County.

5 Conclusions

The adoption ranking of Green Supply Chain Practices (GSCPs) among supermarkets in Nairobi City County, where reverse logistics is most prevalent, followed by green packaging, green warehousing, and lastly green purchasing, appears to be influenced by operational and cost-related factors. Reverse logistics often yields immediate returns through value recovery from unsold or returned goods, lowering waste disposal costs, and enhancing brand image, especially in managing perishable products (Mafini & Loury-Okoumba, 2018). Green packaging follows closely due to consumer demand for sustainable materials and compliance with environmental regulations (Ampofo et al., 2021). Green warehousing is moderately adopted, given the capital investment required for energy-efficient storage systems. Conversely, green purchasing remains the least implemented, possibly due to higher procurement costs and limited availability of environmentally certified suppliers in Kenya (Ogutu & Awino, 2019).

The study hypothesized that there is no significant relationship between Green Supply Chain Practices (GSCPs) and organizational performance among supermarkets in Nairobi City County, Kenya. Based on the empirical findings and preceding discussions, this null hypothesis is rejected. The results provide evidence of a positive and statistically significant association between GSCPs, specifically green purchasing, green packaging, green warehousing, and reverse logistics, and organizational performance, as measured by profitability, service delivery, and waste reduction.

These findings suggest that the adoption of GSCPs contributes meaningfully to enhancing performance outcomes within the supermarket sector in Nairobi City County.

Anchored in the Resource-Based View (RBV), the study's regression results ($R = 0.700$; $R^2 = 0.491$; $p < 0.001$) demonstrate that GSCPs, specifically green purchasing, green packaging, green warehousing, and reverse logistics, serve as strategic resources that are valuable, rare, inimitable, and non-substitutable, thereby enabling supermarkets in Nairobi City County to achieve superior organizational performance. These practices enhance operational efficiency, reduce waste, and improve customer satisfaction, translating into measurable performance gains (Barney, 1991; Njoroge & Muathe, 2020). Concurrently, the findings align with Institutional Theory, as the adoption of GSCPs reflects supermarkets' response to coercive pressures, that is, environmental regulations; normative pressures, that is, industry best practices; and mimetic pressures, that is, competitive imitation (DiMaggio & Powell, 1983; Musau et al., 2017). The rejection of the null hypothesis confirms that GSCP adoption is both a proactive strategic capability and a reactive compliance measure, jointly reinforcing performance outcomes in the Kenyan supermarket sector.

5.1 Recommendations and Further Research

Grounded in the RBV, the study recommends that supermarkets in Nairobi City County enhance adoption of the GSCPs, particularly green purchasing, green warehousing, and reverse logistics, as these can serve as valuable, rare, and inimitable resources that strengthen competitive advantage (Barney, 1991). Efforts should focus on stakeholder awareness, employee training, and investment in sustainable technologies. From an Institutional Theory perspective, supermarkets should also respond to normative and regulatory pressures by aligning operations with environmental standards, thus enhancing legitimacy (DiMaggio & Powell, 1983). Given that green packaging showed no significant effect, its design, recyclability, and biodegradability should be reviewed to prevent performance drawbacks. Further research should examine the influence of GSCPs in other Kenyan counties and across sectors such as manufacturing, logistics, and courier services. Additional studies could explore other GSCPs, such as green design, green distribution, and identify factors accounting for the unexplained 50.9% variance in performance.

Notes:

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Disclosure Statement:

The authors report there are no competing interests to declare.

Data Availability Statement:

The authors confirm that the data supporting the findings of this study are available in the article.

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