SUPPLY CHAIN MANAGEMENT STRATEGIES AND CUSTOMERS' VALUE IN SKYRUN INTERNATIONAL, CROSS RIVER STATE, NIGERIA

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Abstract
This study examined supply chain management strategies and customers' value in Skyrun International, Cross River State. It aimed to determine the relationship between supply chain management strategies – logistics, inventory and supplier relationship management and customers' value in Skyrun International. Cross-sectional survey research design was adopted. Primary data were elicited from 168 executive and managerial personnel at Skyrun International, Calabar using a structured questionnaire. The data obtained were descriptively analyzed and interpreted while hypotheses testing was done using Pearson's product moment correlation. The findings of the study revealed that logistics management, inventory management and supplier relationship management had significant positive relationships with customers' value in Skyrun International, Calabar. Hence, it was recommended that manufacturers of consumer electronics should prioritize logistics management by ensuring efficient procurement, transportation capacity, and warehouse optimization to guarantee uninterrupted processes that create customer value. Additionally, inventory resources should be strategically managed by a designated department to maintain consistent availability of raw materials, work-in-progress accuracy, and finished goods audits, thereby enhancing customer value.

***Key words:** Supply Chain Management, Customer Satisfaction, Logistics Management, Inventory Management, Supplier Relationship Management*

Introduction

In today's highly competitive global marketplace, business organizations are constantly seeking ways to gain a competitive edge in order to sustain optimal operational performance. This has led to the application of several marketing strategies, including supply chain management (SCM) by businesses around the world (Lekan *et al.*, 2017; Kahveci, 2020; Gbadeyan *et al.*, 2017; Mishra & Varshney, 2024). According to Adebiyi *et al.* (2021), supply chain management is a strategic approach that encompasses the planning, design, execution, control, and monitoring of all activities involved in the flow of goods, services, information, and finances from the point of origin to the point of consumption. Its primary objective is to create value for customers

while minimizing costs and maximizing efficiency across the entire supply chain network. In the view of Abd El-Rahman (2019), supply chain management improves customer value by enhancing product quality and consistency. Through rigorous quality control measures at various stages of production and logistics, businesses can ensure that products meet or exceed customer expectations, thereby increasing customers' trust and loyalty. Similarly, an efficiently managed supply chain ensures product availability and accessibility (Njoku & Kalu, 2015; Mishra & Varshney, 2024).

In the light of the projected benefits of supply chain management, manufacturing organizations in Nigeria are integrating several supply chain management strategies into their operations (Abdul *et al.*, 2019). Also, Ayandele and Obialor (2022) maintained that the increasing customer demand for high-quality products and timely delivery have necessitated the implementation of SCM by Nigerian manufacturing firms. As consumer preferences become more sophisticated, these companies strive to focus on delivering products that not only meet high-quality standards but also arrive in a timely manner. Another pivotal factor driving the adoption of SCM by manufacturing firms in Nigeria is the imperative to mitigate operational risks in the country's dynamic environment (Amole *et al.*, 2021). This is because Nigerian manufacturers face a myriad of challenges, ranging from infrastructure deficiencies to political and economic instability. SCM strategies therefore provide a framework for risk mitigation by diversifying suppliers, establishing contingency plans, and creating robust inventory management systems. This helps companies build resilience in the face of unforeseen disruptions, ensuring continuity of operations even in adverse circumstances (Moneke & Echeme, 2016).

Consequently, several supply chain management strategies are being applied by manufacturing firms in Nigeria, but this study centered on logistics, inventory and supplier relationship management. According to Yuniar and Hery (2018), logistics management encompasses the process of planning, coordinating, executing, and controlling the movement and storage of goods, services, information, and productive resources from the point of origin to the point of consumption. Inventory management is the strategic process of overseeing and controlling a company's inventory levels to ensure that a business has the right amount of stock on hand, at the right place, and at the right time to meet customer demand while minimizing costs and maximizing profitability (Kahveci, 2020). Similarly, supplier relationship management encompasses a set of practices, processes, and techniques aimed at developing, maintaining, and optimizing productive and mutually beneficial relationships with key suppliers throughout the entire supplier lifecycle (Sangkakorn, 2019). The purpose of this study therefore is to examine the effect of these supply chain management strategies on customers' value in Skyrun International, Cross River State.

Research rationale

The inefficient management of supply chain components such as logistics, inventory and supplier relationship can have immensely debilitating impacts on the marketing operations of consumer electronics manufacturers. To put it in perspective, inadequate inventory management can cause a shortage or overstocking of products, which can lead to dissatisfied customers, who may seek out alternative products from competitors, resulting in lost sales (Pournader *et al.*, 2020). On the other hand, overstocked products can lead to excess inventory, which can result in increased storage costs, wastage of resources, and reduced cash flow. As a result, consumer electronics manufacturers could experience a significant reduction in profitability, which negatively affects their marketing operations. Similarly, poor logistics management can cause delayed product deliveries, which can lead to unhappy customers and lost sales (El Baz & Ruel, 2021). Additionally, a delayed product delivery can impact manufacturers' reputations, which will affect overall sales and ultimately, their marketing operations. To mitigate these negative outcomes, extant scholars have presented effective supply chain management as a reliable strategy for improving customer satisfaction and overall marketing performance of companies (Munir *et al.*, 2020). This has resulted in increased adoption of supply chain strategies by business organizations in Nigeria, including manufacturers of consumer electronics.

However, the problem of the study is that there appears to be an evidence gap with respect to the causality between supply chain management strategies and customers' value in the context of consumer electronics (see Appendix I). This is because the majority of relevant studies done by Nigerian authors were limited to fast-moving consumer goods (Ogunmola & Akeke, 2018; Ojoajogu *et al.*, 2021); petroleum product marketers (Babatunde *et al.*, 2016); private hospitals (Gbadeyan, 2017); and SMEs (Kareem, 2022). The few relevant studies on the Nigerian manufacturing industry could not specifically demonstrate the influence of supply chain management strategies, such as logistics, inventory and supplier relationship management on customers' value in the context of consumer electronics manufacturers in Nigeria (Adebiyi *et al.*, 2021; Samuel & Izegbua, 2023). This inadequacy of substantive research evidence can hinder manufacturers of consumer electronics from making informed decisions, potentially leading to inefficiencies, reduced competitiveness, and diminished customer satisfaction, ultimately impeding their ability to thrive in the marketplace.

Objectives

Against this backdrop, the study was designed to examine the influence of supply chain

management strategies on customers' value through the following specific objectives:

i. to determine the relationship between logistics management and customers' value in Skyrun International, Calabar.

ii. to assess the relationship between inventory management and customers' value in Skyrun International, Calabar.

iii. to examine the relationship between supplier relationship management and customers' value in Skyrun International, Calabar.

Literature Review

Supply chain management

Supply chain management (SCM) is a strategic approach that encompasses the planning, design, execution, control, and monitoring of all activities involved in the flow of goods, services, information, and finances from the point of origin to the point of consumption (Adebiyi *et al.*, 2021). In the view of Kareem (2022), SCM refers to the effective planning, sourcing, procurement, production, storage, transportation, distribution, and coordination of materials, products, services, information, and finances among all partners involved in the supply chain, from suppliers and manufacturers to distributors and customers, with the ultimate goal of maximizing customer value and organizational profitability while minimizing cost, risk, and waste. Also, El Baz and Ruel (2021) defined SCM as the strategic and operational management of all activities, processes, systems, and relationships involved in the creation and delivery of goods and services, from raw materials to end-users, across multiple organizations, functions, and geographic locations, using data, technology, and best practices to optimize performance, quality, innovation, sustainability, and resilience, while satisfying the changing needs and preferences of customers, stakeholders, and society. Supply chain management is useful in manufacturing organizations because it enables companies to manage and control the flow of materials, products, and information from suppliers to customers in a timely, cost-effective, and efficient manner, while ensuring high quality, reliability, and responsiveness (Sangkakorn, 2019; Mishra & Varshney, 2024). By using advanced technologies, Samuel and Izegbua (2023) maintained that manufacturers can track and monitor every aspect of the supply chain in real-time, from inventory levels and logistics performance to supplier compliance and customer feedback, enabling them to make informed and data-driven decisions, proactively anticipate and mitigate risks, and enhance trust and collaboration with partners and customers.

Customers' Value in the Manufacturing Industry

Customer value is the sum total of benefits that a customer derives from a product or service relative to the cost incurred in acquiring that product or service (Widyastuti & Maulana, 2018). Consumers derive value from manufactured products when these products meet their specific needs and preferences. In another view, Rahman and Tarmidi (2019) defined customer value as the level of satisfaction and benefit that a customer experiences when using a product or service. This value is derived from a combination of factors including the quality of the product, its functionality, environmental compatibility, and the level of customer support provided. Also, Mohamed and Mohd Yusoff (2020) viewed customer value as the overall benefit that a customer perceives when using a product or service relative to other alternatives available in the market. The importance of offering valuable products to consumers in the manufacturing context is that it helps to build brand loyalty, repeat business, positive word-of-mouth recommendations, and a competitive edge over other manufacturers who cannot offer comparable levels of value to their customers (Kwan & Wong, 2018). Similarly, Kibira and Oketcho (2019) added that in the manufacturing industry, offering consistent value to customers is sacrosanct because it leads to enhanced customer satisfaction, increased sales, and positive brand reputation. As a consequence, Ghaleb and Al-Gawarsha (2020) maintained that customer value is a key consideration in the manufacturing context as it helps to improve customer satisfaction, builds brand loyalty, and enhances the company's profitability. To provide value to customers, manufacturers often focus on understanding consumer needs, developing innovative products that offer a unique set of benefits, and providing excellent customer service (Al-Sulaiti & Hussain, 2018).

Logistics Management and Customers' Value

Logistics management encompasses the process of planning, coordinating, executing, and controlling the movement and storage of goods, services, information, and productive resources from the point of origin to the point of consumption (Yuniar & Hery, 2018). According to Ojoajogu *et al.* (2021), logistics management is a critical component of supply chain management that encompasses the planning, implementation, and control of the efficient and effective movement and storage of goods, services, and information from the point of origin to the point of consumption. Furthermore, El-Sheikh *et al.* (2020) maintained that one of the primary roles of logistics management is to ensure that products are delivered to customers in a timely manner. This is achieved through effective transportation management, which involves selecting the most appropriate mode of transportation and optimizing delivery routes. By doing so, logistics managers can reduce lead times and increase on-time delivery rates, which can lead to higher customer satisfaction and loyalty. By working closely with suppliers and customers, logistics managers can better understand their needs and preferences,

which can help to improve product quality and customer satisfaction. The foregoing viewpoint suggests that logistics management as a SCM strategy could significantly improve customers' value towards products or services. This viewpoint is backed by the study of Sangkakorn (2019), which revealed that logistics management had a significant positive effect on customer satisfaction in the manufacturing sector of Thailand. The viewpoint is also supported by the study of Kahveci (2020), which revealed that logistics management had a significant positive impact on customer satisfaction in the Turkish manufacturing industry.

Inventory Management and Customers' Value

Inventory management is the strategic process of overseeing and controlling a company's inventory levels to ensure that a business has the right amount of stock on hand, at the right place, and at the right time to meet customer demand while minimizing costs and maximizing profitability (Kahveci, 2020). In the views of Al-Kahtani and Al-Badi (2019), inventory management is the systematic process of planning, procuring, storing, tracking, and controlling a company's physical goods, raw materials, work-in-progress, and finished products. This entails that efficient inventory management ensures that the right amount of inventory is available at the right time, thereby preventing stockouts that can result in delays in fulfilling customer orders. In addition, effective inventory management can help to minimize the risks of obsolescence and spoilage, freeing up resources that can be invested in improving product quality and enhancing customer value. Similarly, inventory management can help to optimize production processes, resulting in improved product quality and reduced lead times (Al-Shaibani & Al-Mansoori, 2020). By managing inventory levels effectively, businesses can identify opportunities to streamline their production processes and eliminate inefficiencies. This can lead to increased productivity, faster production times, and ultimately, improved customer value through the delivery of high-quality products that meet customer specifications. The foregoing viewpoint suggests that inventory management as a SCM strategy could significantly improve customers' value towards products or services. This viewpoint is backed by the study of Sangkakorn (2019), which revealed that inventory management had a significant positive effect on customer satisfaction in the manufacturing sector of Thailand. The viewpoint is also reinforced by the study of Yuniar and Hery (2018), which revealed that inventory management had a significant positive relationship with customer satisfaction in the Indonesian manufacturing industry.

Supplier Relationship Management and Customers' Value

Supplier relationship management encompasses a set of practices, processes, and techniques aimed at developing, maintaining, and optimizing productive and mutually beneficial relationships with key suppliers throughout the entire supplier lifecycle (Sangkakorn, 2019). In the view of Sangkakorn (2019), supplier relationship management is a strategic and systematic approach that organizations employ to effectively manage their interactions and collaborations with external suppliers and vendors throughout the entire supplier lifecycle. It aims to optimize the value, efficiency, and competitiveness of the supply chain by fostering mutually beneficial relationships with suppliers. As such, through effective supplier relationship management, manufacturing organizations can guarantee the quality of their products, meet customer expectations, and build long-standing customer relationships (Choudhary & Husain, 2019). Also, supplier relationship management helps manufacturing organizations to optimize their supply chain processes, leading to improved customer value (Mota & Farook, 2018). By optimizing supply chain processes and streamlining procurement, a manufacturing organization can deliver efficiently and cost-effectively, thereby creating value for their customers. The foregoing viewpoint suggests that supplier relationship management as a SCM strategy could significantly improve customers' value towards products or services. This viewpoint is backed by the study of Kahveci (2020), which revealed that supplier relationship management had a significant positive impact on customer satisfaction in the Turkish manufacturing industry. The viewpoint is also reinforced by the study of Abd El-Rahman (2019), which revealed that supplier relationship management had a significant positive effect on customer satisfaction in the Egyptian manufacturing sector.

Review of Empirical Studies and Conceptual Model

This unit presents a summary of various studies on the effects of supply chain management (SCM) practices on customer satisfaction and business performance across different industries and countries in a tabular format. Table A includes details on study objectives, methodologies, key findings, and study limitations.

Table 1Summary of empirical studies reviewed

SN	Author/Year	Study Objectives	Methodology	Findings	Study Limitations
1	Ogunmola & Akeke (2018)	To determine the effects of supply chain management practices on customer satisfaction of instant noodles in Ekiti State, Nigeria.	Structured questionnaire; 369 consumers; regression analysis.	Information sharing and communication had significant positive influences on customer satisfaction.	Study restricted to instant noodles in Nigeria; no reference to consumer electronics manufacturers like Skyrun.
2	Ojoajogu et al. (2021)	To examine the role of supply chain management on customer satisfaction towards fast-moving consumer goods in Bauchi State.	Structured questionnaire; 143 customers; descriptive statistics and correlation analysis.	Suppliers' commitment, trust, and conformity had significant relationships with customer satisfaction.	Study restricted to fast-moving consumer goods; no reference to consumer electronics manufacturers like Skyrun.
3	Babatunde et al. (2016)	To determine the influence of supply chain management practices on market performance of major marketers of petroleum products in	Structured questionnaire; 126 respondents; regression and correlation analysis.	Supplier relationship management, customer relationship management, information sharing, and inventory management had significant influences on market	Study restricted to petroleum product marketers; no reference to consumer electronics manufacturers like Skyrun.

SN	Author/Year	Study Objectives	Methodology	Findings	Study Limitations
		Nigeria.		performance.	
4	Adebiyi et al. (2021)	To examine the influence of supply chain management practices on manufacturing firms' performance in Nigeria.	Structured questionnaire; 227 executives; descriptive statistics and SEM.	Strategic supplier partnership, customer relationship management, material flow management, lean production, and participative design/engineering had significant positive influences.	Study does not demonstrate the influence of SCM strategies like logistics and supplier relationship management on customer value in consumer electronics.
5	Gbadeyan (2017)	To assess the effect of supply chain management on performance in selected private hospitals in Ilorin, Nigeria.	Structured questionnaire; 10 private hospitals; structural equation modeling.	SCM has an indirect impact on hospital performance through competitive advantage.	Study restricted to hospital performance; no reference to consumer electronics manufacturers like Skyrun.
6	Kareem (2022)	To investigate the effect of SCM practices implementation on the performance	Structured questionnaire; 450 SMEs in Lagos, Ogun, and Oyo; SEM	Strategic supplier partnership, customer relationship management, and information	Study restricted to SMEs; no reference to consumer electronics manufacturer

SN	Author/Year	Study Objectives	Methodology	Findings	Study Limitations
		of SMEs in Nigeria.	analysis.	sharing had significant positive effects.	s like Skyrun.
7	Samuel & Izegbua (2023)	To explore the influence of SCM practices on operational performance of quoted manufacturing firms in Nigeria.	Structured questionnaire; 370 employees; OLS regression analysis.	Procurement outsourcing and order process management had significant positive influences on operational performance.	Study does not demonstrate the influence of logistics, inventory, and supplier relationship management on customer value.
8	Sangkakorn (2019)	To determine the effect of SCM practices on customer satisfaction in the manufacturing sector of Thailand.	Structured questionnaire; 329 consumers; SEM analysis.	Inventory management, logistics management, and information sharing had significant positive effects.	Study restricted to the Thai manufacturing sector; no reference to consumer electronics manufacturers like Skyrun.
9	Kahveci (2020)	To examine the impact of SCM on customer satisfaction in the Turkish manufacturing industry.	Semi-structured questionnaire; 311 executives; descriptive statistics and OLS regression.	Supplier relationship management and logistics management had significant positive impacts.	Study restricted to Turkish manufacturing; no reference to consumer electronics manufacturer

SN	Author/Year	Study Objectives	Methodology	Findings	Study Limitations
					s like Skyrun.
10	Yuniar & Hery (2018)	To investigate the relationship between SCM practices and customer satisfaction in the Indonesian manufacturing industry.	Structured online questionnaire; 289 consumers; Pearson's correlation analysis.	Inventory management, strategic supplier partnership, and customer relationship management had significant positive relationships.	Study restricted to Indonesian manufacturing; no reference to consumer electronics manufacturers like Skyrun.
11	Abd El-Rahman (2019)	To investigate the effect of SCM practices on customer satisfaction in the Egyptian manufacturing sector.	Online questionnaire; 483 executives and customers; descriptive statistics and simple regression.	Supplier relationship management and customer relationship management had significant positive effects.	Study restricted to Egyptian manufacturing; no reference to consumer electronics manufacturers like Skyrun.

Source: Authors' literature review

Informed by a review of existing relevant literature (Sangkakorn, 2019; Kahveci, 2020; Yuniar & Hery, 2018; Abd El-Rahman, 2019), this study adopted logistics management, inventory management and supplier relationship management as proxies of supply chain management. Whereas, the dependent variable (customer value) is measured through the following proxies: accurate order delivery, timely order delivery, best product performance, and defect-free products (Omoruyi & Mafini, 2016; Adam *et al.*, 2020). In light of existing empirical evidence by previous researchers, this study hypothesized that supply chain management has some sort of relationship with customer value in Skyrun International. To demonstrate this hypothesized relationship, a conceptual model in FIG. 1 was adapted from existing studies to suit the context of the present study.

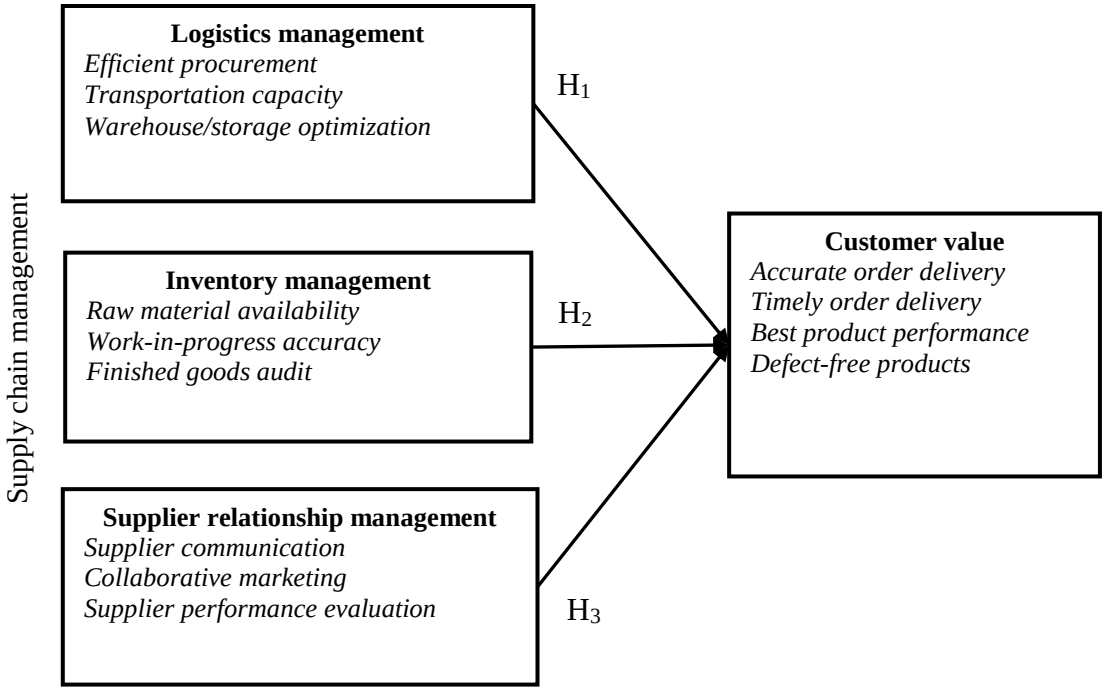

Figure 1: Conceptual model of the study

Source: Parameters of independent variable adapted from Sangkakorn, 2019; Kahveci, 2020; Yuniar & Hery, 2018; Abd El-Rahman, 2019. Parameters of dependent variable adapted from Omoruyi and Mafini (2016); Adam *et al.* (2020).

Theoretical framework

The theoretical underpinning for this study is the resource-based view theory, a managerial framework used to determine the strategic resources with the potential to deliver comparative advantage to a firm. It was propounded by Barney (1991). The resource-based view (RBV) theory is a management framework that focuses on the internal resources and capabilities of an organization as sources of competitive advantage. It posits that a firm's unique combination of tangible and intangible resources, along with its organizational capabilities, determine its ability to achieve sustained competitive advantage and superior performance (Barney, 1991). The RBV theory holds significant relevance in the context of this study, because it emphasizes the role of firm-specific resources and capabilities in achieving sustainable competitive advantage. When applied to the context of consumer electronics manufacturing, it provides a robust foundation for understanding how firms can leverage their unique

resources to enhance supply chain management and create value for customers (Davis & DeWitt, 2021). Specifically, the RBV theory provides a robust conceptual framework for understanding the intricate interplay between supply chain management strategies and customer value in the consumer electronics manufacturing industry. By focusing on the internal resources, capabilities, and their dynamic nature, RBV sheds light on how firms can gain a sustainable competitive advantage in this dynamic industry (Freeman *et al.*, 2021). It emphasizes the importance of distinctive capabilities, which not only bolster a firm's competitive position but also directly influence the value perceived by customers. Overall, RBV serves as a valuable lens through which researchers can analyze and develop insights into the strategic dynamics of consumer electronics manufacturers (McGahan, 2021).

Methodology

This study adopted cross-sectional survey design to guide its conduct. Using this research design, the study obtained primary data from relevant personnel of Skyrun International in Calabar on a one-time basis over a short period of time. The target population of the study comprised executive and managerial staff of Skyrun International in Calabar. The study chose to target this category of staff because they are presumed to have knowledge about the company's managerial operations, including supply chain management. Based on field survey information obtained from the company's factory manager, the total population of managerial and executive staff in the company is 168. These personnel included: sales managers, marketing managers, IT personnel, factory staff, plant managers, production managers, logistics managers, quality assurance managers, chief operating officers, chief technology officers, and procurement manager. As such, the population figure (168) was hence adopted as sample for the study, because it was already manageable and required no further statistical reduction. To obtain data from these personnel, the researcher administered a structured questionnaire at the company's facility at the Calabar Free Trade Zone.

The questionnaire statements were adapted from existing relevant studies (see Table 1) to ensure that standard and valid measures were used to measure the variables of the study. The opinions of respondents were gauged on a 5-Point Likert scale. Prior to actual field administration, the instrument was confirmed for validity using content validity method, while Cronbach's alpha method was used to confirm the instrument's reliability status. The reliability results presented in Table 2 revealed that all the questionnaire scales generated alpha coefficients not less than 0.7, thereby signifying that the questionnaire was valid. It was then administered to respondents and the data obtained were analyzed using descriptive statistics. The hypotheses of the study were tested using Pearson's product moment correlation statistic with the aid of SPSS software.

Table 2 Variable measures and empirical sources

SN	Variables and measures	Sources
1	Logistics management (efficient procurement, transportation capacity, and warehouse/storage optimization)	Sangkakorn (2019); Kahveci (2020)
2	Inventory management (raw material availability, work-in-progress accuracy and finished goods audit)	Sangkakorn (2019); Yuniar and Hery (2018)
3	Supplier relationship management (supplier communication, collaborative marketing and supplier performance evaluation)	Kahveci (2020); Abd El-Rahman (2019)
4	Customer value (accurate order delivery, timely order delivery, best product performance, and defect-free products)	Omoruyi and Mafini (2016); Adam *et al*. (2020)

Source: Compiled by authors through literature reviews

Table 3 Reliability coefficients of questionnaire

Research variables	No. of items	Cronbach's alpha coefficients
Logistics management	3	.804
Inventory management	3	.776
Supplier relationship management	3	.838
Customers' value	4	.792
	13	

Source: Student's analysis via SPSS 2023

Analysis and Discussion

During the questionnaire survey, 168 copies of the questionnaire were administered to managerial and executive personnel of Skyrun International in Calabar. Given the manageable size of the sample and the fact that all elements were converged in a single organization, all copies of the questionnaire were correctly filled out, retrieved and deemed usable for the analysis. This yielded a questionnaire response rate of 100 percent. This analysis is hereby based on the responses of 168 relevant personnel of Skyrun International.

Table 4 Summarized descriptive statistics of study variables

		Logistics management	Inventory management	Supplier relationship management	Customer value
N	Valid	168	168	168	168
	Missing	0	0	0	0
Mean		4.27	2.62	4.56	3.69
Std. Deviation		1.76	1.513	1.89	1.94

Source: Authors' analysis via SPSS 2024

The data presented in Table 4 summarizes the descriptive statistics of the study variables – logistics management, inventory management, supplier relationship management and customer value. With a standard deviation value of 1.76 and mean value of 4.27 (≈ 4: Agree), it entails that the average responses on logistics management agreed with the statements measuring the variable. The data also shows that with a standard deviation value of 1.513 and mean value of 2.62 (≈ 3: Undecided), it entails that the average responses on inventory management were undecided. Also, with a standard deviation of 1.89 and a mean value of 4.56 (≈ 5: Strongly agree), it entails that the average responses on supplier relationship management strongly agreed with the statements measuring the variable. Similarly, with a standard deviation of 1.94 and mean value of 3.69 (≈ 4: Agree), it entails that the average responses on customers' value agreed with the statements measuring the variable.

Test of Hypotheses

In this unit, the null hypotheses developed for this study were tested to generate findings

for the study. The test statistic utilized in this endeavour was the Pearson's product moment correlation method with the aid of the Statistical Package for the Social Sciences (SPSS 26). This test statistic was appropriate for the study because the hypotheses of the study sought to determine the relationship between the study variables as follows:

Hypothesis One

H_o: Logistics management has no significant relationship with customers' value in Skyrun International, Calabar.

Decision criteria: Accept the alternative hypothesis if (P < .05) and reject the null hypothesis, if otherwise.

Table 5 Pearson's product moment correlation results of the relationship between logistics management and customers' value in Skyrun International, Calabar

		Logistics management	Customers' value
Logistics management	Pearson Correlation	1	.585
	Sig. (2-tailed)		.003
	N	168	168
Customers' value	Pearson Correlation	.585	1
	Sig. (2-tailed)	.003	
	N	168	168

**. Correlation is significant at the 0.05 level (2-tailed)

Source: Authors' analysis via SPSS 2024

Table 5 presents the Pearson's correlation between logistics management and customers' value in Skyrun International, Calabar. The diagonal entries, where variables correlate with themselves, all yield r = 1, indicating perfect correlation. The correlation coefficient (r = 0.585) suggests a moderately strong positive relationship (58.5%) between logistics management and customers' value. The absence of a negative sign confirms this positive association, implying that better logistics management enhances

customers' perceived value. Additionally, the probability value (0.003) is below the 0.05 threshold, leading to the rejection of the null hypothesis and confirming a significant positive relationship.

Hypothesis Two

H_o: Inventory management has no significant relationship with customers' value in Skyrun International, Calabar.

***Decision criteria**:* Accept the alternative hypothesis if (P < .05) and reject the null hypothesis, if otherwise.

Table 6 Pearson's product moment correlation results of the relationship between inventory management and customers' value in Skyrun International, Calabar

		Inventory management	Customers' value
Inventory management	Pearson Correlation	1	.379**
	Sig. (2-tailed)		.000
	N	168	168
Customers' value	Pearson Correlation	.379**	1
	Sig. (2-tailed)	.000	
	N	168	168

**. Correlation is significant at the 0.05 level (2-tailed)

Source: Authors' analysis via SPSS 2024

Table 6 presents the Pearson's correlation between inventory management and customers' value in Skyrun International, Calabar. The diagonal entries, where variables correlate with themselves, all yield r = 1, indicating perfect correlation. The correlation coefficient (r = 0.379) suggests a weak positive relationship (37.9%) between inventory management and customers' value. The absence of a negative sign confirms this positive association, implying that better inventory management enhances customers' perceived

value. Additionally, the probability value (0.000) is below the 0.05 threshold, leading to the rejection of the null hypothesis and confirming a significant positive relationship.

Hypothesis Three

H_o: Supplier relationship management has no significant relationship with customers' value in Skyrun International, Calabar.

***Decision criteria**:* Accept the alternative hypothesis if (P < .05) and reject the null hypothesis, if otherwise.

Table 7 Pearson's product moment correlation results of the association between supplier relationship management and customers' value in Skyrun International, Calabar

		Supplier relationship management	Customers' value
Supplier relationship management	Pearson Correlation	1	.695**
	Sig. (2-tailed)		.000
	N	168	168
Customers' value	Pearson Correlation	.695**	1
	Sig. (2-tailed)	.000	
	N	168	168

**. Correlation is significant at the 0.05 level (2-tailed)

Source: Authors' analysis via SPSS 2024

Table 7 presents the Pearson's correlation between supplier relationship management and customers' value in Skyrun International, Calabar. The diagonal entries, where variables correlate with themselves, all yield r = 1, indicating perfect correlation. The correlation coefficient (r = 0.695) suggests a very strong positive relationship (69.5%) between supplier relationship management and customers' value. The absence of a

negative sign confirms this positive association, implying that better supplier relationship management enhances customers' perceived value. Additionally, the probability value (0.000) is below the 0.05 threshold, leading to the rejection of the null hypothesis and confirming a significant positive relationship.

Discussion of Findings

The test of hypothesis one confirmed a significant positive relationship between logistics management and customers' value in Skyrun International, Calabar. This aligns with Sangkakorn (2019), who found a positive effect of logistics management on customer satisfaction in Thailand's manufacturing sector, and Kahveci (2020), who reported similar findings in Turkey. This study reinforces logistics management as a crucial supply chain strategy for enhancing customers' value in Nigeria's consumer electronics sector.

Hypothesis two also confirmed a significant positive relationship between inventory management and customers' value. This finding is supported by Sangkakorn (2019) and Yuniar & Hery (2018), who observed a positive impact of inventory management on customer satisfaction in Thailand and Indonesia, respectively. This study further validates inventory management as a vital strategy for improving customers' value in Nigeria's consumer electronics market.

Lastly, hypothesis three confirmed a significant positive relationship between supplier relationship management and customers' value. This finding aligns with Kahveci (2020) and Abd El-Rahman (2019), who reported positive effects of supplier relationship management on customer satisfaction in Turkey and Egypt. This study establishes supplier relationship management as a key supply chain strategy for enhancing customers' value in Nigeria's consumer electronics sector.

Conclusion and Recommendations

As observed earlier, industrial trends and intense competition in Nigeria's manufacturing sector have driven companies to adopt supply chain management strategies for effective operations. This study examined the relationship between supply chain strategies—logistics, inventory, and supplier relationship management—and customers' value in Skyrun International, Calabar. Data were collected through a structured questionnaire administered to executive and managerial personnel and analyzed using descriptive statistics. Pearson's correlation method was used to test the hypotheses, revealing significant positive relationships between the three supply chain strategies and customers' value. This suggests that improving supply chain management enhances customers' perceived value of Skyrun products. Therefore, the study

concludes that there is a significant positive relationship between supply chain management and customers' value towards consumer electronics manufacturers in Nigeria. Hence, we present the following recommendations for potential implementation:

i. Manufacturers of consumer electronics should prioritize the logistics management function by ensuring efficient procurement, transportation capacity and warehouse optimization in order to guarantee uninterrupted logistical processes necessary to create customer value. This will optimize supply chain efficiency, ensure timely delivery, minimize costs, and provide superior after-sales service, ultimately leading to increased customer satisfaction and loyalty.

ii. Inventory resources of manufacturers should be strategically managed by a designated departmental unit to ensure consistent raw materials availability, work-in-progress accuracy and finished goods audit necessary to create value for customers. This will enable manufacturers of consumer electronics to ensure product availability, minimize stockouts, and swiftly adapt to market demands, ultimately enhancing customer satisfaction and loyalty by providing reliable access to desired products.

iii. There have to be consistent efforts to closely manage and maintain professional relationships with suppliers of manufacturing companies through interactive communication, collaborative marketing and periodic supplier performance evaluation to enhance suppliers' ability to create value for customers. This will ensure consistent quality, timely delivery, and cost-effectiveness of components, leading to higher product reliability, innovation, and overall customer satisfaction.

Limitations and Suggestions for Further Research

This study was restricted to manufacturers of consumer electronics in a single state in Nigeria – Cross River State. It may not hold substantial generalizability for manufacturers of consumer electronics on a nation-wide basis. Therefore, it is suggested that future researchers should replicate this study to accommodate consumer electronics manufacturers on a national level. This will lead to the generation of a more comprehensive empirical evidence generalizable for the entire consumer electronics industry in Nigeria

References

Abd El-Rahman, M. S. (2019). Effect of supply chain management practices on customer satisfaction: Evidence from the Egyptian manufacturing sector. *Journal of Manufacturing Technology and Management, 30*(6), 459-472.

Abdul, F. A., Iortimbir, A. I., Oladipo, G. T., & Olota, O. O. (2019). Impact of logistics management on organizational performance (A case study of Dangote Flour Mills Plc, Nigeria). *Journal of Sustainable Development in Africa*, *21*(1), 36-49.

Adam, M., Ibrahim, M., Ikramuddin, I., & Syahputra, H. (2020). The role of digital marketing platforms on supply chain management for customer satisfaction and loyalty in small and medium enterprises (SMEs) at Indonesia. *International Journal of Supply Chain Management*, *9*(3), 1210-1220.

Adebiyi, S. O., Adediran, A. S., Shodiya, A. O., & Olusola, T. (2021). Supply chain management practices and manufacturing firms' performance: Professionals' experience in Nigeria. *Economics and Culture, 18*(2), 28-40

Al-Kahtani, M. A., & Al-Badi, A. H. (2019). The impact of supply chain management strategies on customer value creation in Saudi Arabian manufacturing firms. *Journal of Business and Economics Development, 4*(1), 21-30.

Al-Shaibani, R., & Al-Mansoori, F. (2020). Supply chain management strategies and customer value creation in manufacturing firms: Evidence from Oman. *Journal of Business and Management Sciences, 8*(1), 6-13.

Al-Sulaiti, K., & Hussain, M. F. (2018). Customer value creation in Qatari manufacturing firms: An exploratory study. *International Journal of Business and Management, 13*(3), 46-58. https://doi.org/10.5539/ijbm.v13n3p46

Amole, B. B., Adebiyi, S. O., & Oyenuga, O. G. (2021). Multi-Criteria Decision Analysis of Supply Chain Practices and Firms Performance in Nigeria. *Logistics, Supply Chain, Sustainability and Global Challenges*, *12*(1), 17-30.

Ayandele, I. A., & Obialor, D. C. (2022). Critical factors of supply chain management and performance of medium scale industries in South-East, Nigeria. *International Journal of Social Sciences and Management Review, 5*(3), 1-11

Babatunde, B. O., Gbadeyan, R. A., & Bamiduro, J. A. (2016). Supply chain management practices and market performance: Evidence from selected major marketers of petroleum products in Nigeria. *The Pacific Journal of Science and Technology, 17*(1), 129-139.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99-120.

Choudhary, A. K., & Husain, T. (2019). Supply chain management strategies and its impact on customer value creation in Indian manufacturing companies. *International Journal of Scientific Research and Engineering Studies, 6*(4), 342-

351.

Davis, G. F., & DeWitt, T. (2021). Organization theory and the resource-based view of the firm: The great divide. *Journal of Management, 47*(7), 1684-1697.

El Baz, J., & Ruel, S. (2021). Can supply chain risk management practices mitigate the disruption impacts on supply chains' resilience and robustness? Evidence from an empirical survey in a COVID-19 outbreak era. *International Journal of Production Economics, 233*, 107972.

El-Sheikh, M. K., Shiwakoti, N., & Khan, S. (2020). Exploring supply chain management strategies for customer value creation in Bahraini manufacturing organizations. *International Journal of Business and Management Science, 10*(1), 66-76.

Freeman, R. E., Dmytriyev, S. D., & Phillips, R. A. (2021). Stakeholder theory and the resource-based view of the firm. *Journal of Management*, *47*(7), 1757-1770.

Gbadeyan, R. A., Boachie-Mensah, F. O., & Osemene, O. F. (2017). Effect of supply chain management on performance in selected private hospitals in Ilorin, Nigeria. *International Journal of Economic Behavior*, *7*(1), 99-116.

Ghaleb, E. T., & Al-Gawarsha, H. (2020). Customer value creation in the Libyan manufacturing sector: A moderated mediation analysis. *International Journal of Multinational Corporation Strategy*, *1*(1), 67-83. https://doi.org/10.1504/ijmcs.2020.10021147

Kahveci, A. S. (2020). The impact of supply chain management on customer satisfaction: An empirical study in the Turkish manufacturing industry. *International Journal of Logistics Research and Applications, 23*(3), 211-223.

Kareem, T. S. (2022). Supply chain management practices implementation and small and medium enterprises' performance in Nigeria: A quantitative approach. *Rajasthali Journal, 2*(1), 125-138

Kibira, D. W., & Oketcho, V. (2019). Enhancing customer value in African manufacturing industries: A case study of Uganda. *Journal of Business and Management Sciences, 7*(2), 9-18. https://doi.org/10.11648/j.jbms.20190702.11

Kwan, C. L., & Wong, A. Y. (2018). Customer value in manufacturing: The case of Hong Kong. *International Journal of Business and Social Science, 9*(8), 192-204. https://doi.org/10.30845/ijbss.v9n8p18

Lekan, O. K., Shagari, N. J., & Ahmadu, A. (2017). Approaches to manage supply-chain breakdown and the operational performance of some selected manufacturing enterprises in Katsina State, Nigeria. *Noble International Journal of Business and Management Research, 1*(11), 155-159.

McGahan, A. M. (2021). Integrating insights from the resource-based view of the firm into the new stakeholder theory. *Journal of Management*, *47*(7), 1734-1756.

Mishra, D. R., & Varshney, D. (2024). Academic integrity in higher education: Faculty perceptions, strategies, and digital challenges in the digital age. *International Journal of All Research Education and Scientific Methods, 4*(2), 245-258

Mishra, D. R., & Varshney, D. (2024). Comprehensive analysis of human and AI task allocation in the education sector: Defining futuristic roles and responsibilities. *World Journal of Advanced Research and Reviews, 22*(3), 10-30574.

Mishra, D. R., & Varshney, D. (2024). Digital transformation (Dt): Promoting growth and efficiency in Uttar Pradesh organized retailing. *International Journal for Research in Engineering Application & Management, 10*(01), 32-37.

Mohamed, M. R. & Mohd Yusoff, Y. (2020). The influence of customer value on customer loyalty in the Malaysian manufacturing industry. *Journal of Industrial Engineering and Management*, *13*(2), 206-221. https://doi.org/10.3926/jiem.2849

Moneke, U. U., & Echeme, I. I. (2016). Assessment of supply chain management in Nigerian construction industry for effective project delivery in Imo State, Nigeria. *International Journal of Development and Management Review*, *11*(1), 233-249.

Mota, B. C., & Farook, U. (2018). An empirical investigation of supply chain management strategies and customer value creation in the UAE manufacturing sector. *Journal of Management Sciences and Technology*, *6*(1), 16-26.

Munir, M., Jajja, M. S. S., Chatha, K. A., & Farooq, S. (2020). Supply chain risk management and operational performance: The enabling role of supply chain integration. *International Journal of Production Economics*, *227*, 107-127.

Njoku, M. E., & Kalu, K. A. U. (2015). Effective supply chain management: A strategic tool for profitability enhancement in the competitive marketing environment. *European Journal of Business and Social Sciences*, *3*(12), 90-112.

Ogunmola, O. S. & Akeke, N. I. (2018). Effects of supply chain management practices on customer satisfaction of instant noodles in Ekiti State, Nigeria: The roles of information sharing and communication. *Transport & Logistics: An International Journal*, *18*(45), 89-104

Ojoajogu, A. M., Ali, H. Y., Badi, S. Y., & Habibu, M. (2021). The role of supply chain management on customer satisfaction. *International Journal of Intellectual Discourse*, *4*(1), 136–145.

Omoruyi, O., & Mafini, C. (2016). Supply chain management and customer satisfaction in small to medium enterprises. *Studia Universitatis Babes-Bolyai*

Oeconomica, 61(3), 43-58.

Pournader, M., Kach, A., & Talluri, S. (2020). A review of the existing and emerging topics in the supply chain risk management literature. *Decision Sciences, 51*(4), 867-919.

Rahman, M. F., & Tarmidi, Z. (2019). Customer value co-creation in the Malaysian manufacturing industry. *Management Science Letters, 9*(5), 697-704. https://doi.org/10.5267/j.msl.2019.4.012

Samuel, O. O., & Izegbua, O. O. (2023). The influence of supply chain management practices on operational performance of quoted manufacturing firms in Nigeria: Procurement outsourcing and order process management view. *Journal of Entrepreneurship & Business, 11*(1), 123-139.

Sangkakorn, S. (2019). Supply chain management practices and customer satisfaction in the manufacturing sector: Evidence from Thailand. *Journal of Business Logistics and Supply Chain Management, 12*(1), 33-43.

Tran, H. T., Nguyen, H. T., & Le, Q. P. (2018). The impact of supply chain management strategies on customer value creation in the Vietnamese manufacturing industry. *International Journal of Engineering and Management Research, 8*(1), 63-72.

Widyastuti, T., & Maulana, A. (2018). Developing a customer value framework for Indonesian manufacturing companies. *Journal of Business and Retail Management Research, 12*(4), 6-13. https://doi.org/10.24052/JBRMR/V12IS04/JBRMR17480

Yuniar, C., & Hery, H. (2018). Supply chain management practices and customer satisfaction in the Indonesian manufacturing industry. *Journal of Supply Chain and Operations Management, 16*(2), 98-110.