

Suppliers Relationship Management Strategies and Procurement Performance in Nigerian Government Agencies

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Abstract—The study investigated the effect of Supplier Relationship Management Strategies on Procurement Performance in Nigerian Government Agencies. The study used supplier quality improvement (SPM), supplier lead time reduction (SLT), trust-based relationships with suppliers (TBR), supplier collaboration in new product development (SCL) and supplier partnership or development (SPT) to proxy Supplier Relationship Management Strategies as the independent variables. A total of four hundred and thirty-nine (439) copies of the questionnaires were administered, out of which four hundred and sixteen (416) copies representing 94.8 percent of the questionnaire were duly completed and returned upon which the analysis was based while twenty-four (23) copies representing 5.2 percent were not retrieved. The instruments used to gather information for this study includes questionnaires. The study found that most of the respondents agree on the fact that supplier quality improvement (SQM) has an effect on Procurement Performance in Nigeria; most of the respondents agree on the fact that supplier lead time reduction affect Procurement Performance in Nigerian Government Agencies; most of the respondents agree on the fact that trust-based relationships with suppliers has an effect on Procurement Performance in Nigeria; most of respondents agree on the fact that supplier collaboration in new product development has an effect on Procurement Performance in Nigeria, and most of the respondents agree on the fact that supplier partnership or development has an effect on Procurement Performance in Nigeria. Based on the findings, the following policy recommendations can be made: Implement standardized quality management practices across government agencies to ensure consistent supplier quality. Regular training and audits can help maintain and improve quality standards. Establish clear guidelines and best practices for managing supplier lead times. Agencies should prioritize suppliers with proven track records of timely delivery and collaborate with them to identify areas for improvement.

Index Terms—Suppliers relationship management strategies, procurement performance, Nigerian government agencies, supplier quality improvement, supplier lead time reduction, trust-based relationships with suppliers, supplier collaboration, supplier partnership or development.

1. Introduction

The role of a supplier relationship manager is to establish and maintain connections with suppliers. Buyers and sellers alike

may pool their resources to get an advantage in the market. The reason for this is that the two individuals have developed a bond (Lii & Kuo, 2016; Liao et al., 2010). Improving and streamlining the company's and its suppliers' sourcing processes for goods from Scandinavia is the primary objective of SRM. The primary justification for its existence is typically this objective. Due to this the strategic sourcing processes associated with SRM are likely to differ cross different organizations. However, Supplier relationship management (SRM) generally involves three broad steps: that involves categorizing suppliers, formulating the supplier strategy and implementing the supplier strategy.

Further, Supplier relationship management (SRM) is today an important corporate strategy due to risk and sustainability considerations, as well as due to competitive child own pressures to contain costs while becoming cheaper as well as due to necessity to foster deeper relationships with strategic suppliers capable of delivering the skill-set required to conceive new value proposition and successfully launch new offerings onto the market. As part of supplier relationship management, suppliers also assist with sourcing resources, providing input into product development, negotiating mutually beneficial contracts, and pledging to work together to advance technology (SRM). Researchers Lii and Kuo (2016), Whipple et al. (2015), Tseng (2014), and Liao et al. (2015) found that in the increasingly competitive global supply chain, collaborative techniques are crucial for maintaining a competitive edge (2010). The methods are critically significant, according to all of these academics. Exactly the same behavior is displayed by Enz and Lambert (2012) propose that by integrating supply chain partnerships, customer/supplier value can be created jointly. Its proper implementation has also assisted organisations to acquire sources and material, cut expense, obtain flexibility, realize quality, and successfully put in to practice technology and influence supply chain efficiency.

All things considered, performance is critical to the success of any individual or company. According to Tseng, a company's success hinges on a handful of resources that are priceless, distinctive, easily replicated, and irreplaceable (2014). The

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single most significant thing a company can do to get an advantage over its competitors is to improve its performance. Because of this, business performance is defined as the degree to which an organization's operations fulfill the target in terms of supplying the specified service or material at the specified cost and in the specified amount and time frame. A corporation can succeed, according to one theory, if it can maintain low expenses, complete projects on schedule, and provide high-quality content. This means that operational capabilities are now more likely than ever to impact the performance of the company.

According to Wu et al. (2012), an organization's distinctive set of procedures, knowledge, and abilities are known as occupational competences. These are a part of the overall operations management system and are utilized for the purpose of allocating resources in the operations department to deal with various issues that may arise. Companies' capacity to enhance their business processes in a way that reduces resource consumption while simultaneously increasing efficiency and cutting costs is the competence at issue here. They also believe that the organization's capacity to execute strategic operations is its greatest asset for optimizing its operations. According to Lee et al. (2017), one of the most important factors in a company's capacity to do its outstanding operational obligations is its operational capabilities. The company can keep providing the agreed-upon products and services to clients with these capabilities, so it can remain working. By enhancing the operational capacity of the organization, the company is able to better manage its time, minimize expenses, and guarantee the quality of its products, among other business operations.

Zhang and Cao (2018) posited that dynamics of the global supply chain environment make SRM important to pairing of buyer and supplier. Volatility of demand, exchange rates, governmental policies, inflation, and the like make up the supply dynamics. For instance, when the environment is characterised by high supply uncertainty, one can may derive prospective benefits from building and increase contracts with suppliers including: obtaining access to necessary supplies, reducing transaction costs as well as avoiding potential opportunism which contracting enforcement measures can offer (Zhang & Cao, 2018; Yang et al., 2016). Inadequate training for suppliers, misunderstandings regarding the contract, ignoring the relationship in the event of a damaged delivery, and failing to pay attention to the business culture of suppliers are additional potential sources of uncertainty and problems that could impact the company's performance.

The figures reveal a decline in the performance of the US manufacturing industry. Its proportion of US GDP has been growing over the past few years, but according to Timmer et al., it's less than half of what it was 20 years ago (2010). A decrease in the gross operating profit margin and an increase in production expenses resulted from a lack of cooperation between suppliers and the manufacturing sectors. As the fiscal year came to a close in 2013, the margin had dropped from 10.5% in 2012 to 3.6%. As the state of the global economy worsens, there is mounting pressure on companies to reconsider

their relationships with suppliers and customers. For this reason, minimizing expenditure while maximizing value creation throughout procurement should be a top priority. Therefore, as previously mentioned, in order to create an event that is good for everyone, it is necessary to establish a small number of performance indicators and bottlenecks that will govern the interaction between the individuals involved. In this instance, the objective is to learn about the level of customer satisfaction with the delivery of goods and services in order to enhance the delivery process.

Sharing information can aid in supplier integration (So and Sun, 2010), performance improvement (Kim et al., 2010), and attitude consistency (Crosset et al., 2010). (Swink et al., 2007; Singh and Power, 2009; Lynn et al., 2010). What Lynn et al., Singh and Power (2009), and Swink et al. (2007) discovered provided the basis for this (2010). My name is Ginna Kian (2007). The view that a company's capabilities are enhanced when it works more closely with its suppliers is shared by Frohlich and Westbrook (2001) and Rosenzweig et al (2003). However, depending on the connection, the required amount of supplier integration could vary. As a result, you should aim to establish one up for every connection (Lambert 2004; Das et al. 2005).

Similarly, the findings of this paper point to a connection between SRM and improved company performance. Businesses, say Janda and Seshadri, are more productive and efficient when they collaborate with a select few suppliers. The results from the auto r's confirmed this (2001). The ability to generate new ideas is a key component of successful supplier-buyer partnerships, according to Courtsen and Felde (2015). By effectively managing connections with suppliers, the expenses of contract management can typically be reduced.

Another approach that typically leads to the achievement of market- and money-oriented objectives is what is referred to as "organizational performance." Increased output, decreased costs, and the separation of the product and service life cycles are its current primary objectives. Enhancing market share and increasing profits for all parties involved in the supply chain are examples of long-term objectives. For this reason, it is critical that SRM, like many other initiatives inside the organization, contribute to enhancing the overall performance of the business. Among the financial and market performance metrics mentioned by Flynn et al. are the profitability index, return on investment, sales growth, profitability margin on sales, current market position and rank, and the profitability index (2010). Therefore, this study investigates the relationship between supplier relationship management practices and the procurement performance of government agencies in Nigeria, with flexibility serving as a mediating element. Reason being, research has shown that these tactics boost procurement efficiency for several companies.

2. Literature Review

A. Concept of Supplier Relationship Management Strategies

The SRM framework consists of five primary metrics, as stated by Mwangi (2017). Improvements to suppliers' products,

reductions in lead times, establishment of trustworthy partnerships, inclusion of suppliers in the development of new products, and overall growth and cooperation with suppliers are just a few of the numerous projects in this area. In order to manage the supply chain, this study will use the following strategies: Supplier quality improvement, supplier lead time reduction, supplier trust building, supplier input incorporation into product development, and supplier partnership formation are all goals of this strategy.

1) Concept of Procurement Performance

Achieving one's objectives and goals is possible for any firm that employs efficient and effective procurement procedures. The term "procurement performance" refers to this. A method for gauging a company's efficiency in obtaining goods and services at a reasonable cost without sacrificing quality, integrity, or timeliness. This demonstrates a company's capacity to acquire goods and services. Considerations like as transaction costs, time to complete, price, and product quality are all part of this study's evaluation of procurement's efficacy (i.e. delivery on time). Jones and Oliver (2006), Lyons and Farrington (2006), and Monczka et al. (2006) are among the many who have stated that this is in line with their findings (2005).

B. Empirical Review

Following a logical sequence, beginning with supplier selection and moving on to utilizing dimensions to direct segmentation, is recommended by Rezaei and Ortt (2012). The provider's aptitude for the task at hand and their eagerness to establish and maintain rapport with the client are two aspects that appear to be important. Needs that arise after the segmentation process is complete are addressed by developing SRM methods. In order for the buyer to enhance the supplier's abilities, it is recommended that they are tasked with overseeing growth throughout the term of the agreed upon partnership arrangement. Judgment also takes into account the positive outcomes of the connection. The purpose of this is to help the client determine whether a certain provider warrants re-segmentation. In a nutshell, the authors stress the significance of considering all aspects of a company's operations when classifying its suppliers. It is important to consider the ripple effects of supplier fragmentation on several areas beyond only purchasing, such as production, finance, logistics, and more. Within the supplier organization, the willingness and competence characteristics can be utilized in many ways to distinguish between different positions. You can also work on the relationships that are specific to each role on an individual basis.

Research by Al-Abdallah, Abdallah, and Hamdan (2014) examined the impact of supplier relationship management on manufacturing companies' market performance. According to this research, "supplier relationship management" entails a number of benefits, including enhancing supplier quality, reducing supplier lead times, involving suppliers in product development, and forming partnerships. Factors that were utilized to assess each company's competitiveness included cost, adaptability, quality, delivery, and the punctuality of new

product releases. Research shows that buying companies can thrive in a cutthroat industry if they form partnerships with their suppliers, collaborate on improvements, and reduce supplier lead times.

Similar to the Kraljic 1983 system, Rezaei, Wang, and Tavasszy (2015) propose an approach. It categorizes purchases according to their strategic importance and management complexity. These dimensions divide purchases or groups of products, and the provided segments are comparable to the one Kraljic made in 1983. Step two is to categorize supplier relationships according to attractiveness and strength of relationship. Additionally, it provides an evaluation of the current state of the SC relationships and the suppliers' performance. Another way of putting it is that it's contrasting the two. The manufacturer has three options depending on the supplier relationship positions: strive to make the relationship more attractive or strong, reduce the quantity of resources committed to the supplier, or increase the relative responsibility for the relationship.

Tangus et al. demonstrated a correlation between the success or failure of manufacturing firms in Kisumu County and their supplier relationship management practices (2015). Following the completion of the survey by 82 procurement experts from 31 manufacturing organizations, their effectiveness was evaluated by analyzing their supplier development, supplier grouping, and information sharing efforts. Investigating the connection between the specified variables was done using descriptive and inferential scientific approaches. Eleven general managers, thirty-six procurement officers, and thirty-five finance officers are among the eighty-two professionals included in the self-generated answer list. A bivariate research revealed that suppliers performed better when the three CSR approaches to supplier relationship management were employed more frequently. Multivariate study concluded that among the variables affecting the civil construction enterprises' performance, information exchange was the only one with a positive and statistically significant effect. However, compared to the other subcategories, supplier segmentation and supplier development did not have nearly as much significance. Manufacturing companies might improve their performance by 37.8 percent by increasing the amount of information they shared with their suppliers, according to the study. More information exchange, more strategic supply management, and supplier development programs are all necessary, according to a study on supplier collaboration.

An example of a more recent article is Kosgei and Gitau (2016). It investigated the effects of SRM on Kenya Airways Limited's productivity. According to the results, managing relationships with suppliers requires dedication, open communication, common objectives, and trust. Out of 272 KQ employees, 82 agreed to participate in the survey after we used the aforementioned computation and the stratified sample approach. We did this because we valued diversity among KQ's employees and wanted to reflect that in our hiring practices. The primary method of data collection for the study project was the distribution of questionnaires to a representative sample of the population. According to the research, a company's financial

success is directly related to the quality of its supplier relationship management.

According to Okiria, Mwirumubi, and Mpaata (2017), improving access to medical supplies in the Republic of Uganda is a worthy goal, but getting there is still a long way off. Not much is said about the fact that these kinds of problems exist when trying to achieve this goal. There has never been a comprehensive list of the systemic limitations that limit healthcare stock availability. This lines up with what we would expect from a study done in an area where malaria is common. Problems with medical supply management could develop due to insufficient logistics and procurement procedures, which could include demand planning and forecasting.

Samuel was a member of the team that proposed ways to enhance the efficiency of government contracts by coordinating with vendors more effectively. Government procurement entails a plethora of legal and administrative burdens, yet these procedures were developed nonetheless. One of the most crucial aspects of supply chain management is overseeing the connections between suppliers and customers. Public sector procurement techniques, particularly in developing nations, are often overlooked, according to numerous scholars. After the implementation of Ghana's Public Procurement Act, 2003 (Act 663), many issues with procurement were resolved. However, the challenges of managing supplier relationships in a way that benefits the company and the supplier over time are left unaddressed by this rule. Consequently, the purpose of this research was to identify all of the supplier connections that are managed in accordance with procurement performance standards. The foundation of this investigation was built around public tertiary educational institutions. To improve procurement performance and measure value for money, the selected entity likely follows the majority of processes based on literature. These procedures are recognized methods of managing supplier relationships. Having said that, the current partnerships are not without their share of issues. This is why we will now discuss the theoretical and managerial implications of these findings.

Samuel was a member of the team that proposed ways to enhance the efficiency of government contracts by coordinating with vendors more effectively. Legitimate and administrative tasks accompany government procurement, although these procedures were developed anyhow. Supply chain management relies heavily on the careful administration of connections between vendors and consumers. Public sector procurement techniques, particularly in developing nations, are often overlooked, according to numerous scholars. After the implementation of Ghana's Public Procurement Act, 2003 (Act 663), many issues with procurement were resolved. However, the challenges of managing supplier relationships in a way that benefits the company and the supplier over time are left unaddressed by this rule. Consequently, the purpose of this research was to identify all of the supplier connections that are managed in accordance with procurement performance standards. The foundation of this investigation was built around public tertiary educational institutions. To improve procurement performance and measure value for money, the

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Research by Opaleye et al. (2020) examined the effects of supplier relationship management strategies on the financial results of publicly listed food and beverage companies in Nigeria. The American Southwest, which remained the focus of the study, was home to thirteen different companies. All of these categories were examined using the comprehensive enumeration technique. Each company was divided into 10 groups using the stratified sample approach. One respondent was selected from each group. As a result, a total of 130 individuals were included in the sample, with 10 individuals from each group answering. Only 103 of the 130 forms that were sent out actually had their responses reviewed. The hypotheses were tested using linear and multiple regression analysis. The findings of the tests show that the company's success is significantly impacted by supplier evaluation, supplier development, and supplier engagement. Using supplier engagement, supplier growth, and supplier appraisal in tandem significantly improved performance. The study's findings suggest that the food and drink industries could benefit from better supplier relationship management through evaluation, development, and involvement if they want to boost overall performance and achieve better outcomes.

The impact of buyer relationship management on the operations of Kenyan food and drink manufacturers was investigated by Fiona and colleagues in 2022. The objective of the study was to determine the impact of supplier development, information flow, collaboration, and supplier segmentation on the overall performance of food and drink firms. The researchers employed a mixed-methods approach known as a cross-sectional survey. The participants in this study were officers from 63 distinct food and drink enterprises in Kiambu County who are involved in purchasing, warehousing, and logistics. A total of 189 officers from the procurement, warehousing, and logistics department were selected to participate in the survey by a combination of census and purposeful sampling techniques. Information could be gathered through the use of questionnaires. Businesses in Kiambu County that produce food and drink benefit from supplier relationship management strategies such as supplier segmentation, information flow, supplier collaboration, and supplier development, according to the study's findings. The correlation research revealed a high association between the performance of food and drink producers and many elements of their supplier relationships, such as supplier segmentation, supplier growth, supplier collaboration, and information latency. The study's findings revealed that Kiambu County's food and drink industry executives are keen on supplier segmentation, data flow, supplier cooperation, and measures that foster supplier growth. Managers at food and drink companies should devise strategies for collaborating with suppliers to improve company operations, according to the

study's findings.

An analysis was conducted by Poku (2022) using data from Ghanaian enterprises to determine the impact of operational capabilities (OC) on the relationship between supplier relationship management (SRM) and company success. This investigation made use of both descriptive and explanatory research techniques. The poll received responses from one hundred (100) individuals. To recruit businesses and individuals, the researcher employed a combination of a simple random sample and a deliberate sample. The investigation relied on primary sources. A brief synopsis of the frequency of the main components' appearances was provided by descriptive statistics. As a means of investigating the primary and secondary impacts of SRM, OC, and CI on FP, we ran linear and multiple regression analyses using SPSS, Version 26.

All respondents believed the comment affected the growth of the company, according to the descriptive analysis. The results of the regression analysis showed that the indirect association between stakeholder relationship management (SRM) and company performance was positively affected by the level of

management in a number of county administrations in Kenya. Following this research, there is much more to discover regarding the significance of purchasing ethics in the connection between supplier management and the efficiency of the supply chain. Compliance with procurement regulations is the responsibility of the county administrations. Being forthright, responsible, and truthful are all part of these. Potentially useful information for developing and implementing procurement ethics standards could be found in the data.

3. Methodology

Population of the Study

The population of this study comprises of four hundred (400) staff from the Bureau of Public Procurement (BPP) (150 staff) and National Petroleum Investment and Management Services (NAPIMS) (250 staff) an arm of NNPC who are real practitioners

(<https://petrobarometer.thecable.ng/2020/05/25/4780>).

Table 1
Population distribution

S.No.		Population	% Proportion Selected
1	Bureau of Public Procurement (BPP)	150	37.5 %
2	National Petroleum Investment and Management Services (NAPIMS)	250	62.5%
Total		400	100 % = 400

Source: Researcher's Computation, 2024

competition. This was due to the fact that operational capabilities, which include delivery and quality, were impacted by the level of competition. It also became apparent that the company's success was directly impacted by seller relationship management. This study found that the indirect relationship between supply chain management and company performance is impacted by operational capabilities including delivery and quality capabilities, which are in turn impacted by competitive intensity. In periods of high uncertainty, purchasing firms may consider taking over production in order to cut expenses on transactions. However, the findings of this study should make purchasing company executives reconsider the potential advantages of investing in Supplier Relationship Management. This is due to the fact that the analysis will reveal potential investment areas. Further research should investigate additional facets of operational capacities, including as innovation, service, and environmental capabilities, as potential mediators or interveners. Because additional mediators may affect the magnitude of each capability variable, investigating them will further support the idea.

Kevin and Odero (2023) investigate the connection between ethical procurement practices and the efficiency of supply chains in Kenyan county administrations. Eleven hundred and twenty-two members of the procurement staff participated in this descriptive survey. In this investigation, stratified sampling and basic random sample were both employed. Organised surveys were employed for the purpose of gathering data. A combination of descriptive and inferential statistics were employed to analyse the data. Findings indicated that ethical purchasing practices significantly impacted the correlation between supply chain performance and supplier relationship

A. Sample and Sampling Technique

A cross-section of 200 employees from the government agencies responsible for managing and directing public procurement, including the National Petroleum Investment and Management Services (NAPIMS) and the Bureau of Public Procurement (BPP). Resolving issues with the petroleum industry's public procurement practices is the primary goal of the due process procedure. There were originally two stages to the multistage sampling procedure. The first approach to selecting interviewers was the use of a purposeful sample strategy. In order to determine the sample size from the 400-person community, the second section of the study project utilised the method developed by Taro Yamane (1967). Here is the formula that Taro Yamane developed in 1967:

$$n = \frac{N}{1+N(e)^2} \quad (1)$$

where;

n = Sample size

N = Population Size

E = Marginal Error (i.e., e = 0.05) at 5 %

The sample size for this study is 200 staff.

The sample size was increased by 10%, which equates to twenty individuals, or by instrument mortality. The total number of participants for this study was 220 as a result of this. Consequently, 220 individuals were selected to participate in this research. There is generally considered to be little to no bias in attrition rates below 5%, whereas rates of 20% or higher give rise to significant validity problems (Bell et al., 2013). A 10%

increase to the sample size is recommended by Bell et al. (2013) to cover the possibility of broken or misplaced instruments.

The sample size for the study was 220 local residents. We utilised Bourley's 1964 population allocation approach to determine the size of each sample, ensuring that they were chosen at random. Common ways to describe the process are as follows:

$$nb = nNb/N \quad (2)$$

where;

nb = the sample size for each of the establishment

n = the total sample size

Nb = the number of persons in each of the establishment

N = Total population of the study.

The response scale for the questionnaire items is structured using modified four rating scale. The four (4) point ratings are: Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, Strongly Disagree (SD) = 1.

C. Sources of Data

This inquiry made use of data collected from both primary and secondary sources. The primary data comes from the survey, while the secondary data comes from many sources such as academic publications, textbooks, and articles.

4. Data Analysis and Interpretation

A. Data Presentation

A total of two hundred and twenty (220) copies of the

Table 2
Sample distribution

S.No.		Population	% Proportion Selected
1	Bureau of Public Procurement (BPP)	83	37.5 %
2	National Petroleum Investment and Management Services (NAPIMS)	137	62.5%
Total		220	100%

Source: Researcher's Computation, 2024

Table 3
Questionnaire response rate

S.No.	States	Number of Administered Questionnaire	Number of Returned Questionnaire	Number of Non-returned Questionnaire
1	Bureau of Public Procurement (BPP)	83	81	2
2	National Petroleum Investment and Management Services (NAPIMS)	137	134	3
Total		220	215	5

Source: Researcher's Computation, 2024

Table 4
Age of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
20-30 Years	62	28.8	28.8	28.8
31-40 Years	63	29.3	29.3	58.1
41-50 Years	72	33.5	33.5	91.6
51-60 Years	13	6.0	6.0	97.7
61 Years and Above	5	2.3	2.3	100.0
Total	215	100.0	100.0	

Source: Researcher's Computation, 2024

Table 5
Gender of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	101	47.0	47.0	47.0
Female	114	53.0	53.0	100.0
Total	215	100.0	100.0	

Source: Researcher's Computation, 2024

The required individual sample size per each state is calculated proportional as shown in Table 2.

B. Methods of Data Collection/Instrumentation

Research instruments are the means or tools employed by the researcher for data collection. They include questionnaires, interviews, observations, published materials, inventories and others. The main instrument for this study is Supplier Relationship Management Strategies (SRMSQ). The PPAQ instrument for this study is self-developed into two sections (A and B). Section 'A' measures the socio-demographic information while section 'B' provides responses to questions raised from the research questions.

questionnaire were administered to the Bureau of Public Procurement (BPP) and National Petroleum Investment and Management Services (NAPIMS) in Nigeria, out of which two hundred and fifteen (215) copies representing 97.7 percent of the questionnaire were duly completed and returned upon which the analysis was based while five (5) copies representing 2.3 percent were not retrieved as presented in Table 3.

B. Empirical Data Analysis

1) Presentation and Analysis of Data Based on Socio-Demographic Information

This section of the study refers to tables 4, 5, 6, 7, and 8, which display the data. The following tables display the

Table 6
Educational qualification of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
WAEC	36	16.7	16.7	16.7
OND/NCE	36	16.7	16.7	33.5
HND/First Degree	84	39.1	39.1	72.6
Masters	40	18.6	18.6	91.2
PhD	19	8.8	8.8	100.0
Total	215	100.0	100.0	

Source: Researcher's Computation, 2024

Table 7
Working experience of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less Than 5 Years	119	55.3	55.3	55.3
5-10 Years	46	21.4	21.4	76.7
11-20 Years	38	17.7	17.7	94.4
31-40 Years	12	5.6	5.6	100.0
Total	215	100.0	100.0	

Source: Researcher's Computation, 2024

Table 8
Religion

	Frequency	Percent	Valid Percent	Cumulative Percent
Christianity	164	76.3	76.3	76.3
Muslim	17	7.9	7.9	84.2
African Trad Reg	9	4.2	4.2	88.4
Eckankar	15	7.0	7.0	95.3
Others	10	4.7	4.7	100.0
Total	215	100.0	100.0	

Source: Researcher's Computation, 2024

demographic and socioeconomic data collected from the survey participants. All of the following demographic variables are included for this study: age, gender, marital status, education level, and occupation.

The table 4 displays the ages of the respondents. It would appear that 25.4% of the total responders are in the age bracket of 41–50. Second in age, at 23.7% of the total, are those who are 51 and up. Of all responders, 4.3% are in the age bracket of 10–20, making them the youngest.

Table 5 shows gender distribution of the respondents. It shows that most of the respondents are males representing 60.1 percent followed by females representing 39.9 percent.

The educational backgrounds of the respondents are written down in Table 6. Only 5% of respondents definitely attended a four-year university (53.1 percent of the total). Those who had completed secondary education were the second most prevalent (22.8 percent of the total).

The educational backgrounds of the survey participants are displayed in Table 6. Only 5% of people who took the survey were positive that they had attended a four-year university (53.1 percent of the total). The second most popular category consisted of people who had finished secondary school (22.8 percent of the total).

Table 8 provides a comprehensive breakdown of the respondents' religious affiliations. The findings reveal that traditionalists make up the majority of responders (25.7% of the total). With 24% of the people practicing Christianity, it is the second most prevalent religion. With 4.3% of the population practicing none of the above, it is the least frequent religion.

2) Presentation and Analysis of Data According to Research Statement

A scale from "strongly agree" (SA) to "strongly disagree"

(SD) was used to assess the respondents' opinions. The research team in Nigeria set out to determine whether and how SRM strategies influence the efficiency with which government agencies in the country make purchases. The tables that follow provide a visual representation of the study's results.

3) Analysis of Responses to Research Question One

Does the success of supplier quality management (SQM) have any bearing on the efficiency of procurement in Nigeria?

Results from a survey asking about the impact of supplier quality improvement (SQM) on procurement performance in Nigeria can be seen in Table 9.

Table 9 reveals that most of the respondents agree on the fact that supplier quality improvement (SQM) has an effect on Procurement Performance in Nigeria. This is because most of the respondents agree that Supplier's customer satisfaction has improved since the quality improvement initiatives was implemented, Supplier's reputation for quality has improved in the past year, Supplier's ability to respond quickly to customer needs has improved in the past year, Supplier's ability to solve problems and address customer concerns has improved in the past year, Supplier's ability to design and develop new products or services has improved in the past year, Supplier's ability to provide value-added services, such as technical support or training, has improved in the past year, Suppliers has implemented new quality improvement initiatives in the past year, These initiatives has resulted in a measurable improvements in the quality of the products or services the supplier provides, There has been change in the number of defects, complaints, or returns since the quality improvement initiatives was implemented, and Supplier's on-time delivery rate has improved since the initiatives was implemented. This is so because their calculated mean are greater than the criterion

Table 9
Effect of supplier quality improvement (SQM) on procurement performance

(A)	Effect of supplier quality improvement (SQM) on Procurement Performance	SD	D	A	SA	Agg. Score	Mean	Decision
1	Supplier's customer satisfaction has improved since the quality improvement initiatives was implemented	18	41	84	72	215	2.98	Accept
2	Supplier's reputation for quality has improved in the past year	14	47	140	14	215	2.72	Accept
3	Supplier's ability to respond quickly to customer needs has improved in the past year	11	124	57	23	215	2.43	Reject
4	Supplier's ability to solve problems and address customer concerns has improved in the past year	71	53	67	24	215	2.20	Reject
5	Supplier's ability to design and develop new products or services has improved in the past year	17	66	111	21	215	2.63	Accept
6	Supplier's ability to provide value-added services, such as technical support or training, has improved in the past year	26	40	137	12	215	2.63	Accept
7	Suppliers has implemented new quality improvement initiatives in the past year	19	37	147	12	215	2.71	Accept
8	These initiatives has resulted in a measurable improvements in the quality of the products or services the supplier provides	34	25	130	26	215	2.69	Accept
9	There has been change in the number of defects, complaints, or returns since the quality improvement initiatives was implemented	7	31	143	34	215	2.95	Accept
10	Supplier's on-time delivery rate has improved since the initiatives was implemented	5	42	96	72	215	3.09	Accept
Grand Total							2.70	Accept

Source: Researcher's Computation, 2024

Table 10
Effect of supplier lead time reduction on procurement performance

(B)	Effect of supplier lead time reduction (SLT) on Procurement Performance	SD	D	A	SA	Agg. Score	Mean	Decision
11	Supplier's ability to meet customer needs more quickly and efficiently has improved since the lead time reduction initiatives were implemented	9	44	102	60	215	2.99	Accept
12	The cost of inventory management or the carrying cost of inventory has decreased since the lead time reduction initiatives was implemented	9	59	56	91	215	3.07	Accept
13	Supplier's ability to respond to sudden changes in demand has improved since the lead time reduction initiatives was implemented	19	55	65	76	215	2.92	Accept
14	Supplier's ability to plan and forecast future needs more accurately has improved since the lead time reduction initiatives was implemented	17	34	79	85	215	3.08	Accept
15	Supplier's overall production efficiency has improved since the lead time reduction initiatives was implemented	18	20	104	73	215	3.08	Accept
16	Supplier's ability to reduce waste and inefficiencies in the production process has improved since the lead time reduction initiatives was implemented	8	38	95	74	215	3.09	Accept
17	Supplier's overall cost of production has decreased since the lead time reduction initiatives was implemented	20	54	56	85	215	2.96	Accept
18	Supplier's ability to meet customer deadlines has improved since the lead time reduction initiatives was implemented	16	34	103	62	215	2.98	Accept
Grand Total							3.02	Accept

Source: Researcher's Computation, 2024

mean of 2.5.

4) Analysis of Responses to Research Question Two: Dose Supplier Lead Time Reduction Enhances Procurement Performance of Nigeria?

Table 10 presents respondents responses as to whether supplier lead time reduction enhances Procurement Performance of Nigeria.

Table 10 reveals that most of the respondents agree on the fact that supplier lead time reduction affect Procurement Performance in Nigerian Government Agencies. This is because most of the respondents agree that Supplier's ability to meet customer needs more quickly and efficiently has improved since the lead time reduction initiatives were implemented, the cost of inventory management or the carrying cost of inventory has decreased since the lead time reduction initiatives was implemented, Supplier's ability to respond to sudden changes in demand has improved since the lead time reduction initiatives was implemented, Supplier's ability to plan and forecast future needs more accurately has improved since the lead time reduction initiatives was implemented, Supplier's overall production efficiency has improved since the lead time reduction initiatives was implemented, Supplier's ability to reduce waste and inefficiencies in the production process has

improved since the lead time reduction initiatives was implemented, Supplier's overall cost of production has decreased since the lead time reduction initiatives was implemented, and Supplier's ability to meet customer deadlines has improved since the lead time reduction initiatives was implemented. This is so because their calculated mean is greater than the criterion mean of 2.5.

5) Analysis of Responses to Research Question Three

What does it mean to establish trusting connections with suppliers while making purchases in Nigeria?

How does establishing trustworthy connections with suppliers impact procurement performance in Nigeria? In Table 11, you can see how respondents responded to this question.

Table 11 reveals that most of the respondents agree on the fact that trust-based relationships with suppliers has an effect on Procurement Performance in Nigeria. This is because most of the respondents agree that the level of trust between the supplier and the organization has improved since the relationship building initiatives was implemented, the level of collaboration and communication between the supplier and the organization has improved since the relationship building initiatives was implemented, the cost of doing business with the supplier has decreased since the relationship building initiatives

Table 11
Effect of trust-based relationships with suppliers on procurement performance

(C)	Effect of trust-based relationships (TBR) with suppliers on Procurement Performance	SD	D	A	SA	Agg. Score	Mean	Decision
19	The level of trust between the supplier and the organization has improved since the relationship building initiatives was implemented	33	33	133	16	215	2.61	Accept
20	The level of collaboration and communication between the supplier and the organization has improved since the relationship building initiatives was implemented	60	29	81	45	215	2.52	Accept
21	The cost of doing business with the supplier has decreased since the relationship building initiatives was implemented	72	70	46	27	215	2.13	Reject
22	The satisfaction level of both parties with the relationship has increased since the relationship building initiatives was implemented	47	34	83	51	215	2.64	Accept
23	The willingness of the supplier to be flexible and adaptable to the organization's needs has improved since the relationship building initiatives was implemented	41	48	80	46	215	2.61	Accept
24	The speed and efficiency of the procurement process has improved since the relationship building initiatives was implemented	34	53	76	52	215	2.68	Accept
25	The supplier's willingness to share information and knowledge with the organization has improved since the relationship building initiatives was implemented	38	40	66	71	215	2.79	Accept
26	The supplier's commitment to providing high-quality products and services has improved since the relationship building initiatives was implemented	13	43	109	50	215	2.91	Accept
27	The supplier's willingness to go above and beyond the minimum requirements of the contract has improved since the relationship building initiatives was implemented	43	25	99	48	215	2.71	Accept
Grand MEAN							2.62	Accept

Source: Researcher's Computation, 2024

Table 12
Impact of supplier collaboration in new product development on procurement performance

(D)	Impact of supplier collaboration in new product development on Procurement Performance	SD	D	A	SA	Agg. Score	Mean	Decision
28	The collaboration between the supplier and the organization has improved the speed of new product development	37	17	130	31	215	2.72	Accept
29	The collaboration between the supplier and the organization has improved the quality of new products developed	43	35	78	59	215	2.71	Accept
30	The collaboration between the supplier and the organization has improved the innovation and creativity of new products developed	38	40	82	55	215	2.72	Accept
31	The collaboration between the supplier and the organization has improved the cost-effectiveness of new products developed	74	38	85	18	215	2.22	Reject
32	the collaboration between the supplier and the organization improved the overall competitiveness of the organization	43	43	103	26	215	2.66	Accept
33	Supplier's collaboration with the organization has led to a better understanding of customer needs and preferences	41	26	89	59	215	2.77	Accept
34	Supplier's collaboration with the organization has led to more effective communication between the two parties	34	31	78	72	215	2.87	Accept
35	Supplier's collaboration with the organization has led to improved trust and loyalty between the two parties	15	45	74	81	215	3.03	Accept
36	Supplier's collaboration with the organization has led to cost savings for either party	36	46	112	21	215	2.55	Accept
Grand MEAN							2.69	Accept

Source: Researcher's Computation, 2024

was implemented, the satisfaction level of both parties with the relationship has increased since the relationship building initiatives was implemented, the willingness of the supplier to be flexible and adaptable to the organization's needs has improved since the relationship building initiatives was implemented, the speed and efficiency of the procurement process has improved since the relationship building initiatives was implemented, the supplier's willingness to share information and knowledge with the organization has improved since the relationship building initiatives was implemented, the supplier's commitment to providing high-quality products and services has improved since the relationship building initiatives was implemented, and the supplier's willingness to go above and beyond the minimum requirements of the contract has improved since the relationship building initiatives was implemented. This is so because their calculated mean is greater than the criterion mean of 2.5.

6) Analysis of Responses to Research Question Three

What effects does supplier collaboration in new product

development has on Procurement Performance in Nigeria?

Table 12 presents respondents responses as to what effects does supplier collaboration in new product development has on Procurement Performance in Nigeria.

Table 12 shows that the ability of Nigerians to purchase goods is influenced by collaborative efforts with manufacturers to develop new products. This is the view held by the majority of participants. This is due to the fact that the majority of respondents felt that the supplier-company connection has resulted in an increase in the production of new items. The newly manufactured goods have been significantly improved in quality thanks to the supplier's and company's joint efforts. The new goods' creators and developers have gotten a huge boost from the provider's and company's collaborative efforts. As a result of the supplier and business cooperation, newly manufactured goods are now more affordable, and the business is more competitive in general. Through their collaboration, the supplier and the company have gained a deeper understanding of their customers' wants and needs, improved communication,

Table 13
Effect of supplier partnership or development on procurement performance

(E)	Effect of supplier partnership or development on Procurement Performance	SD	D	A	SA	Agg. Score	Mean	Decision
37	Partnership or development between the supplier and the organization has resulted in cost savings	97	19	89	10	215	2.06	Reject
38	Partnership or development between the supplier and the organization has resulted in improved quality of goods or services	37	43	60	75	215	2.80	Accept
39	Partnership or development between the supplier and the organization has resulted in improved customer satisfaction	23	13	111	68	215	3.04	Accept
40	Partnership or development between the supplier and the organization has resulted in better knowledge sharing between the two parties	33	16	96	70	215	2.94	Accept
41	Partnership or development between the supplier and the organization has resulted in a more efficient supply chain	7	36	113	59	215	3.04	Accept
42	Partnership or development between the supplier and the organization has resulted in improved risk management	46	24	78	67	215	2.77	Accept
43	Partnership or development between the supplier and the organization has resulted in improved communication between the two parties	39	13	90	73	215	2.92	Accept
	Grand MEAN						2.80	Accept

Source: Researcher's Computation, 2024

Table 14
Analysis on procurement performance

(F)	Procurement performance	SD	D	A	SA	Agg. Score	Mean	Decision
44	Agency's procurement process complies with applicable laws and regulations	31	33	125	26	215	2.68	Accept
45	Agency's procurement process adheres to international best practices	39	38	109	29	215	2.60	Accept
46	Agency's procurement process takes into account the needs of stakeholders	36	32	125	22	215	2.62	Accept
47	Agency have a robust system for monitoring and evaluating procurement performance	43	35	93	44	215	2.64	Accept
48	Agency have a robust system of internal controls for procurement activities	38	51	72	54	215	2.66	Accept
49	The level of satisfaction among internal and external stakeholders is high with the agency's	32	45	76	62	215	2.78	Accept
50	The overall level of professionalism is high in the agency's procurement function	38	25	76	76	215	2.88	Accept
51	The agency collaborates well with other agencies and stakeholders in the procurement process	4	34	103	74	215	3.15	Accept
52	The agency has a well-defined procurement strategy	1	28	146	40	215	3.05	Accept
	Grand MEAN						2.78	Accept

Source: Researcher's Computation, 2024

strengthened relationships based on trust and loyalty, and reduced expenses for both sides. This is due to the fact that their anticipated mean surpasses the mean of the 2.5-based criterion.

7) Analysis of Responses to Research Question Three

What effects does supplier partnership or development has on Procurement Performance in Nigeria?

Table 13 presents respondents responses as to what effects does supplier partnership or development has on Procurement Performance in Nigeria.

Table 13 reveals that most of the respondents agree on the fact that supplier partnership or development has an effect on Procurement Performance in Nigeria. This is because most of the respondents agree that Partnership or development between the supplier and the organization has resulted in cost savings, Partnership or development between the supplier and the organization has resulted in improved quality of goods or services, Partnership or development between the supplier and the organization has resulted in improved customer satisfaction, Partnership or development between the supplier and the organization has resulted in better knowledge sharing between the two parties, Partnership or development between the supplier and the organization has resulted in a more efficient supply chain, Partnership or development between the supplier and the organization has resulted in improved risk management, and Partnership or development between the supplier and the organization has resulted in improved communication between the two parties. This is so because their calculated mean is less than the criterion mean of 2.5.

8) Analysis of Responses on Procurement Performance in Nigeria

Table 14 presents respondents responses as to the Procurement Performance in Nigeria.

Table 14 reveals that most of the respondents agree on the following facts about Procurement Performance in Nigeria. This is because most of the respondents agree that Agency's procurement process complies with applicable laws and regulations, Agency's procurement process adheres to international best practices, Agency's procurement process takes into account the needs of stakeholders, Agency have a robust system for monitoring and evaluating procurement performance, Agency have a robust system of internal controls for procurement activities, The level of satisfaction among internal and external stakeholders is high with the agency's, The overall level of professionalism is high in the agency's procurement function, The agency collaborates well with other agencies and stakeholders in the procurement process, and The agency has a well-defined procurement strategy. This is so because their calculated mean is less than the criterion mean of 2.5.

5. Conclusion and Policy Recommendation

The purpose of this research was to examine the relationship between supplier relationship management strategies and the efficiency with which the Bureau of Public Procurement (BPP) and the National Petroleum Investment and Management Services (NAPIMS) make purchases on behalf of the Nigerian

government. Supplier Quality Improvement (SPM), Supplier Lead Time Reduction (SLT), Supplier Collaboration in New Product Development (SCL), and Supplier Partnership or Development (SPT) were the five categories into which Supplier Relationship Management Strategies were categorised for the purposes of this study. Four hundred and thirty-three surveys were distributed. Returns totalling 416 (or 94.8% of the total) were filled out surveys. These copies were crucial to the study, but 24 of them—or 5.2%—went missing. For this project's data gathering phase, participants were asked to fill out questionnaires. The investigation and analysis will heavily rely on simple averages. Procurement performance in Nigeria impacts supplier partnerships or growth, trusting relationships with suppliers are shaped by procurement performance, suppliers are affected by procurement performance when it comes to new product development, and lowering supplier lead times affects procurement performance in Nigeria, according to the study's respondents.

Policymakers in Nigeria may be able to use the study's findings to their advantage by learning how to increase supplier quality, decrease wait times, establish trustworthy relationships, involve suppliers in product innovation, and forge alliances with other suppliers. Here are the recommendations that follow.

- (i) Implement standardized quality management practices across government agencies to ensure consistent supplier quality. Regular training and audits can help maintain and improve quality standards.
- (ii) Establish clear guidelines and best practices for managing supplier lead times. Agencies should prioritize suppliers with proven track records of timely delivery and collaborate with them to identify areas for improvement.
- (iii) Encourage procurement officers to develop long-term relationships with suppliers built on trust and transparency. This could involve regular communication, feedback mechanisms, and joint problem-solving initiatives.
- (iv) Create policies that facilitate collaboration between government agencies and suppliers in the early stages of product development. This could include workshops, joint development programs, and shared innovation initiatives.
- (v) Develop frameworks for supplier development programs that enhance supplier capabilities. This could involve providing technical assistance, sharing best practices, and incentivizing suppliers to engage in continuous improvement efforts.
- (vi) Implement a system for regular evaluation of procurement performance that includes metrics related to supplier quality, lead times, collaboration, and partnerships. This will help identify areas for improvement and inform future procurement strategies.
- (vii) Involve key stakeholders, including suppliers, in the policy-making process to ensure that their insights and experiences inform procurement strategies. This can

help build a more collaborative and effective procurement ecosystem.

References

- [1] Al-Abdallah, G. M., Abdallah, A. B., & Hamdan, K. B. (2014). The Impact of Supplier Relationship Management on Competitive Performance of Manufacturing Firms. *International Journal of Business and Management*, 9(2), 192-202.
- [2] Corsten, D., & Felde, J. (2005). Exploring the performance effects of key-supplier collaboration: An empirical investigation into Swiss buyer-supplier relationships. *International Journal of Physical Distribution & Logistics Management*.
- [3] Das, S., Tosaki, A., Bagchi, D., Maulik, N., & Das, D. K. (2005). Resveratrol-mediated activation of cAMP response element-binding protein through adenosine A3 receptor by Akt-dependent and-independent pathways. *Journal of Pharmacology and Experimental Therapeutics*, 314(2), 762-769.
- [4] Enz, M. G., & Lambert, D. M. (2012). Using cross-functional, cross-firm teams to co-create value: The role of financial measures. *Industrial Marketing Management*, 41(3), 495-507.
- [5] Fiona, W. M., & Samuel, M. (2022). Influence of Supplier Relationship Management on the Performance of Food and Beverage Manufacturing Firms in Kenya: A Survey of Kiambu County. *International Journal of Business and Social Research*, 12(3), 13-30.
- [6] Flynn, B.B., Huo, B. and Zhao, X. (2010). The Impact of Supply Chain Integration on Performance: A Contingency and Configuration Approach. *Journal of Operations Management*, 28, 58-71.
- [7] Frohlich, M. T., & Westbrook, R. (2001). Arcs of integration: an international study of supply chain strategies. *Journal of operations management*, 19(2), 185-200.
- [8] Giannakis, M., Doran, D., & Chen, S. (2012). The Chinese paradigm of global supplier relationships: Social control, formal interactions and the mediating role of culture. *Industrial Marketing Management*, 41(5), 831-840.
- [9] Janda, S., & Seshadri, S. (2001). The influence of purchasing strategies on performance. *Journal of Business & Industrial Marketing*.
- [10] Kevin, O., & Otero, J. A. (2023). Supplier Relationship Management Practices Procurement Ethics and Supply Chain Performance in County Governments. *Journal of Business and Social Review in Emerging Economies*, 9(2), 63-72.
- [11] Kim, D., & Singhose, W. (2010). Performance studies of human operators driving double-pendulum bridge cranes. *Control Engineering Practice*, 18(6), 567-576.
- [12] Nkpee, B. S., & Tamunomiebi, M. D. (2020). relationship management and vendors' performance evaluation in the Rivers State Bureau for public procurement (RSBOPP), Nigeria. 7(1), 298-310.
- [13] Kosgei, R. C., & Gitau, R. (2016). Effect of supply relationship management on organizational performance: A case study of Kenya Airways Limited. *International Academic Journal of procurement and supply chain management*, 2(2), 134-148.
- [14] Lambert, M. J. (2004). of Psychotherapy. Bergin and Garfield's handbook of psychotherapy and behaviour change, 139.
- [15] Lee, K., Kim, Y., & Joshi, K. (2017). Organizational memory and new product development performance: Investigating the role of organizational ambidexterity. *Technological Forecasting and Social Change*, 120, 117-129.
- [16] Liao, Y., Hong, P., & Rao, S. S. (2010). Supply management, supply flexibility and performance outcomes: an empirical investigation of manufacturing firms. *Journal of Supply Chain Management*, 46(3), 6-22.
- [17] Lii, P., & Kuo, F. I. (2016). Innovation-oriented supply chain integration for combined competitiveness and firm performance. *International Journal of Production Economics*, 174, 142-155.
- [18] Lynn III, W. F. (2010). Defending a new domain-the Pentagon's strategy. *Foreign Aff.*, 89, 97.
- [19] Opaleye, M. A., Ojelade, M. O., & Aremu, A. B. (2020). Effects of supplier relationship management practices on performance of quoted food and beverage firms in Nigeria. *IIARD International Journal of Economics and Business Management*, 6(2), 34-48.
- [20] Poku, O. A. (2022). Supplier relationship management and firm performance: the role of operational capabilities. A thesis submitted to the Department of Supply Chain and Information Systems, School of Business, College of Humanities and Social Sciences, KNUST in partial

- fulfilment of the requirements for the degree of Master of Science in Logistics and Supply Chain Management.
- [21] Rezaei, J., & Ortt, R. (2012). A multi-variable approach to supplier segmentation. *International Journal of Production Research*, 50(16), 4593-4611.
 - [22] Rezaei, J., Wang, J., & Tavasszy, L. (2015). Linking supplier development to supplier segmentation using Best Worst Method. *Expert Systems with Applications*, 42(23), 9152-9164.
 - [23] Rosenzweig, E. D., Roth, A. V., & Dean Jr, J. W. (2003). An exploratory study of consumer product manufacturers is the influence of an integration strategy on competitive capabilities and business performance. *Journal of operations management*, 21(4), 437-456.
 - [24] Samuel, B. R., Ernest, O., & Kofi, A. S. (2017). Managing Supplier Relationship in a Typical Public Procurement Entity in Ghana: Outcome and Challenges. *Journal of Logistics Management*, 6(1), 26-33.
 - [25] Singh, P. J., & Power, D. (2009). A supply chain perspective is the nature and effectiveness of collaboration between firms, their customers and suppliers—Supply Chain Management: An International Journal.
 - [26] Swink, M., Narasimhan, R., & Wang, C. (2007). Managing beyond the factory walls: effects of four types of strategic integration on manufacturing plant performance. *Journal of operations management*, 25(1), 148-164.
 - [27] Tangus, C. C., Oyugi, L. A., & Rambo, C. (2015). Effect of supplier relationship management practices on performance of manufacturing firms in Kisumu County, Kenya. *International Journal of Economics, Commerce and Management*, 3(11), 499-512.
 - [28] Timmer, M. P., Inklaar, R., O'Mahony, M., & Van Ark, B. (2010). *Economic growth in Europe: A comparative industry perspective*. Cambridge University Press.
 - [29] Tseng, S. M. (2014). The impact of knowledge management capabilities and supplier relationship management on corporate performance. *International Journal of Production Economics*, 154, 39-47.
 - [30] Whitehead, K., Zacharia, Z., & Prater, E. (2019). Investigating the role of knowledge transfer in SC collaboration. *The International Journal of Logistics Management*, 2(3), 52-64.
 - [31] Whipple, J. M., Wiedmer, R., & K. Boyer, K. (2015). A dyadic investigation of collaborative competence, social capital, and performance in buyer-supplier relationships. *Journal of Supply Chain Management*, 51(2), 3-21.
 - [32] Wu, Q., He, Q., Duan, Y., & O'Regan, N. (2012). Implementing dynamic capabilities for corporate strategic change toward sustainability. *Strategic Change*, 21(5), 231.
 - [33] Yang, Q., Zhao, X., Yeung, H. Y. J., & Liu, Y. (2016). Improving logistics outsourcing performance through transactional and relational mechanisms under transaction uncertainties: Evidence from China. *International Journal of Production Economics*, 175, 12-23.
 - [34] Zhang, H., Wang, Y., & Song, M. (2020). Does Competitive Intensity Moderate the Relationships between Sustainable Capabilities and Sustainable Organizational Performance in New Ventures. *Sustainability*, 12(1), 253.