

## The Effect of Supply Chain Management Practices on Organizational Performance: A Moderating Role of Trust

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**Abstract:** *The study examined moderating effect of trust on supply chain management practices and organizational performance of different firms involved in consultancy services within North-East, Nigeria. The following variables, customer relationship management, strategic supplier partnership, information sharing were measured on organizational performance, and how each relationship was moderated by trust among firms. Data was collected with the use of questionnaire from 381 respondents in the Nigeria manufacturing industry using survey questionnaire. Partial least squares structural equation path modeling (PLS-SEM) was used to analyse the hypotheses of the study. The study findings show that there were positive significant relationships between customer relationship management, information sharing and organizational performance, but a weak relationship. Also, strategic supplier partnership has significant effect on organizational performance. Furthermore, trust moderates strategic supplier partnership, customer relationship management and organizational performance, although strong but negative relationship. In essence trust has no moderating effect on the relationship between information sharing and organizational performance. The study recommends among others that customer relationship management matches trust, and a firm's performance is inevitable for resilient supply chain practices. There is need to maintain long term relationships with strategic suppliers to ensure quick delivery of quality materials or components for production flow and quick delivery of finished products to the consumers. Also there need to develop different avenues to ease the sharing of core business information with other stakeholders, in terms of order placement and demand. Organization should concentrate on instituting growth strategies that are based on trust to enhance it performances and reduce the risk and cost of operations. The result of this study would help managers or policy makers to draft action plans by identifying and prioritizing their supply chain strategies. Managers can increase their knowledge to make strategic decisions regarding which actions to prioritize for organizations to record success in SCM resourcefulness and performance. Hence, the study contributes theoretically by examining the moderating role of organizational trust on customer relationships, strategic supplier partnership, information sharing and organizational performance.*

**Keywords:** *Customer Relationship Management, Strategic Supplier Partnership, Information Sharing, Trust, Supply Chain Management*

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## **1.1 Introduction**

In today's business arena, the world generally has encountered an accelerated leveling with growing global interconnectedness (Ojoajogu, Inuwa & Lame, 2023). While advanced economies might be seen at the front of this revolution, but evolving markets are a basic component in the global supply chain (Obisesan, Ojubanire & Towolawi, 2022). Similarly, Odita Anthony and Ogomegbunam (2023) observed that, these days' firms discovered that to flourish in this global competitive ground, they must clinch radical change, be innovative, and involve more in supply chain management. However, Szczepanski (2021) observed that every company's long-term survival, fortune, and value chain creation are at risk since they depend on firm's level of supply chain growth.

The performance of the organization is evaluated against the set missions and vision of the company, which is very crucial to attainment of set objectives. Organizational performance is multifaceted and difficult to define and measure (Ojoajogu, et al., 2023). Complex problems that impact manufacturing companies' performance include output variability, quality problems, postharvest losses, insufficient input supply, broken supply chains, and expensive processing (Inuwa, Male & Aminu, 2023). The difficulties play a significant role in the manufacturing companies' underutilization of their processing capacities (Maina, Njehia & Eric, 2020; Kibogy, 2019). In a similar spirit, Nigeria and other African nations do not completely implement business operations such as production planning, inventory management, and continuous improvement procedures (Inuwa & AbdulRahim, 2020; Olaore et al., 2020). However According to Bernard, Iriana, and Ahmad (2019), an organization's subpar performance might be attributed to inadequate policies or structure, which should be carefully examined. In the same vein, Adem and Viridi (2021) noted that only businesses that produce excellent products through forging close relationships with their suppliers would prosper in today's fiercely competitive and international business environment, where customers are growing more discerning.

Similarly, companies engaged in supply chain management consistently face obstacles such as fragmentation, inadequate traceability, and an absence of up-to-date data (Zhaojing, Tengyu, Hao, Jie, Xu, & Qiying, 2020). Nonetheless, it has been noted by Maldonado-Guzman, Marin-Aguilar & Garcia, 2018; Le, Vu, Du and Tran (2018) that supply chain management (SCM) has become a crucial tactic for successful operations. In terms of supplier performance measures, a large portion of the important supplier-specific information is frequently hidden and underutilized (Abdurrezzak, Mehmet, Ali, & Mehmet, 2019). The concept of building intra-organizational trust, or trust within organizations, has garnered a lot of attention in the organizational literature because it appears to be a likely mechanism to improve performance (Bulińska-Stangrecka, & Iddagoda, 2020). However, this ostensibly positive relationship has not been consistently confirmed by empirical research, despite a large number of studies analyzing the correlations between organizational or intra-organizational trust and performance; hence, a profoundly clearer interpretation is required (Guinot & Chiva, 2019). According to Tarigan and Siagian (2021), the manufacturing sector must collaborate with partner companies to produce benefits for balanced supply and demand. Although client loyalty plays a significant role in a company's overall strategic position, where businesses are steadily focusing more on production than on customers, and they are making efforts to broaden their operational scope (Forry & Abdul, 2018). According to Cruz-Jesus, Pinheiro, and Oliveira (2019), there is still a relatively low acceptance and implementation rate among CRM users, despite the concentration of investment

and focus on traditional customer relationship management. Thus, in order to achieve organizational growth and competitiveness, as well as to increase profit margins in relation to SCMP and organizational performance, organizations must be familiar with the ideas and practices of supply chain management (SCM) (Win, 2022).

### **1.2 Research Objectives**

The main purpose of this study is to examine the effect of supply chain management practice and organizational performance: A moderating role trust. While the (*specific objectives*) of this study are outlined below:

- i. To measure the relationship between strategic supplier partnership and organizational performance.
- ii. To assess the relationship between customer relationship management and organizational performance.
- iii. To evaluate the relationship between information sharing and organizational performance.
- iv. To assess the moderating role of organizational trust and the relationship between customer relationship management on organizational performance.
- v. To measure the moderating of role of trust and the relationship between strategic supplier partnership on organizational performance.
- vi. To evaluate the moderating role of trust and the relationship between information sharing on organizational performance.

### **1.3 Research Questions**

- i. To what extent does customer relationship management influence organizational performance?.
- ii. To what extent does strategic supplier partnership influence organizational performance?.
- iii. To what extent does information sharing influence organizational performance?.
- iv. How does trust moderate the relationship between customer relationship management and organizational performance?.
- v. How does trust moderate the relationship between strategic supplier partnership on organizational performance?.
- vi. How does trust moderate the relationship between information sharing and organizational performance?.

### **2.1 Review of Related Literature**

The literature review comprises the concept of supply chain management practices, and its dimensions (customer relationship management, strategic supplier partnership and information sharing), the concept of organizational performance as well as to determine the moderating effect of the trust.

#### **Conceptual Reviews**

This part is set to enumerate the various concepts that make up this research in order to outline the views, ideas and contributions of other scholars who had made their works available as related to this topic, through which the exiting study can build further on it.

#### **Organizational Performance**

Financial and non-financial criteria can be used to categorize an organization's performance (Charles, Benard & Bett, 2020). According to Rajguru & Matanda (2019; Doan, 2020),

organization performance is the combination of a company's operational expertise and the levels of firm competitiveness attained through supply chain integration. The manner a company achieves its goals in terms of both financial and market-oriented objectives is referred to as its organizational performance (Jutamat, Watcharin & Kittisak 2019). A company's performance is determined by how well it uses its resources to achieve its goals (Hong, Liao, Zhang, & Yu, 2019).

### **Supply Chain Management Practices**

SCM methods aim to create connections between upstream and downstream businesses in order to increase customer value by raising the caliber of goods and services provided to final consumers (Sukati, Sanyal, & Ba Awaain, 2020). In order to collaboratively create a high-performing business model, supply chain management (SCM) entails the ongoing integration of value-creating activities across organizational boundaries while lowering system-wide costs (Charles, Benard & Bett, 2020). The goal of supply chain management (SCM), a very active upstream to downstream distribution network, is to produce a superior product or service at the lowest possible cost (Mahmud, 2021).

### **Customer Relationship Management**

Al-Hazmi (2021) defines customer relationship management (CRM) as a strategy for managing a company's interactions with both current and potential clients. CRM refers to the knowledge, principles, and procedures that businesses use to assess and manage their customer interfaces with data over the course of the customer's lifecycle (Walid, Al-Hussain, Al-Suraihi, Ali, & Mohammed, 2020). Similarly, as price-product transparency has increased, customers' orientations have changed, making them more discerning and alert and more price sensitive and sophisticated. This type of scenario calls for a more complex job to sustain customer dependability and attaining value for money (Ahmad, Sutan, & Deema 2018).

### **Strategic Supplier Partnership**

According to Jajja, Asif, Mantabon, and Chatha (2019), a strategic supplier partnership is one in which the supplier and the company work together to discover solutions to the issues the supplier faces in obtaining information, providing raw materials, and achieving the necessary just-in-time delivery. According to Yang, Jiang, and Xie (2019), a strategic supplier partnership is a buyer-supplier connection that fosters strong cooperation, information exchange, and high flexibility, all of which contribute to effective firm performance, particularly in marketing methods. In order to accomplish product or service quality in the supply chain stream based on the conditions set by the customer, the partnership built by the company is unified with intra/inter-organization by developing the communication flow, through shared information and expertise (Yu & Huo, 2018). Strategic supplier relationship is a collaboration that allows the parties participating in the chain provide solution to the challenges experienced by the supplier in obtaining information, making raw materials available, and accomplishing the necessary on-time delivery (Jajja, Asif, Mantabon, & Chatha, 2019).

### **Information Sharing**

In order to accomplish certain strategic goals (such enhanced company performance) through collaboration with business partners, sharing information is typically a must and beneficial behavior (Vafaei-Zadeh, Thurasamy, Hanifah, Kurnia, & Mahmud, 2020). Information sharing is known to get better with inspiration and experience. It can be thought of as the exchanging of cues that facilitates mutual understanding toward accomplishing a specific objective (Li, Bonn,

& Ye, 2019). The idea of shared knowledge—a circumstance in which organizations collaboratively share their explicit and tacit knowledge to create new knowledge—is frequently associated with information sharing (Nguyen, 2020). Yoon, Talluri, and Rosales (2020) describe information sharing as a cooperative program in which the downstream firm gives the upstream firm information on demand and inventory status.

### **Trust**

According to Long (2021), trust can be defined as an individual's inclination to display vulnerability in response to the behaviors of another, with the expectation of positive behavior in return. Zheng, Xiao, Hu, and Jen (2020) It is well recognized that trust is a crucial regulating mechanism that enables supplier partners to focus on the ongoing advantages of their partnership, significantly boosting competitiveness and lowering operating expenses. Wang, Huo and Zhao (2020) trust fortify the confidence and desire to share correct, comprehensive, and timely information, which may be seen as a particular investment in avoiding information asymmetry. Furthermore, trust reduces the perceived risks and mistakes associated with sharing information. Trust is cooperation, where by firms share little of key information and involve some suppliers—customers in longer-term contract, which has become the verge of supply-chain- interface (Olapoju & Manag, 2019). Kimario (2021) goals that are affiliated to each other will allow partners to achieve specified objectives, such as delivery time and supplied quantity of materials in a user-friendly way whilst both parties gain mutual benefits of the relationship.

### **Theoretical Review**

**Social Exchange Theory (SET)** advocates that firms can achieve different benefits from social interactions in supply chain relationships, which is regarded as reciprocity and interdependence among firms and the parties involved (Blau, 1964; Chen, Liu, & Wang, 2021). According to social exchange theory, partners depend on the affiliation between buyers and suppliers, which they achieve by modifying the products and operational procedures of other partners. According to previous studies, companies gain advantages over time by building trust in the buyer-supplier relationship. Increasing product quality, prompt delivery from suppliers, and resource allocation are a few of these benefits (Hallen et al. 1991; Poppo et al. 2016; Srinivasan et al. 2018; Birasnav, Mittal, & Dalpati, 2019). In a social exchange connection, supply chain participants are happy to return favors received from one another. Accordingly, the partnership denotes an asset that helps the trading parties and advances competence, productivity, and supply chain management success (Doz & Kosonen, 2010; Chen, Liu, & Wang, 2021).

Social Exchange Theory in Supply Chain Management (SCM) takes into account the mutuality amongst networked establishments (Halldorsson et al., 2007). In this scenario, a supplier supports its manufacturer through enterprise plans and expects reimbursement from partners for the support at a later time (Narasimhan and Talluri, 2009; Yang et al., 2008; Wu et al., 2014). According to Griffith et al. (2006), a partner firm that receives valued contributions fosters a sense of commitment and reacts with appropriate results. According to the theory, a firm's behavior within a supply chain may be understood through social interfaces, and supply chain partners share resources through affiliation. The focus of social exchange theory is on the relationships between participants that determine how resources and benefits are shared (Das & Teng 2002; Yeung et al. 2009; Aslam, et al., 2022).

### Conceptual Framework

Conceptual framework is a demonstration of how the variables are closely related. A conceptual framework is a set of wide range ideas and philosophies coined from relevant fields of enquiry and used to structure a subsequent presentation (Azmi, Abdullah, Bakri, Musa & Jayakrishnan, 2018).

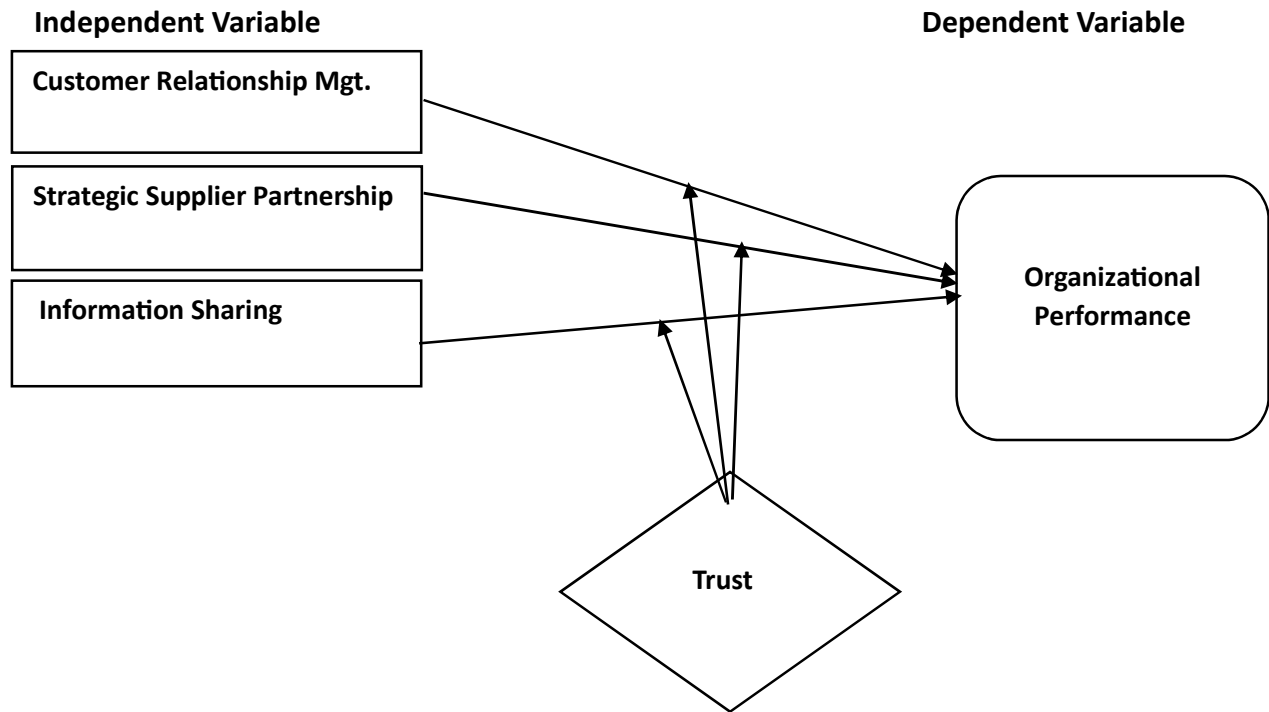


Figure 1

Source: Framework of the study, 2024

### Empirical Review and Hypotheses Development

#### Customer Relationship Management and Organizational Performance

Efosa and Omoregbe (2021) discovered that businesses with higher levels of customer relationships also have higher levels of organizational performance and competitive advantage in their study on supply chain management, competitive advantage, and organizational performance in the Nigerian manufacturing sector. Customers, and in particular improved customer relationships, have a significant impact on organizational performance, according to Harith, Alanoud, Hajar, Amani, and Bestoon (2021). Managers who comprehend the importance of a better customer focus effectively handle the various needs, expectations, and demands of their customers in order to improve organizational performance. The route analysis conducted by Adebiyi, Adediran, Shodiya, and Olusola (2021) demonstrated that customer relationship management had a beneficial impact on business performance. Additionally, it was discovered that customer relationship management significantly affected business performance at  $p < 0.05$  and  $CR > 1.96$ .

H<sub>11</sub>: *There is a positive significant relationship between customer relationship management and organizational performance.*



### **Strategic Supplier Partnership and Organizational Performance**

According to the findings of the study by Efosa and Omoregbe (2021), companies with higher levels of strategic supplier partnerships would also have higher levels of organizational performance and competitive advantage. This outcome is in line with research by Mohammad et al. (2019), which discovered that supplier connections improved continuous performance. It also bolsters the conclusions of Richard et al. (2020), who found that supply chain management plays a critical role in augmenting business success through strategic supplier agreements, which are favorably correlated with operational success. Organizational performance was also found to be significantly impacted by strategic supplier partnerships. Studies by Hong et al. (2020), Abdullah and Al-Ghwayeen (2019), and Jayalath et al., (2017) support this conclusion.

H1<sub>2</sub>: *There is a positive significant relationship between strategic supplier partnership and organizational performance.*

### **Information Sharing and Organizational Performance**

Mushi<sup>1</sup>, Mwiseje, and Changalima (2021) found a significant positive relationship between information sharing and organizational performance (p-value = 0.05).  $\beta = 0.249$  indicates that a one-unit change in information sharing leads to a 24.9% increase in organizational performance. Zhang et al. (2015) suggested that sharing important information among supply chain partners helps companies coordinate their processes rather than achieving shared objectives. Poi and Okwandu (2021) found that information sharing does not necessarily increase customer satisfaction but rather increases customer loyalty because timely information must be shared and managed before, during, and after sales in order for it to directly influence customer satisfaction.

H1<sub>3</sub>: *There is a positive significant relationship between information sharing and organizational performance.*

### **Moderating Role of the Organizational Trust on the Relationship Between Customer Relationship Management and Organizational Performance**

Building trust has a big impact on keeping customers and their propensity to make additional purchases (Choi, 2020). According to Hughes, Rigtering, Covin, Bouncken, and Kraus (2018), an employee's innovative behavior and job performance are mediated by the presence of trust within the team. According to Laureani and Antony's (2017) study, a company can guarantee that the production and delivery of goods and services align with the needs of the customer (also known as the "voice of the customer") by analyzing, enhancing, and managing the value stream. This involves providing the appropriate good or service at the appropriate time and location. Another study by Dubey, Gunasekaran, Sushil, and Singh (2015) found that companies can deeply penetrate consumer activities to learn about their products, markets, cultures, and industries in order to appropriately respond to requests and demands from customers. The success of an alliance is positively impacted by trust.

H1<sub>4</sub>: *There is a positive significant moderating role of organizational trust on the relationship between customer relationship management and organizational performance.*

### **Moderating Role of Organizational Trust on the Relationship Between Strategic Supplier Partnership and Organizational Performance**

When working with a rival partner that has more valuable and complementary resources than a non-rival, trust is probably going to be more important than it is with the former.

Consequently, it is anticipated that in an environment where alliance partners are competing, the relationship between trust and performance would become more evident (Muthusamy & Dass, 2021). Positive partner cooperation is positively correlated with inter-organizational trust, and this could impact the logistics chain's ability to perform better (Cricelli, Greco, & Grimaldi 2021; Wei, Wong, & Lai 2012). In a similar vein, Su, Chen, Cui, Yang, and Ma's study from 2020 periodically concluded that performance is much enhanced by trust. In particular, trust is a powerful facilitator of organizational performance between organizations and has a larger positive link with team performance than it does with individual and organizational performance within the organization.

*H1<sub>5</sub>: There is a positive significant moderating role of organizational trust on the relationship between strategic supplier partnership and organizational Performance.*

### **Moderating Role of the Organisational Trust on the Relationship Between Information sharing and Organizational Performance**

The affiliation between a customer and a supplier is a type of cooperation that fosters strong teamwork, information sharing, and high adaptability. These attributes will improve the performance of the company, especially in marketing strategies (Yang et al., 2019). Information sharing between supply chain participants has a significant impact on trust (Dubey, Altay, & Blome, 2019). Because participants in a supply chain that trust one another will exchange information, trust is crucial (Oláh, Sadaf, Máté & Popp, 2018). Information exchange among the growing business community is a significant success factor, according to Xue, Dang, Shi, and Gu (2019). According to Ghahtarani, Sheikhmohammady, and Rostami (2019), a study on the connection between trust and information sharing in green supply chains led them to believe that trust is the key component driving inter-organizational knowledge sharing.

*H1<sub>6</sub>: There is a positive significant moderating role of organizational trust on the relationship between Information sharing and organizational performance.*

### **3.0 Methodology**

This study is a survey research carried out among different consultancy services from various institutions of higher learning, in North-East Nigeria (FPTB Consultancy Service Ltd, Federal Polytechnic Bali Consultancy Service, Federal Polytechnic Mubi Consultancy Service and Federal Polytechnic Damaturu Consultancy Services) that focuses on the existing empirical evidences from other related studies, trying to synthesize different constructs identified to determine the probable causal effects of such variables on each other. For this study, a quantitative approach was adopted based on the objectives of the study to test the nexus among the variables under the study. Since, there is a need to obtain data on the key variables and test and establish relationships between them, quantitative approach would be the clear choice of research method to employ for this study.

In this research sample size was determined; a set of five (5) likert scale structured questionnaire was used as the instrument for data collection which shows demographic characteristics of the respondents, and describe some social phenomenon and respondents' knowledge, perception, as well as their understanding concerning the subject matter. A total number of 409 questionnaire were administered, among which a total of 386 questionnaire were retrieved representing 94.4% percent of the total questionnaire administered. While for further data analysis only 381 were found usable which represents 93.2% percent of the returned sampled respondents, and were analyzed. A non-probability sampling technique



(purposive sampling) was used, to access the targeted sampling frame. The data collected was imputed using statistical package for social sciences (SPSS) and was finally analysed by partial least square-structural equation model (PLS-SEM).

#### **4.0 Data Analysis and Result Presentation**

##### **Respondents' Demographic Profile**

This section focuses on the Gender, Age, Marital Status, Educational Qualification, Work Experience, Employees' Grade Level and Department.

**Table-1**

<b>Variables</b>	<b>Category</b>	<b>Frequency</b>	<b>Percentage %</b>
<b>Gender</b>	Male	245	64.3
	Female	136	35.7
	<b>Total</b>	<b>381</b>	<b>100%</b>
<b>Age</b>	25 - 30 years	195	51.2
	31 - 40 years	128	33.6
	41 - 50 years	35	9.2
	51 years & above	23	6.0
	<b>Total</b>	<b>381</b>	<b>100%</b>
<b>Educational Qualification</b>	ND/NCE	211	55.4
	BSc/HND	127	33.3
	MSc/MBA	32	8.4
	PhD	11	2.9
	<b>Total</b>	<b>381</b>	<b>100%</b>
<b>Marital Status</b>	Single	186	48.8
	Married	185	48.6
	Divorced	10	2.6
	<b>Total</b>	<b>381</b>	<b>100%</b>
<b>Work Experience</b>	5 - 10 years	248	65.1
	11 - 20 years	102	26.8
	21 - 30 years	31	8.1
	<b>Total</b>	<b>381</b>	<b>100%</b>
<b>Employees' Grade Level</b>	Middle Mgt. Level	120	31.5
	Lower Mgt. Level	70	18.4
	Others	191	50.1
	<b>Total</b>	<b>381</b>	<b>100%</b>
<b>Department</b>	Production/Operation	45	11.8
	Logistics	64	16.8
	Marketing/Sales	156	40.9
	Finance	40	10.9
	Others	76	19.9
	<b>Total</b>	<b>381</b>	<b>100%</b>

**Source: Field Survey, 2024**

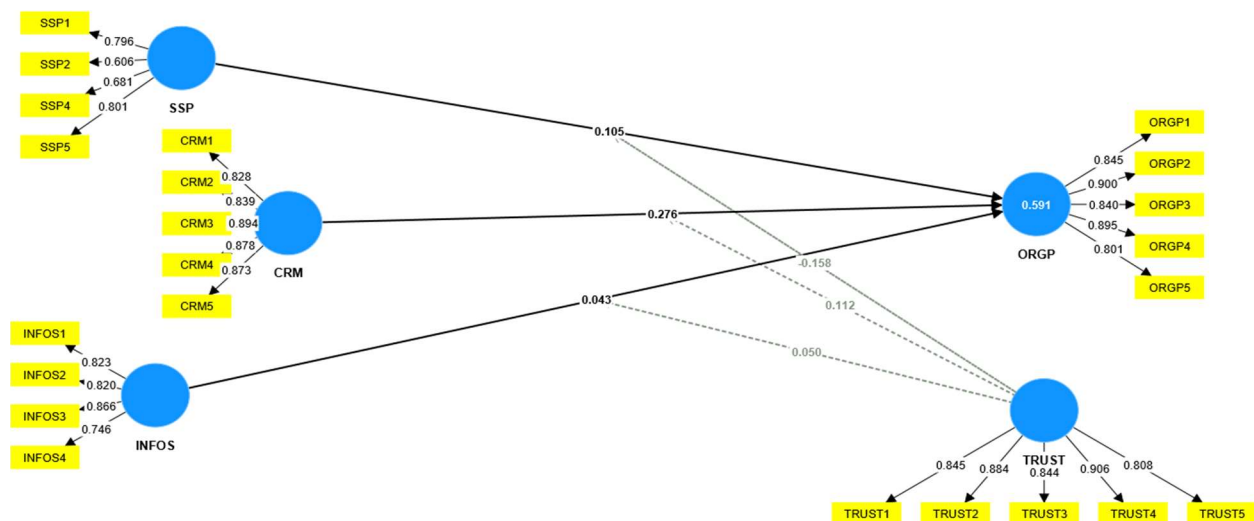
Additionally, this study used SmartPLS4 software by Ringle, Wende and Becker (2022), to analyze data. Following descriptive studies, a two-stage analytical process was used, comprising (a) assessment of measurement models and (b) review of existing structural models (Anderson &

Gerbing, 1988; Hair, Hult, Ringle, & Sarstedt, 2017).

**Table-2 Convergent Validity of Measurement Model**

Constructs	Items	Loadings	CA	CR	AVE
<b>Customer Relationship Mgt. (CRM)</b>	CRM1	0.828	<b>0.915</b>	<b>0.925</b>	<b>0.745</b>
	CRM2	0.839			
	CRM3	0.894			
	CRM4	0.878			
	CRM5	0.873			
<b>Information Sharing (INFOS)</b>	INFOS1	0.823	<b>0.834</b>	<b>0.845</b>	<b>0.664</b>
	INFOS2	0.820			
	INFOS3	0.866			
	INFOS4	0.746			
<b>Organizational Performance (ORGP)</b>	ORGP1	0.845	<b>0.909</b>	<b>0.914</b>	<b>0.735</b>
	ORGP2	0.900			
	ORGP3	0.840			
	ORGP4	0.895			
	ORGP5	0.801			
<b>Strategic Supplier Partnership (SSP)</b>	SSP1	0.796	<b>0.725</b>	<b>0.765</b>	<b>0.527</b>
	SSP2	0.606			
	SSP4	0.681			
	SSP5	0.801			
<b>Organisational Trust</b>	TRUST1	0.845	<b>0.910</b>	<b>0.911</b>	<b>0.736</b>
	TRUST2	0.884			
	TRUST3	0.844			
	TRUST4	0.906			
	TRUST5	0.808			

**Note:** SSP3, INFOS5 were deleted



**Figure 2: Measurement Model**

As stated by Hair, Risher, Sarstedt, and Ringle (2019), the acceptable value for outer loading must be more than 0.50. As a result, factors with factor loadings below 0.50 ought to be eliminated. In this study, dimensionality among the measurement items in the model was achieved by deleting 2 items whose factor loading was less than 0.50.

Every individual Cronbach's Alpha coefficient in this study falls between 0.915 and 0.725, which is the acceptable range for achieving internal consistency (Hair, Astrachan, Moisescu, Radomir, Sarstedt, Vaithilingam, & Ringle, 2020; Hair, et al., 2019). Additionally, all of the composite reliability (CR) factors had values that ranged from "satisfactory to good" between 0.70 and 0.90, according to Hair et al. (2019). These values fell between 0.925 and 0.765. Every AVE's value ranged between 0.745 and 0.527 to evaluate convergent validity; this is within the recommended range of 0.50 and above (Hair et al., 2019).

**Table-3 Discriminant Validity (Fornell-Larcker Criterion)**

<b>Construct</b>	<b>CRM</b>	<b>INFOS</b>	<b>ORGP</b>	<b>SSP</b>	<b>TRUST</b>
CRM	<b>0.863</b>				
INFOS	0.343	<b>0.815</b>			
ORGP	0.496	0.307	<b>0.857</b>		
SSP	0.298	0.242	0.497	<b>0.726</b>	
ORG. TRUST	0.481	0.390	0.679	0.432	<b>0.858</b>

**Discriminant Validity (HTMT)**

Discriminant validity measures the average correlation of indicators across the model after convergent validity has been finished and established (Lee, Azmia, Hanayshaa, Alzoubib & Alshurideh, 2022). When the constructs in the model are different from one another, discriminant validity—which is the ability to distinguish between them—is established (Rasoolimanesh, 2022). The Heterotrait-Monotrait Ratio (HTMT) criterion is a more robust way for calculating discriminant validity assessment (Inuwa, Islam & Male, 2022; Henseler, Ringle & Sarstedt, 2015). According to Henseler, Ringle, and Sarstedt (2015), there are problems with discriminant validity for all values greater than 0.90. Similarly, Kline (2011) argues that if the value is less than 0.85, then there is no problem with discriminant validity in that set of data. Therefore, Table 4.3.2 shows that all the constructs have achieved the requirement of discriminant validity, being empirically distinct from one another.

**Table-4 Heterotrait-Monotrait (HTMT) Matrix**

Construct	CRM	INFOS	ORGP	SSP	TRUST
Customer Relationship Mgt.(CRM)					
Information Sharing (INFOS)	0.371				
Organizational Performance (ORGP)	0.535	0.327			
Strategic Supplier Partnership (SSP)	0.331	0.389	0.547		
Trust	0.523	0.434	0.743	0.467	

**Coefficient of Determination ( $R^2$ )**

The model's predictive ability is ascertained using the coefficient of determination ( $R^2$ ). Higher values indicate a larger explanatory power. The  $R^2$  is also known as in-sample predictive power and it goes from 0 to 1 (Hair et al., 2022; Rigdon, 2012).

$R^2$  values of 0.50, 0.25, and 0.75 are regarded as weak, moderate, and substantial, respectively.  $R^2$  values must, however, be understood in light of the model's complexity. A model that overfits the data is indicated by excessive  $R^2$  values (Hair et al., 2022).

The result in the table below shows that organizational performance (dependent variable) have an  $R^2$  of 0.591. This simply implies that 3 independent variables (customer relationship management, information sharing, and strategic supplier partnership) had formed and explained the phenomenon of organizational performance 59% of variance explained capacity in the model.

**Table-5 Coefficient of Determination ( $R^2$ )**

Constructs	$R^2$ Value	Interpretation
Organisational Performance (ORGP)	0.591	Strong

**Tbale-6 Effect Size ( $F^2$ )**

Construct	Organizational Performance	Effect Size
Strategic Supplier Partnership	0.105	Medium Effect
Customer Relationship Management	0.276	Large Effect
Information Sharing	0.043	Small Effect

The effect size ( $F^2$ ) indicates the level of impact or influence of an individual predicting variable on a directly associated or linked dependent variable. It presents the degree of the influence of each exogenous variable on an endogenous construct. It also reflects the disparity in  $R^2$  value due to the direct elimination of a predicting variable in the model. Consequently, the effect size ( $F^2$ ) is applied when measuring the significance of each variable in the model. It is thus concluded that the larger the effect size of a predicting variable in the model, the higher the significant

association it has with the endogenous construct.

Additionally, according to Cohen (1988), a small, moderate, and large impact size would have an effect size value ( $F^2$ ) of 0.02, 0.15, and 0.35, respectively. Any predictive construct in the model that has an effect size ( $F^2$ ) value less than 0.02 is deemed to have had no influence on the associated endogenous construct. The result on Table 6 shows the level of effect size ( $F^2$ ) for all the direct relationships among the constructs in the model. It shows that information sharing (INFOS) with an effect size value of ( $F^2 = 0.043$ ), and strategic supplier partnership (SSP) with an effect size value of ( $F^2 = 0.105$ ) have small and moderate effect on organizational performance. In the same vein, customer relationship management with an effect size value of ( $F^2 = 0.276$ ) has large effect size on organizational performance, respectively.

### **Discussion of Findings**

The results of this study are in line with Adebisi, Adediran, Shodiya and Olusola (2021) in their study, customer relationship management was revealed to have a positive effect on firm's performance from the path analysis. Harith, Alanoud, Hajar, Amani and Bestoon (2021) viewed that customer focus most especially based on improved customer relationships, have a very significant effect on organizational performance.

The results of standardized regression weights suggested a positive but a weak relationship between INFOS and ORGP. The findings from this study shows strategic supplier partnership was found to have a significant effect on organizational performance. This result is supported by the studies finding of Hong, Zhou, Li, and Lau (2020), Abdullah and Al-Ghwayeen, (2019), and Jayalath et al., (2017). However, Khaliunaa and Ramzani, (2019) opined that due to the volatile nature of today's business environment, information sharing between supply chain firms is done at operational, tactical, and strategic levels.

The results of standardized regression weights suggested a positive and significant relationship between SSP and ORGP. This is in line with a study by Efosa and Omoregbe (2021) on supply chain management, competitive advantage, and organizational performance in the manufacturing sector of Nigeria, which discovered that companies with stronger strategic supplier partnerships also have stronger organizational performance and competitive advantage. The findings of Mohammad et al. (2019), who discovered that supplier connections had a positive effect on long-term performance, are likewise in line with this outcome. It also backs up what Richard et al. (2020) found.

The results ( $\beta = -0.157$ ,  $t = 4.450$ ,  $p = 0.000$ ) also suggests that there is a strong but negative relationship between strategic supplier partnership (SSP) and organizational performance (ORGP).

This result corroborate with Chai, Li, Tangpong, and Clauss (2020) in their study, the interplays of cooperation, conflicts, trust, and efficiency process innovation in vertical B2B relationships; argued that trust negatively moderates the relationships between vertical cooperation and both affective and cognitive conflicts, which in turn influence efficiency process innovation in the exchange relationships. In the same vein, the study of Zhang, Lettice, Chan and Nguyen (2018) supplier integration and firm performance: the moderating effects of internal integration and trust; observed that internal trust has insignificant, and negative influence on the process and strategic integration with suppliers on firm performance. Their study thus revealed that internal trust is one of the reasons for the mixed findings on the impact of supplier integration on performance.



The results ( $\beta = 0.109$ ,  $t = 1.966$ ,  $p = 0.025$ ) also suggests that there is a moderate and positive relationship between customer relationship management (CRM) and organizational performance (ORGP). This corroborate with Hughes, Rigtering, Covin, Bouncken, and Kraus (2018) in their study, innovative behaviour, trust and perceived workplace performance; that trust in a team moderates the relation between the innovative behaviour of the employee and job performance. The results ( $\beta = 0.046$ ,  $t = 0.722$ ,  $p = 0.235$ ) also suggests that there is a weak but positive relationship between customer relationship management (INFOS) and organizational performance (ORGP), however the hypothesis was rejected because the p value was greater than 0.05.

The aforementioned study by Adebisi, Adediran, Shodiya, and Olusola (2021) on supply chain management practices and manufacturing firms' performance: professionals' experience in Nigeria, found that information sharing has a weakly positive effect on performance as measured by manufacturing efficiency in their path analysis.

### **Conclusion**

This study established the causal relationship and effect of supply chain management practices and organizational performance: a moderating role of trust; in consultancy services from various institutions of higher learning, in North-East Nigeria (FPTB Consultancy Service Ltd, Federal Polytechnic Bali Consultancy Service, Federal Polytechnic Mubi Consultancy Service and Federal Polytechnic Damaturu Consultancy Services). Furthermore, the study's findings were consistent with the findings of other previous studies. The findings show that a higher degree of recognition, application, and improvement in SCMP would directly increase the performance of manufacturing companies. Effective and efficient supply chain management practices will help the organization to achieve better performance.

### **Recommendations**

The study recommends among others as follows:

1. The study recommends that manufacturing firms should endeavour to maintain long term relationships with strategic suppliers by way of maintaining and ensuring quick delivery of quality materials or components for production, which will improve production flow and quick delivery of finished products to the consumers.
2. Organizations should develop platforms on which customers can get in touch with them and try to be innovative in their productive capacity to achieve desire product quality by exceeding the customer expectations in delivering the services.
3. Organizations should develop different avenues to ease the sharing of core business information between them and other stakeholders, in terms of order placement and demand.
4. Organizations have to concentrate on instituting growth strategies that are based on trust to enhance their performances and reduce the risk and cost of operations.
5. Management of organizations can adopt available new technology that will strengthen their logistics operation, in order to compete favourably.

### **Suggestions for Further Studies**

Future studies may consider other predictors other than strategic supply partnership (SSP), customer relationship management (CRM), level of information sharing (INFOS), and use ORGTRUST as mediator rather than moderator as used in this study. Or future study can add material flow management as a predictor.

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