

# Logistics Management and Marketing Performance of Selected Small and Medium-Sized Manufacturing Firms in Port Harcourt Metropolis, Rivers State

**Sunday Ndamati**

Department of Business Administration, Federal University Wukari, Nigeria

**Alugo Anthonia Chekwube**

Department of Business Administration, Federal University, Wukari

**Muntaka Mohammed**

Department of Business Administration, Federal University, Wukari

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**Abstract:** *The research examines the effect of logistics management on the marketing outcomes of SMMFs in Port Harcourt metropolis, Rivers State, Nigeria. Given the crucial role logistics plays in optimizing business performance, this research specifically focuses on four key logistics management practices: demand forecasting, lead time, supplier relationships and packaging. The research seeks to evaluate the effect of these practices on marketing performance. This study adopted cross-sectional survey research design with a sample of 156 employees from eight SMMFs in Port Harcourt. The data were obtained by a structured questionnaire and analyzed by the software SPSS; simple linear regression was used to verify the hypotheses. The results reveal that demand forecasting, lead time, and packaging enhance the marketing performance but supplier relationships deteriorate the marketing performance. The findings indicate that while accurate demand forecasting, short lead time and good packaging strategies improve marketing performance, the opposite is true for supplier relationship management. This research concludes that logistics management practices can be used to improve marketing performance, particularly for SMEs, which are scarce in logistics literature. This study provides recommendations for SMMFs to enhance their logistics strategies in order to enhance customer satisfaction, minimize operational expense, and gain market share.*

**Keywords:** logistics management, marketing performance, demand forecasting, lead time, supplier relationships, packaging, small and medium-sized manufacturing firms, Port Harcourt.

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## INTRODUCTION

Manufacturing business activity is strategic in the promotion of growth and development since it involves the production of commodities and service. In order to boost their economies, many countries have historically provided aid to their manufacturing sectors (Haraguchi, Cheng & Smeets, 2017). The manufacturing sector increased its employment rate from 6.34 percent in the first quarter of 2020 to 12.3 million in the first quarter of 2021, according to the Bureau of Labor Statistics (2022). In China, the manufacturing industry has been the leading industry in the country's GDP growth (Trading Economics, 2021). A manufacturing sector is critical to the growth of Nigeria's economy, according to the National Bureau of Statistics NBS manufacturing formed 14.18% of the nation's GDP in the second quarter of 2021 compared to 11.79% in the same period in 2020 (Anyalewechi, 2021). However, the COVID-19 pandemic affected the global manufacturing sector in terms of availability of raw materials, labour unrest, and increased energy costs which reduced efficiency (Song & Zhou, 2020; Zamolo, 2021). Choi (2021) and Montoya-Torres, Muñoz-Villamizar, and Mejia-Argueta (2021) found that manufacturing enterprises improved resource efficiency by implementing various logistics management solutions.

One subset of the more general term "supply chain management" is "logistics management," which deals with the organisation of the flow, storage, and control of data, products, and services from point A to point B (Amin & Shahwan, 2020). Managing order processing, transportation, inventory, and warehousing operations is critical for manufacturing companies to improve their performance. In order to fulfil client orders in a timely and high-quality manner, order processing management is essential (Acero et al., 2019).

Leadtime refers to the coordination of resources for the movement of materials from production to customers (Speranza, 2018). Inventory management helps to secure appropriate stocks to discourage overstocking, understocking or even stock out situations (Kritchanchai and Meesamut, 2015). Warehouse management is the process of overseeing facilities that safely keep stock for future use or sale (Mao, Xing & Zhang, 2018). Previous research has established that these logistics management strategies are efficiently implemented by large manufacturing firms for performance improvement.

However, there is limited research information available on the subject of logistics management practices, particularly in SMEs, although the study of logistics management practices has been extended to large manufacturing companies, construction firms, humanitarian organizations, shipping firms (Kirui & Nondi, 2017), and gas-processing industries (Takwi & Mavis, 2020). Given the significance of SMEs to economic growth, this is a knowledge vacuum. To get to the bottom of this mystery, this study will analyze how various logistics management strategies—including order processing, transportation, inventory, and warehouse management—impacted the marketing results of SMEs in the manufacturing sector. Finding out how these logistics

management tactics can help SMEs improve their marketing success in the long run is the main goal of this research.

### **Statement of the Problem**

Logistics management function in business performance of SMEs is the proper scheduling and delivery of goods and services to the consumption points at the right time. However, SMEs operating in the Port Harcourt metropolis are faced with numerous challenges mainly arising from poor infrastructure and logistics. Major roads are therefore becoming dilapidated and this raises the cost of transporting goods within Rivers State and within the city of Port Harcourt in particular. Another problem is the lack of ways of evaluating the success of logistics and the contribution of logistics to the business. Data collection and analysis is a challenge that SMEs face and logistics effectiveness is not just about the cost. Bhagwat and Sharma (2009) opine that measuring logistics performance is still one of the most significant issues facing firms in the current world. Other issues are customers' relations, key accounts management, stock management, supply chain velocity, cycle time, and scope. Such challenges stem from decentralized production systems and make companies hone simple skills and adopt improved logistical management techniques.

Despite the growth many SMEs have not yet effectively improved their logistics management for improving consumer satisfaction and minimizing cost of production. In most of the cases, the producers directly sell their products to the consumers only in the least complex marketing channels which provide a lot of space for the improvement of the management of the logistics. Based on these challenges, this study aims at examining the impact of logistics management on the marketing performance of SMEs in Port Harcourt metropolis with particular reference to enhancing the effectiveness of logistics strategies in business.

### **Objectives of the study**

The specific objectives of this study are to:

- (i) determine the effect Demand Forecasting on the marketing performance of small and medium-sized manufacturing firms.
- (ii) examine the effect of Lead Time on the marketing performance of small and medium-sized manufacturing firms.
- (iii) determine the effect of Supplier Relationships on the marketing performance of small and medium-sized manufacturing firms.
- (iv) investigate the effect of Packaging on the marketing performance of small and medium-sized manufacturing firms.

### **Research questions**

The research questions for this study are as follows:

- (i) What is the effect of demand forecasting on the marketing performance of small and medium-sized manufacturing firms?
- (ii) How does lead time affect the marketing performance of small and medium-sized manufacturing firms?

- (iii) What is the effect of supplier relationships on the marketing performance of small and medium-sized manufacturing firms?
- (iv) How does packaging impact the marketing performance of small and medium-sized manufacturing firms?

## LITERATURE REVIEW

### Logistic management

This research defines logistics management as a functional process of supply chain management (Amin & Shahwan, 2020). Its role is to ensure the effective movement of goods, services, and data from their place of production all the way to their ultimate destination. A definition provided by the Council of Supply Chain Management Professionals states that logistics is "that part of supply chain management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption" (2017). This concept stresses the requirement of providing excellent customer service in addition to the need of timely and inexpensive product transportation.

Christopher (2016) also defines logistics management as the management of the flow of goods, services and information through supply chain and business networks. This view emphasizes logistics as a function that goes beyond being an organizational function within organizations but as a function that coordinates the flow of goods between suppliers, manufacturers, and customers. In addition, the concept of logistics management carries out the functional coordination process of transport, inventory, order, warehouse, and material handling to satisfy the customers needs and wants efficiently (Mangan et al., 2016). Logistics management activities are aimed at cutting cost, enhancing service delivery and facilitating the business vision of an organization.

In the case of SMEs, the management of the logistics processes is even more essential since it affects its competitiveness, its contemplate to new markets, and the final profitability. In the case of SMEs, there are opportunities in enhancing the flow of logistics activities like demand forecasting, inventory control, and transportation, which can enhance competitiveness by lowering cost and increasing market response (Abdul et al., 2019). However, some of the problems like inadequate infrastructure, inadequate control of inventories, and poor technology keep on acting as a thorn in the way of most small and medium-sized manufacturing companies in the implementation of efficient logistics practices.

### Demand Forecasting:

Demand forecasting is an important component of logistics that entails the estimation of future demand for a product in order to avoid stock out situations as well as to avoid over stocking the products (Adebayo et al., 2021). Demand forecasting increases the effectiveness of supply chain processes and guarantees that appropriate products are delivered at the right time, which impacts marketing effectiveness by increasing customer satisfaction and service provision (Huang & Yang,

2020). Chopra (2022) defines demand forecasting as the use of historical data and trends to anticipate future demand to enable a business to plan its logistics in relation to the market. When demand is well predicted, the firms can enhance their response time and avoid high expenses that result from holding excess inventory or stockouts.

### **Lead Time:**

Lead time means the practical time from the moment a particular order is received to the time the product is delivered to the client with complete order processing, production and transportation time included (Jain & Narayan, 2020). Reduced lead times increase delivery times and improve customer satisfaction and marketing effectiveness, especially in saturated markets (Pereira et al., 2021). Lead time has a direct influence on customer loyalty and satisfaction since customers care more about service delivery time than other service factors (Thakur & Soni, 2023). In context of logistics management, lead time reduction makes firms more capable of responding to the needs of their customers, which in turn has a direct impact on the brand image and market share of a firm.

### **Supplier Relationships:**

The relationships with suppliers are crucial to guarantee the effective and efficient management of logistics. The article by Mohan and Yadav (2020) shows that collaborative supplier partnerships can enhance coordination, reliability, and supply chain outcomes. Lee et al. (2021) pointed out that good SRM enhances trust, information exchange, and mutual objectives between the buying firm and its suppliers, which in turn enhance operational efficiency and marketing results. To increase their capacity to address market uncertainty, firms can improve their bond with suppliers to gain better control over lead times and product quality, ultimately leading to increased customer satisfaction and business competitiveness (Zhou et al., 2022).

### **Packaging:**

This paper seeks to understand the importance of packaging in logistics management since it relates to the protection, storage and transportation of products. It guarantees that products get to the customers in the right state and can impact marketing performance by enhancing the overall customer experience (Mojkowski et al., 2020). Zhang and Liu (2022) have expressed that packaging is not only a protective shield for products but also a weapon that delivers brand values, improves customer perception and saves logistics expenses. This is because excessive damage risks increase the overall loss and cost of transporting these products, lowers the brand image that leads to high customer retention and satisfaction and therefore improves marketing outcomes (Martínez-Ruiz et al., 2021).

### **Empirical review and conceptual framework**

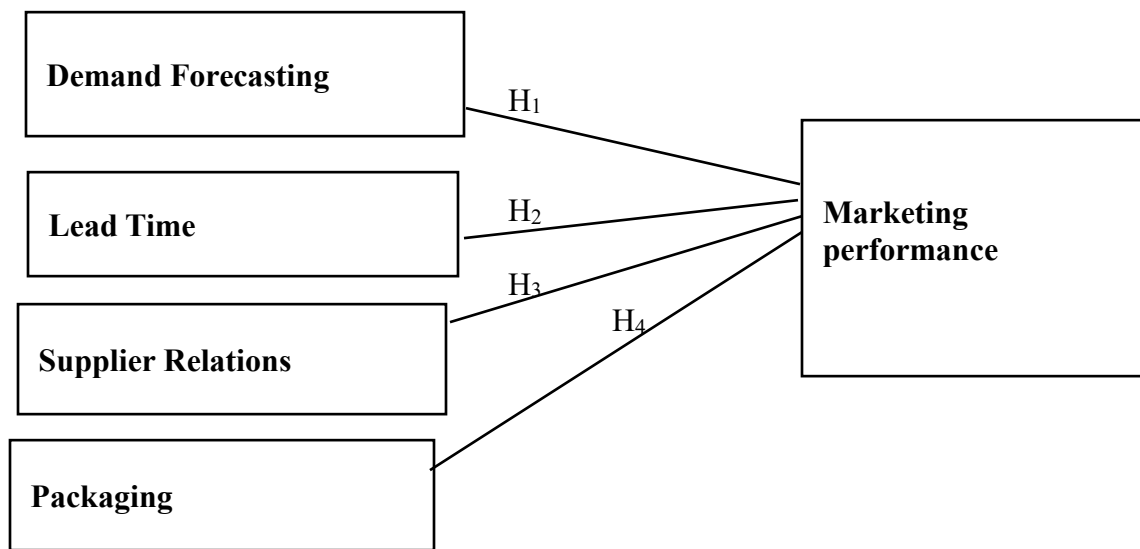
Ogunbiyi & Onuoha (2023) aimed to investigate the impact of supply chain integration on marketing performance in fast-food enterprises in Rivers State, considering the moderating influence of information technology capacity. The study used a survey research methodology and

a structured questionnaire as the tool for gathering primary data. A total of 280 management personnel from 10 fast-food establishments in Rivers State completed the provided questionnaires. The data analysis was conducted using Partial Least Squares Structural Equation Modelling (PLS-SEM) using SPSS and SmartPLS 3.2.6 software. This research demonstrated that internal integration, supplier integration, customer integration, information integration, and relationship integration were positively and substantially correlated with marketing success, as measured by market share and customer satisfaction. Furthermore, the research revealed that information technology competence had a moderating influence on the link between supply chain integration and marketing performance.

The research determined that fast-food companies in Rivers State should use supply chain integration to improve marketing outcomes. Amah & Mekuri-Ndimele (2020) examined the impact of dynamic capacity on the expansion of SMEs in Port Harcourt, Nigeria, specifically focussing on the roles of innovation and knowledge in this development. The research used a cross-sectional approach, targeting 160 registered SME operators in Port Harcourt, and obtained 145 completed surveys. The proposed hypotheses were evaluated by regression analysis to examine the acquired data. This article shown that organisations with dynamic characteristics, such as innovation and information exchange, may improve the formation of new routines and adapt to a changing environment, hence fostering growth in SMEs. The report recommended that SMEs in Port Harcourt enhance their creativity and expertise to address challenges and promote company growth.

Ikegwuru and Horsfall (2020) aimed to determine the relationship between external supplier integration and the operational performance of SMEs in Rivers State, focussing on the dimensions of supplier actors' integration, supplier information integration, and supplier technical integration. The research used a stratified random selection method to gather data from 100 participants across 10 categories of SMEs in Port Harcourt. The gathered data was examined with Pearson's Product Moment Correlation (PPMC) statistical method. This research demonstrated that the three characteristics of external supplier integration—supplier actors' integration, supplier information integration, and supplier technical integration—were strongly associated with and positively connected to operational success. The report recommended that SMEs concentrate on technology and stakeholder-related supplier efforts to enhance operational performance. Pokubo and Mina (2020) analyse the influence of the marketing mix on the success of small and medium-sized enterprises in River State, Nigeria. It aimed to determine which aspect of the marketing mix had the most significant impact on SME success. This study used a descriptive survey research approach, collecting data via questionnaires provided to 210 SMEs in Port Harcourt using a simple random sample technique. A post hoc test was conducted via ANOVA. The study demonstrated that marketing mix elements, including product, pricing, promotion, and location, positively correlate with the success of SMEs in Rivers State. SMEs must focus on the marketing mix techniques that influence performance to enhance their marketing outcomes.

Based on the literature review, this study uses demand forecasting, lead time, supplier relations, and packaging as measures of logistics management and marketing performance as captured by customer satisfaction, customer retention, and sales growth. This study draws on a literature evaluation of previous studies to suggest that logistics management methods have a favourable impact on the marketing performance of small and medium manufacturing firms. Figure 1 displays the conceptual model that was used to describe the hypothesised correlations between the study variables. This model was derived from earlier research for the purpose of this study.



**Fig. 1: Adapted conceptual model for the study**

**Source:** *IV variable adapted from Ikegwuru & Horsfall (2020). Proxies of DV adapted from Ambler, Kokkinaki and Puntoni (2004)*

## METHODOLOGY

### Research Design

This study used a cross-sectional survey research design whereby data was collected from the respondents at one time to determine the current effects of logistics management on the marketing performance of the SMMSMFs. The design provided a cross-sectional view of the correlation between logistics practices and marketing results.

### Population of the Study

The target population for this study was the employees of eight small and medium manufacturing firms in Port Harcourt metropolis. The sample was 256 employees from the total accessible population, which was obtained from the firms' human resource departments. The criteria used in

the selection of the firms included the fact that the firms had to have been in operation for not less than five years and that the firms were registered with the Corporate Affairs Commission (CAC). This selection criterion ensures that the firms have a good operation history thus offering valuable information on the logistics management and performance of these organizations. The registration with the CAC also guarantees the credibility of the firms hence accurate data is collected.

### Sample Size Determination and Sampling Procedure

The sample size for the study was estimated to be 156 employees from the manufacturing firms in Port Harcourt. The sample size of 384 was computed using the Taro Yamane formula (Tejada & Punzalan, 2012) since the study population was framed based on simple random sampling method. To balance the proportionality of the survey instrument, Bowley proportionality formula was used. This method made it possible to obtain the proportion of the sample that is a true reflection of the population.

$$n = \frac{N}{1+N(e)^2} \quad n = \frac{256}{1+256(0.05)^2} \quad n = \frac{256}{1+256(0.05)^2} \quad n = \frac{256}{1+256(0.0025)}$$

$$n = \frac{256}{1 + 0.64} \quad n = \frac{256}{1.64} \quad n = 156$$

**Table 1: Sample Size Distribution and Allocation of Instrument**

S/N	SME Manufacturing Firms	Number of Employees'	Sample distribution
1	Junac table water	30	30/256 x 156 = 18
2	Zenith plastic industries LTD	30	30/256 x 156 = 18
3	Fubison palm oil	31	31/256 x 156 = 19
4	New China rubber and plastic foot wears ltd	35	35/256 x 156 = 21
5	United plastic industry Nigeria limited	35	35/256 x 156 = 21
6	C- Way water Nigeria limited	36	36/256 x 156= 22
7	ACC foot wears manufacturing company limited	27	27/256 x 156 = 17
8	Sloak paint	32	32/256 x 156 = 20
	Total	256	156

### Sources of data and data collection method

This study's data came from primary sources, specifically a structured questionnaire. To evaluate the research variables a three-person enumeration team delivered a 5-point Likert scale questionnaire. The statements made by the scale were derived from works cited by Kirui and Nondi



(2017), Wasike and Juma (2020), and Ambler, Kokkinaki and Puntoni (2004). The questionnaire was chosen because it provides a structured approach to collecting data on participants' attitudes, perceptions, and experiences, allowing for a thorough exploration of the subject matter.

### Validity and Reliability of the instruments

To ensure the questionnaire was accurate, researchers used both face and content validity approaches. However, in order to ensure the instruments' validity, they were forwarded to other research professionals. The final versions of the questionnaire were revised based on their feedback. Although the reliability of the instrument was established by Cronbach's alpha coefficients before it was administered in the field. Every one of the instrument's measurement scales—demand forecasting [ $\alpha = 0.711$ ], Leadtime [ $\alpha = 0.775$ ], suppliers relationship [ $\alpha = 0.800$ ]; packaging [ $\alpha = 0.704$ ]—and marketing performance [ $\alpha = 0.751$ ]—were deemed reliable due to their Cronbach's alpha coefficients ranging from 0.7 and above.

### Data analytical technique

simple linear regression was used to test the formulated hypotheses with the following regression model:

$$\text{MKTPERF} = a + \beta_1\text{ODF} + \beta_2\text{LT} + \beta_3\text{ISR} + \beta_4\text{P} + e$$

Where:  $a$  = the intercept (or constant),  $\beta_1\text{ODF}$  = Coefficient of Demand forecasting

$\beta_2\text{LT}$  = Coefficient of Leadtime,  $\beta_3\text{ISR}$  = Coefficient of Supplier relationships

$\beta_4\text{P}$  = Coefficient of Packaging,  $e$  = Error margin (5 percent)

**Decision Rule:** If the P-value is less than 0.05 (i.e.,  $p < .05$ ), reject the null hypothesis ( $H_0$ ). If the P-value is more than 0.05 (i.e.,  $p > .05$ ), accept the null hypothesis.

## ANALYSIS AND DISCUSSION

**Table 2:** Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.686a	.470	.460	.60903

a. Predictors: (Constant), Demand forecasting, Lead time, suppliers relationship and packaging

Source: SPSS (2024)

**Table 3:** ANOVAa

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	69.440	4	17.360	46.802	.000 <sup>b</sup>
Residual	78.264	211	.371		
Total	147.704	215			

a. Dependent Variable: Marketing performance

b. Predictors: (Constant), Demand forecasting, Lead time, suppliers relationship and packaging

Source: SPSS (2024)

**Table 4:** Coefficients

	Unstandardized		Standardized		
	Coefficients		Coefficients		
	B	Std. Error	Beta	t	Sig.
I (Constant)	700	311		12.255	.025
Demand forecasting	.118	.063	.507	7.869	.000
Lead time	.048	.072	.343	9.663	.008
Supplier relationship	-.132	.056	.637	2.349	.020
packaging	.869	.079	.584	11.024	.000

a. Dependent Variable: Marketing performance

Source: SPSS (2024)

### Results and Hypotheses

Table 2: Model overview, Table 3: ANOVA, and Table 4: Coefficients comprise the study's findings. Taken as a whole, these tables analyse the impact of several logistics management strategies on the marketing performance of SMEs in the manufacturing sector. These strategies include demand forecasting, lead time, supplier relationship, and packaging. What follows is a discussion of the outcomes of the tests conducted using SPSS on the collected data in order to verify the hypotheses.

### Model Summary (Table 2)

Table 2 below presents the model's summary; The coefficient of determination has a value of 0.470. Logistics management strategies such as demand forecasting, lead time, supplier relationships, and packaging explain about half of the variance in the marketing success of SMEs in the manufacturing sector. The model explains 46% of the data variance after adjusting for the number of variables, as shown by the adjusted  $R^2$  of 0.460. To see how much the actual marketing performance numbers differ from the expected ones, we may look at the 609.03-point standard error of the estimate.

### ANOVA (Table 3)

An analysis of variance (ANOVA) is shown in Table 3 to determine if the regression model is statistically significant. There is a statistically significant association between demand forecasting, lead time, supplier relationships, and packaging and the marketing success of small and medium-sized manufacturing enterprises (F-value 46.802 with a significance level of 0.000). This lends credence to the conclusion that the entire model's null hypothesis should be rejected.

### Coefficients (Table 4)

Table 4 displays the regression model's coefficients, which show how much each predictor contributed to the overall marketing performance level. In order to compare the predictors, we use the standardised coefficients (Beta), whereas the unstandardised coefficients (B) reflect how much the criterion variable changes for a one-unit change in the predictor.

**Ho1:** There is no significant effect of demand forecasting on the marketing performance of small and medium-sized manufacturing firms.

Demand Forecasting: The t-statistic for demand forecasting is 0.118 and the Beta coefficient is 0.507. The t-value is 7.869, p-value = 0.000, which means that demand forecasting has a positive impact on the marketing performance. This leads to the rejection of the null hypothesis for demand forecasting.

**Ho2:** There is no significant effect of lead time on the marketing performance of small and medium-sized manufacturing firms.

Lead Time: The coefficients of lead time are 0.048 for unstandardized coefficient and 0.343 for standardized Beta coefficient. The t-value is 9.663 and the significance level is 0.008 which means that lead time also has a positive influence on the marketing performance. This lead to rejection of the null hypothesis regarding lead time.

**Ho3:** There is no significant effect of supplier relationships on the marketing performance of small and medium-sized manufacturing firms.

Supplier Relationships: The unstandardized coefficient for supplier relationships is -0.132, the standardized Beta coefficient is -0.637. It is noted that t-value is -2.349 and the significance level is 0.020, which confirms that supplier relationships have negative influence on the marketing performance. This implies that the supplier relationships may have a negative effect on the marketing performance in this case which makes the author to reject the null hypothesis on supplier relationship.

**Ho4:** There is no significant effect of packaging on the marketing performance of small and medium-sized manufacturing firms.

Packaging: The coefficient for packaging is 0.869, which is an unstandardized coefficient and the Beta coefficient is 0.584, which is a standardized coefficient. The t-value is 11.024, which is significant at 0.000, which confirmed that packaging has a positive impact on marketing performance. This means that one can reject the null hypothesis for packaging.

## **DISCUSSION OF FINDINGS**

This study therefore reveals that the logistics management practices namely demand forecast, lead time, supplier relation and packaging have a positive relationship with the marketing performance of the small and medium manufacturing firms. The results obtained in this research are also in line with the previous empirical research that has stressed the significance of the role of logistics management in improving the business performance.

The research established a positive relationship between demand forecasting and the marketing performance. This is in line with the recommendation of Ogunbiyi and Onuoha (2023) who stressed the need for firms in the fast-food industry in Rivers State to enhance demand forecasting

for better marketing performance. According to the study done by Ogunbiyi & Onuoha the incorporation of accurate demand forecasting into supply chain management was quite effective in enhancing the market share and the level of customer satisfaction. Likewise, this study establishes that demand forecasting helps manufacturing firms to satisfy the customer demand more effectively through improving customer satisfaction and overall marketing performance.

Secondly, the study confirmed that lead time has positive effect on marketing performance, having regard to the fact that shorter lead times are known to enhance customer satisfaction and competitive advantage. This finding is in consonant with the study of Pereira et al. (2021) where the authors focused on the impact of lead time on customer satisfaction in logistics. In their research, they observed that cutting down lead time increases customer satisfaction since products are delivered on time and according to the current research where lead times were increased, marketing performance was boosted.

Surprisingly, the research identified a negative and significant impact of supplier relationships on marketing performance. This result may appear rather counter-intuitive, but it may well be indicative of the particular difficulties that small and medium-sized manufacturing firms have in achieving effective supplier management. For instance, either dysfunctional or excessively bureaucratic relationships could lead to slippage, poor quality, or increased cost, all of which are detrimental to marketing effectiveness. This finding is in contrast to Ikegwuru and Horsfall (2020) who noted that the development of strong supplier relationship has a positive impact on operational performance in SMEs. However, it is noteworthy that the negative impact identified in this study could be restricted to the context of buying suppliers in the small and medium-size manufacturing firms in Port Harcourt area where the problem of poor infrastructure and limited resources may exert pressure on supplier relation.

Last, the positive and significant impact of Packaging on marketing performance establishes the importance of packaging in improving customer experience. This finding affirms Mojkowski et al. (2020) who established that, apart from shielding the products from harm during transport, packaging conveys the brand images that customers appreciate. In the current study, packaging seems to have a significant influence on the quality and experience of the products which in turn leads to higher marketing performance.

## **CONCLUSION**

The findings of this study have shown that demand forecasting, lead time, supplier relationship and packaging which are aspects of logistics management have a positive impact on the marketing performance of the small and medium manufacturing firms. The benefits of demand forecasting, lead time and packaging show that these practices have a positive impact on the organization's ability to deliver value to its customers and achieve better marketing results. However, the negative influence of supplier relationship points to some issues that may arise in the management of supplier interaction that may affect marketing performance. In summary, the research emphasizes

the centrality of a better logistics management to enhance the marketing performance of the small and medium sized manufacturing firms and thus firm's competitiveness in complex markets.

### **Recommendations**

- i. Small and medium-sized manufacturing firms should ensure that they adopt proper demand forecasting approaches and tools in order to improve their chances of understanding the market and the customers. This will assist in the reduction of stock out and over stocking hence increasing customer satisfaction and marketing outcomes.
- ii. Managers should concentrate on ways of reducing lead times through supply chain management and supplier and distributor integration. Reducing lead time will enhance delivery performance and this will enhance the company's ability to meet its customer needs hence enhancing the company's competitive advantage in the market.
- iii. Small and medium-sized manufacturing firms should periodically review and manage their supplier relations to minimize costs or inefficiencies that may affect marketing performance in their firms. Companies should pay more attention to the development of stronger and more partnership-oriented relationships with their first-tier suppliers in order to improve supply chain dependability and product quality.
- iv. Managers should consider spending more money on packaging that not only guards the products during transport but also reflects the company's and added value to the consumers. The role of the package is to enhance the customer experience and thus enhance the marketing performance of the product.

**Limitations and suggestion for Future Research.** However, this study comes with some limitations as outlined below. First, it targets the SMMFs in the manufacturing sector in Port Harcourt area, and due to this reason, the research findings might not be generalizable to other economies or sectors. Moreover, the study employs cross-sectional data that reduces the chances of making causal conclusions regarding the relationship between logistics management practices and marketing performance. This research could be further expanded in future by including a longitudinal data to investigate the enduring impact of logistics management practices on marketing performance. However, the generalization of the findings is limited by the fact that the study only included SMEs in the technology sector in a single region. At long last, future research may expand the range of other variables including technology, digitalization, and sustainability in the context of examining the effects of logistics management practices on marketing performance in the modern world.

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