British Journal of Management and Marketing Studies
ISSN: 2689-5072
Volume 9, Issue 2, 2026 (pp. 105-121)
www.abjournals.org

INVENTORY MANAGEMENT STRATEGIES AND SUPPLY CHAIN PERFORMANCE: EVIDENCE FROM FOOD AND BEVERAGE FIRMS IN SOUTH-SOUTH NIGERIA.

Ifekanandu Chukwudi Christian (Ph.D.)

Department of Marketing, Faculty of Administration and Management,
Ignatius Ajuru University of Education, Port Harcourt, Rivers State, Nigeria.

Email: chukwudiifekanandu12@gmail.com

Cite this article:

Ifekanandu Chukwudi Christian (2026), Inventory Management Strategies and Supply Chain Performance: Evidence from Food and Beverage Firms in South-South Nigeria. British Journal of Management and Marketing Studies 9(2), 105-121. DOI: 10.52589/BJMMS-0SNHRQU3

Manuscript History

Received: 29 Apr 2026

Accepted: 4 Jun 2026

Published: 23 Jun 2026

ABSTRACT: *This study examined the relationship between inventory management strategies and supply chain performance of food and beverage manufacturing firms in South-South, Nigeria. This study applied the positivism research philosophy, correlational research design, and quantitative research approach. The population of the study consisted of 86 registered food and beverage manufacturing firms in South-South, Nigeria. The sampling unit comprised warehouse managers and stock keepers of the firms. The census sampling technique was adopted in this study. Data were collected from the respondents using a structured questionnaire. The data collected were analyzed statistically while the hypotheses were tested using Pearson correlation. (r) and the SPSS version 24. The findings revealed that JIT strategy is significantly related to product availability of food and beverage manufacturing firms in South-South, Nigeria. The study also found a significant relationship between just-in-time strategy and cost reduction of food and beverage manufacturing firms in South-South, Nigeria. The study equally discovered a significant relationship between vendor-managed inventory and product availability of food and beverage manufacturing firms in South-South, Nigeria. Vendor-managed inventory was also found to have a significant relationship with cost reduction in food and beverage manufacturing firms in South-South, Nigeria. Based on the findings, it was concluded that inventory management strategies such as just-in-time (JIT) strategy and vendor-managed inventory are significant predictors of supply chain performance of food and beverage manufacturing firms in South-South, Nigeria. Therefore, it was recommended that food and beverage manufacturing firms in Nigeria should adopt a JIT strategy and vendor-managed inventory, as it would improve supply chain performance.*

KEYWORDS: Inventory management strategies, just-in-time (JIT) strategy, vendor-managed inventory, supply chain performance, product availability and cost reduction.

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

British Journal of Management and Marketing Studies
ISSN: 2689-5072
Volume 9, Issue 2, 2026 (pp. 105-121)

www.abjournals.org

INTRODUCTION

In today's complex and competitive environment, businesses need to develop a robust strategy to deal with the day-to-day supply challenges and improve their supply chain performance. Supply chain performance refers to how well or poorly a company's supply chain activities meet end-customer requirements in terms of ensuring product availability, cost reduction, and on-time delivery (Saleheen et al., 2018). It shows the capacity of a firm to make product available to customers when needed and deliver customer order in a timely, accurate, and responsive manner. A firm needs to put up a good supply chain performance in order to be reliable and competitive in its industry. For firms to achieve good supply chain performance, they need to adopt effective inventory management strategies.

Inventory management is the process of recording and monitoring stock levels, forecasting future demand, and making a decision regarding when and how to replenish stock to maintain an optimal stock level (Singh & Verma, 2018). It involves regulating and constantly checking the quantity of stock (raw materials, semi-finished products, and finished products) of a firm to ensure that there is an optimal stock level to meet internal and external demand at the appropriate time. The aim of inventory management is to achieve an optimal stock level so that the firm can match existing demand with supply (Kamau & Assumpta, 2020). Managing inventories is highly essential for firms to fulfil customer demand at the lowest possible costs. Usually, inventory comes with a lot of expenses if an optimal stock level is not maintained. These inventory costs include: holding costs (arising from spoilage or theft), ordering costs, and shortfall costs (Drury in Bawa, 2018). To minimize these inventory costs and ensure an optimal stock level, firms must manage their inventories using appropriate strategies.

There are several strategies that firms can adopt to manage their inventories. Some of the most common inventory management strategies include: Just-In-Time, Economic Order Quantity (EOQ), ABC Analysis, First-In-First-Out (FIFO), Two Bin System or Fixed Order Point System, demand forecasting, material requirement planning (MRP), and the newly introduced vendor-managed inventory (Priyanka & Hemant, 2015; Orobia et al., 2019; Torky, 2020; Tella & Olatunji, 2023). Thus, a firm must decide on the inventory management strategy to adopt in order to maintain an optimal inventory level and meet both internal and external demand at the lowest possible costs. The chosen strategy must be able to answer three major questions: when to order, what quantity to order, and how much stock to keep as safety stock. When the most appropriate strategy is adopted, it will help the firm to avoid the situation of stock-outs or overstocking and maintain a balance between demand and supply (Torky, 2020). By balancing demand and supply, the firm will be able to avoid unnecessary disruptions in its supply chain and minimize inventory costs. Orobia et al. (2019) posited that effective inventory management strategies enable firms to maintain an optimum stock level, ensure product availability, and guarantee on-time delivery of customer orders. By ensuring product availability, and on-time delivery, inventory management strategies improve the overall supply chain performance of firms. It is against this backdrop that this study examines the relationship between inventory management strategies and supply chain performance of food and beverage manufacturing firms in South-South, Nigeria.

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

British Journal of Management and Marketing Studies
ISSN: 2689-5072
Volume 9, Issue 2, 2026 (pp. 105-121)
www.abjournals.org

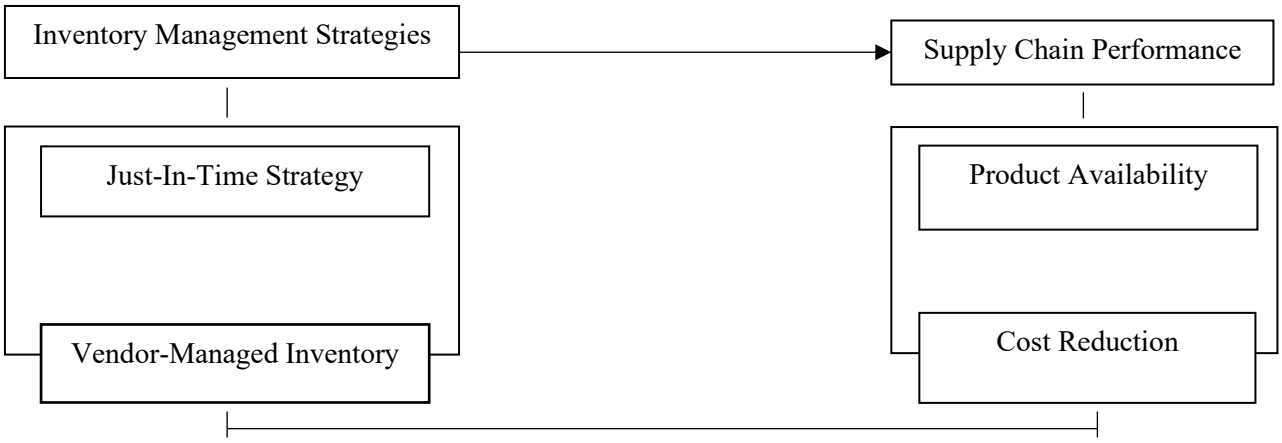
Statement of the Problem

Improving supply chain performance has been a challenging task for many manufacturing firms in Nigeria. Many manufacturing firms in Nigeria are finding it difficult to consistently make products available to customers when needed and deliver customer orders at a reduced cost, resulting in poor supply chain performance. Most of these firms often experience the situation of stock-outs and overstocking, thereby making it difficult for them to strike a balance between supply and demand. There is a need for manufacturing firms to maintain an optimal stock level in order to improve their supply chain performance. Maintaining an optimal stock level requires firms to adopt effective inventory management strategies so as to improve their supply chain performance. There are several inventory management strategies that manufacturing firms in Nigeria can adopt to improve their supply chain performance. Several studies (e.g., Ugwu & Nwakoby, 2020; Elsheikh & Hassanin, 2022; Akintola, 2023; Bawa et al., 2023; Tella & Olatunji, 2023; Odumusor, 2024; Babatunde et al., 2025) have examined the inventory management strategies and their relationship with firm performance. However, most of these studies focused on Economic Order Quantity (EOQ), ABC Analysis, First-In-First-Out (FIFO), Two Bin System (TBS), demand forecasting and material requirement planning (MRP), and related them to operational and financial performance of manufacturing firms, while studies that examined the relationship between inventory management strategies (Just-In-Time and Vendor-Managed Inventory) and supply chain performance (product availability and cost reduction) of food and beverage manufacturing firms in South-South, Nigeria ,are remarkably absent. This presents a gap in literature that this study is motivated to fill from the Nigerian context.

CONCEPTUAL FRAMEWORK

The conceptual framework of inventory management strategies and supply chain performance of food and beverage manufacturing firms is shown in Figure 1 below:

Figure 1: Conceptual framework of inventory management strategies and supply chain performance of food and beverage manufacturing firms in South-South, Nigeria



Source: *Author's Conceptualization*

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

Aim and Objectives of the Study

The aim of this study is to examine the relationship between inventory management strategies and supply chain performance of food and beverage manufacturing firms in South-South, Nigeria. The specific objectives of the study are to:

1. determine the relationship between JIT strategy and product availability of food and beverage manufacturing firms in South-South, Nigeria;
2. ascertain the relationship between JIT strategy and cost reduction of food and beverage manufacturing firms in South-South, Nigeria;
3. determine the relationship between vendor-managed inventory and product availability of food and beverage manufacturing firms in South-South, Nigeria;
4. ascertain the relationship between vendor-managed inventory and cost reduction of food and beverage manufacturing firms in South-South, Nigeria.

Research Questions

The following research questions were developed to address the objectives of this study:

1. What is the relationship between JIT strategy and product availability of food and beverage manufacturing firms in South-South, Nigeria?
2. To what extent does JIT strategy relate to cost reduction of food and beverage manufacturing firms in South-South, Nigeria?
3. What is the relationship between vendor-managed inventory and product availability of food and beverage manufacturing firms in South-South, Nigeria?
4. To what extent does vendor-managed inventory relate to cost reduction of food and beverage manufacturing firms in South-South, Nigeria?

Research Hypotheses

The following hypotheses were postulated to guide this study:

Ho_1: There is no significant relationship between JIT strategy and product availability of food and beverage manufacturing firms in South-South, Nigeria.

Ho_2: There is no significant relationship between JIT strategy and cost reduction of food and beverage manufacturing firms in South-South, Nigeria.

Ho_3: There is no significant relationship between vendor-managed inventory and product availability of food and beverage manufacturing firms in South-South, Nigeria.

Ho_4: There is no significant relationship between vendor-managed inventory and cost reduction of food and beverage manufacturing firms in South-South, Nigeria.

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

British Journal of Management and Marketing Studies
ISSN: 2689-5072
Volume 9, Issue 2, 2026 (pp. 105-121)

www.abjournals.org

REVIEW OF RELATED LITERATURE

Concept of Inventory Management

Inventories are raw materials, semi-finished products, and finished products that are kept by a firm until they are needed (Mwangi & Nyambura, 2015). Inventory management, on the other hand, is the process of planning, recording and monitoring inventories to ensure that there is an optimal stock level to meet both internal and external demand at the appropriate time (Alrjoub & Ahmad, 2017). Prempeh (2016) defined inventory management as a set of activities undertaken by a firm to prevent stockouts, which could disrupt the supply chain, or overstocking, which could increase holding costs. It involves monitoring the stock level of a firm, making future demand forecasting, and deciding when and how to replenish stock to balance supply and demand. Fosu (2016) described inventory management as the process of planning, monitoring, and replenishing stocks (raw materials, semi-finished products, and finished products) to ensure that there is adequate supply to meet internal and external demand at the right time. Ballou (2020) defined inventory management as the process of planning and monitoring the inventories of a firm with the aim of maintaining an optimal stock level and balancing demand with supply without wasting time or incurring high costs. Inventories need to be managed effectively so that firms can consistently meet customer demand, avoid supply chain disruptions, and minimize inventory costs (Emmett & Granville, 2017). Without proper management of inventories, firms will find it difficult to meet customer demand as production and supply activities will be greatly disrupted due to stock-outs, while high inventory costs will be incurred due to overstocking (Ziukov, 2016). Therefore, firms need to adopt the most appropriate inventory management strategies in order to maintain an optimal stock level and improve their supply chain performance.

Dimensions of Inventory Management Strategies

In literature, there are several strategies that firms can adopt to manage their inventories. Some of these strategies include Just-In-Time, Economic Order Quantity (EOQ), ABC Analysis, First-In-First-Out (FIFO), Two Bin System (TBS), demand forecasting, Material Requirement Planning (MRP), and vendor-managed inventory (Victoire, 2015; Priyanka & Hemant, 2015; Orobia et al., 2019; Torky, 2020; Tella & Olatunji, 2023). However, this study focuses on Just-In-Time (JIT) and vendor-managed inventory.

Just-In-Time (JIT)

JIT is an inventory management strategy whereby a firm purchases and keeps only the inventory it needs to produce and sell products for a specific period of time (Victoire, 2015). This approach to inventory management sees inventory pile-up as a burden and a huge cost which should be avoided, but rather advocates for the exact amount of inventory required at a particular time to produce and supply products. The underlying principle of JIT strategy is to ensure that an optimal level of inventories (raw materials and finished products) is available at the precise time to facilitate smooth and seamless supply chain operation (Orobia et al., 2019). JIT strategy helps firms to reduce their storage costs (holding costs), insurance costs, and costs associated with spoilage, obsolescence, pilferage, liquidating, and discarding excess inventory (Priyanka & Hemant, 2015). Tella and Olatunji (2023) stated that JIT strategy allows companies to reduce waste and save a significant amount of money, which could have been spent on holding stock not needed at a particular time. However, despite the benefits of

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

adopting JIT strategy, there are bottlenecks associated with this strategy. For example, a company that adopts JIT strategy may face the risk of not meeting customer demand if there is an unexpected increase in the demand for its products, and the company could not immediately source the inventory it needs to meet this unexpected increase in demand (Torky, 2020). Even a slight delay in the arrival of key inputs can cause serious disruption in the supply chain. Consequently, the company damages its reputation and loses its customers to its closest competitors (Torky, 2020).

Vendor-Managed Inventory

Vendor-managed inventory is an inventory management strategy whereby the supplier, not the buyer, monitors the stock level of the buyer and replenishes stock on behalf of the buyer to maintain an optimal stock level (Angulo, 2019). In this type of inventory management, the supplier takes over the buyer's responsibility of managing and replenishing stock to avoid supply chain disruption arising from stock-out, or incurring excessive holding costs arising from overstocking (Victoire, 2015). Here, the physical inventory is at the premises of the buyer - not the supplier's premises, and instead of the buyer managing the inventory in her possession, the responsibility of inventory management is assigned to the supplier based on the supplier-buyer agreement (Mohamad, et al., 2016). Notably, the buyer retains full ownership and possession of the inventory while the supplier manages the inventory on behalf of the buyer (Alhassan & Muhammad, 2022). Vendor-managed inventory gives the supplier the right to record and monitor the stock level and real-time sales of the purchasing organization. By recording real-time sales and monitoring stock level, the supplier is able to determine when to replenish stock to avoid the situation of stock-out or overstocking (Gokhale & Kaloji, 2018).

Concept of Supply Chain Performance

Supply chain performance refers to the actual outcome of the supply chain activities of a firm as measured against the supply chain goals such as ensuring product availability, accurate delivery, on-time delivery, cost reduction, increased efficiency, and meeting customer expectations (Reddy et al., 2019). Ayyildiz and Gumus (2021) defined supply chain performance as the end result of the supply chain activities of a firm as compared to its intended goals for a given period of time. Supply chain performance tells a firm how well or poorly its supply chain network is doing in terms of achieving its supply chain goals (Al-Danaf, 2022). It indicates the degree of effectiveness or ineffectiveness of the supply chain network of a firm. Measuring supply chain performance is important because it enables firms to determine how well their supply chain activities meet their intended goals (Agami et al., 2012). By measuring the supply chain performance, firms will be able to identify loopholes in their supply chain and make crucial adjustments that will eliminate inefficiencies in their supply chain and improve their future supply chain performance (Ambe, 2014). According to Akyuz and Erkan (2010), supply chain performance will determine whether a firm will achieve its short-term and long-term goals. They explained that the way a firm's supply chain activities are functioning at the present will determine whether the firm is operating at a level that is required to achieve its short and long-term goals.

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

British Journal of Management and Marketing Studies
ISSN: 2689-5072
Volume 9, Issue 2, 2026 (pp. 105-121)

www.abjournals.org

Measures of Supply Chain Performance

Supply chain performance of a firm can be measured using various indicators. Some of the most common indicators used in measuring supply chain performance in literature include product availability, accurate delivery, on-time delivery, cost reduction, and customer satisfaction (Akyuz, & Erkan, 2010; Agami et al., 2012; Sillanpaa & Kess, 2012; Ambe, 2014; Panayides et al., 2018). However, this study uses product availability and cost reduction to measure supply chain performance of firms.

Product Availability

Product availability refers to the physical presence of products when needed. It shows the ability of a firm to supply products when customers demand them (Panayides et al., 2018). Ambe (2014) defined product availability as the physical presence of products in the right quantity to meet customer demand at the appropriate time. It indicates the physical existence of products in a warehouse and their readiness for purchase when customers need them. Product availability shows how consistently a firm makes products available to customers and across its distribution channels (Sillanpaa & Kess, 2012). As a key measure of supply chain performance, product availability indicates how well a firm responds to customer demand for products and fulfill order (Akyuz & Erkan, 2010). Consistent availability of products is a key factor in building and strengthening customer trust. When a firm consistently make products available to customers, customers will consider the firm as a reliable and trusted supplier and increase their loyalty, but where the firm fails to consistently make products available to customers when needed, the customer will be dissatisfied with its supply performance and consider the firm as an unreliable and untrusted partner for future supply (Agami et al., 2012).

Cost Reduction

Cost reduction is a deliberate effort by a firm to minimize its supply chain costs in order to deliver products in a profitable manner (Reddy et al., 2019). Supply chain costs include delivery costs, transportation costs, warehousing costs, distribution costs, and administrative expenses (Sosa et al., 2016). These costs negatively affect the financial performance of a company if they are not drastically reduced. Companies need to reduce their supply chain costs in order to deliver products in a profitable way. Al-Danaf (2022) posited that high cost of performing supply chain activities can hinder companies from maximizing profit. Therefore, companies need to perform their supply chain activities in a cost-effective manner and improve their supply chain performance. Panayides et al. (2018) argued that companies that reduce their supply chain operating costs are likely to improve their supply chain performance and survive in their respective industries. By reducing supply chain costs, companies can overcome their financial challenges, avoid supply chain disruptions, and improve their supply chain performance (Panayides et al., 2018).

Theoretical Review

This study is anchored on the lean inventory theory, which was developed by Henry Ford in the 1450s. The lean inventory theory states that firms should maintain inventory levels that precisely align with the needs of their production processes (Edwin & Florence, in Odumusor, 2024). The lean inventory theory is associated with the principles of JIT strategy of inventory management as well as Economic Order Quantity (EOQ). With respect to JIT strategy, the lean theory requires firms to minimize the inventories in order to reduce holding costs and increase

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

efficiency. While in EOQ determine the most economic quantity of inventories to order at a given time to ensure optimized inventories. The basic idea behind the lean inventory theory is to maximize value while reducing waste. The theory requires firms to minimize the inventories to avoid high inventory costs associated with excessive inventory levels. Relating the lean inventory theory to the present study, the theory argues that food and beverage manufacturing firms in Nigeria can improve their supply chain performance by adopting inventory management strategies that minimize inventory levels and reduce holding cost. The theory explains that when food and beverage manufacturing firms adopt JIT strategy and vendor-managed inventory, they will be able to maintain minimum inventory levels and reduce their inventory costs, which is essential for improving supply chain performance.

Empirical Review

Some related empirical studies have been conducted on inventory management strategies and supply chain performance of firms. For instance, Babatunde et al. (2025) examined the relationship between inventory management and the performance of listed manufacturing companies in Nigeria. The study employed the ex-post facto research design, where data were collected from 12 listed manufacturing companies in Nigeria for the period 2014-2024. The data collected were analyzed statistically using mean and standard deviation while the hypotheses were tested using Pearson correlation and linear regression analysis. The findings revealed that inventory management (stock turnover rate) has a significant effect on performance (net profit margin and return on assets) of listed manufacturing firms in Nigeria.

Nampeera (2016) carried out a study to determine the effect of inventory management on the performance of manufacturing firms in Uganda. The study adopted the case study research design and the mixed research methods where a questionnaire and interview were used to collect data from 70 employees in Crown Beverage Limited in Uganda. The qualitative data collected were analyzed using screening, coding, and tabulation, while the quantitative data were analyzed using descriptive statistics such as percentage and frequency tables, and charts (bar charts and pie chart) as well as mean and standard deviation. After analyzing the data collected, the researcher discovered that Crown Beverage Limited utilises Fixed Order Quantity (FOQ), Vendor-Managed Inventory (VMI), Just-In-Time (JIT), Fixed period Ordering, and ABC method as its inventory management strategies. The study also reported that the inventory management strategies adopted by Crown Beverage Limited have a significant effect on the productivity and efficiency of the firm.

Elsheikh and Hassanin (2022) explored the impact of inventory management on financial performance of firms in Egypt. Their data were collected from secondary sources, specifically from the annual financial statements of 50 non-financial companies listed on the Egyptian Stock Market for the period 2012-2019. The data collected were analyzed statistically using descriptive statistics such as mean, standard deviation, minimum, and maximum analysis, while the hypotheses were tested using correlation matrix and panel data regression analysis. The findings revealed that the ratio of inventory to sales shows an insignificant impact on financial performance (return on assets and return on earnings) of listed companies in Egypt.

Bawa et al. (2018) conducted a study to determine the impact of inventory management on the performance of listed manufacturing firms in Ghana. The study adopted the descriptive research design and generated data from secondary sources. The data were collected from the annual financial statements of 14 manufacturing firms listed on the Ghana Stock Exchange for

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

the period 2007-2016. The data collected were analyzed using descriptive statistics such as mean, standard deviation, minimum, and maximum, while the hypotheses were tested using Pearson correlation and regression analysis. The findings revealed that inventory management has no significant effect on the performance (profitability and operating cash flow) of listed manufacturing firms in Ghana.

Akintola (2023) examined the relationship between inventory management and financial performance of consumer goods companies in Nigeria. The study employed the ex-post facto research design where data were collected from secondary sources. The data were obtained from the annual financial statements of 21 listed consumer goods manufacturing firms in Nigeria for the period 2018-2022. After analyzing the data collected, the researcher discovered that cost of transporting consumer goods from the point of manufacturing to the point of consumption is very high. The data collected were processed and analyzed using a computer software program known as E-Views version 10, Panel least Squares (PLS), and regression analysis. The findings revealed that inventory conversion period significantly reduces the return on assets (ROA) of listed consumer good manufacturing companies in Nigeria. The study also revealed that inventory keeping cost has small but favourable impact on ROA of listed consumer goods manufacturing companies in Nigeria.

Tella and Olatunji (2023) carried out a study to determine the relationship between inventory management and profitability of manufacturing firms in Nigeria. Their data were collected from the annual reports of 5 manufacturing companies listed on the Nigeria Stock Exchange for the period 2011-2015. The data collected were analyzed using descriptive statistics, while inferential statistics such as correlation matrix and regression analysis were used to test the hypotheses. The findings revealed that raw materials and work-in-progress exert insignificant impact on profit after tax while finished goods exert significant impact on profit after tax of listed manufacturing firms in Nigeria.

Odumusor (2024) explored the effect of inventory management on the production efficiency of manufacturing firms in Nigeria. The study adopted the descriptive research design where data were collected from 370 managerial and non-managerial employees of Lafarge and Niger Mills Company Limited in Calabar. The data collected were analyzed using descriptive statistics such as percentage and frequency tables while the hypotheses were tested using Ordinal Least Squares (OLS) method and regression analysis. The findings revealed that inventory availability and inventory accuracy have a significant influence on the production efficiency of selected manufacturing firms in Calabar.

Ugwu and Nwakoby (2020) examined the impact of inventory management on firm performance in Nigeria. The researchers adopted the survey research design and used a structured questionnaire to collect data from 400 managerial staff drawn from 10 selected manufacturing firms in Nigeria. The data collected were analyzed using descriptive statistics while the hypotheses were tested using Pearson Correlation and Ordinal Least Square (OLS) regression. The findings revealed that ABC model, Economic Order Quantity (EOQ), and Low, Medium, and High (LMH) have a significant and positive impact on firm performance.

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

Gap in Literature

Obviously, a good number of studies have been conducted on inventory management strategies of manufacturing firms in Africa, but none of these studies relate inventory management strategies to supply chain performance of food and beverage manufacturing firms in Nigeria. Most of the previous studies conducted on inventory management relate the strategies to financial performance and production efficiency of listed manufacturing firms in Africa, while studies that examined the relationship between inventory management strategies (Just-In-Time and Vendor-Managed Inventory) and supply chain performance (product availability and cost reduction) of food and beverage manufacturing firms in Nigeria are lacking in literature. This has created a gap in literature, which this study attempted to fill and contribute to the existing stock of knowledge on the subject matter of discourse.

METHODOLOGY

This study applied the positivism research philosophy, the correlational research design, and the quantitative research approach. The population of the study consisted of 86 registered food and beverage manufacturing firms in South-South, Nigeria (https//:www.directory.org.ng). The sampling unit comprised warehouse managers and stock keepers of the 86 registered food and beverage manufacturing firms in South-South, Nigeria. A population of 172 staff comprising warehouse managers and stock keepers was drawn from the 86 firms on the ratio of 2 staff per firm. The census sampling technique was adopted, where all the members of the population were studied. Data were collected from the respondents using a questionnaire that was structured on a 4-point Likert scale ranging from Strongly Agree, Agree, Disagree, to Strongly Disagree. The research instrument (questionnaire) was validated through content analysis while its reliability was determined using the Cronbach Alpha method. Having determined the validity and reliability of the instrument, the questionnaire was administered to the respondents with the aid of 4 trained research assistants. 172 questionnaires were administered to the respondents, and 154 copies were collected from them. The data collected were presented in tabular form and analyzed statistically while the hypotheses were tested using Pearson Correlation Coefficient (r). The computation and correlation analysis were carried out using SPSS version 24.

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

British Journal of Management and Marketing Studies
ISSN: 2689-5072
Volume 9, Issue 2, 2026 (pp. 105-121)

RESULTS AND DISCUSSION

The result of the correlation analysis carried out between inventory management strategies (just-in-time and vendor-managed inventory) and supply chain performance (product availability and cost reduction) of food and beverage manufacturing firms in South-South, Nigeria, is presented in the tables below:

Table 1: Result of correlation analysis between just-in-time strategy and product availability of food and beverage manufacturing firms

			Just-In-Time Strategy	Product Availability
Pearson (r)	Just-In-Time Strategy	Correlation Coefficient	1.000	.639**
		Sig. (2-tailed)	.	.001
		N	154	154
	Product Availability	Correlation Coefficient	.639**	1.000
		Sig. (2-tailed)	.001	.
		N	154	154

**Correlation is significant at 0.01 levels (2-tailed)
*Correlation is significant at 0.05 levels (2-tailed)

Source: *SPSS-Generated Output*

Table 1 indicates that just-in-time strategy is strongly and positively correlated to product availability of food and beverage manufacturing firms (r = .639**) and this correlation is statistically significant at 0.01 level. Considering this result, the null hypothesis (Ho_1) is rejected, and the alternate hypothesis is accepted. This means that we then accept that there is a significant relationship between just-in-time strategy and product availability of food and beverage manufacturing firms in South-South, Nigeria.

Table 2: Result of correlation analysis between just-in-time strategy and cost reduction of food and beverage manufacturing firms

			Just-In-Time Strategy	Cost Reduction
Pearson (r)	Just-In-Time Strategy	Correlation Coefficient	1.000	.867**
		Sig. (2-tailed)	.	.001
		N	154	154
	Cost Reduction	Correlation Coefficient	.867**	1.000
		Sig. (2-tailed)	.001	.
		N	154	154

**Correlation is significant at 0.01 levels (2-tailed)
*Correlation is significant at 0.05 levels (2-tailed)

Source: *SPSS-Generated Output*

Table 2 shows that JIT strategy has a very strong and positive correlation with cost reduction of food and beverage manufacturing firms (r = .867**) and this correlation is statistically significant at 0.01 level. As a result of this, the null hypothesis (Ho_2) is rejected, while the alternate hypothesis is accepted. This implies that there is a significant relationship between

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

just-in-time strategy and cost reduction of food and beverage manufacturing firms in South-South, Nigeria.

Table 3: Result of correlation analysis between vendor-managed inventory and product availability of food and beverage manufacturing firms

			Vendor-Managed Inventory	Product Availability
Pearson (r)	Vendor-Managed Inventory	Correlation Coefficient	1.000	.824**
		Sig. (2-tailed)	.	.001
		N	154	154
	Product Availability	Correlation Coefficient	.824**	1.000
		Sig. (2-tailed)	.001	.
		N	154	154

**Correlation is significant at 0.01 levels (2-tailed)
*Correlation is significant at 0.05 levels (2-tailed)

Source: *SPSS-Generated Output*

Table 3 reveals a very strong and positive correlation between vendor-managed inventory and product availability of food and beverage manufacturing firms (r = .824**) and this correlation is statistically significant at 0.01 level. Based on this result, we reject the null hypothesis (Ho_3) and accept the alternate hypothesis, which states that there is a significant relationship between vendor-managed inventory and product availability of food and beverage manufacturing firms in South-South, Nigeria.

Table 4: Result of correlation analysis between vendor-managed inventory and cost reduction of food and beverage manufacturing firms

			Vendor-Managed Inventory	Cost Reduction
Pearson (r)	Vendor-Managed Inventory	Correlation Coefficient	1.000	.833**
		Sig. (2-tailed)	.	.001
		N	154	154
	Cost Reduction	Correlation Coefficient	.833**	1.000
		Sig. (2-tailed)	.001	.
		N	154	154

**Correlation is significant at 0.01 levels (2-tailed)
*Correlation is significant at 0.05 levels (2-tailed)

Source: *SPSS-Generated Output*

Table 4 indicates that vendor-managed inventory has a very strong and positive correlation with cost reduction of food and beverage manufacturing firms (r = .833**) and this correlation is statistically significant at 0.01 level. This result leads to the rejection of the null hypothesis (Ho_4) and the acceptance of the alternate hypothesis, which states that there is a significant relationship between vendor-managed inventory and cost reduction of food and beverage manufacturing firms in South-South, Nigeria.

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

British Journal of Management and Marketing Studies
ISSN: 2689-5072
Volume 9, Issue 2, 2026 (pp. 105-121)

www.abjournals.org

DISCUSSION OF FINDINGS

This study discovered a significant relationship between JIT strategy and product availability of food and beverage manufacturing firms in South-South, Nigeria. This finding was obtained from the result of the correlation analysis carried out on the two variables in Table 1.

1. The result revealed that JIT strategy is strongly and positively correlated to product availability of food and beverage manufacturing firms (r = .639**) and this correlation is statistically significant at 0.01 level. Based on this result, the null hypothesis (Ho_1) was rejected and the alternate hypothesis was accepted. This means that we then accepted that there is a significant relationship between JIT strategy and product availability of food and beverage manufacturing firms in South-South, Nigeria. This finding is in line with the research conducted by Victoire (2015) and Mohamad et al. (2016) as both studies revealed that companies that adopt JIT strategy are likely to make product available to customers in the right quantity.

This study also discovered a significant relationship between just-in-time strategy and cost reduction of food and beverage manufacturing firms in South-South, Nigeria. This finding emerged from the result of the correlation analysis carried out on the two variables in Table 2.

2. The result revealed that JIT strategy has a very strong and positive correlation with cost reduction of food and beverage manufacturing firms (r = .867**) and this correlation is statistically significant at 0.01 level. As a result of this, the null hypothesis (Ho_2) was rejected while the alternate hypothesis was accepted. This implies that there is a significant relationship between JIT strategy and cost reduction of food and beverage manufacturing firms in South-South, Nigeria. This finding is supported by Akinlabi (2021) and, Alhassan and Muhammad (2022), as both studies revealed that JIT strategy enables companies to reduce their supply chain costs and increase profitability.

This study found a significant relationship between vendor-managed inventory and product availability of food and beverage manufacturing firms in South-South, Nigeria. This finding emanated from the result of the correlation analysis done on the two variables in Table 3.

3. The result shows a very strong and positive correlation between vendor-managed inventory and product availability of food and beverage manufacturing firms (r = .824**) and this correlation is statistically significant at 0.01 level. Based on this result, we rejected the null hypothesis (Ho_3) and accepted the alternate hypothesis, which states that there is a significant relationship between vendor-managed inventory and product availability of food and beverage manufacturing firms in South-South, Nigeria. This finding is consistent with the findings of Kareem (2017), Singh and Verma (2018), and Angulo (2019) which revealed that vendor-managed inventory is more appropriate for firms that are determined to avoid supply chain disruption and ensure product availability.

Finally, it was reported that vendor-managed inventory is significantly related to cost reduction of food and beverage manufacturing firms in South-South, Nigeria. This finding was derived from the result of the correlation analysis carried out on the two variables in Table 4. The result revealed that vendor-managed inventory has a very strong and positive correlation with cost reduction of food and beverage manufacturing firms (r = .833**) and this correlation is statistically significant at 0.01 level. This result led to the rejection of the null hypothesis (Ho_4)

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

and the acceptance of the alternate hypothesis, which states that there is a significant relationship between vendor-managed inventory and cost reduction of food and beverage manufacturing firms in South-South, Nigeria. This finding is supported by Victoire (2015) and Nnubia et al. (2017) as both studies revealed that vendor-managed inventory has significant impact on cost reduction of firms.

CONCLUSIONS

Considering the intense competition in the food and beverage manufacturing industry in Nigeria and its implications on business survival, it becomes imperative for food and beverage firms to improve their supply chain performance. This can be done by adopting the most appropriate and effective inventory management strategies, such as just-in-time (JIT) strategy and vendor-managed inventory (VMI). The empirical results of this study revealed that JIT strategy is significantly related to product availability of food and beverage manufacturing firms in South-South, Nigeria. The study also found a significant relationship between just-in-time (JIT) strategy and cost reduction of food and beverage manufacturing firms in South-South, Nigeria. The study equally discovered a significant relationship between vendor-managed inventory and product availability of food and beverage manufacturing firms in South-South, Nigeria. A significant relationship was equally reported between vendor-managed inventory and cost reduction of food and beverage manufacturing firms in South-South, Nigeria. From the findings, it was concluded that inventory management strategies such as just-in-time (JIT) strategy and vendor-managed inventory are significant predictors of supply chain performance (product availability and cost reduction) of food and beverage manufacturing firms in South-South, Nigeria.

RECOMMENDATIONS

The following recommendations are provided for the study:

1. That food and beverage manufacturing firms in Nigeria, particularly those that are experiencing poor supply chain performance, should adopt effective inventory management strategies, as it would improve supply chain performance.

2. That food and beverage manufacturing firms in Nigeria, particularly those that do not have a high demand for their products or foresee an unexpected rise in demand for their products, should adopt JIT strategy as it would improve their supply chain performance in terms of ensuring product availability and cost reduction.

3. That food and beverage manufacturing firms in Nigeria, particularly those that do not have the required skills and personnel to effectively manage their inventories, should adopt vendor-managed inventory, as this would not only enhance effective management of inventories but would also improve their supply chain performance in terms of ensuring product availability, on-time delivery, and cost reduction.

4. That food and beverage manufacturing firms in Nigeria, should consider the nature of their product and the level of customer demand for their product before choosing the

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

inventory strategy to adopt, as any strategy chosen will have a significant impact on their supply chain performance.

5. Finally, it is recommended that food and beverage manufacturing firms in Nigeria that do not have the professional knowledge and skills to manage their inventories should outsource inventory management to a third-party firm, as this would enhance effective inventory management and improve their supply chain performance.

REFERENCES

Agami, N., Saleh, M., & Rasmy, M. (2012). Supply chain performance measurement approaches: Review and classification. *Journal of Organizational Management Studies, 6* (2), 1–20. https://doi.org/10.5171/2012.872753.

Akinlabi, B.H. (2021). Effect of inventory management practices on operational performance of Flour Milling companies in Nigeria. *International Academy Journal of Management, Marketing and Entrepreneurial Studies, 8*(2), 137-174.

Akintola, T.M. (2023). Inventory management and financial performance of consumer goods companies in Nigeria. *Federal University Otuoke Journal of Management Sciences, 7* (2), 135-151.

Akyuz, A., & Erkan, E. (2010). Supply chain performance measurement: A literature review. *International Journal of Production Research, 48*(17), 5137–5155. https://doi.org/10.1080/00207540903089536.

Al-Danaf, M. (2022). Towards building an index for measuring supply chain performance of the organization through the integration of the reference framework for supply chain operations and the hierarchical analysis method: A case study. *Alexandria University Journal of Administrative Sciences, 59*(3), 267–316.

Alhassan, I., & Muhammad, H.M. (2022). Inventory management and financial performance of listed manufacturing firms in Nigeria. *London Journal of Research in Management and Business, 22*(2), 33-47.

Alkhawaldeh, A. E. (2025). Measuring supply chain performance. *Asian Business Research Journal, 10* (4), 20-25. https://doi.10.55220/25766759.355.

Alrjoub, A.M.S., & Ahmad, M.A. (2017). Inventory management, cost of capital and firm performance: Evidence from manufacturing firms in Jordan. *Investment Management and Financial Innovations, 14*(3), 4-14.

Ambe, I. (2014). Key indicators for optimizing supply chain performance: The case of light vehicle manufacturers in South Africa. *Journal of Applied Business Research, 30*(1), 277–290.

Angulo, A. N. (2019). Supply chain information sharing in a vendor managed inventory partnership. *Journal of Business Logistics*, *25*(1), 101-120.

Ayyildiz, E., & Gumus, A. (2021). Interval-valued Pythagorean fuzzy AHP method-based supply chain performance evaluation by a new extension of SCOR model: SCOR 4.0. *Complex & Intelligent Systems, 7*(1), 559–576. https://doi.org/10.1007/s40747-020-00221-9.

Babatunde, S.A., Bello, A.O., Ajayi, S.P. & Balogun, F.I.A. (2025). Inventory management and firm performance nexus in listed manufacturing companies. *Nigeria Journal of Management Studies, 27* (3), 312-357.

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

Ballou, H. (2020). Evaluation inventory management performance using turnover curve. *International Journal of Physical Distribution & Logistics Managemen*t, *21* (3), 321-332.

Bawa, S., Asamoah, G.E. & Kissi, E. (2018). Impact of inventory management on firm performance: A case study of listed manufacturing firms in Ghana. *International Journal of Finance and Accounting, 7*(4), 83-96. https://doi.10. 5923/j.ijfa.20180704.01.

Elsheikh, L. & Hassanin, I. (2022). The impact of inventory management on firms' financial performance: Case study Egypt. Arab Academy for Science, Technology & Maritime Transport, College of International Transport & Logistics, Alexandria, Egypt.

Emmett, S., & Granville, D. (2017). *Excellence in inventory management: How to minimise costs and maximise service.* Liverpool Academic Press.

Fosu, B. A. (2016). The relationship between inventory management and productivity in Ghanaian manufacturing industries. *International Journal of Innovative Research and Development, 5*(7), 217-228.

George, E. (2019). A study on the impact of inventory management on profitability of firms with special reference to the steel industry. *International Journal of Basic and Applied Research, 9*(5), 1-12.

Gokhale, P. P. & Kaloji, M. (2018). A study on inventory management and its impact on profitability in Foundry Industry at Belagavi, Karnataka. *International Journal of Latest Technology in Engineering, Management & Applied Science, 8*(9), 29-31.

Kamau, L. W. & Assumpta, W. K. (2020). Influence of inventory management practices on organizational competitiveness: A case of Safaricom Kenya Ltd, *International Academic Journal of Procurement and Supply Chain Management, 1*(5), 72-98.

Kareem, B. (2017). Assessment of inventory control practices in Nigerian industries. *Research Journal of Applied Sciences, 2*(9), 947-952.

Mwangi, W. & Nyambura, M.T. (2015). The role of inventory management on performance of food processing companies: A case study of Crown foods Limited Kenya. *European Journal of Business and Social Sciences*, *4*(4), 64-78.

Nampeera, K.K. (2016). The effect of inventory management on performance of manufacturing firms: Case study of Crown Beverage Limited. B.Sc. Project, Department of Business Administration and Management, Uganda Martyrs University.

Nnubia, I. C., OmaIiko, E.I., Ogechi, N.V., & Etuka, C.E. (2017). The effect of inventory control on profitability of manufacturing companies in Nigeria. *Journal of Vocational and Technical Education, 10*(1), 134-149.

Odumusor, C. J. (2024). Effect of inventory management on the production efficiency of manufacturing firms in Nigeria. *International Journal of Economics and Management Studies, 3* (1), 399-413. https://doi.10.56472/25835238/IRJEMS-V3I1P145.

Orobia, L.A., Nakibuuka, J., Juma, B., & Akisimire, R. (2019). Inventory management, managerial competence and financial performance of small businesses. *Journal of Accounting in Emerging Economies*, *2*(1), 2042-2168.

Panayides, P., Borch, O., & Henk, A. (2018). Measurement challenges of supply chain performance in complex shipping environments. *Maritime Business Review, 3*(4), 431–448. https://doi.org/10.1108/MABR-07-2018-0021.

Prempeh, K.B. (2016). The impact of efficient inventory management on profitability: evidence from selected manufacturing firms in Ghana. *International Journal of Finance and Accounting*, *5* (1), 22-26.

Priyanka, M. T. & Hemant, R. T. (2015). Review of inventory management strategies. *International Journal of Advanced Research in Engineering, Science and Management*, *1*(1), 1-5.

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3

Sillanpaa, I., & Kess, P. (2012). The literature review of supply chain performance measurement in the manufacturing industry. *Management and Production Engineering Review, 3*, 79–88.

Reddy, J., Rao, N., & Krishnanand, L. (2019). A review on supply chain performance measurement systems. *Procedia Manufacturing, 30*, 40–47. https://doi.org/10.1016/j.promfg.2019.02.007.

Saleheen, F., Habib, M., & Hanafi, Z. (2018). Supply chain performance measurement model: A literature review. *International Journal of Supply Chain Management, 7*(3), 70–78.

Singh, D. & Verma, A. (2018). *Inventory management in supply chain. Materials Today, 5*(2), 3867-3872.

Sosa, L., Alcaraz, J., & Macías, A. (2019). *Evaluation of supply chain performance: A manufacturing industry approach*. Springer International Publishing.

Tella, A. R. & Olatunji, T.E. (2023). Inventory management and profitability of manufacturing firms in Nigeria. *International Journal of Advanced Research, 12* (9), 52-68.

Torky, A. (2020). Effect of inventory management on financial performance: Evidence from the Saudi manufacturing company: Case study. *European Journal of Accounting, Auditing and Finance Research*, *8*(10), 13-26.

Ugwu, I.V. & Nwakoby, N. P. (2020). Impact of inventory management on firm performance in Nigeria: Using grassroots opinion. *International Journal of Engineering and Information Systems, 4* (11), 34-46.

Victoire, M. (2015) Inventory management techniques and its contribution to better management of manufacturing companies in Rwanda: Case study of Sulfo Rwanda Limited. *European Journal of Academic Essays*, *2*(6), 49-58.

Mohamad, S. J. A. N., Suraidi, N. N., Rahman, N. A. & Suhaimi, R. D. S. (2016). A study on relationship between inventory management and company performance: A case study of textile chain store, *Journal of Advanced Management Science, 4*(4), 299-304.

Wanjira, J. N. & Njagiru, J. M. (2018). Inventory management practices and financial performance of small and medium scale enterprises in Laikipia County, Kenya. *International Academic Journal of Economics and Finance, 3*(2), 117-132.

Ziukov, S. (2016). A literature review on models of inventory management under uncertainty. *Business Systems and Economics*, *5*(1), 26-35.

Article DOI: 10.52589/BJMMS-0SNHRQU3
DOI URL: https://doi.org/10.52589/BJMMS-0SNHRQU3