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Olota, O. Omotayo, Oladip G. Taiwo, and Balogun, E. Oluwadamilare

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Olota, O. Omotayo
Oladipo G. Taiwo
Balogun, E. Oluwadamilare

Abstract

Many organizations face a severe problem in developing decision-making frameworks for complicated supply chain management (SCM), which has driven them to keep improving supply chain models. This study examines Just-in-time (JIT) factors and its effect on SCM in the Nigerian manufacturing sector, with a specific focus on Olam PLC in Ilorin, which was used because it is the only international agricultural manufacturing firm that competes for supplies in the region. The survey research design was used to gather data through a questionnaire from 265 members of Olam employees selected randomly, of which 253 were valid. The data was analyzed, and hypotheses were tested through PL-SEM at a significance threshold of 0.05 using SmartPLS3. Results demonstrated that JIT has a standardized beta value and the P value of 0.981 and 0.000 on SCM, and its r2 indicated 96% on SCM, indicating that JIT has a significant effect on SCM. In conclusion, therefore, effective integration of JIT inventory management in business processes enhances continuous improvement and enhanced supply chain management.

Keywords: *Just-In-Time, Supply Chain Management, Cost reduction, lead-time reduction, quick response.*

1. Introduction

The fundamental problem in global supply chain management (SCM) is developing decision-making models that can accommodate numerous entities' interests. Many efforts have been made to design decision models for supply chain issues. These models have been integrated into various decision support systems so that they can be optimized for future long-term runs. To achieve this, the decision models used mathematical programming (Günlük et al., 2021; Deepa et al., 2018; Colapinto et al., 2019), statistical and probability tools (Oh et al., 2019; Giri, 2019; Wu & Liu, 2022), simulation (Chernikova et al., 2020) and heuristics (Guercini & Milanesi, 2020).

Many organizations face a severe problem in developing decision-making frameworks for complicated SCM concerns, which has driven them to keep improving supply chain models. This study examines the supply chain management system of just-in-time inventory. This paper shows its applicability in global SCM, obstacles and benefits, and future research fields.

A Just-in-Time (JIT) inventory management system reduces a company's return on investment by reducing stock kept. The basic goal of JIT is zero inventory, not just within a company but ultimately throughout the supply chain (Ufua et al., 2021). Inventory management has long been a challenge for businesses worldwide. Inventory management solutions help businesses manage their inventory more effectively and efficiently. Companies are always looking for ways to gain a lasting competitive advantage. Thus, businesses must use effective inventory management strategies like JIT to boost their competitiveness (Erlygina & Abramova, 2019).

In the 1980s, raw material, component, and final goods inventories were kept to avoid shortages (Ivanov & Dolgui, 2022). However, big buffer inventories waste resources and create hidden costs (Spang et al., 2022). Too much inventory takes up space, costs money, and raises the risk of damage, spoilage, and loss (Song et al., 2021). Conversely, low inventory typically disrupts business operations (Lukinskiy et al., 2020). There are many aspects of inventory management, such as replenishment lead time and inventory carrying costs. Optimal inventory levels are achieved by balancing competing company needs and the external environment (Wang et al., 2021).

Providing accurate real-time inventory information is critical in today's competitive climate. This is especially true for perishable things like paper, farm food, and medications. Given the short shelf life of these goods, it is critical to visualize their logistical flow in real-time at the pallet level. Typically, such data is recorded via barcode scanning or manual record keeping. However, these methods are slow, labour-intensive, and error-prone (Fu et al., 2019; Marshall & Wallace, 2019). Thus, this study has adopted and successfully implemented just-in-time inventory management systems in today's enterprises' supply chains.

Based on existing literature on JIT and SCM, there is a gap in the present study that examined the effect of JIT on SCM in Nigeria's manufacturing industry with specific reference to Olam Grains. The gap lies in the novelty of the study compared to the existing literature (Atagboro, 2020; Chaudhari & Patel, 2015; Obinna, 2022; Ogomegbunam, 2023). While there are studies on JIT and its impact on various aspects of manufacturing, such as inventory management, operational performance, and supply chain management, there is a lack of focus on SCM and the specific context of Nigeria's manufacturing industry, particularly in the context of Olam Grains which is an agricultural manufacturing firm that competes for supplies with the local agricultural firms.

This study contributes to the literature by providing a detailed analysis of the implementation of JIT for effective SCM in the Nigerian manufacturing sector, focusing on Olam Grains. This allows for a more nuanced understanding of the challenges and opportunities specific to Nigeria's manufacturing environment, which differs from other countries. This study is of novelty due to its focus on SCM effectiveness and the Nigerian agricultural manufacturing context, particularly in the context of Olam Grains.

2. Review of Literature

2.1 Just-In-Time Production System

Taiichi Ohno introduced a just-in-time production system in an auto-assembling facility at Toyota in the early 1970s (Dixon, 2021). Several people have described the concept of just-in-time production. Various articles have defined it. All of these views share a similar deficiency in subject knowledge. Many publications and articles claim this system equals zero/null inventory.

Some see it as a new production method, while others see it as a method. This system is a philosophy for some exporters and a strategy for others. Some feel it encompasses all of the above and goes beyond. Just-in-time production is a concept that applies to all elements and units of any organization. Just-in-time production involves more than inventory control and material flow. It is a way of thinking that attempts to eliminate waste and avoid material leftovers in all actions. JIT's primary goal is to maximize output and quality by eliminating waste and inefficient, unsafe items (Agrawal, 2021).

Just-in-time production is a method of preparing materials so that all essential commodities are received on time. Preparing all primary supplies and parts precisely when needed reduces scraps. The system's success depends on upper-level managers' support, identification of significant production issues, employee involvement in decision-making, and simultaneous application of production flow and proper inventory system. Completing these organizational aspects relies on environmental conditions, including supporter-customer relationships, culture, relations, and economic and political conditions.

It requires high precision to create efficient, safe parts on time and in the appropriate condition for the workstation and manufacturing line. JIT aims to provide timely service to clients while reducing inventory. The JIT mindset eliminates waste by streamlining the production process, reducing preparation time, regulating material flow, and emphasizing preventive maintenance to eliminate or reduce excess inventories (Shelke et al., 2021). Typical JIT applications include:

- Inventory drop
- Small batch manufacture
- Quality control
- A reduction in complexity in the industrial process
- Unified organizational structure, reduced waste

Definitively, JIT increases production efficiency and customer happiness. Companies who adopt JIT in their production system have a huge competitive advantage over their competitors. However, the issue here is how to use JIT concepts and competitive advantages in a certain industry and work state. The fundamental point in JIT is that there should be enough raw materials and/or finished goods to match consumer demand and/or manufacturing process (Agrawal, 2021).

The JIT mindset also focuses on increasing productivity, improving quality, increasing worker participation, and reducing waste in the manufacturing system (Phogat & Gupta, 2019; Rivera-Gómez et al., 2019; Smith, 2019). Prior research saw JIT as an organization-wide, holistic set of methods to meet JIT goals (Dhawan, 2023). These traditions differ by culture and industry, limiting the effectiveness of JIT (Leong et al., 2021). A successful JIT implementation might result in several advantages (Phogat & Gupta, 2019a). According to Kovács (2020), the most important benefits realized are increased productivity, reduced total production costs, improved quality process, reduced number of parts, reduced waste and rework, improved production quality, and increased innovation.

A good association between JIT production and agile manufacturing was observed by Phan et al. (2019) via JIT-purchasing. Qamruzzaman and Karim (2020) studied 207 manufacturing units to see if JIT supply positively moderates the link between JIT production and operational performance.

2.2 Requirements for JIT Manufacturing

Setting up a JIT firm takes a lot of dedication from all departments and the strategic management team. For JIT systems to be useful, a pull production approach of workflow is required. Client demand drives production because the supply chain is designed for flexibility and speed. This is fine for most organizations. However, demand might spike suddenly for no apparent reason, and a backup plan in case this happens unexpectedly. Even when inventory is low, organizations can stretch and push production operations to capacity when demand exceeds supply (Phan et al., 2019).

2.3 Challenges of Implementing JIT Manufacturing

In the same way as JIT manufacturing has numerous advantages, it also has certain disadvantages. Organizations had to conduct extensive studies before implementing the Just-in-Time inventory management system to verify that it would function as intended. This would have taken a long time for them because they would have had to consider the possible adverse effects on their company. Aside from that, the high initial setup expenses may deter some organizations from adopting this technology because it is difficult and expensive to implement. This did not deter organizations that saw the long-term benefits of implementing this strategy and were expected to grow more profitable.

Moreover, they discovered that it would allow them to enhance their business procedures in the future, allowing them to surpass other organizations as the industry's best manufacturers. Aside from market demand and unexpected production interruptions, JIT procedures are also vulnerable. Prior to investing in JIT systems, organizations conduct extensive research regarding their customers' purchasing habits (Smith, 2019).

2.4 Benefits of Overcoming the Challenges and Adopting a JIT System

JIT manufacturing can have a wide range of advantages for a business. Because it keeps producers from being stranded with obsolete or useless inventory, JIT is popular with a wide range of companies. There is only enough inventory in the organization's factories to last for two days. This ensures that they have complete control over the creation of computers. In addition, JIT implementation has been shown to have major favourable effects on a company's financial data. Implementing JIT processes has resulted in a cash conversion cycle for organizations. Their profitability will improve due to a steady cash flow in and out of their business. Reduced costs are another benefit of just-in-time production. While this can only be achieved when a considerable amount of time has passed after the JIT processes were put into place, it frees up capital that would otherwise be spent on stock, allowing companies to invest more in other aspects of their business, like advertising and promotion. It is also considerably more manageable to set up and saves time and money because the manufacturing systems are simplified just in time. As a result, organizations can eliminate waste by preventing the overproduction of computers. JIT solutions, on the other hand, do away with the need for warehouses and storage facilities. Organizations can use the extra funds to fund other business areas and reduce travel expenses (Rivera-Gómez et al., 2019).

2.5 Theoretical Framework

The theory that serves as a major framework for understanding the effect of Just-In-Time (JIT) on Supply Chain Management (SCM), particularly in the manufacturing sector, is the JIT philosophy itself, which was largely popularized by Taiichi Ohno in the 1970s (Taiichi & Monden, 1983; Taiichi, 2006; Ye et al., 2022). The basic tenet of JIT is to increase efficiency and decrease waste by receiving goods only as they are needed in the production process, thereby reducing inventory costs. This philosophy is deeply rooted in the Toyota Production System and has since been adopted widely in various manufacturing sectors as a pivotal strategy for SCM optimization.

The assumptions of JIT include the premise that each step in the manufacturing process can be synchronized to achieve a continuous flow, that suppliers are reliable and capable of meeting the production schedules, and that the production system is flexible enough to respond to changes in demand. JIT assumes that by reducing inventory levels, companies can minimize the costs associated with holding stock and can also identify quality problems more quickly.

Criticism of JIT centres around its vulnerability to supply chain disruptions, as minimal inventory levels offer a little buffer for delays in supply. Furthermore, JIT requires a stable production schedule and reliable suppliers, which may not always be feasible. Critics argue that JIT may not be suitable for all types of manufacturing environments, especially those with highly variable demand or supply issues.

The theory explains the effect of JIT on SCM by emphasizing the need for a synchronized supply chain where materials are pulled through the system to arrive just as they are needed. This minimizes the holding costs and reduces waste, leading to a more efficient production process. The integration of computer simulation and analysis of variance, as mentioned in the first abstract, can help in designing practical optimum JIT systems that consider the dynamic behaviour of manufacturing systems (Phan et al., 2019).

Similar works that have used the JIT philosophy to study its effects on SCM include surveys comparing the performance of firms using traditional manufacturing, JIT, and TOC. These studies have shown mixed results, with some indicating that JIT does not necessarily lead to superior performance or improvement when compared with traditional manufacturing (Phan et al., 2019; Smith, 2019). However, the adoption of JIT, when properly implemented and supported by a stable and reliable supply chain, can lead to significant improvements in efficiency and cost reduction.

In conclusion, while JIT has its criticisms, particularly concerning its vulnerability to disruptions and the need for a stable supply environment, it remains an influential theory for understanding and improving SCM in the manufacturing sector. The practical application of JIT, supported by empirical studies, demonstrates its potential to enhance performance and streamline operations when the assumptions of the theory are met.

3. Methodology

The study adopted a survey research design as it is a quantitative study. The entire staff of Olam Nigeria Limited was used as the target population of this study, which was 853 at the time of this study, as provided by the admin department of the establishment (2021). A sample of 265 was drawn using Krejcie and Morgan's (1970) formula and selected using a simple sampling technique. The instrument used for the study was a closed-ended questionnaire with two sections. The first section deals with questions relating to the demographic profile of the respondents, while the second section deals with questions or items relating to the main construct of the study. The items were measured on a five-point Likert scale. The study obtained primary data through the questionnaire, and the questionnaire was developed and designed through a thorough review of the literature, including studies by Lee and Seah (2007), Kumar (2010), and Singh and Singh Ahuja (2014). The questionnaire was then validated by peer review by academics, consultants, JIT councillors, and practitioners (JIT coordinators) from the company, which was validated statistically through average variance expected (AVE) at 0.5 standard valid level. At the same time, the instrument's reliability was tested through Cronbach alpha at 0.7 standard level and composite reliability at 0.7 standard level, the results of which were displayed in the data analysis section of this study. Structural equation modelling (SEM) through the PLS algorithm and bootstrapping with the aid of SmartPLS 3 Software was used to test the formulated hypotheses at a 5% significant level.

The Instrument

The regression model of each of the hypotheses is given below:

$Y = \beta0+\beta1X1+\beta2X2+\beta3X3+....\beta nXn$

Restatement of Hypotheses

Ho1: JIT has no significant effect on the SCM of Olam Nigeria Limited.

SCM = β0 + JIT (Cost reduction X1 + Productivity X2 + lead-time reduction X3 + Product variety X4 + quick response X5 + employee commitment X6) + e

Where; Cost reduction, Productivity, Lead-time reduction, Product variety, quick response, and employee commitment are the items used to measure JIT.

4. Data Analysis

4.1. Measurement Model

Table 1. Construct Reliability and Convergent Validity

Constructs	No of Items	Cronbachs Alpha	Composite Reliability	AVE	R Square	R Square Adjusted
Just-In-Time	6	0.992	0.993	0.960		
Supply Chain Management	5	0.849	0.883	0.632	0.963	0.963

Source: Smart PLS 3 Output (2022)

From Table 1 above, as per the result delivered by the researcher using Partial Least Square (PLS) Algorithm and Bootstrapping, the data collected from 253 respondents were tabulated in order to identify the constructs' validity and reliability, T statistics, P-value and R Square results. After applying bootstrapping, the researcher acknowledged that 13 variables, which consist of 11 indicators and two latent variables, were analyzed. All factors were highly validated for the study.

From Table 1 above, the result of the PLS algorithm revealed that the old Cronbach alpha reliability method indicated a minimum Cronbach alpha value of 0.849 and a maximum Cronbach alpha value of 0.992 for the indicators used in the structural equation model measured. This shows that the indicators used in this study are reliable and will keep producing the same result when used again to measure the latent variables since all the values are above the standard value of 0.70. Also, the modern reliability test composite reliability shows a minimum value of 0.883 and a maximum value of 0.993 in the model. This further strengthens and supports the reliability of the constructs. The average variance extracted (AVE), which shows the validity of the indicators, also shows a minimum value of 0.632 and a maximum value of 0.960. This implies that the constructs of this study are all convergently and divergently valid for this study and proves the instrument's validity since the values are above the minimum required standard of 0.50.

The table also reveals the R2 and (adjusted R2), which indicate the coefficient of determination and its adjustment against the error effect. The table revealed that JIT variables predict supply chain management up to 0.963 (0.963), which means that JIT predicts up to 96.3% (96.3%) of the variations in SCM of Olam in Ilorin, Kwara state, Nigeria. In comparison, other factors not considered in this study are responsible for the remaining 3.7%. This implies that the variables of JIT are significant predictors responsible for variations in SCM. This implies that the combined and individual effect of JIT variables significantly influences SCM.

Table 2. Outer Loadings

Constructs	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STERR|)	P Values
Cost Reduction -> JIT	0.982	0.982	0.003	371.503	0.000
Employee Commitment -> JIT	0.984	0.984	0.002	477.429	0.000
Lead-time Reduction -> JIT	0.972	0.972	0.005	204.178	0.000
Product Variety -> JIT	0.982	0.982	0.002	408.800	0.000
productivity -> JIT	0.979	0.979	0.003	336.129	0.000
Quick response -> JIT	0.980	0.980	0.003	320.303	0.000
SCM1 -> Supply Chain Mgt	0.970	0.970	0.006	151.928	0.000
SCM2 -> Supply Chain Mgt	0.965	0.965	0.010	96.265	0.000
SCM3 -> Supply Chain Mgt	0.981	0.981	0.006	177.956	0.000
SCM4 -> Supply Chain Mgt	0.380	0.364	0.119	3.187	0.002
SCM5 -> Supply Chain Mgt	0.425	0.409	0.120	3.534	0.000

Source: Smart PLS 3 Output (2022)

Table 2 above shows the outer loading of the indicators of the study. The SEM bootstrap analysis procedure results revealed a good overall fit of the data to the proposed model. Based on the loading of each indicator on the constructs result above, by examining the outer loading of cost reduction on JIT, it can be observed that cost reduction has a high loading on JIT with the P value being significant ($\beta = 0.982$, $P = .000 < 0.05$). Thus, cost reduction has a high impact on JIT due to its high loading. This implies that the indicator is valid; thus, cost reduction is highly significant to JIT.

By examining the outer loading of employee commitment on JIT, it can be observed that employee commitment has a high loading on JIT, with the P value being significant ($\beta = 0.984$, $P = .000 < 0.05$). Thus, employee commitment has a high impact on JIT due to its high loading. This implies that the indicator is valid; thus, employee commitment is highly significant to JIT.

By examining the outer loading of lead-time reduction on JIT, it can be observed that lead-time reduction has a high loading on JIT, with the P value being significant ($\beta = 0.972$, $P = .000 < 0.05$). Thus, lead-time reduction has a high impact on JIT due to its high loading. This implies that the indicator is valid; thus, lead-time reduction is highly significant to JIT.

By examining the outer loading of product variety on JIT, it can be observed that product variety has a high loading on JIT, with the P value being significant ($\beta = 0.982$, $P = .000 <$

0.05). Thus, product variety has a high impact on JIT due to its high loading. This implies that the indicator is valid; thus, product variety is highly significant to JIT.

By examining the outer loading of productivity on JIT, it can be observed that productivity has a high loading on JIT, with the P value being significant ($\beta = 0.979$, $P = .000 < 0.05$). Thus, productivity has a high impact on JIT due to its high loading. This implies that the indicator is valid; thus, productivity is highly significant to JIT.

By examining the outer loading of quick response on JIT, it can be observed that quick response has a high loading on JIT, with the P value being significant ($\beta = 0.980$, $P = .000 < 0.05$). Thus, quick response has a high impact on JIT due to its high loading. This implies that the indicator is valid; thus, quick response is highly significant to JIT.

By examining the outer loadings of the 5 SCM indicators on supply chain management, it can be observed that the 5 SCM indicators have high and moderate loading on supply chain management with the P values being significant ($\beta 1 = 0.970$, $\beta 2 = 0.965$, $\beta 3 = 0.981$, $\beta 4 = 0.380$, $\beta 5 = 0.425$; $P1 = .000 < 0.05$, $P2 = .000 < 0.05$, $P3 = .000 < 0.05$, $P4 = .002 < 0.05$, $P5 = .000 < 0.05$). Thus, SCM indicators have a high impact on supply chain management due to its high and moderate loading. This implies that the indicator is valid; thus, the 5 SCM indicators are highly significant to supply chain management.

4.2. Structural Model

Table 3. Path Analysis

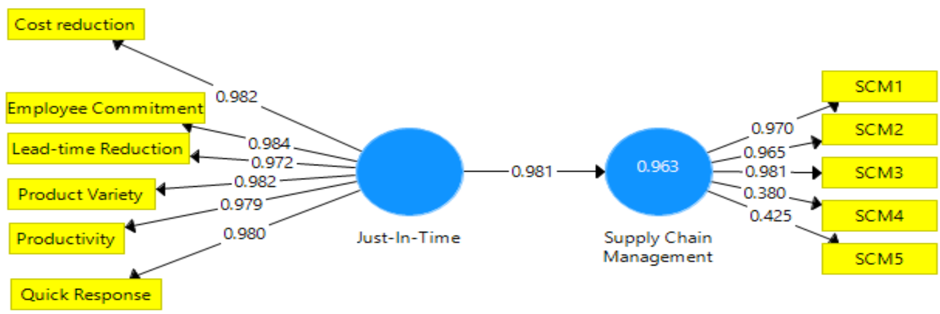
Constructs	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STERR|)	P Values
Just-in-Time -> Supply Chain Management	0.981	0.982	0.006	174.092	0.000

Source: Smart PLS 3 Output (2022)

4.2.1 Structural Model and Hypotheses Tests

Table 3 above shows the path analysis of the constructs of the study. The results of the SEM bootstrap analysis procedure revealed a good overall fit of the data to the proposed model. Based on the bootstrapping result above, by examining the path analysis of the effect of just-in-time on supply chain management, it can be observed that supply chain management was significantly influenced by Just-In-Time ($\beta = 0.981$, $t = 174.092 > 1.96$ @ 5% sig. level, $p = .000 < 0.05$). Thus, Hypothesis one was supported by rejecting the null hypothesis and accepting the alternative hypothesis, which states that "there is a significant effect of JIT on SCM". The R^2 at 0.963 indicates that JIT explains a proportion of approximately 96.3% of the variance in the levels of SCM. This implies that the path is valid; thus, JIT significantly affects the SCM of Olam in Ilorin, Kwara state Nigeria.

Figure 1. Structural Equation Path Model



Note: SCM means Supply Chain Management.

Source: Smart PLS 3 Output (2022)

Figure 1 depicts the path model of structural equation modelling. It also captured the result of the PLS algorithm. The cost reduction, productivity, lead-time reduction, product variety, quick response, and employee commitment are the six indicators of JIT with correlation coefficient values of 0.982, 0.984, 0.972, 0.982, 0.979 and 0.980, respectively. This indicates a robust and reliable relationship of the indicators as a predictor of JIT, with the overall strong positive relationship being 0.981, that is, 98.1%.

The SCM1, SCM2, SCM3, SCM4 and SCM5 are the five indicators of supply chain management with correlation coefficient values of 0.970, 0.965, 0.981, 0.380 and 0.425, respectively. This indicates a strong and reliable relationship between the indicators as predictors of SCM since all the indicators are positive and high.

5. Discussion

Based on the analysis of operational data gathered via the field survey and the test of hypotheses, the following findings were revealed:

In examining the effects of JIT on SCM, the study result revealed that cost reduction, productivity, lead-time reduction, product variety, quick response, and employee commitment as factors of JIT all have significant effects on SCM of Olam. It is also clear from Table 3 that JIT has a standardized beta value and the P value of 0.981 and 0.000 on SCM, which its r2 (coefficient of determination) indicates 0.963, that is, 96.3%, approximately 96% on SCM indicating that JIT has significant effect on SCM. Thus, we reject the null hypothesis, which states that **"There is no significant effect between JIT and SCM"**. Therefore, we accept the alternative hypothesis when it is stated. The finding of this study agrees with that of Phan et al. (2019), Phogat and Gupta (2019), and Rivera-Gómez et al. (2019), who found that supply chain integration is one of the antecedents for the successful implementation of JIT practices—also, claimed that many of foreword physical flow deliveries between supplier, manufacture, and customer proponent fall under JIT. Thus, JIT has been found to be statistically significant in predicting SCM. Therefore, harnessing JIT in the organization contribute significantly to helping achieve corporate supply chain goals and higher supply chain management.

5.1 Theoretical Implications

The study's findings contribute significantly to the existing body of knowledge on Supply Chain Management (SCM) and Just-In-Time (JIT) practices. It provides empirical evidence supporting the theory that JIT practices have a substantial impact on SCM, with a coefficient of determination (r^2) of 0.963. This implies that approximately 96% of the variations in SCM can be explained by JIT practices. The theoretical implications of the study are substantial, shedding light on the interconnected dynamics between Just-In-Time (JIT) practices and Supply Chain Management (SCM) within the context of Olam. The findings underscore the significance of several factors associated with JIT, including cost reduction, productivity enhancement, lead-time reduction, increased product variety, quick response mechanisms, and heightened employee commitment. The study's contribution lies in establishing JIT as a statistically significant predictor of SCM, affirming that the strategic incorporation of JIT practices holds the potential to significantly advance corporate supply chain goals and elevate supply chain management to higher levels of efficiency and effectiveness.

5.2 Managerial Implications

From a managerial perspective, the study's findings underscore the importance of JIT practices in enhancing SCM. Managers in organizations like Olam can leverage JIT practices to achieve cost reduction, increase productivity, reduce lead time, offer product variety, and ensure quick response. The significant effect of JIT on SCM suggests that managers who effectively harness JIT practices can achieve corporate supply chain goals and enhance SCM. This could improve operational efficiency, customer satisfaction, and organizational performance.

6. Conclusion and Recommendations

Just-in-time manufacturing can have a favourable impact on organizations, which helps to earn a competitive advantage in its sector by using JIT technology. It might help to become the world's leading manufacturer thanks to JIT systems and a direct selling model. Even more importantly, inventory management methods appear to vary widely among industries. When deploying Just-in-time solutions, organizations need to weigh the benefits and drawbacks of doing so. Despite this, organizations have done a good job of research, and JIT has been rather successful among various manufacturing organizations (Phan et al., 2019). JIT systems implementation necessitates the full support of every department in organizations. There is a need for total support from every area of organizations. If organizations succeed in implementing JIT purchasing processes, it could lead to an increase in efficiency in supply chain management. Despite the fact that the JIT process itself is not particularly difficult, the implementation stage is. However, it is possible that huge corporations can benefit from the system's competition, as demonstrated by the financial situation in the market. Organizations must keep in mind that they must have solid working relationships with their suppliers in order for JIT to work within their organization.

In conclusion, therefore, Organizations that effectively integrated JIT inventory management in their business processes and are employing continuous improvement to maintain their position as one of the world's leading manufacturers, as outlined in this article, have thus, enhanced their supply chain management. This study therefore recommends that organizations should integrate or implement JIT purchasing, JIT selling, and JIT production in its operation processes to enhance its supply chain management level. This can be done by analyzing every available supplier of the organization and choosing to deal with those capable of providing materials and other necessities needed for the effective functioning of the organization's supply chain management.

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About the Authors

Mr. Olota, O. Omotayo, *Lecturer, Department of Business Administration, Universtity of Ilorin, Ilorin, Nigeria.*
<olotaoluwayomi@gmail.com>
Oladipo G. Taiwo, *Senior Lecturer, Department of Business Administration, Universtity of Ilorin, Ilorin, Nigeria.*
<oladipoganiyutaiwo@gmail.com>
Mr. Balogun, E. Oluwadamila, *Alumni of the Department of Business Administration, Universtity of Ilorin, Ilorin, Nigeria.*
<balobendar@gmail.com>