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# INVENTORY MANAGEMENT PRACTICES AND FINANCIAL PERFORMANCE OF UNILEVER NIGERIA PLC

**Okoliko Emmanuel Ojonugwa[1] Nancy Ugochi Chidiebere[2] Ifegwu John Ifegwu[3] Olufolakemi Oludami Afrogha[4]**

*[1&2]Department of Business Administration, National Open University of Nigeria, Abuja*
*[3]Department of Entrepreneurial Studies, National Open University of Nigeria, Abuja*
*[4]Department of Financial Studies, National Open University of Nigeria, Abuja*

***All correspondence to**:* eokoliko@noun.edu.ng

## ABSTRACT

*This study investigated the impact of inventory management practices on the financial performance of Unilever Nigeria Plc, focusing on three key strategies: Systematic Application and Production Software (SAP), Economic Order Quantity (EOQ), and Just-In-Time (JIT). The study employs a quantitative research design, analyzing secondary data from Unilever's annual reports. Descriptive statistics and regression analysis were applied to assess the relationship between inventory management practices and the company's financial performance, measured through Return on Assets (ROA). The findings reveal that SAP, EOQ, and JIT all significantly influence ROA, with JIT having the strongest positive effect. The study concludes that effective implementation of these inventory management practices can enhance operational efficiency, reduce costs, and improve financial performance. Based on these results, the study recommends that companies leverage SAP technology, optimize order quantities using EOQ, and adopt JIT principles to improve procurement efficiency.*

***Key words:*** *Inventory Management Practices, Financial Performance, Unilever Nigeria Plc.*

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## 1. INTRODUCTION

Inventory is a key business consideration in the attempt to achieve supply chain optimization. In this complex and dynamic market, a firm should be able to come up with various techniques of having efficient inventory levels that would be economical to the firm if they were to hold stock (Chandra, 2020). Inventory management is the process of overseeing and controlling the flow of goods in an organization, ensuring that the right amount of inventory is available at the right time to meet operational and customer demands. It is a vital function in many industries, particularly those in manufacturing, retail, and logistics, where inventory is a critical asset. Inventory management practices aim to balance the need to have enough stock to meet demand with the desire to minimize the costs associated with holding, storing, and managing that inventory. These practices are crucial because they directly impact a company's efficiency, profitability, and customer satisfaction (Chong & Loke, 2020).

Effective inventory management not only ensures product availability but also helps in minimizing costs, optimizing storage space, and improving the cash flow of the organization. Ogbo and Onekanma (2020) noted that organizations, by attaining lowered operating costs and enhanced sales efficiency, benefitted from inventory control management. Companies use various inventory management practices depending on their needs, the nature of their products, and market conditions. Some of these practices include: Just-In-Time (JIT), Economic Order Quantity (EOQ), ABC Analysis, Vendor-Managed Inventory (VMI), Safety Stock and Reorder Point and Inventory Optimization Technology. Inventory management is a critical component of supply chain operations for companies like Unilever Nigeria PLC, which operates in the fast-moving consumer goods (FMCG) sector. Effective inventory management practices are essential in ensuring the availability of products, optimizing costs, and enhancing the overall efficiency of operations. For Unilever Nigeria, which produces a wide range of products from food and beverages to personal care and home care items, managing inventory is especially crucial due to the diversity and volume of products, as well as the complexities associated with the Nigerian market. At Unilever Nigeria, inventory management practices play a significant role in balancing supply and demand. The company must ensure that its production lines run smoothly without interruptions due to shortages, while also avoiding overstocking, which can lead to high warehousing costs and the risk of product obsolescence. Effective inventory management systems, such as just-in-time (JIT) and economic order quantity (EOQ), allow Unilever Nigeria to keep inventory levels optimized, ensuring that products are available for distribution when needed without tying up excessive capital in stock (Krajewski et al., 2021).

A key aspect of Unilever Nigeria's inventory management strategy is the integration of advanced forecasting and demand planning tools. These tools enable the company to predict consumer demand more accurately, ensuring that production and inventory levels align with market needs. This is particularly important in a dynamic and often unpredictable market like Nigeria, where consumer preferences can shift quickly, and supply chain disruptions can occur due to infrastructural challenges or political factors. By using sophisticated forecasting models, Unilever Nigeria Plc. can better anticipate demand fluctuations and adjust its inventory strategies accordingly, minimizing stockouts and maintaining consistent product availability (Sternad et al., 2020). Furthermore, Unilever Nigeria leverages technology to improve its inventory management practices. The company uses automated systems to track inventory levels in real time, reducing the potential for human error and enhancing decision-making. These systems also allow for better coordination with suppliers, helping the company

to maintain optimal stock levels without overburdening its warehouses. In addition, vendor-managed inventory (VMI) systems allow Unilever Nigeria to collaborate closely with suppliers to ensure timely replenishment of stock, streamlining the entire supply chain and reducing the lead time between ordering and receiving goods (Liu et al., 2022). By implementing efficient inventory management practices, the company reduces the likelihood of excess inventory that could lead to spoilage or wastage, particularly with products that have short shelf lives. These practices not only help the company reduce its environmental footprint but also contribute to cost savings and improved operational efficiency (Unilever Annual Report, 2023).

As the company strives to meet customer demands and align with sustainability goals, understanding how its inventory practices influence performance is vital. Previous studies have highlighted several inventory management practices that organizations in the FMCG sector adopt to streamline their operations; for example, Just-in-Time (JIT) and Economic Order Quantity (EOQ) have been found to help organizations reduce storage costs and improve inventory turnover (Frazelle, 2020). Additionally, advanced forecasting methods and technologies like Vendor-Managed Inventory (VMI) have been identified as useful tools for improving supply chain coordination and ensuring product availability (Liu et al., 2022). Fundamentally, despite implementing these well-established practices, Unilever Nigeria continues to face challenges, such as inventory stockouts and inefficiencies in meeting fluctuating consumer demand. This is partly due to the lack of real-time data integration and precise demand forecasting in certain areas of its supply chain. In addition, while Unilever's inventory practices aim for operational efficiency, they may not fully address the underlying supply chain constraints, such as infrastructure challenges and market volatility that are unique to Nigeria (Sternad et al., 2020). However, research specific to Unilever Nigeria PLC's inventory management practices is limited, particularly in terms of how these practices contribute to its operational performance, customer satisfaction, and cost control within the context of Nigeria's unique market conditions. This gap highlights the need for a more comprehensive analysis of how Unilever Nigeria's inventory management practices affect its performance and how these practices can be improved to better align with local market dynamics.

### 1.1 Objectives

The study seeks to evaluate the specific impact of Unilever Nigeria's inventory management practices on its operational performance, with a focus on understanding how inventory strategies can be optimized in the context of Nigeria's unique challenges. The specific objectives are to;

1. examine how systematic application and production software (SAPS) in inventory management affects the performance of Unilever Nigeria Plc..
2. assess the impact of employing economic order quantity (EOQ) in inventory management on the performance of Unilever Nigeria Plc.
3. investigate the impact of Just in time (JIT) inventory control system on the performance of Unilever Nigeria Plc.

### 1.2 Hypotheses

$H_{o1}$: Systematic application and production software has a significant effect on performance of Unilever Nigeria plc

$H_{o2}$: Economic order quantity of inventory management has no impact on the performance, of Unilever Nigeria plc.

$H_{o3}$: just in time inventory control system has no impact on the performance of Unilever Nigeria plc.

## 2. LITERATURE REVIEW

### 2.1 Conceptual Review

#### 2.1.1 The Concept of Inventory Management

Inventory is a vital ingredient in production of goods or services alongside other factors of production. Inventories such as finished goods, work-in progress, components, raw materials, stores, spares, and so on constituted 80 per cent or more of the working capital in many organizations. Inventory management has to do with art and science of maintaining stock levels of a given group of items incurring the least cost consistent with other relevant targets and objectives set by management (Lwiki, Ojera, Mugenda & Wachira, 2018). Naliaka and Namusonge (2020) described inventory management as a fine line between the replenishment lead time, carrying costs, asset management, inventory forecasting, valuation of inventory, future inventory price forecasting, physical inventory, inventory visibility, available space for inventory, quality management, replenishment, returns, defective goods and demand forecasting. Inventory management practices as one of the supply chain management practices is an activity that organizes the availability of goods to the customers from sales

items to consumables and spare parts (Tungo, 2019). It is a balancing act that enables a system (or operations) to have long runs of operation for better efficiency and ensuring high inventory are ready for sale, purchasing long run orders for better efficiency and balancing act of working capital and cash flow. Kumar and Singh (2021) argued that efficient inventory management practices are crucial for reducing operational costs and enhancing organizational performance. They emphasized that strategies like Just-in-Time (JIT) and inventory optimization help in minimizing holding costs and reducing waste, which in turn improve profitability and competitiveness.

### 2.1.2 System Application and Product Software (SAP)

Effect of SAP to the organization is balance transparency because of integration among procurement and back-office application such as budget execution one can earmark funds for specific purchases. When a buyer makes a purchase, the system checks the budget to ensure that funds are available for this item, preventing budget overruns and update the budget with the new expenditure. SAP software is crucial for integrating various business processes across different departments. It helps in standardizing operations, which leads to improved efficiency and consistency in data management. The integration capability of SAP allows for real-time data flow and enhanced decision-making processes **(**Bansal and Deshmukh, 2021) SAP provides an inventory management system that builds collaborative, agile and therefore cost-effective supply chains that companies need to increase competitive advantage (Lyson, & Farrington, 2019). Nakamura and Suzuki (2020) assert that SAP software significantly enhances business performance by providing real-time insights and facilitating data-driven decision-making. They argue that businesses that effectively leverage SAP's capabilities can achieve higher efficiency, better resource management, and improved financial performance. By integrating individual item prices or price lists, one can simultaneously update inventory valuation. SAP system are used in transparently integrates inventory and accounting transactions. As a result, stock levels are adjusted, inventory accounts credited or debited, and applicable inventory variances accounted for as soon as a stock movement is posted in SAP software system. Inventory transfer functionality allows one to readily move items from one location to another (Lyson & Farrington, 2019).

### 2.1.3 Economic Order Quantity (EOQ)

The effective management of inventory control is very crucial for successful companies. Therefore, the quantity of economic order is an inventory strategy designed to identify and retain the ideal balance between holding cost of a stock and the ordering cost associated with

the inventory. The efficiency gains in inventory management can significantly improve the company's total financial performance. It was created for the first time by F. Wilson in early 20th century. The Wilson EOQ Model, or merely Wilson Formula, is often referred to as the economic order quantity.

In several cases, Wilson has worked with his customers to implement his strategy (Philip & Peter, 2014). His clients were also Wilson's advisor. Regardless of the scheme of inventory checks, the risk of being out of stock, and the procurement costs will also be lowered if big amounts are ordered on an uncommon basis, will also be offset by the higher average investment in stocks which leads to higher stock holding costs (Doll & Torkzadeh, 2020). The Economic order quantity helps the organization to recognize the smallest possible point in ordering expenses and transporting expenses related to an inventory. The strategy is simultaneously to guarantee that client orders are carried out promptly by the proprietor of the inventory. The formula uses a few fundamental assumptions to define this perfect balance (Lyson, 2019). Some of the assumptions related to the economic order quantity formula are as follows: -the order costs remain continuous. The rate of demand is also presumed to stay continuous, which enables the seller to buy inventory products in recurrent amounts. Hult, L., et al. (2022) emphasize the importance of integrating EOQ with modern supply chain management practices to address its limitations and enhance its applicability in dynamic business environments. Anganathan & Fong (2021) argue for the need to adapt the EOQ model to account for the increasing complexity of global supply chains and the variability in demand and costs.

### 2.1.3 Just in Time Control System (JIT)

JIT is a philosophy of manufacturing based on planned elimination of all waste and continuous improvement of productivity. It encompasses the successful execution of all manufacturing activities required to produce a final product from design engineering to delivery and including all stages of conversion from raw materials onwards. The JIT idea was created by the Toyota Motor Company in Japan in an American variant of Kanban's scheme. Kanban relates to the informative signposts that are connected to carts that supply tiny quantities of necessary parts and other materials in Japanese crops. Each sign details exactly the required amounts of replenishment and the precise time of resupply. Effective application of the idea of JIT has been shown to significantly decrease the inventory of components and equipment, WIP and finished products. The adoption of any of these methods increases business buyers demand for quick delivery (by their very definition), spatial convenience

(products cannot be delivered quickly unless it is close), bulky-breaking (to minimize inventory holding), and assortment and variety (to ensure that the right product is always available at the right time (Coughlan, 2018).

### 2.1.4 Performance

Kaplan and Norton (2021) define performance in organizational settings as a measure of how efficiently and effectively a company achieves its goals. They emphasize the importance of performance metrics, such as balanced scorecards, to provide a comprehensive view of organizational performance across financial, customer, internal process, and learning and growth perspectives. The firm's performance is a standard or indicator of effectiveness and efficiency in operations such as cycle time, productivity and regulatory compliance (Saleemi, 2016). In order to increase the firm performance, a firm has to measure both the input and the output side of the inventory management (Abdel, 2016). The major goal of organizations is to reduce costs associated with inventory management, which would impact positively the overall performance of the organization. Organizational performance is multidimensional, encompassing not only financial outcomes but also operational efficiency, customer satisfaction, and innovation capacity. They suggest that a holistic approach to performance measurement is necessary to capture the complexity of modern business operations (Chen & Zhang, 2022). The Systematic Application and Production software of inventory management, the economic order quantity and just in time technique of management when properly handled, will enhance the firm's performance. In inventory management, the question that has to be answered is always how much inventory a firm should keep at a given time. Too much inventory consumes physical space, creates a financial burden, and increases the possibility of damage, spoilage and loss (Rajagopalan, 2014).

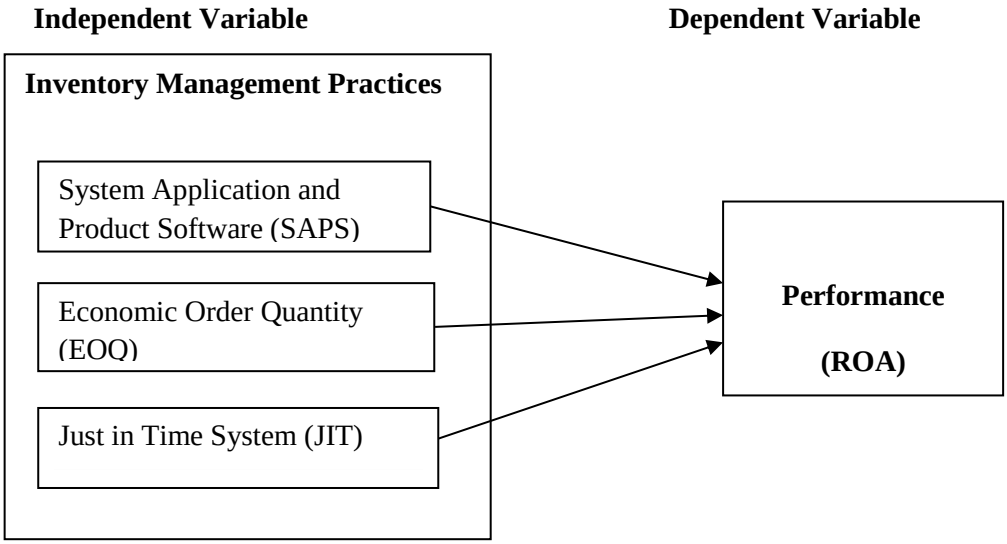
In addition, excessive inventories often compensate for slow and ineffective leadership, bad prediction, hazardous planning and insufficient attention to processes and processes. In this connection, even though the demand volatility may restrict the implementation of this principle, the pioneering lean production principle of Womack et al. (1990) had to do with a reduction in inventory level (Kumar, 2014). On the other hand, too little stock often disturbs production and increases the chances of bad client service.

### 2.1.5 Return on Assets (ROA)

Return on asset is a financial metric used to quantify how effectively a company uses its assets to generate earnings. It is a key indicator of managerial efficiency, providing insights into

how well a company's management is using its assets to produce profits. This ratio is particularly useful for comparing the performance of companies in capital-intensive industries where significant investment in assets is required. For managers, improving ROA involves not only enhancing operational efficiencies and managing costs but also making strategic decisions about asset management. Companies often strive to balance investments in assets with generating sufficient income to achieve a favorable ROA, thereby indicating strong performance to investors and other stakeholders. Efficient inventory management is a critical component of such strategies, directly impacting both the numerator (Net Income) and the denominator (Total Assets) of the ROA formula.

### 2.1.6 Conceptual Framework




Source: Author's Conceptualization (2025)

## 2.2 Theoretical Framework

### 2.2.1 Lean Theory

Heizer and Render (2014) indicate that "inventory management or "inventory planning and control" refers to the on-going provision of standard items with independent demand, where some speculative quantity should always be on hand. Therefore, lean theory concentrates on cost optimization in stock systems. Decisions on production, storage and overall supply chain matters can be accelerated by this theory (Tempelmeier, 2015). The theory is based on the financial quantity (EOQ) model, which seeks to optimize the amount of each ordered product. Choice of Lean Theory for this study was informed by the need to examine how inventory management influences organizational performance thereby calling for a prudent approach to inventory management. The theory therefore brings to the fore, the possibility of diversity in

operating systems used to monitor levels of stock, and the difference in items. The effect of lean theory on economic performance was evaluated by Green and Inman (2005). Eroglu and Hofer (2011) discovered that leanness has a positive impact on a company's profitability. You claim that lean inventory is the best instrument for controlling inventory. The theory examines how producers can achieve flexibility in ordering choices, decrease inventory stocks retained on site and eliminate carrying expenses in inventory. On the overall level, both the timing and the magnitude of adoption are the empirical strength of the lean account. In theory, however, inventory restricts the capacity of a company to react to demand changes. Studies show that businesses are effectively optimizing stock via lean supply chain methods and technologies in order to attain greater rates of asset use and client satisfaction that leads to enhanced business development, profitability, and market share (Green & Inman 2015).

**2.4 Empirical Review**

Several studies have been carried out on inventory management practices. Milgrom and Roberts (2013) and Dudley and Lasserre (2014) specifically stated that information on prompt and informative demand for customers can improve corporate efficiency by reducing inventories. Roberts and Thompson (2022) explored the impact of inventory management practices on customer service in the retail sector in the UK. Their study concluded that firms with efficient inventory practices experienced fewer stockouts and higher customer satisfaction, contributing to increased customer loyalty. Also, Garcia and Lopez (2020) investigated the influence of EOQ and JIT on inventory turnover rates in manufacturing firms in Mexico. Their findings indicated that firms with optimized inventory management practices had turnover rates that were 30% higher compared to firms that did not use these practices. By looking at the market values of companies in their different inventory strategies, Chen et al. (2021) indicated that companies with abnormal inventory yields abnormally bad; companies with abnormally small stock returns normal stocks while companies with slightly below average stocks perform best over time. Furthermore, Shah and Shin (2017) examining three structures-inventory, IT investment and economic performance-empirical longitudinal data that span four decades concluding that inventory reductions relate to economic performance significantly and directly.

Anichebe and Agu (2013) performed in chosen organizations in Enugu, Nigeria, the impact of inventory management on organization’s effectiveness. Data was produced by means of surveys, oral interviews, comments, books, newsagents and the Internet. From the analyses, it was found that, whatever the fact that companies studied, they painted the picture that they

applied the principles of good inventory management, they occasionally found that inventory problems were inadequate. The result was that the manufacturing of one brand of its goods was scarce and thus negatively impacted their profitability and consequential efficiency. The management of stocks has an important impact on the productivity of organization. The relationship between excellent stock management and corporate profitability is extremely positive. The Anichebe and Agu research (2013) found that inventory management is very important for organizational achievement and development. The full profits of an organization are linked to the volumes of products sold, which relate directly to the quality of the product. The research suggested that organizations diversify their inventory systems to meet particular requirements of manufacturing and manage their inventory system carefully to preserve manufacturing consistency. A case study of the listed cement companies in Kenya, Edwin and Florence, 2015: The impact of inventory management on the profitability of Cement manufacturing companies in Kenya. Given Kenya's milestone contribution to the Kenyan economy, this study is needed to assess the impacts of inventory management on Kenyan cement companies ' profitability. An assessment of the annual accounts for the three sampled companies listed on the Nairobi Securities Exchange (NSE) was completed using cross-sectional data from 1999 to 2014. In order to create a connection between inventory conversion, inventory concentrations, inventory costs, company size, gross profit margin and return on investments and development, the common lower squares (OLS) were employed in information analyzing as multi-regression modelling. The findings provide an adverse relation with the profitability of the business between inventory sales, stock conversion period and storage costs. Moreover, stock levels were directly linked to the size and storage costs of the company. The study by Edwin and Florence (2015) suggested that cement companies in Kenya try to guarantee that they maintain the correct inventory in their stocks to protect themselves from excessive expense of holding and supplies.

Koin, Cheruiyotand Mwangangi, (2014) carried out a survey on the impact of stock management on the performance of an organization. The study employed a descriptive research design with the study population of 459. The results showed that inventory management and suppliers relationships have excellent implications for supply chain efficiency in the manufacturing sector while order management and warehouse management have a mild effect. This study showed that the suggested strategy is practically and effectively harmonized through the study, decision makers be presented with procurement performance and valid solutions for harmonization of inventory management (Koin, Cheruiyot & Mwangangi, 2014).

Another study on the impact of efficient stock management scheme on organizational performance of the seven-up bottling business, Nile Mile Enugu was conducted by Ogbo, Onekanma and Wilfred (2014). The researchers were encouraged to undertake this research to show the significance of an efficient organizational performance inventory control scheme in the bottling company. The sample for the research consists of a total of 83 respondents. It was discovered, by simple storage and recuperation of material, increased sales efficiency and decreased operating cost that organizations benefit from inventory management. The research also discovered that there is a link between operational feasibility, the utility of inventory control leadership in organization-related client questions and cost-effectiveness techniques to improve the company's return on investment. Effective inventory management should be acknowledged as one area for managing an organization. Organizations were advised to embrace the highest inventory technique of their activities (Ogbo, Onekanma & Wilfred, 2014).

## 3. MATERIAL AND METHODS

This study adopted a quantitative research design. The population for this study includes all operational and financial data relevant to Unilever Nigeria Plc. Given the specific focus on one company, a total population sampling strategy was used, where all available data that met the study's criteria from the company was analyzed. This study uses secondary data that were extracted from the annual report of Unilever Nigeria Plc. Ratios were computed on the data collected from the annual report of Unilever Nigeria Plc to arrive at the value that was used for this study. Descriptive statistics was used to describe the basic features of the data in the study, providing simple summaries about the sample and the measures by means of SPSS statistical software.

## 4. RESULT AND DISCUSSIONS

### 4.1 Data Analysis

Table 1: Descriptive Statistics for Inventory Management Practices and Financial Performance

| Variable | Observation | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| ROA | 50 | 10.75 | 3.10 | 6.0 | 18.0 |
| SAP | 50 | 4.22 | 0.78 | 3.0 | 5.0 |
| EOQ | 50 | 1512.3 | 270.15 | 1050.0 | 2000.0 |
| JIT | 50 | 3.90 | 0.85 | 2.5 | 5.0 |

Source: Researcher Extract from SPSS output (2024)

Table 1 above shows a mean score of 10.75% on return on asset. This indicates that Unilever Nigeria Plc is generating a return of approximately 10.75% on its total assets. A return on asset of 10.75% is relatively strong, suggesting that the company is effectively utilizing its assets, including inventory, to create value for shareholders. This is confirmed by the minimum value of 6.0%, a maximum value of 18.0% and a standard deviation of 3.10%. This means that the highest amount of return on asset paid for utilizing asset was 18.0% and the moderate variability in return on asset across different periods or unit within the company is 3.10%. Furthermore, systems applications and products show an average score of 4.22 out of 50 observations. This indicates that SAP (Systems, Applications, and Products) utilization within Unilever Nigeria Plc is generally high, with a standard deviation of 0.78 indicating consistent usage across different units. The table also shows that economic order quantity has a mean score of 1512.3 indicating that on average, the optimal order quantity for inventory items at Unilever Nigeria Plc is around 1512.3. An EOQ of this magnitude suggests that the company handles a significant volume of inventory. The standard deviation of 270.15 units reflects some variability in the EOQ across different inventory items. It indicates that while some products require larger orders to be cost-effective, others may need smaller, more frequent orders.

Finally, a mean score of 3.90 indicates a moderate level of implementation of Just-In-Time inventory management practices at Unilever Nigeria Plc. A score of 3.90 suggests that while JIT principles are employed, there may still be room for improvement in fully adopting this lean inventory approach. The standard deviation of 0.85 suggests moderate variability in the application of JIT practices across the company. This could indicate that certain departments or product lines are more advanced in implementing JIT, while others might still rely on more traditional inventory management practices.

Table 2: Coefficient of Financial Performance

| **Variable** | **Unstandardized Coefficient (B)** | **Standard Error** | **Standard Coefficient (Beta)** | **T** | **Significant (P-Value)** |
|---|---|---|---|---|---|
| Intercept | 2.510 | 0.982 | - | 2.56 | 0.0134 |
| SAP | 1.320 | 0.450 | 0.462 | 3 | 0.0051 |
| EOQ | 0.002 | 0.001 | 0.315 | | 0.0321 |
| JIT | 1.765 | 0.480 | 0.548 | 68 | 0.0006 |

Dependent Variable, ROA

Source: SPSS Output (2025)

The findings in the Table 2 above shows that Just-In-Time (JIT) has the strongest positive impact on return on assets (ROA), making it the most influential inventory management practice in improving financial performance. Systems, applications, and products utilization also positively affects, indicating that effective use of SAP systems contributes significantly to financial performance.

Economic order quantity (EOQ) has a moderate positive impact on return on assets (ROA), showing that maintaining optimal order quantities is beneficial for financial performance.
On assets are not due Statistical Significance shows that all variables (JIT, SAP, and EOQ) are statistically significant, with p-values less than 0.05, indicating that their effects on return to chance.

### 4.2. Hypotheses Testing

#### 4.2.1 Hypothesis One

$H_o$: Systematic application and production software has a significant effect on performance of Unilever Nigeria plc

From hypothesis one, systematic application and production software of inventory management practices was predicted not to have a significant effect on performance of Unilever Nigeria Plc. The result in Table 2 indicates that systematic application and production software has a significant effect on performance of Unilever Nigeria plc with a P-value of (0.0051) which is below the significant value of (0.05). Therefore, hypothesis one is rejected.

This suggests that the implementation and effective use of SAP (Systems, Applications, and Products in Data Processing) contribute to better financial outcomes by enhancing data management, streamlining processes, and improving decision-making capabilities. systematic application and production software systems facilitate real-time monitoring and management of inventory levels, reducing costs associated with excess inventory or stock outs This finding supports the lean theory which states that efficient use of technology like SAP systems can streamline operations, reduce errors, and improve decision-making—factors that contribute to operational efficiency and support lean practices. The positive impact of SAP on ROA can be viewed through the lens of Lean Management Theory as an enabler of more efficient processes, reducing waste in terms of time and resources, and thereby supporting overall financial performance.

### 4.2.2 Hypothesis Two

$H_o$: Economic order quantity of inventory management has no impact on the performance, of Unilever Nigeria plc.

Economic order quantity of inventory management was predicted not to have a significant effect on performance of Unilever Nigeria plc. Since the result in Table 2 shows a p-value of (0.0321) and is less than the significance level (0.05), we reject the null hypothesis. This indicates that there is a significant positive impact of economic order quantity on retune on asset in Unilever Nigeria Plc.

This result underscores the importance of determining the optimal order quantity that minimizes total inventory costs, including ordering and holding costs. By maintaining an optimal level of inventory, Unilever Nigeria Plc can reduce unnecessary expenses, improve cash flow, and enhance overall financial performance. This result is supported by the findings of Zhao, Wu and Yuan, (2016) who found out that economic order quantity on the retail outlets brought a high efficiency in procurement function.

### Hypothesis 3

$H_o$: just in time inventory control system has no impact on the performance of Unilever Nigeria plc.

Just in time inventory control system was predicted not to have a significant impact on the performance of Unilever Nigeria plc. The result in table 4.2.2 shows a p-value of (0.0006) which is less than the significance level (0.05). This confirms a significant positive Impact of Just in time inventory control system practices on return on asset in Unilever Nigeria Plc, so we reject the null hypothesis.

JIT minimizes inventory levels by coordinating production and demand closely, reducing waste, and improving efficiency. This lean approach to inventory management allows Unilever Nigeria Plc to reduce carrying costs, avoid obsolescence, and respond more quickly to market changes, thus enhancing profitability. This result is supported by lean management theory which emphasizes on waste reduction, efficiency, and continuous improvement, which are core principles of just-in-time practices.

## 5. CONCLUSION AND RECOMMENDATIONS

In reference to the study objectives, the conclusions were based on each objective. The first study objective was to determine the effects systematic application and production software (SAP) of inventory management on firm performance. Literature review showed a significant

influence of systematic application and production software system on the efficiency and effectiveness of the firm. Based on the research question which was on whether systematic application and production software system affects firm performance, it was therefore concluded that that systematic application and production software system significantly affects the performance in the firm. The second objective was to determine the effect of economic order quantity on the firm performance. A review of literature showed a significant influence of economic order quantity on firm performance. The research question was based on how does economic order quantity of inventory management affects firm performance based on empirical review. It was therefore concluded that economic order quantity significantly affects firm's performance ability. The third objective of the study was to determine the effects of just-in-time on the firm performance in the case of empirical review. Based on the research question which was on how does period review approach affects procurement performance. It was concluded that JIT affects the firm performance significantly

Recommendations were made based on the selected study objectives of the study.

1. Since systematic application and production software was found to be significantly affects firm performance, organizations should appropriately use the systematic application and production software technology in managing their procurement for an efficient operation.
2. Since economic order quantity was found to be an important technique in inventory management, firms should ensure to order the recommended lot size as determined by the economic order quantity.
3. Since the study found out a significant effect of periodic review approach on procurement performance, organizations should adopt the period approach while managing inventory so as to ensure procurement efficiency.

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