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# Inventory Management and Performance of Small and Medium Enterprises (SMEs) in Akure, Nigeria

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## *Abstract*

This study investigates the inventory management and performance of Small and Medium-Scale enterprises (SMEs) in Akure Metropolis, Ondo State, Nigeria. The study's specific objectives are to assess the factors affecting the nature of inventory management adopted by the selected enterprise and to identify the constraints to effective inventory management within the selected Enterprise. The research approach adopted in this study comprises a quantitative and qualitative approach, which served as an inquiry into factors affecting the inventory management techniques in SMEs in Ondo State, Nigeria. The study's target population was all SMEs in Akure, Ondo State, Nigeria. A multi-stage sampling technique was adopted for the study. In the first stage, Akure was purposively selected. This is because of the concentration of the SMEs in Akure, which is the Capital City of Ondo State. In the second stage, a purposive sampling technique was equally used to select registered SMEs under the Small and Medium Scale Enterprise Development Agency of Nigeria (SMEDAN), Akure chapter, and in the last stage of the sampling procedure, 40 Enterprises each were randomly selected from three sectors (Agricultural, Education, and Drug and pharmaceuticals), totaling 120 altogether. Quantitative data collection techniques were used for the study, which measured the relationship between the variables in numeric terms, emphasizing the statistical explanation of the data collected. Descriptive statistics include tables, Likert scales, frequency, simple percentage, and charts, while the inferential statistics involved the use of ANOVA and regression analysis to determine the relationship between the variables considered in the study. The findings proved that there is better inventory control planning. Hence, the investigated SMEs still need to draft a comprehensive yearly plan for inventory control. Most importantly, the comprehensive plans need to be reviewed to see if they help in

achieving the goals. The study also recommends that SMEs should review their stock on hand periodically.

**Keywords:** Inventory, Supply chain management, Procurement systems, Operational efficiency, SMEs.

# Introduction

Inventory management is the supply of goods and services at the right time with the right quality and quantity of material. It is a reliable means of managing a business to ensure customer satisfaction and the organization's continued operation through the minimization of losses. Inventory management is a critical management issue for most companies, including Small and medium-scale enterprises. Adeniran (2022).

Adegbite (2000). Logistics is all about managing inventory, whether the inventory is moving or staying, whether it is in a raw state, in manufacturing, or in finished goods. He also stressed that logistics professionals are often required to deliver the right product to the right place, at the right time, in the right quantity and condition, and at the right cost. To make it happen, effective inventory management is a cornerstone. Inventory management is important in the control of materials and goods that have to be stored for later use in the case of production or exchange activities of services.

Inventory management may be defined as the system used by a firm to control its investment in inventory, which involves the recording and monitoring of Stock level, forecasting future demand and deciding on when and how to order Adeyemi and Salami (2010). Inventory management technique is primarily specifying the size and placement of stocked goods. It is required at different locations within a facility or within multiple locations of a supply network to protect the regular and planned course of production against the random disturbance of running out of materials or goods Chambers Dictionary (1998).

The management of inventories has an important bearing on the financial strength and competitiveness of organizations due to the reason that it directly affects the working capital, production, and customer services (Vergin, 2012). Several inventory techniques could improve an inventory system. The inventory techniques that will be looked into include the following: Selective inventory control; Just in Time (JIT); Setting of various stock levels; perpetual inventory review; Periodic inventory review; Economic Order Quantity (EOQ).; Electronic inventory control system; Inventory fixed ordering; Preparation of inventory budget and inventory audit application. Inventory management is also a method of ensuring that the right quantity and quality of the relevant stock is available at the right time and at the right place to avoid the cost of changing production rate, overtime, subcontracting, and unnecessary cost of sales with back-order penalties during periods of peak demand. Goldsby and Martichenko (2020) asserts that in the United States of America and other

Western countries, productivity improvement was achieved through reducing the direct manufacturing labor expenses per unit of output. This strategy was justifiable because of the high labor content in many manufactured products. The profitability of any business organization depends largely on the ability of management to exercise effective purchasing and efficient material control, which involves: tying up capital to guard against incurring of costs, such as: Pilferage and obsolescence and the desire to make items available when and where required to avert the cost of not meeting such requirements. Inventory management ensures that raw materials are available for production purposes at an appropriate time and finished goods are available for dispatch to customers as due, that the amount of cash tied up in stock is controlled, and assists in controlling wastage and pilferage of material. As pointed out in the study of Victor (2022), at any level of a firm, inventory is among the largest investments made and therefore logically deserves to be treated as a major policy variable, highly responsive to the plans and style of top management. Ogbo, Onekanma, Wilfred, Ukpere (2024) reported that in most organizations, both analysts and managers have been relatively unsuccessful in convincing top management to give inventory management the due consideration that it logically deserves.

The objective of any organization is to get a good return on money invested in the company. According to Pandey (2005), management through their policies, coordination, decisions, and control mechanisms must maximize the return on investment (ROI). Peterson and Joyce (2021), while supporting Pandey (2005), stated that it is clear that ROI can be maximized either by increasing profit margin or by reducing the capital employed or by both. In the market situation, sales price cannot be increased, and as such, profit can be increased only by reducing the material costs. However, this paper used inventory control theory and practice to review literature on factors affecting the effect of inventory management on the performance of small and medium-scale enterprises in Akure. Common strategies for inventory control were also reviewed using available literature. It is clear that proper inventory planning, tracking inventory stock at all times, and having proper procurement processes play an integral role in building up a strong inventory control system. The inadequate adaptation of inventory management systems by SMEs in developing economies has become a breeding ground for liquidation among SMEs. It is, therefore, of utmost importance that organizations make proper arrangements to improve these areas.

However, the present study is therefore developed to investigate the effect of inventory management practices on the performance of SMEs in Akure Metropolis, to eradicate the stock-out problems that may affect the efficient productivity in most organizations.

**Statement of the Problem**

In Nigeria, there has been tremendous growth of small and medium-scale enterprises, and their impact on the economy is becoming bigger. However, the problem of most Nigerian SMEs is a lack of maintaining the right quantity of material for optimal productivity and profitability due to poor managerial skills, such as Poor inventory control planning, poor procurement,

inadequate keeping of inventory track, and poor tender process. How to manage the inventory effectively and efficiently is often a challenge for small and medium-sized businesses. Many SMEs have failed because of their involvement in inaccurate inventory levels. Nevertheless, the present study is developed to investigate the inventory management practices and factors affecting the nature of inventory management on the profitability and efficiency of the enterprise.

**Research Questions**

In pursuance of this study, the two research questions have been addressed:

i. What are the factors affecting the nature of inventory management adopted by the SMEs in Akure?
ii. What are the constraints to effective inventory management in SMEs in Akure?

**Objectives of the Study**

This research work aims to investigate the inventory management and performance of small and medium-scale enterprises (SMEs) in Akure.

The specific objectives of the study are to:

i. Assess the factors affecting the nature of inventory management adopted by the selected Enterprise.
ii. Identify the constraints to effective inventory management in the selected Enterprise.

**Research Hypotheses**

For this research work, the following hypotheses are formulated;

**$Ho_1$:** Inadequate inventory management does not lead to inefficiency in small and medium-scale enterprises in Akure.

**$Ho_2$:** Inventory management have significant effect on the profitability of small and medium-scale enterprises in Akure.

**CONCEPTUAL REVIEW**

Effective inventory management is a must for the smooth and efficient running of the production cycle with the least interruption. According to Kotler (2010) inventory management refers to all the activities involved in developing and managing the inventory levels of raw materials, work-in-progress, and finished goods so that adequate supplies are available and the costs of over- or undersupply are low. Hollander (2011) reveals that many organizations are integrating the inventory system with the production system in an attempt to reduce the amount of idle inventory on hand. Inventory means stock on hand. It could be referred to as an enterprise idle resource. Those items that are either stocked for sale or are in the manufacturing process or are in the form of materials which are yet to be utilized represent inventories. Morris (1995) in its broadest perspective, asserts that inventory management keeps the most economical amount of one kind of asset in order to facilitate an increase in the

total value of all assets of the organization, such as human and material resources. Thus, the overall goal of inventory management is minimization of stock-out. Sharif (2022) also in his study, pointed out the gap between demand and supply as an interval between receiving the purchase parts and transforming them into final products varies from industries depending upon the cycle time of manufacture. It is therefore, necessary to hold inventories of various kinds to act as a buffer between supply and demand for efficient operation of the system.

**Supply Chain Management (SCM) Concept**

The concept of Supply chain management is a network that consists of all parties involved directly or indirectly, which includes manufacturers, suppliers, retailers, customers, and so forth, in producing and delivering products or services to ultimate customers, both in upstream and downstream sides through physical distribution, flow of information, and finances Stock and Boyer (2009).

Supply chain management is a concept that goes along with the Theory of Relationship Marketing. It is a holistic approach to demand, sourcing, procurement, production, and logistics process management.

**Economic Order Quantity (EOQ) Concept**

The Economic Order Quantity (EOQ) model was developed by F.W. Haris in 1913. According to Coleman (2022) and Ogbo (2022), they defined the model as one that orders quantities that minimize the balance of cost between inventory holding costs and re-order costs. According to Arsham (2018) the use of the model has shown ordering costs decline with inventory holdings, while holding costs rise, and the total inventory-associated cost curve has a minimum point. This is the point where total inventory costs are minimized.

**Just-in-Time (JIT) Concepts**

Just-in-time JIT, as the name implies, is to produce goods just-in-time for use or sale. The just-in-time concept was initiated in Japan by Toyota its manufacturing plant. According to Chase, Jacobs, Aquilano (2006), waste in Japan means Toyota's Fujio Cho, which is 'anything other than the minimum amount of equipment, materials, parts, and workers which are essential to production'. In a JIT environment, materials are purchased and produced as and when they are needed. The whole idea is based on the reduction of the production waste of the system while increasing the sales of raw material Cost.

**Theoretical Review**

Theory of Relationship Marketing; Theory of Economic Order Quantity; Lean Inventory System theory; Theory of Constraints and Technology Diffusion Theory. All these theories are to build the critical concerns on the effect of inventory management and the performance of the organization.

**Theory of Relationship Marketing Theory**

Relationship Marketing is defined as the identification, establishment, maintenance, enhancement, and modification of relationships with customers to create value for customers and profit for the organization by a series of relational exchanges that have both a history and a future. The role of Relationship Marketing includes: Guiding moments of truth. John (1999) asserted that the relationship marketing in service industries is influenced significantly by 'Moments of Truth'. The organization can virtually turn the 'Moments of Truth' in its favor, as the customers are continually attended to in a good Relationship.

**Lean Inventory System theory**

This theory was linked with reduced inventories. Lean production theory was pioneered by Womack, Jones, and Roos (1990). According to lean principles, any use of resources that does not deliver the consumer's value is a target for change or elimination. This management philosophy has mainly been applied in manufacturing, notably in Toyota, and it is in Toyota Production System that Lean was originated from. Lean theory is also an extension of ideas of just- in- time. Just-In-Time refers to a collection of practices that eliminate waste. In order to achieve JIT, the process must have signals of what is going on, everywhere within the system. Kros, Falasca, and Nadler (2018) established that just in time as a pull-based system designed to align the production and business processes throughout the supply chain. The process JIT can lead to dramatic improvements in a manufacturing organization's return on investments, quality and efficiency. It emphasizes that production should create items that arrive when needed, neither earlier nor later.

**Theory of Constraints (TOC)**

The theory of constraints (TOC) is an overall management philosophy that is geared to help organizations continually achieve their goals. The theory of constraints seeks to increase manufacturing throughput efficiency or system performance measured by sales through the identification of those processes that are constraining the manufacturing system. The theory is founded on the belief that an organization that maximizes the output of every product will not perform as well as one that ensures optimization of the flow of materials and value created through its operational performance. The theory of constraints focuses on effectively managing the capacity and capability of the organizational constraints. This can be achieved if the organization uses an appropriate inventory control system. Its methodology is applied to the production of minimizing the inventory.

**Technology Diffusion Theory**

According to Rogers (2003), the term 'Diffusion' is the process by which an innovation is communicated through certain channels over time among the members of a social system. Diffusion is a special type of communication concerned with the spread of messages that are perceived as new ideas. According to Rogers (2003) Rogers' Diffusion of Innovation Theory

tries to explain how adoption is made to new ideas as well as to innovations by suggesting in the theory, five innovation attributes through which adoption is affected, which are: "observability, compatibility, trialability, relative advantage, and complexity". Preventive innovations usually have a slow rate of adoption, so their relative advantage is highly uncertain. However, incremental innovations provide beneficial outcomes in a short period.

**Empirical Framework**

Selective inventory control technique is classified into eight categories as shown in Table 1.

**Table 1: Classification of Selective Inventory Control Technique**

| S/N | TITLE | BASIS | USES |
|---|---|---|---|
| **1.** | A.B.C. (Always Bette Control) | Value of consumption | To control raw material components and work-in- progress inventories in the normal course of business. |
| **2.** | H.M.L. Analysis (High, Medium Low) | Unit price of the material | Mainly to control purchases. |
| **3.** | X.Y.Z. Analysis | Value of items in storage. | To review the inventories and their uses at scheduled intervals. |
| **4.** | V.E.D. Analysis (Vital, Essential Desirable) | Criticality of the component. | To determine the stocking levels of spare parts. |
| **5.** | F.S.N. Analysis (Fast moving, Slow moving, and Non-moving) | Consumption pattern of the component. | To control obsolescence. |
| **6.** | S.D.E. Analysis (Scarce, Difficult, Easy to obtain) | Problems faced in procurement. | Lead time analysis and purchasing strategies. |
| **7.** | G.O.L.F. Analysis (Government, Ordinary, Local, Foreign Sources) | Source of the material. | Procurement strategies. |
| **8.** | S.O.S. Analysis (Seasonal, Off-Seasonal) | Nature of supplies | Procurement /holding strategies for seasonal items like agricultural products. |

**Source:** Sandilya and Gopalakrishnan inventory (1981).

**Just In Time (JIT)**

One of the approaches which have long been proven effective in the manufacturing sector in the area of cutting costs, improving quality, productivity, efficiency, and decreasing waste is the just-in-time (JIT) management approach. Kaneko and Nojiri (2018) explained that for JIT to be successfully implemented, both the manufacturer and supplier should share their information through a reliable electronic information network. Information is the passing of a message from the sender to the receiver through an output called feedback. Just in Time shows the importance of the information to any organization. Horngren and Forster (1987) identified four cardinal objectives of JIT as: The elimination of all activities that do not add value to

product or service; a commitment to a high level of quality; a commitment to continuous improvement in the efficiency of an activity; and an emphasis on simplification and increased visibility to identify activities that do not add value. The basic benefit of this technique is its ability to increase the organization's ability to compete with others and remain relevant over the long run. However, SMEs must seek approaches to drive up customer value and, at the same time, reduce costs. This can be achieved through just-in-time approaches, which aim at reducing costs, improving product and service quality, increasing operational efficiency, and being flexible and can meet the ever-changing customer demands.

**Setting of Various Stock Levels**

Setting of different stock levels is to ensure smooth operation of the enterprise and allocation of an appropriate number of monetary resources to different items in the inventory. Some factors affect the determination of stock levels for different items, including the following: Rate of consumption; Lead time; Storage/warehousing; carrying costs; Insurance cost; Seasonal considerations; Price fluctuations; Economic Order Quantity (EOQ); Quality of raw material; Availability of space; Availability of funds; Government and other legal and statutory requirements. To ensure the smooth running of the production process, the materials department of an enterprise must set different levels for each item of inventory. According to Umakanta and Chaitanya (2022) keeping the levels of inventory can be attributable to the following: Maximum level, Minimum level, Reorder level, Danger or safety stock level. Determination of various levels of inventory is one of the prime responsibilities of the Materials Department. The various stock levels are discussed below:

**Maximum level**

According to Singh, Sahu, and Nayak (2012) maximum stock is the amount of inventory that should not be exceeded.

*Maximum Level = Re-order Level × Re-order Quantity – (Minimum consumption × Minimum Re-order period).*

**Minimum level**

Joannes (2012) asserted that, minimum stock is the level of stock that should not be allowed to decrease. Minimum level depends on the following factors: Consumption rate of materials, Lead time for delivery of materials, Production requirements, and Minimum order size fixed by suppliers. Minimum level is computed using the following formula:

*Minimum level = Re-order level – Average usage x Normal re-order period.*

**Danger or safety stock level**

Safety stock is fixed to avoid stockout conditions. Carefully fixed safety stock level helps in minimizing stock-out and carrying costs. This level is fixed usually between the minimum level and the zero level. On reaching this level, the storekeeper stops issuing materials.

However, sometimes, for preventive measures, this stock is fixed above the minimum level. The formula for calculating Danger level is:
*Danger/Safety level Ordering Level – (Average rate of consumption ×Re-order period)*

**Re-order level**
Re-order is the amount of stock that a company holds so that when the stock falls, the stock must be reordered Singh, Sahu, and Nayak (2012). This level depends on: Annual consumption of an item; Lead time; Expected usage during lead period; Minimum Level. Re-order level can be calculated as follows:
*Ordering Level Minimum Level + consumption during lead period.*

## METHODOLOGY
The research approach adopted in this study comprises a quantitative and qualitative approach, which served as an inquiry into factors affecting the inventory management techniques in small and medium-scale enterprises in Ondo State, Nigeria. The study's target population was all small and medium-scale enterprises in the Agricultural, Education, Drug, and pharmaceutical sectors in Akure, Ondo State, Nigeria. The respondents to the data collection were procurement managers, store managers, and all stakeholders who participated in the production and store taking within the enterprise.
A multi-stage sampling technique was adopted for the study. In the first stage, Akure was purposively selected. This is because of the concentration of the SMEs in Akure, which is the Capital City of Ondo State. In the second stage, a purposive sampling technique was equally used to select registered SMEs under the Small and Medium Scale Enterprise Development Agency of Nigeria (SMEDAN), Akure chapter, and in the last stage of the sampling procedure, 40 Enterprises each were randomly selected from three sectors totaled 120 all together and the sectors include: Agricultural, Education and Drug and pharmaceuticals Sector. Quantitative data collection techniques were used for the study, which measured the relationship between the variables in numeric terms, emphasizing the statistical explanation of the data collected. Descriptive statistics include: Table, Likert scale, frequency, simple percentage, and charts, while the inferential statistics involved the use of ANOVA and regression analysis to determine the relationship between the variables in the study.

## RESULTS AND DISCUSSION
### Factors Affecting the Nature of Inventory Management Adopted by the Selected Enterprise (Regression Analysis)
Table 1 presents the factors affecting inventory management adopted by selected enterprises in the study area from the results of a multiple regression analysis. Under the planning factors, it was revealed that planning for inventory control by organizations, involvement of inventory suppliers in the inventory plan, and communication of the inventory plan throughout the organization had a significant positive influence on the inventory management practices

adopted by the selected enterprises in the study area. The involvement of incompetent staff in the inventory plan, however, had a significantly negative influence on the inventory management practices adopted by selected enterprises in the study area. This implies that as the involvement of incompetent staff in the inventory plan increases, the adoption of inventory management practice reduces because the benefit derived from practicing inventory management will decrease.

Under the inventory keep track system, it was revealed that the fact that organizations have used inventory management since their establishment had a significant positive influence on the nature of inventory management practices adopted in the study area. Also, it was found that the fact that inventory management practices increase profitability also had a significant influence on the nature of inventory management adopted in the study area. It was further revealed that the link between procurement functions and inventory control, training of the procurement team, time management during the procurement process, and improvement of the procurement process all had a significant influence on the nature of inventory management practices adopted in the study area. This implies that a stronger link between procurement and inventory control increases the performance of the inventory management practices adopted. Also, more training given to staff involved in the procurement process will lead to better performance of inventory management practices. The R-square value of 0.582 is an indication that the regression model captured 58.2 percent of the factors affecting the nature of inventory management practices adopted by the selected enterprise.

**Table 2: Planning Factors influencing the Nature of Inventory Management Adopted by the Selected Enterprise using ANOVA**

**ANOVA**

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| **Organizations make plans for inventory control** | Between Groups | .972 | 6 | .162 | 6.323 | .000 |
| | Within Groups | 2.895 | 113 | .026 | | |
| | Total | 3.867 | 119 | | | |
| **Inventory suppliers are involved in the inventory plan** | Between Groups | 32.059 | 6 | 5.343 | 3.598 | .003 |
| | Within Groups | 167.807 | 113 | 1.485 | | |
| | Total | 199.867 | 119 | | | |
| **Inventory control plans are communicated throughout the organization** | Between Groups | 1.043 | 6 | .174 | 1.532 | .174 |
| | Within Groups | 12.823 | 113 | .113 | | |
| | Total | 13.867 | 119 | | | |
| **Inventory control plans are affected by the involvement of incompetent staff** | Between Groups | 4.862 | 6 | .810 | 3.571 | .003 |
| | Within Groups | 25.638 | 113 | .227 | | |
| | Total | 30.500 | 119 | | | |

**$P \leq 0.05$**

Table 2 presents the results of the ANOVA test, which was used to determine the planning factors influencing the nature of inventory management practices adopted by selected SMEs in the study area. It was revealed that plans for inventory control by organizations,

involvement of inventory suppliers in inventory plan, and the participation of incompetent staff are significant planning factors influencing the nature of inventory management practices adopted in the study area.

**Table 3: Inventory Keep Track System: Factors Influencing the Nature of Inventory Management Adopted by the Selected Enterprise using ANOVA**

**ANOVA**

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| **Does your organization use inventory management since its establishment?** | Between Groups | 1.314 | 6 | .219 | .706 | .645 |
| | Within Groups | 35.053 | 113 | .310 | | |
| | Total | 36.367 | 119 | | | |
| **Do inventory management practices increase profitability?** | Between Groups | 1.495 | 6 | .249 | 2.590 | .022 |
| | Within Groups | 10.871 | 113 | .096 | | |
| | Total | 12.367 | 119 | | | |

**$P \leq 0.05$**

Table 3 presents the result of the ANOVA test, which was used to determine the inventory keeping track system factors influencing the nature of inventory management practices adopted by selected SMEs in the study area. The table revealed the fact that inventory management practices increase profitability was the significant inventory tracking system factor influencing the nature of inventory management practices adopted in the study area.

**Table 4: Procurement Factors Affecting the Nature of Inventory Management Adopted by the Selected Enterprise using ANOVA**

**ANOVA**

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| **Procurement functions have a link to inventory control** | Between Groups | .142 | 6 | .024 | .364 | .900 |
| | Within Groups | 7.325 | 113 | .065 | | |
| | Total | 7.467 | 119 | | | |
| **The procurement team set to order inventory keeps time management** | Between Groups | 2.502 | 6 | .417 | 1.801 | .105 |
| | Within Groups | 26.165 | 113 | .232 | | |
| | Total | 28.667 | 119 | | | |
| **The procurement team is set to order the inventory needed through training** | Between Groups | 1.797 | 6 | .299 | 1.370 | .233 |
| | Within Groups | 24.703 | 113 | .219 | | |
| | Total | 26.500 | 119 | | | |
| **Procurement Procedures of inventory control are understandable** | Between Groups | 1.219 | 6 | .203 | 1.277 | .274 |
| | Within Groups | 17.981 | 113 | .159 | | |
| | Total | 19.200 | 119 | | | |
| **The entire procurement function needs thorough improvement** | Between Groups | 13.117 | 6 | 2.186 | 6.163 | .000 |
| | Within Groups | 40.083 | 113 | .355 | | |
| | Total | 53.200 | 119 | | | |

**$P \leq 0.05$**

Table 4 presents the result of the ANOVA test, which was used to determine the procurement factors influencing the nature of inventory management practices adopted by selected SMEs in the study area. The table revealed that the entire improvement of the procurement process was the significant procurement factor influencing the nature of inventory management practices adopted in the study area.

**Table 5: Constraints to Effective Inventory Management in the Selected Enterprise**

| Constraints | Frequency | Percent (%) | Rank |
|---|---|---|---|
| **Risk of fraud** | 112 | 93.3 | 1st |
| **Cost of inventory management** | 103 | 85.8 | 2nd |
| **Human error** | 97 | 80.8 | 3rd |
| **Incompetent workforce** | 97 | 80.8 | 3rd |
| **Storage space** | 66 | 55.0 | 5th |
| **Labour intensive** | 31 | 25.8 | 6th |

Table 5 presents the constraints to effective inventory management practices in the study area. It was revealed that a major constraint faced by SMEs in the study area is the risk of fraud, which ranked highest on the list of constraints among SMEs in the study area. Cost of inventory management ranked second, while human error and an incompetent workforce both ranked third on the list of constraints among the SMEs in the study area. Challenges relating to storage ranked fifth, while the labor intensiveness of inventory management practices rated least on the list of constraints.

**Test of Hypothesis**

**Table 6: Paired Samples T - Test**

| | Mean | Std. Deviation | Std. Error Mean | T | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|
| **Inventory management practices - Profit Level** | 2.25000 | 1.90642 | 0.17403 | 12.929 | 119 | 0.000 |

**$P \leq 0.05$**

Table 6 presents the result of the paired sample t-test for hypothesis 1, which states that "Inventory management practices have no significant effect on the difference in profitability level among small and medium scale enterprises in Akure". At $p \leq 0.05$, it was revealed that inventory management practices have a significant effect on the difference in profitability among the SMEs in the study area. The null hypothesis was, however, rejected while the alternative hypothesis was accepted, and the study concluded that "Inventory management practices had a significant effect on the difference in profitability level among small and medium scale enterprises in Akure, Nigeria".

## CONCLUSION, RECOMMENDATION, AND CONTRIBUTION TO KNOWLEDGE

### Conclusion

The following section presents the conclusions in relation to the achievement of objectives.

**Objective one: To assess the factors affecting the nature of inventory management adopted by the selected enterprise.**

Some of the most significant findings arising from the literature highlight the significance of the theory of relationship marketing, the theory of constraints, and inventory control in theory and practice. Theory of relationship marketing also embraced the following: Guide moments of truth, improved profitability, built partnering, address 'customer better', buys in of customer attention, protect emotional wellbeing, understand consumer psyche, build trust with customers, especially in aspects of information sharing Wilson (1995). Whereas theory of constraints is geared to help organizations continually achieve their goals. Gupta (2008) asserted that the 'theory of constraints can serve as a general theory in operations' which provides approaches to operations that avoid pitfalls of local optimization by reaching a cross-functional boundary in organizations and the inventory control in theory and practice provides that there must be a balance between physical stocks and documented stocks. Jonsson and Mattsson (2008) reveal that inventory control success is dependent on proper planning, keeping track at all times, and proper procurement. It is concluded that top management should provide its full support and commitment towards inventory stock control. Therefore, the second objective has been achieved.

**Objective two: To identify the constraints to effective inventory management in the selected enterprise.**

Some of the most significant findings arose from personal interviews with the respondents. This objective was achieved by asking the respondents about some constrained encountered by them, which include the following: Risk of fraud; Cost of inventory management; Human error; Incompetent workforce; Storage space; Labor-intensive. It was therefore concluded that all the aforementioned constraints that affect the inventory management on the performance of small and medium-scale enterprises have to be extensively looked into in the near future.

### Recommendations

Based on the research findings, the study provides the following recommendations to SMEs in Akure Metropolis to improve inventory control practice:

i. The findings proved that there is better inventory control planning. Hence, SMEs still need to draft a comprehensive yearly plan for inventory control. Most importantly, these comprehensive plans need to be reviewed to see if they help in achieving the goals. Before a performance review, it is important to choose measures that are well defined, allow for comparison, are specific, and allow for monitoring of outcomes. Therefore, such a plan must be communicated and discussed by all key stakeholders

that are involved with inventory logistics (e.g., customers, suppliers, CFO, staff and managers from procurement or logistics, internal auditors, risk management team, and members of the executive council). This exercise can assist in reducing fruitless expenditures on inventory stocks.

ii. The study also recommends that SMEs should review their stock on hand periodically. This strategy is highly recommendable strategy for controlling a large quantity of high-value stocks Syntetos *et al. (*2009). The Stores Division needs to have a properly designed tracking system that will assist in keeping accurate inventory records. Durable and non-durable inventory stocks need to be separated and controlled by different personnel from different working stations, to prevent the fast deterioration of stock and save working capital. Staff must have limited entrance access to inventory storage sections. Only authorized individuals with unique access codes should be allowed to enter. Installation of cameras and other useful security systems (i.e., security guards) should be fixed with the aid of the information technology (IT), risk management, and internal auditing departments.

iii. The Store Division also needs to revise its inventory control processes to make them more understandable for employees. This will lead to a better understanding. It is important to determine who should monitor the floor area; who should keep physical records of inventory; who should keep computerized records of inventory; who should perform a physical inventory count, in what time frame, and what should be done if a discrepancy exists. Procedures and methods need to be tailored to suit the circumstances of each type of customer and the changing economy.

**Contribution to Knowledge**

This research work is expected to provide information on the effect of inventory management and performance of Small and Medium Scale Enterprises, and identify the areas of loopholes which management may need to take cognizance of for better performance and profitability of the enterprise.

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