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## **Research Article**

## Extent Managers Applied Inventory Control Approaches for Improving Operations of Small and Medium Scale Enterprises in South-East Nigeria

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## Abstract

This study ascertained the extent managers applied inventory control approaches for improving operations of small and medium scale enterprises in South-East Nigeria. Two research questions guided the study and two null hypotheses were tested. Descriptive survey research design was adopted for the study. The population comprised 4745 registered SMEs managers from services, construction and manufacturing businesses operating within South-East Nigeria. Sample size of 1424 registered SMEs managers were used, through proportionate stratified random sampling technique. The instrument for data collection was a 22item structured questionnaire. The instrument was validated by three experts. Cronbach Alpha was used to determine the reliability co-efficient values of 0.91 and 0.90 for clusters B1 and B2 respectively, with an overall co-efficient value of 0.91. Mean and standard deviation were used to answer the research questions, while Analysis of Variance (ANOVA) was used to test the null hypotheses at 0.05 alpha levels. The findings of the study revealed that managers of SMEs in South-East, Nigeria lowly applied economic order quantity (EOQ) and activity-based costing (ABC) inventory approaches to improve their business operations. Years of business experience of managers of SMEs significantly influence their mean ratings on the extent they applied economic order quantity and activity-based costing inventory approaches for improving operations in South-East Nigeria. The study concluded that the inventory control approaches used in this study have been lowly applied by managers for improving operations of small and medium scale enterprises in South-East Nigeria. It was recommended among others that managers of small and medium scale enterprises should establish various inventory levels which will help in avoiding over or under-stockings in their business outfits.

Keywords: Small and Medium Scale Enterprises, Inventory Control Approaches, Managers.

## Introduction

Small and medium scale enterprises are generally regarded as one of the engines of economic growth in developing economies and developed nations. They have been largely acknowledged as the oil required for lubricating the engine of socio-economic transformation of any nation (Abosede et al., 2017). Okoli and Okeke (2018) described small and medium scale enterprises as business organizations set-up by individuals or group of individuals known as business owners for the main purpose of providing goods and services, and profit maximization. Their classifications into small and medium enterprises depend on the scale or size of business the owners' control. Furthermore, these enterprises engage in different types of activities ranging from construction, agro-allied, information technology, manufacturing, educational establishment, business services, tourism and leisure. In the context of this study, small and medium scale enterprises is any businesses that has an asset between 5 million naira to 500 million naira and a staff strength that is between 12 to 250. Small and medium scale enterprises account for a greater percentage of all businesses in virtually all economies and generate majority of private sector employment and output. They contribute to improved standard of living, substantial local capital formation, achieve high levels of productivity, and capability for individuals and nations. Small and medium scale enterprises play very important roles in the process of employment creation, industrialization, provision of personalised services and sustainable economic growth (Mohammed et al., 2017).

Despite the positive outlook and growth trends of the sector, small and medium scale enterprises in Nigeria, as in most developing economies, are faced with a number of challenges. These challenges include inadequate capital (finance), poor record keeping, unsuitable location, poor planning, inadequate infrastructural facilities, lack of skilled manpower, inadequate managerial and entrepreneurial skills, corruption and lack of transparency arising from government regulation and regulators (Imoisi and Ephraim, 2015). Others include break downs in production schedule, supply shortages, reduction of working capital as a result of excess procurement of raw materials and low capacity utilization which constitute a problem to their effective growth and development among others (Alabi *et al.*, 2015; Mohammed *et al.*, 2017). Therefore, for small and medium scale enterprises to achieve its goals, product control of all resources is required to ensure attainment through inventory control approach.

Inventory control approach refer to the various systems and means used in an enterprise to control the enterprises investment in stock which deal with recording and monitoring of stocks levels, forecasting future demands, deciding when and how many to be order. Nikita *et al.*, (2015) noted that a good inventory control approach offers a wide range of benefits to business organizations as the proper relationship between sales and inventory can better be well maintained. Similarly, inventory control approaches provide a business with information needed to take markdowns by identifying slow-selling merchandise. Discovering such items early in the season will allow a business to reduce prices or make changes in marketing strategy before consumer demands completely disappear.

Marfo-Yiadom *et al.*, (2008) held that holding large quantity of inventory offers wide range of benefits to organizations and can as well be associated with certain costs. Marfo-Yiadom et al. noted among other things that, holding large inventory helps to ensure that the possibility of disruption to production from a stock-out is remote. Large stocks mean that large orders can be placed so that buyers can negotiate favourable prices and thus get trade discounts. Large stocks protect the firms against price increases for a few months as large stocks mean fewer and less frequent orders, which will cut the cost of buying inventory. Inventory control approach basically deals with two problems: When should an order be placed? (Order Level), and How much should be ordered? (Order Quantity). These questions are answered by the use of inventory models.

Inventory model is a mathematical/scientific model that helps businesses in determining the optimum level of inventories that should be maintained in a production process, managing frequency of ordering, deciding on quantity of goods or raw materials to be stored, tracking flow of supply of raw materials and goods to provide uninterrupted service to customers without any delay in delivery. The scientific model strikes the balance between the loss due to non-availability of an item and cost of carrying the stock of an item. Scientific model aims at maintaining optimum level of stock of goods required by the company at minimum cost to the company. Olowolaju (2015) revealed some benefits of inventory control approach through the practice of scientific inventory control to include improvement in customer's relationship because of the timely delivery of goods and services, smooth and uninterrupted production resulting in no stock out; efficient utilization of working capital and minimizing loss due to deterioration, obsolescence, damage and pilferage, economy in purchasing, and eliminates the possibility of duplicate ordering.

Consequently, Nikita *et al.*, (2015) outlined inventory control approaches to include Economic Order Quantity (EOQ), Activity-Based Costing (ABC), Just In Time (JIT), Vendor Managed Inventory (VMI), Perpetual Inventory Control, Periodic Inventory, Barcode Inventory Control, and among others. While, Kumar and Anas (2015) listed the inventory control approaches to include ABC, Two Bin Method, Three Bin Method, Fixed Order Quantity, Fixed Period Ordering, Just In Time, Vendor Managed, Radio Frequency Identification (RFID), Vital Essential Desirable, Fast Normal Slow Deed, Fixed Order Quantity and Fixed Period Ordering. Thus, the inventory control approaches used in this study are made up of two constructs namely Economic Order Quantity and Activity-Based Costing because they appear to be exceptionally vital for all the small and medium scale enterprises that need to improve their business operation and succeed.

Economic Order Quantity (EOQ) inventory control approach is a well-known approach for determining the optimal quantity of orders that reduces cost of ordering and holding inventory (Eduina and Orjola, 2015). Economic Order Quantity inventory approach focuses on taking a decision regarding how much quantity of inventory should a company order at any point in time and when the order should be placed. Therefore, economic order quantity inventory approach should be applied to every product that represents a significant proportion of sales. The economic order quantity is the optimum amount of goods ordered each time to minimize total inventory costs. In economic order quantity model, inventory is reordered when it reaches the minimum level. Lim and Monica (2014) stated that forecasting method is necessary to determine EOQ

model that can reduce the inventory cost. Eze and Uchenu (2021) reported that SMEs imbibe economic order quantity approaches to a moderate level and that most SMEs claim to be applying the tenets of good inventory management but yet ran into problem of inventory inadequacy. Ugwu and Nwakoby (2020) stated that EOQ has a significant effect on the SMEs sustainability based on their years of business experience. In support, Akinlabi (2021) revealed that inventory approaches for business success among small and medium-scale enterprises vary based on the type of enterprises they engaged. When the inventories that are ordered arrive, they are classified into various categories according to their values using activity based costing (ABC) approach.

Activity-Based Costing (ABC) inventory control approach also known as Pareto approach is a method of classifying stocks items into groups based on the total annual expenditure for or total stockholding cost of each item. ABC inventory control approach is one of the most commonly employed inventory classification techniques. Conventional ABC classification was developed for use by General Electric during the 1950s. The classification scheme is based on the Pareto principle, or the 80/20 rule, that employs the rule of thumb of vital few and trivial many. The process of ABC approach classifies inventory items into A, B, or C categories based on so-called annual naira usage. Annual dollar usage is calculated by multiplying the dollar value per unit by the annual naira usage rate (Cohen and Ernst, 2018). Inventory items are then arranged according to the descending order of their annual naira usage. Class A items are relatively small in number, but account for the greatest amount of annual dollar usage. In contrast, class C items are relatively large in number, but make up a rather small amount of annual dollar usage. Items between classes A and C are categorized as class B. In simple terms, planning and forecasting for a class inventories can yield maximum benefit. Sayali and Amey (2017) noted that proper application of material management techniques reduces the wastage of material on site and intimates the stock-outs and need for purchasing of materials. Savali and Amey stated that activity based costing has a significant effect on the SMEs sustainability based on their years of business experience. Shava and Runjani (2016) revealed that the performance of small and medium scale enterprises is strongly linked to prior business experience of the managers. Therefore, all the inventory control approaches mentioned above can be seen as the system/procedures and controls that managers could use to create and improve operations of small and medium scale enterprises.

Managers are people or individuals who managed SMEs for another person or own in the business organization. To Okoli and Okeke (2018) managers of small and medium scale enterprises are individuals' who brings consistency to complex corporate organizations and business firms through planning, organizing, coordinating and controlling functions. In the context of this study, managers of small and medium scale enterprises refer to people/individuals saddled with the responsibilities of managing the day-to-day affairs of enterprises and control inventory whether as its own business or for another person.

Certain variables may have an influence on the opinion of managers regarding the extent they applied inventory control approaches such as years of business experience. Years of business experience in this study means the number of years managers have spent in the operation of small and medium scale enterprises. Extant literature from established economies shows that performance of small and medium scale enterprises is strongly linked to prior business experience of the managers (Shava and Runjani, 2016). Thus, it could be said that the older the managers in business, the more they are equipped to apply adequate inventory control approaches that suits their business. In the context of this study, years of business experience consists of number of years (1 to 5years, 6 to 10years and above 10years) the managers spent within organizations and are involved in effective inventory control approaches.

However, Choi (2015) indicated that effective inventory control approach is essential in the operation of any small and medium scale enterprises. Naliaka and Namusonge (2015) noted that efficient control of inventory enhances competitive advantage of small and medium scale enterprises and sustains their operations. But the inability of managers of SMEs to apply inventory control approach will result to overstocking which eventually got expired or out-dated; under stocking, lack of stock-taking, theft of materials by workers and delays in deliveries of materials among others. Inventory control approach can assist SMEs to skillfully handle adverse occurrences that could jeopardize efficient task destination achievement and reduce frequent stock-outs, low rate of inventory turnover, high working capital, high cost of storage, high cost of inventory with its negative effect on profits and continuity of businesses. Ugwu and Nwakoby (2020) indicated that many SMEs are seemed not applying inventory control approach satisfactorily, usually due to the reality that most managers are unsound, ineffective and unwell-coordinated. Notably, the growth and development of small and medium scale enterprises in South-East seem to be slow and in some cases even stunted, due to poor or inappropriate inventory control approaches applied in the operations by some

managers. Thus, a lot have been said, written about the inventory control approaches by managers of small and medium scale enterprises in the world over. It has also formed the subject of discussion in so many seminars and workshops both locally and internationally.

In the same vein, government at various levels have in one way or the other focused on small and medium scale enterprises. While some governments had formulated policies aimed at facilitating and empowering the growth, development and performance of small and medium scale enterprises through soft loans and other fiscal incentives, none of these efforts towards improving the performance of small and medium scale enterprises was directed towards their inventory control approaches. Despite all the effort make by government towards growth, development and performance of small and medium scale enterprises. In recent time, a number of firms in South-East faced numerous challenges especially in inventory control, which affected their performances. This call for worry by the researcher to ascertain the extent managers applied inventory control approaches for improving operations of small and medium scale enterprises in South-East, Nigeria so as to ensure their continuous existence.

## Statement of the Problem

In spite of all the efforts and supports of governments and multilateral institutions, SMSEs have not been able to make the desired impact on the Nigeria economy. It could be that these efforts and assistance from the governments and others are not properly channelled. Mohammed *et al.*, (2017) opined that these assistance and efforts to encourage small and medium scale enterprises through soft loans and other fiscal incentives, none of these efforts towards improving the performance of small and medium scale enterprises was directed towards their inventory control approaches. Therefore, in most cases the crucial problem of inventory has not been addressed. For any business to perform well there is need for wise demand managers that is anchored in effective inventory control approaches. However, available literature revealed that SMEs often find it difficult to adequately manage their inventory and employ effective inventory control approaches to deal with frequent stock-outs, low rate of inventory turnover, high working capital, high cost of storage, high cost of inventory with its negative effect on profits and continuity of businesses. It is therefore necessary to ascertain the extent managers applied inventory control approaches for improving operations of small and medium scale enterprises in South-East, Nigeria so as to ensure their continuous existence.

## **Purpose of the Study**

The main purpose of this study was to ascertain the extent managers applied inventory control approaches for improving operations of small and medium scale enterprises in South-East Nigeria. Specifically, the study sought to ascertain the extent managers applied:

- 1) Economic order quantity (EOQ) inventory approaches for improving operations of small and medium scale enterprises in South-East Nigeria.
- 2) Activity based costing (ABC) inventory approaches for improving operations of small and medium scale enterprises in South-East Nigeria.

## **Research Questions**

The following research questions guided this study:

- 1) To what extent do managers applied economic order quantity (EOQ) inventory approaches for improving operation of small and medium scale enterprises in South-East Nigeria?
- 2) To what extent do managers applied activity-based costing (ABC) inventory approaches for improving operation of small and medium scale enterprises in South-East Nigeria?

## Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

- 1) Managers of SMEs do not differ significantly in their mean ratings on the extent they applied economic order quantity (EOQ) inventory approaches for improving operations in South-East Nigeria based on their years of business experience.
- 2) Managers SMEs do not differ significantly in their mean ratings on the extent they applied activity based costing (ABC) inventory approaches for improving operations in South-East Nigeria based on their years of business experience.

## Method

The study adopted descriptive survey design. The population of the study comprised 4745 registered SMEs managers from services, construction and manufacturing businesses operating within South-East Nigeria. A

sample size of 1424 registered SMEs managers were used, through proportionate stratified random sampling techniques. Data were collected using a 22-items structured questionnaire. The structured questionnaire was validated by three experts-two in business education and one in measurement and evaluation all from Nnamdi Azikiwe University, Awka. Their comments enhanced the content validity of the instrument. To establish the internal consistency of the instrument, a trial-tested was conducted. Data collected in the pilot test were analyzed using Cronbach Alpha to determine the internal consistency.

Reliability coefficients values of 0.91 and 0.90 for clusters B1 and B2 respectively with an overall coefficient value of 0.91. Out of the 1424 copies of the questionnaire distributed to the respondents in their organizations through direct approach which facilitated a response rate, 1414 copies (representing 99 percent) were retrieved with an attrition rate of 10 copies (representing 1 percent) and used for data analysis. Data collected regarding the research questions were analyzed using mean and standard deviation while Analysis of Variance (ANOVA) was used to test the null hypotheses at 0.05 level of significance. In order to determine the extent managers applied inventory control approaches for improving operations of small and medium scale enterprises in South-East Nigeria, a decision rule based on real limit of numbers was used such that ratings between 4.50-5.00 were regarded as very highly applied, items with mean ratings of 3.50-4.49 were considered as highly applied; items with mean ratings of 2.50-3.49 were considered as moderately applied. Furthermore, items with mean ratings of 1.50-2.49 and 1.00-1.49 were considered as lowly applied and very lowly applied respectively. In testing the null hypotheses, a null hypothesis was rejected where the calculated p-value is less than the 0.05 level of significance. Conversely, where the calculated p-value was greater than or equal to the level of significance (0.05), it meant that there was no significant difference and the null hypothesis is not rejected.

### **Presentation of Results**

**Research Question 1**: To what extent do managers applied economic order quantity (EOQ) inventory approaches for improving operation of small and medium scale enterprises in South-East Nigeria?

Table 1. Mean ratings of Managers on the extent they applied economic order quantity (EOQ) inventory approaches for improving operation of small and medium scale enterprises in South-East Nigeria (N = 1414).

S/N	Economic order quantity (EOQ) inventory	$\bar{\mathrm{X}}$	SD	Remarks	
,	approaches				
1	Avoiding stock-out of goods.	2.60	0.43	Moderately Applied	
2	Deterring re-order quantity of raw materials.	2.20	0.61	Lowly Applied	
3	Minimizing inventory holding cost of products.	2.70	0.42	Moderately Applied	
4	Minimizing ordering cost of raw materials.	2.69	0.50	Moderately Applied	
5	Minimizing inventory deterioration of products.	2.54	0.53	Moderately Applied	
6	Avoiding over stocking of raw materials and products.	2.24	0.59	Lowly Applied	
7	Finding out ordering quantity that spreads acquisition cost over as many units as possible.	2.20	0.61	Lowly Applied	
8	Determining optimal quantities to minimize the total cost of inventory.	2.50	0.54	Moderately Applied	
9	Assuming steady demand for a business product and immediate availability of items to be reordered.	2.36	0.58	Lowly Applied	
10	Assuming fixed cost of inventory units-ordering and holding charges.	2.35	0.57	Lowly Applied	
11	Understanding when to buy large quantities raw materials for production.	2.50	0.54	Moderately Applied	
12	Taking advantage of discount associated with bulk buying.	2.41	0.56	Lowly Applied	
	Cluster Mean	2.44		Lowly Applied	

Data in Table 1 shows the cluster mean score of 2.44 indicating that Managers of SMEs in South-East, Nigeria lowly applied economic order quantity (EOQ) inventory approaches in their business operations. The analysis of the items further indicates that Managers rated six items out of the 12 listed items as moderately applied. The mean rating for the 6 items ranged from 2.50 to 2.70. The remaining six items were rated by

Managers as lowly applied with mean ratings ranging from 2.20 to 2.41. The standard deviation of 0.42 to 0.61 showed that respondents are not wide apart in their mean ratings which indicate homogeneity.

**Research Question 2:** To what extent do managers applied activity-based costing (ABC) inventory approaches for improving operation of small and medium scale enterprises in South-East Nigeria?

Table 2. Mean ratings of Managers on the extent they applied activity-based costing (ABC) inventory approaches for improving operation of small and medium scale enterprises in South-East Nigeria (N = 1414).

S/N	Activity-based costing (ABC) inventory	Ā	SD	Remarks
	approaches			
1	Grouping inventories into different categories.	2.30	0.52	Lowly Applied
2	Exercising strict control over inventory with very high monetary value.	2.20	0.59	Lowly Applied
3	Exercising less control over inventories with low monetary value.	2.70	0.42	Moderately Applied
4	Exercising little or no control over inventories with little monetary value.	2.39	0.45	Lowly Applied
5	Reducing the complexity of managing the vastness of a company's inventory.	2.44	0.55	Lowly Applied
6	Designing models to establish control practices for certain groups of items.	2.24	0.53	Lowly Applied
7	Recognizing inventories to constitute many items of different sizes and values.	2.20	0.59	Lowly Applied
8	Prioritizing the management of inventory to maximize profit.		0.52	Moderately Applied
9	Retaining stock at optimum level.	2.38	0.57	Lowly Applied
10	Reducing clerical costs substantially to maximize profit.	2.46	0.51	Lowly Applied
	Cluster Mean	2.38		Lowly Applied

Data in Table 2 shows the cluster mean score of 2.38 indicating that Managers of SMEs in South-East, Nigeria lowly applied activity-based costing (ABC) inventory approaches in their business operations. The analysis of the items further indicates that Managers rated two items out of the ten listed items as moderately applied. The mean rating for the two items ranged from 2.50 to 2.70.

The remaining eight items were rated by Managers as lowly applied with mean ratings ranging from 2.20 to 2.46. The standard deviation of 0.42 to 0.59 showed that respondents are not wide apart in their mean ratings which indicate homogeneity.

**Hypothesis 1:** Managers of SMEs do not differ significantly in their mean ratings on the extent they applied economic order quantity (EOQ) inventory approaches for improving operations in South-East Nigeria based on their years of business experience.

Table 3. Summary of Analysis of Variance on managers of SMEs mean ratings on the extent they applied economic order quantity (EOQ) inventory approaches for improving operations in South-East Nigeria based on their years of business experience.

	Sum of Squares	df	Mean Square	F	P-value	Remarks
Between Groups	1.526	2	1.736	14.124	.002	Significant
Within Groups	4.055	1411	1.014			
Total	5.581	1413				

Table 3 shows that there is a significant difference among the three groups (1-5 years, 6-10 years or above 10 years) in terms of their mean ratings on the extent they applied economic order quantity (EOQ) inventory approaches for improving operations in South-East Nigeria based on their years of business experience. It was observed that at 0.05 level of significance, 2 is nominator and 1411 of denominator, the calculated Fratio is 14.124 and P-value .002 which is less than the 0.05 alpha level. Therefore, the null hypothesis is rejected.

**Hypothesis 4:** Managers SMEs do not differ significantly in their mean ratings on the extent they applied activity based costing (ABC) inventory approaches for improving operations in South-East Nigeria based on their years of business experience.

Table 4. Summary of Analysis of Variance on managers of SMEs mean ratings on the extent they applied activity based costing (ABC) inventory approaches for improving operations in South-East Nigeria based on their years of business experience.

	Sum of Squares	df	Mean Square	F	P-value	Remarks
Between Groups	3.336	2	2.168	15.03	.001	Significant
Within Groups	4.839	1411	2.025			
Total	8.175	1413				

Table 4 shows that there is a significant difference among the three groups (1-5 years, 5-10 years and above 10 years) in terms of their mean ratings on the extent they applied activity based costing (ABC) inventory approaches for improving operations in South-East Nigeria based on their years of business experience. It was observed that at 0.05 level of significance, 2 is nominator and 1411 of denominator, the calculated Fratio is 15.03 and *P-value* .001 which is less than the 0.05 alpha level. Therefore, the null hypothesis is rejected.

## **Discussion of Findings**

The findings of the first research question revealed that managers lowly applied economic order quantity (EOQ) inventory approaches for improving operation of small and medium scale enterprises in South-East Nigeria. This signifies a low level on application of economic order quantity by managers which is unremarkable. This indicate that managers of SMEs in South-East do not give adequate attention regarding how much quantity of inventory should a company order at any point in time and when the order should be placed to improve their operations. This finding is in line with Lim and Monica (2014) who stated that forecasting method is necessary to determine EOQ model that can reduce the inventory cost. The findings disagreed with Eze and Uchenu (2021) who reported that SMEs imbibe economic order quantity approaches to a moderate level and that most SMEs claim to be applying the tenets of good inventory management but yet ran into problem of inventory inadequacy.

The findings of the study further revealed a significant difference in managers' mean ratings on the extent they applied economic order quantity (EOQ) inventory approaches for improving operation of small and medium scale enterprises in South-East Nigeria based on gender and their years of business experience. These findings agree with Ugwu and Nwakoby (2020) who stated that EOQ has a significant effect on the SMEs sustainability based on their years of business experience. In support, Akinlabi (2021) revealed that inventory approaches for business success among small and medium-scale enterprises vary based on the type of enterprises they engaged. The reason for the similarities in test of hypotheses is because most of their inventory applied is not reordered as it reaches the minimum level. This difference in mean ratings could be as a result of availability of resources to medium scale enterprises more than the small scale enterprises. Medium scale enterprises can due to their size benefit from lower costs; size brings bargaining power over the suppliers and when products are standardized and produced on a mass scale with longer production-runs, a medium scale enterprise will be more efficient.

The findings of the second research question revealed that managers lowly applied activity-based costing (ABC) inventory approaches for improving operation of small and medium scale enterprises in South-East Nigeria. This signifies a low level of application of activity-based costing by managers which is unremarkable. This indicate that managers of SMEs in South-East do not give adequate attention regarding classifying stocks items into groups based on the total annual expenditure for or total stockholding cost of each item to improve their operations. This finding is in line with Sayali and Amey (2017) who stated that proper application of material management techniques reduces the wastage of material on site and intimates the stock-outs and need for purchasing of materials.

The findings of the study further revealed a significant difference in managers' mean ratings on the extent they applied activity-based costing inventory approaches for improving operation of small and medium scale enterprises in South-East Nigeria based on gender and their years of business experience. These findings agree with Sayali and Amey (2017) who stated that activity based costing has a significant effect on the SMEs sustainability based on their years of business experience. In addition, Shava and Runjani (2016) stated that

the performance of small and medium scale enterprises is strongly linked to prior business experience of the managers. The reason for the similarities in test of hypotheses is because most of the SMEs managers do not categorized their inventories.

### Conclusion

Based on the findings of this study, it was concluded that the inventory control approaches used in this study have not been lowly applied by managers for improving operations of small and medium scale enterprises in South-East Nigeria. The application of inventory control approaches by managers in the operation of small and medium scale enterprises will help to ensure efficiency in the output of the SMEs. However there is need for managers of small and medium scale enterprises to apply inventory control approaches mentioned here appropriately to minimize shortages, breaks in production schedule, machine breakdown, low capacity utilization and even fold up.

## Recommendations

Based on the findings of this study, the following recommendations are made:

- 1) Managers of small and medium scale enterprises should establish various inventory levels which will help in avoiding over or under-stockings in their business outfits.
- 2) Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and State Ministry of Commerce and Industry should conduct regular seminars and workshops for small and medium scale enterprises on inventory control approaches to ensure effective operation of business by managers.

## **Declarations**

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