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RESEARCH ARTICLE

Stakeholders Perceptions of the inventory management practices impact on performance of medium scale food industry in Nigeria

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Abstract

Various studies exist in the field of accounting on inventory management and control practices. However the factors influencing adoption of inventory management practices in small and medium scale enterprises require adequate attention of accountants, operations management and practitioners. There is a dearth of study relating to inventory management practices impact on medium scale food industry in a developing economy like Nigeria. Primary data were employed in the study using simple random sampling in selecting medium scale industrialists and their staff. Employing regression techniques, the perceptions of stakeholders in medium scale food companies were analysed using stata10 statistical packages. The result of data analysis and hypotheses tested indicated that there were significant difference in the perception of the impact of inventory management practices at 0.05 level of significant (chi-square value = 36.415). Conclusion from the result showed that stakeholders perceived business size as the highest of all factors influencing adoption of inventory management practices, followed by the nature of the products, production process, technology development, stock turnover, labour force and size of stock holding.

Keywords: *Inventory management practices, Medium scale Foods industry, Adoption, stakeholders, Performance.*

Introduction

Inventory control is a critical aspect of successful management such that with high carrying costs companies cannot afford to have money tied up in excess inventories. Inventory management as observed Olowolaju [1] is crucial to organisation success since holding too little or too much stock has negative effect on the organisation's performance. The major objective of inventory control is to determine and maintain the optimum level of investment in inventory. Inventory managements desire that inventory level which minimizes the total cost associated with inventory i.e. the optimal and most economical level [2]. Too much inventory consumes physical space, creates financial burden, and increases possibility of damage, spoilage and loss. In this context the lean production principle pioneered by Womack et al [3] has been linked to reduced inventories on the other hand, too little inventory often disrupts manufacturing operations and increase the likelihood of poor customer service.

Brackus [4] noted that accounting for material control is concerned with the safe guarding the enterprises property in form of materials by properly recording the receipts, consumption of materials and the balance in storage. Nyanga [5] said that in any efficient business material levels are established with as much care as production levels, a careless choice of the material level can easily precipitate production slow down caused by lack of badly needed materials. Nyanga [5] further asserted that as a result of tighter controls over materials, items and meticulous records keeping, the cost of maintaining adequate levels of materials is reduced with adverse effects on the continuity of operations. According to Main [6], for project involving the large scale use of critical resources, the owner may initiate the procurement

procedure even before the selection of a constructor in order to avoid shortages and delays. Kotabo [7] observed that though there are many systems for control of stock, both manual and automatic, there are really two basic approaches on which these systems are based. These are recording method which may take place either when materials fall to a pre-determined level or according to each situation discovered when levels are received on a periodic regular basis. The objectives of inventory reduction and minimization are more easily accomplished with modern inventory management processes that are working effectively.

Evaluating the determinants of inventory management approach of medium scale companies has become imperative to management and cost accountants of developing economy like Nigeria. For instance Adeyemi and Salami [8] argued that the astute manager who understands the virtues of each of the component of inventory could use them selectively to implement corporate strategy in the market place.

An organisation can strategically build up inventory for market promotion and also to stabilise production schedule. This can be achieved from analysis of factors that could make a firm to adopt or otherwise of a particular inventory management practice. Inventory levels of raw materials, semi-finished and finished goods need to be effectively managed to control the cost of inventory [9]. It is common to find the balance sheet of an average company having inventory running to 60% of its current assets as capital tied down as averred Pandey [10]. Apart from this, much has to be expended additionally to keep it useful. To keep production going, some level of inventory is desirable.

According to Olowolaju [1] inefficient management of inventory can lead to underutilization of capacity and loss of profit. Therefore, considering the economic importance of Small and Medium scale Enterprises (SMEs) efficient management of inventory is imperative for meaningful economic growth of a nation. This is further buttressed by the submission of Koh, Demirbag, Tatoglu and Zaim, [11] that in determination of optimal corporate inventories, notwithstanding the theoretical and practical short comings inherent in these concepts and techniques, their application in real business life should have an effect on firm's performance. Managing assets of all kinds can be viewed as an inventory problem, for the same principles apply to cash and fixed assets [3,12]. This calls for more empirical investigation of inventory management practices in the Nigerian medium scale foods industry.

Statement of the Problems

Inventory control problems are usually the result of using poor processes, practices and antiquated support systems. .Different firms apply different forms of inventory control techniques to ensure that the required materials are available in the firm to forestall production or sales stoppages. There is no doubt that small and medium scale manufacturing organisations contribute significantly to the nation economic growth and that inventory is crucial to the sustenance of their operations.

The conclusion of Olowolaju [1] that application of inventory models, ratios, valuation and processing in arriving at sound decisions in SMEs is generally very low calls for more empirical investigation in the medium scale food industry. The study of factors influencing adoption of inventory management practices in small and medium scale enterprises requires adequate attention of accountants, operations management and practitioners. Further is the influence this adoption on the performance of the enterprises.

Objectives of the Study

- To analyse factors influencing adoption of inventory management practices.
- To evaluate the perceptions of stakeholders on inventory management practices in the Nigeria Medium scale Foods companies.

Research Hypothesis

HO: There is no significant difference in the perceptions of the impact of inventory management practices adopted by the medium scale food industry on their performance

Literature Review

Small and Medium Scale Enterprises (SMEs) and Inventory Management Practices

Studies have shown that small businesses in many countries are mechanisms for stimulating indigenous entrepreneurship, enhancing greater employment opportunities per unit of capital invested and aiding the development of local technology [13-16].They are seen to be characterized by dynamism, witty innovations, efficiency, and their small size allows for faster decision-making process. Governments all over the world have realized the importance of this category of companies and have formulated comprehensive public policies to encourage, support and fund the establishment of SME's. Developments in small and medium enterprise are a sin quo non for employment generation, solid entrepreneurial base and encouragement for the use of local raw materials and technology. The development of small and medium scale industries is very important to the growth of a nation especially a developing country.

Ogunleye [17] stated that small and medium scale enterprises are particularly relevant in creating employment opportunities, mitigating rural urban drift, producing specialized items in small quantities to meet diverse needs, mobilization of local resources as well as stimulation of technological development and innovation. Olowolaju [1] believed that to achieve the desired contribution of SMEs to the industrial growth of a nation, the management of inventory in these organisations is of utmost importance and that management of this vital asset is very important for the efficiency, effectiveness and profitability of the business. That is why Adeyemi and Salami [8] submitted that only astute manager who understands the virtues of each of the component of inventory could use them selectively to implement corporate strategy in the market place. An organisation can strategically build up inventory for market promotion and also to stabilise production schedule. Inventory management is crucial to organisation success since holding too little or too much stock has negative effect on the organisation's performance.

Conceptual Clarification of Inventory Management

Evidence from the literature suggests that inventory management was as old as the history of industrial revolution. Early industrialists were described as not formally trained to acquaint themselves with the principles of material management as it allied elements. For vast majority of production firms, inventory figure represents a sizeable share of the current shares.

For instance Brackus [4] submitted that material control is concerned with two parts of accounting; physical property and value of the property. This is a pointer to the fact that those firms have substantial amount of working capital tied down in the inventory. Inventory management was an important aspect of cost control reduction schemes. It was no smooth-say, therefore to assert that the success or failure achieved in inventory control were to a very large extent to determine the success that would be achieved in the entire operations of the company. It could also be assumed that for uninterrupted production runs, management of any production firm needs to evolve a sound and unique model of inventory control systems could void of all ambiguities and bottlenecks which could causes intermittent production stoppages, and produce low output. In the recent years, as the fields of accounting and operations management have developed, many new concepts have been added to the list of relevant inventory control topics. These more management oriented concepts include the materials requirements planning systems (MRP) Just-In-Time (JIT) and ERP methods while another emerging stream of studies postulate that the characteristics of a firm's demand and marketing environments also play an important role. Brackus [4] further showed material control as one of the policy procedures employed in the management of material s

and these include internal checks as in continuous, period, spot and .or any other type of control established by management to carry out activities aimed at ensuring an effective and efficient material management procedure.

Jegede [18] stated that the necessity of keeping stock arises because of the time lapse between purchasing, production and eventual sale to customers. The major concern is how inventory can be controlled to minimize waste and cost. Thus an efficient inventory policy is always an important requirement for the successful management of manufacturing and distributing enterprises. Drury [19] asserts that inventory costs include holding costs, ordering costs and shortage costs. Holding costs relate to costs of having physical items in stock.

These include insurance, obsolescence and opportunity costs associated with having funds which could be elsewhere but are tied up in inventory. Ordering costs are costs of placing an order and receiving inventory. These include determining how much is needed, preparing invoices, transport costs and the cost of inspecting goods. Shortage costs result when demand exceeds the supply of inventory on hand. The costs include opportunity costs of making a sale, loss of customer goodwill, late charges and similar costs

In production firms, inventory or stock means the aggregate of those items of tangible property which are held for sale in the ordinary course of business, in the process of production for such sale, or are to be currently consumed in the production of goods or service to be available for resale [20]. For a merchandising company, the inventory consists of all goods owned and held in stock for resale in the regular course of business. In this vein a merchandizing business need prudent inventory control system in order to prevent the loss of sales either to a competitor or through long delay in filling an order. Merchandize hold for resale will normally be converted into cash within an operating cycle and therefore be regarded as current asset, thus investing the accounting definition of inventory.

Recently much attention has focused on the supply chain, one of the key dimensions in supply chain management is flexibility, and it has been defined as the ability to change or react with little penalty in time, effort, cost, or performance [21]. However flexibility in the supply chain triggers the requirement for flexibility within and among all partners in the chain [22]. The hierarchy of flexibility dimensions as proposed by Koste & Malhotra [23] provides a tiered perspective of flexibility beginning at the top with strategic flexibility and moving down through functional plant, and shop floor flexibility and finally to individual resource flexibility. Among these types of flexibilities, inventory flexibility was regarded as the significant factor influencing supply chain flexibility. Inventory flexibility directly impacts on a supply chain's performance by avoiding out of stock situations for products that are suddenly in high demand by maintaining high inventory levels as concluded Martinez and Perez [24]. Therefore, inventory flexibility should be examined from an integrative perspective.

In addition, inventory management should be implemented and achieved through distinctions between internal competences and external capabilities. Company efforts that reflect internal competence are not observable to customers, while customers could see and value external capabilities [25]. Therefore, the internal management competences and customer service capabilities that reflect inventory flexibility and inventory management level respectively should be explained and the relationships among them should be examined. To achieve effectiveness and efficiency of inventory management internal competence and external capabilities are extremely important. Therefore inventory management flexibility is defined as a systematic competence to manage and take responsibility for two or more functions along the supply chains, whether within or outside the firm. Fredericks [26]. The need for effective inventory control system may be summarized as follows;

- It ensures that production was not constructed due to the unavailability of recurring items. To achieve that involves

- determining correct minimum and maximum stock levels, timely recoupment and submission of shortage reports to purchasing unit.
- It leads to effective control over investment on inventories. This was achieved by keeping stocks within pro-determined levels.
- It tends to provide a smooth flow of production and these facilitate production scheduling.
- Effective inventory control system helps to provide accurate information for financial control in the way of budgeting.
- It discloses cases of unused items purchased against special purchase requisitions received from various departments as well as the lists of obsolete and surplus materials.

Inventory Control and Costs

Effective inventory control required a careful planning that ends up striking a balance between over investment and under investment in inventories. Inventory control was associated with different types of costs; hence the needs for effective inventory control mechanism to minimize the costs. These costs were classified into carrying costs, ordering costs, stock out cost and excessive inventory cost. Effective and efficient inventory management calls for decision on how much was ordered and when should it be ordered. Lee and Nefcy [27] described re-order level as the point at which an order should be placed to replenish the inventory.

In determining actual timing of purchase or re-order point certain factor were considered. Certainty, the lead time, the average usage and EOQ are considered. Piasecki [28] described lead time as "The time interval between the ordering (or re-ordering) of fresh inventory and the time on its receipt. By certainty, we mean that usage and lead-time do not fluctuate. Hence render point was calculated by multiplying lead-time by average usage.

Majority of the firms attempted to achieve effective inventory control through the use of scientific approach than depending on guesswork. Thus simple mathematics formulas of varying degree have been developed to calculate the various stock levels so as to cover such emergencies as abnormal usage of materials or unexpected delays in delivery of fresh supplies. The re-order point can also be known as the minimum stock level since it is the level which stocks should not be normally allowed to fall. If stocks go below this level, there is the danger of stock out which can result to production stoppage.

The next stock level that is necessary to be computed by a firm is the maximum stock level; maximum stock level was the level above which stock should not normally be allowed to rise. It is desirable that the level should be as low as possible, but it must allow fairest usage of materials and time delays in delivery. The following factors were considered while determining the maximum stock levels.

- The availability of storage space
- The rate of materials consumption / usage
- The lead time
- The re-order quantity for the materials (EOQ)
- The amount of capital necessary and available
- The cost of storage
- The existence of price fluctuation
- The incidence of insurance costs
- Seasonal consideration
- Restrictions imposed by local state or national authority in regard to materials in which there are inherent risks.

Economic Order Quantity

According to Piasecki [28] the optimal quality or economic lot size for a particular item of inventory is to be determined in consideration of the forecasted usage, ordering cost and carrying cost.At minimum cost inventory-carrying cost equals ordering cost. Certain assumptions made in deriving the EOQ

- Demand for the item is assumed to be uniform throughout the year.
- The entire order quality is received in a single lo: (at the same item)
- Bulk quality discounts are not available

The model to drive EOQ is $Q = 2AC = \frac{2COD}{Cc}$

Where:
A =Annual consumption / requirement of inventory in Naira
O =Ordering cost per order in Naira
C =Inventory carrying cost
Q = quantity per order in Naira
D = Annual demand

Graphically, the EOQ can be represent in the Figure 1.

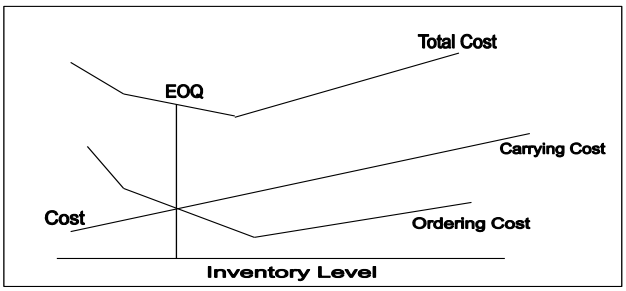

Figure 1: Presentation of EOQ graphically
Source: Lucey T. 1992. Quantitative Techniques. 4 th Edition.

ABC Analysis Technique

For a firm that deals with thousand of inventory items, it is obviously difficult to devote equal attention in terms of personnel and financial resources to each of the inventory items, hence, the need for selective control. The common technique to be used in measure the significance each item of inventories in items of its values. ABC analysis demands knowledge of each of items of its value, price, usage and lead-time, as well as problems which can be encountered during procurement.

Under ABC analytical technique the inventories are classified into "A" items and "C" items the high value items are classified as "A" item and would be under the highest control and attract maximum attention "C" items represent relatively least value and would be under simple control, as it would attract the least attention "B" items fall in between these two categories and require reasonable attention management. Since ABC analysis concentrates on important items, [29] branded it control by importance and exception.

According to Pandey [10], the following steps are involved in implementing the ABC analysis.

- Classify the item of inventories determining the expected use in units and the price per unit for each item.
- Determining the total value of each item by multiplying the expected units by its unit price,
- Rank the items in accordance with the total value giving first rank to the item with highest total value and so on.
- Compute the ratios (percentage) of number of units of each item to total units of all items and the ratio of total units of all items and the ratio of total value of each item to total value of all items.
- Combines items on the basis of their relative value to form three categories A,B and C

Just in Time Techniques

JIT is the Japanese system of inventory control which is based on the premise that inventory is the most of all evil and should be kept at an absolute minimum level. The goal of JIT techniques is zero inventories with 100 percent quality. It does not mean that the firm shifts inventory tasks to the supplier, rather is calls for synchronization between supplier and customer production schedules so that it becomes unnecessary to keep buffer stock. One of the importances of JIT is that it helps to ensure strict quality control, frequent and reliable delivery. It also encourage easily supplies involvement in the production process of the buying organization should maintains table production schedule.

The Effect of Inventory Management on Organizational Performance

Inventory committed to support future sales drives a number of anticipatory supply chain activities. Without a proper inventory, assortment less sales and customer dissatisfaction may occur. [30]. Inventory encourages prudential productivity, the series of value activities concerned with the planning and controlling of raw materials, components, and finished products form supplier to the final consumer [31]. Inventory has the ability to affectively increase or decrease aggregate production in response to customers demand [32]. Inventory helps to determining or ascertains inflow, outflow and re-ordering level that

enhance continuous production in the period of scarce resources. Real time data updates to merchandising systems. Direct inventory updates to of-sale systems, receive, track and transfer merchandise, accurately, efficiently, and easily, Create orders for merchandise with no existing purchase order. Create and ship transfers from the store. Access key inventory information, including available on hand stock and quantities in transit for any store in the company. Create unit and financial inventory adjustment. Perform stock counts-24hours a day, 7days a week. Create Return to Vendor (RTV) for sellable and unsellable merchandise. UIN (Unique Identification Number) Setup and Managements Role based security.

Methodology

The study areas were medium scale foods and drinks companies in Lagos state. There were fifteen medium scale food companies registered with Lagos Chamber of Commerce and Industry as at 2012. Out of this existing food companies only seven were purposively selected based on geographical spread across Lagos state as such that one out of food companies in a particular area was selected for the purpose of the study. Crown Drinks ltd, Classic beverages ltd, Formossa Bottling Coy ltd, Fumman Bottling ltd, Chi ltd and Sunny Foods and Beverages ltd**.** Samples for the study were drawn from the seven selected food companies in Lagos State. Samples were drawn from staff members comprising of purchasing officers, store keepers, site foreman, site workers, accountants, technical managers, administration managers and the general managers of the selected food companies. Fifteen staffs, each working in the production related and stock planning units were selected purposively for the purpose of the study. Seven food companies were selected in Lagos State as the sample frame. 15 staffs were picked from eight departments of each of the seven sampled companies, making total of 120 respondents. However only 115 questionnaires administered and retired were found useful for the purpose of the study. These 115 questionnaires were therefore used for the data analysis to achieve the objective of this study. Quantitative data were collected by the use of questionnaire. Self-administered questionnaires were designed using Likert scale, and they were distributed to staff members of the food companies selected for the study. Descriptive statistics like frequency table, percentage analysis and regression technique, correlation and F test analyses were used to analyze the data obtained for this study. Chi-square, mean score and pie chart were used to achieve objective: perceptions about the effectiveness of identified inventory management practices (IVM) practices. Chi-square, mean score and pie chart were used to achieve objective: perceptions about the effectiveness of identified IVM practices.

Results and Discussion

Experience of Inventory Adoption Problems by Medium Scale Food Companies

Table 1 showed that the sampled Medium Scale Food Companies had not experienced problem in adoption of inventory management practices; from the responses of the respondents 95.65% agreed, 3.48% could not decide while 0.87% disagreed. Inventory management practices attracted no extra cost in medium scale food industry as could be seen from majority response 82.61% disagreed statement that inventory management practices were with cost. It showed that inventory management practices attracted less cost. 89.56% disagreed as to cost of inventory management practices was very high in medium scale food industry, 8.7% agreed and 1.74% could not decide. This means, cost of maintaining good inventory management practice was very low compared to gains. The price fluctuation was a major threat to inventory management practices in the medium scale food industry as could be seen from 84.34% respondents disagreed as to price fluctuation was not a threat to effective inventory management in medium scale food industry, 13.05% agreed, 2.61% could not decide.

Table 1: Distribution of responses on perception of inventory management problems on medium scale food industry

Questions	SA	A	N	D	SD	Total
Medium scale food industry had not experienced any problem of adoption inventory management practices	48 (41.74)	62 (53.91)	4 (3.48)	1 (0.87)	0 (0)	115 100
Inventory management practices were without any cost	5 (4.35)	10 (8.69)	5 (4.35)	75 (65.22)	20 (17.39)	115 (100)
Cost of inventory management practices was very high in medium scale food industry.	3 (2.61)	7 (6.09)	2 (1.74)	80 (69.56)	23 (20.00)	115 (100)
Price fluctuation was not a threat to effective inventory in medium scale food industry.	6 (5.22)	9 (7.83)	3 (2.61)	82 (71.30)	15 (13.04)	115 (100)

Note: the bracket figure indicates the percentage and figure not bracket indicates the frequency.
Source: Computations and Output of STATA 10 based on Authors' Field Survey (2014)

Perception of Inventory Management Influence on the Performance of Medium Scale Food Industry

The Table 2 revealed that 79.56% disagreed that profit of a good company would not be influenced by inventory management practices, 12.18%. agreed, while 8.69% could not decide. This question was agreed in the negative way to check the understanding of the respondents and was answered appropriately. It can be concluded that good inventory management practices will increase the performance of medium scale food industry. Response also showed that 98.26% agreed that their company had enjoyed the gains of good inventory management practices while 1.74% could not decide distribution on additional cost on maintaining good inventory, showed that 95.65% disagreed that there is no additional cost of maintaining good inventory management practices. The majority view was upheld that there was a cost attached to inventory management practices. Distribution by improved customers' patronage due to regular goods supplied, 95.65% agreed that their company had enjoyed improved customers patronage due to regular goods supplied, 2.61% were indifferent (neutral) while 1.74% disagreed.

Table 2: Distribution of responses on perception of inventory management influence on the performance of medium scale 0food industry

Questions	SA	A	N	D	SD	Total
Profit of a good medium scale food industry will not be influenced by inventory management practices adoption.	5 (4.35)	9 (7.83)	10 (8.69)	80 (69.56)	11 (9.57)	115 (100)
Medium scale food industry had enjoyed the gains of good inventory management practices	53 (46.09)	60 (52.17)	2 (1.74)	0 (0)	0 (0)	115 (100)
No additional cost of maintaining good inventory management practices	0 (0)	0 (0)	5 (4.35)	86 (74.78)	24 (20.87)	115 (100)
Medium scale food industry had enjoyed improved customers patronage due to regular goods supplied.	34 (29.56)	76 (66.09)	3 (2.61)	2 (1.74)	0 (0)	115 (100)

Note: the bracket figure indicates the percentage and figure not bracket indicates the frequency.
Source: Computations and Output of STATA 10 based on Authors' Field Survey (2013).

Perceived benefit of Good Inventory Management in the Medium Scale Food Industry

Table 3 below displayed distribution of responses on perceived benefit of good inventory management, 99.13% agreed that good inventory management practices would reduce wastage of materials while 0.87% disagreed. This means that a good inventory management practices reduced wastage. Proper storage of goods is part of inventory management practices from the majority response of 93.91% agreed to the statement while 1.74% could not decide and 4.35% disagreed. Therefore proper storage procedure that held to keep stock in good condition for use reduced wastage of materials. From the table cost control will result from a good inventory management practices as explained by 95.65% agreed, while 1.74% disagreed and 2.61% could not decided. This depicts that inventory management practices would bring about efficiency in stock control. The table attested to 99.13% agreed that cost reduction from inventory management practices will increase profit performance while 0.89% cannot decided. This means that inventory management practices would lead to cost reduction that is expected to increase profit,

all things being equal. Distribution by cost savings explained 94.78% agreed that cost saving is a gain and increase profitability of adoption of inventory management practices while 3.48% cannot decided and 1.74% disagreed. Thus, from the majority response, company that adopts inventory management practices would have cost savings that would increase profit.

Table 3: Distribution of responses on perceived benefit of good inventory management in the medium scale food industry

Questions	SA	A	N	D	SD	Total
Good inventory management practices will reduce wastage of materials	54 (46.96)	60 (52.17)	0 (0)	1 (0.87)	0 (0)	115 (100)
Proper storage is part of management practices	44 (38.26)	64 (53.65)	2 (1.74)	5 (4.35)	0 (0)	115 (100)
Cost control will result from a good inventory management practices	47 (40.87)	63 (54.78)	3 (2.61)	2 (1.74)	0 (0)	115 (100)
Cost reduction from inventory management practice will increase profit performance	48 (41.74)	66 (57.39)	1 (0.87)	0 (0)	0 (0)	115 (100)
Cost saving is a gain and increases profitability of company adopts inventory management practices	46 (40.00)	63 (54.78)	4 (3.48)	2 (1.74)	0 (0)	115 (100)

Note: the bracket figure indicates the percentage and figure not bracket indicates the frequency.
Source: Computations and Output of STATA 10 based on Authors' Field Survey (2013).

Factors Influencing Inventory Management Practices

The response from table showed that business size had the highest percentage of 36.52%, followed by nature of products 17.39%, production process 15.65%, technology development 10.43%, stock turn-over 9.57%, labour force 6.09% and lastly size of stock holding 4.35%.. From the majority response, business size was the highest of all factors influencing adoption of inventory management practices, followed by the nature of the products, production process, technology development, stock turnover, labour force and size of stock holding.

Table 4: Distribution response on the factors influencing adoption of inventory management

Responses	Business sizes	Nature of product	Production process	Labour Force	Technology development	Size of stock holding	Stock turn-over	Total
Factors influencing adoption of inventory management	42 36.52%	20 17.39%	18 15.65%	7 6.09%	12 10.43%	5 4.35%	11 9.57%	115 100%

Source: Computations and Output of STATA 10 based on Authors' Field Survey (2014).

Test of Hypotheses

Table 5 below displayed the Chi-square test that was executed on the response of the participant medium scale industrialists regarding their perceptions of the impact of inventory management practices adopted on performance (at 0.05 level of significance). The calculated Chi-square statistics were greater than the observed value of 36.415. Thus, the null hypothesis that there were no significant difference in the perceptions of the impact of inventory management practices adopted by the medium scale food industry and performance was rejected (at 0.05 level of significance) [33-38].

Table 5 Analyze the perceptions about the effectiveness of identified inventory management practices in the medium scale food industry

S/N	Relationship	Pearson chi-square	Pr (value)	Remark
1	Q4 VS Q5	214.,2665	0.000	Significant
2	Q4 VS Q6	170.0290	0.000	Significant
3	Q4 VS Q13	117.6724	0.000	Significant
4	Q4 VS Q14	113.6016	0.000	Significant
5	Q4 VS Q 15	116.0128	0.000	Significant
6	Q4 VS Q16	206.9912	0.000	Significant

7	Q5 VS Q6	239.3778	0.000	Significant
8	Q5 VS Q13	89.9427	0.000	Significant
9	Q5 VS Q14	142.7381	0.000	Significant
10	Q5 VS Q15	131.2275	0.000	Significant
11	Q5 VS Q16	206.4868	0.000	Significant
12	Q6 VS Q13	88.6333	0.000	Significant
13	Q6 VS Q14	216.3369	0.000	Significant
14	Q6 VS Q15	114.2871	0.000	Significant
15	Q6 VS Q16	174.6122	0.000	Significant
16	Q13 VS Q14	54.7362	0.000	Significant
17	Q13 VS Q15	138.2254	0.000	Significant
18	Q13 VS Q16	92.8074	0.000	Significant
19	Q14 VS Q15	74.7035	0.000	Significant
20	Q14 VS Q16	99.0046	0.000	Significant
21	Q15 VS Q16	127.9765	0.000	Significant

Source: Computation and output of SATA 10 based on author's field survey (2013)

Conclusion

The evidence provided in this study based on the empirical findings, showed that inventory management has positive effect on profitability of food industry. There existed significant difference in the perceptions of the impact of inventory management practices adopted by the medium scale food industry and performance of the sampled medium scale food companies. Further, business size was the highest of all factors influencing adoption of inventory management practices, followed by the nature of the products, production process, technology development, stock turnover, labour force and size of stock holding.

Recommendation

In the light of the above the following suggestions and recommendations could assist Small and medium scale industries enhance their contributions to economic growth of Nigeria:

- Medium scale industrialists should establish a plan to train and develop their workers on inventory models
- Management of medium scale enterprises should design strategy to adopt modern inventory management techniques for improved inventory decisions.

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