The Impact of Effective Inventory Control Management on Organisational Performance: A Study of 7up Bottling Company Nile Mile Enugu, Nigeria

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Doi:10.5901/mjss.2014.v5n10p109

Abstract

This study took into consideration the relationship between effective system of inventory management and organization performance in the seven-up bottling company, Nile Mile Enugu. The researchers were motivated to embark on this study, in order to bring to fore the importance of effective inventory control system on organizational performance as it relates to the bottling company. A total of eighty-three respondent constitute the sample for the study. Four research questions and Four hypotheses were generated and tested at 10% (that is 0.10) significant level using descriptive statistics and non-parametric test (chi-square that is, χ^2). The result of the analysis showed that flexibility in inventory control management is an important approach to achieving organizational performance. It was found that organizations benefits from inventory control management by way of easy storage and retrieval of material, improved sales effectiveness and reduced operational cost. The study also found that there is a relationship between operational feasibility, utility of inventory control management in the customer related issues of the organization and cost effectiveness technique are implemented to enhance the return on investment in the organization. Effective inventory control management is recognized as one of the areas management of any organization should acquire capability. It is recommended that organizations should adopt the inventory keeping method that best suit their operations.

Keywords: *Inventory control, management, organization performance*

1. Introduction

Historically, inventory management has been referred to as excess inventory and inadequate management or shortage of inventory and adequate management practice. Several penalties could be apportioned to excesses in either direction. Inventory problem has escalated as progress in technology increases the ability of organizations to produce goods faster in multiple design variation and greater quality (Letinkaya and Lee, 2000).Since the mid-1980's inventory management, production planning and scheduling has become the obvious strategic benefit (Larrson et al.,1995).

In recent years, many of the firms have raised the bar yet again by coordinating with other firms in their supply chains. For instance, instead of responding to unknown and variable demand, they share information so that the variability of the demand they observe is significantly lower (Jainand Render, 2006).

Colling (1990) argue that in the United States of America and other Western countries, improvement in productivity was achieved through reducing the direct manufacturing labour expenses cost per unit of output. This strategy was justifiable because of the high labour content in many manufactured products. However, the ratio of unit cost due to labour has constantly decreased in recent years. Even large manufacturing firms, such as the United States (US) auto assemblers, purchase up to 60 percent of the value of the product. This implies that management of raw materials inventories is an area that shows great promise for productivity improvement.

Japanese firms earned more deserved attention in the mid-to late 1980s due to there notable performance on quality and inventory management. The constant alert of the bar code being scanned at a check out lane shows a pillar of modern system of inventory management stock tracking. In the earliest days of shop keeping, merchants write down

procurement or they looked at how many units where gone at the day's end and then did their best to forecast future needs. The key skills where experience and intuition, but it remain an imperfect method, even when applied to operations that where quite small by today's standards (Miller,2010).

After the industrial turn around, the main goals of businesses are efficiency and mass production, along with an improved customers experience at the point of sale. The first modern check-out system was designed by a team at Harvard University in the early 1930s. punch cards that corresponded with catalog items were in use. The punch card would be read by a computer and pass the information to the stock room which would bring the item up front to the waiting customers. Owning to the automated system, the machines could also generate billing records and manage inventory. The system is too expensive to use, but a version of it is in use today in some stores where cards are placed with product information by merchants on the aisle for customers to select and bring to the check-out line. This usually applies to items that are expensive or large and also controlled items such as medicines. Researchers created the forerunner of the modern bar coding system in the late 1940s and early 1950s because they knew merchants needed a better system. Ultraviolet light-sensitive ink and reader are used to mark items for sale. The system lacked the computing power needed to make it work and it was too cumbersome. Technology had yet to catch up with their ideas (ibid).

The development of affordable laser technology in the 1960s revived the concept. Lasers allowed smaller, faster and cheaper readers or scanners. The universal product code (UPC) or modern bar code was developed and introduced just before the 1970s. As computing power became better, the power of universal product code codes to help track and manage inventory, improved exponentially. Retailers began implementing modern inventory management system, possibly made in large part by advances in computer and software technology during the mid to late 1990s. The system works in a circular process, from purchase tracking to inventory monitoring to re-ordering and back around again. Another promising technology for tracking inventory has also made its way into stores, warehouses and factories in recent years. Product information such as type, manufacturer and serial no are transmitted by Radio Frequency Identification(RFID) using microchip to a scanner or other data collection device, which is superior to bar codes in several ways (Agha, 2010). For instance, from several yards away a scanner reads the information from radio frequency identification, making it suitable for tracking items stacked on high shelves in warehouses. It also provide excellent anti-theft characteristics and also encode more data than a bar code, in some systems inform the merchants if an item is out of place in the store (Arnold, 2000).

In Nigeria, the size of industry, small, medium, and large scale, has a significant effect on both the numerical strength of staff and level of involvement in inventory management of both raw material and the finished product. The type of inventory system in practice in any organization depends on many factors among which are economic stability of the place, infrastructural facilities available, transportation network and many more which are called constraints.

For many companies the root cause of underproduction stoppages and high production cost could be easily traced to unscientific method of arriving at a general inventory policies and crucial inventory decisions. The situation is more acute in a developing country like Nigeria, where the practical application of operation research techniques in industry and business enterprise is in its infancy. Moreover, the bulk of raw material inventory and the finish goods inventory used by companies in developing countries have to be imported from the industrial nations of Europe, America and Asia, which gave rise to higher cost of procurement and higher uncertainty in the availability of such basic raw materials. Ogbo (2011), opined that inventories are the goods or materials that are waiting to be used or dispatched for sale. A day-to-day practice in all fields of human endeavour, households, manufacturing firms, servicing firms, etc is inventory control.

Inventory control is the supply of goods and services at the right time with the right quality and quantity. It is a reliable means in which businesses are been managed to ensure customers are satisfied and organization remains in operations via minimization of losses. Inventory management has been a problem to many business organizations in Nigeria. Inventories provide a significant link between production and sales of product, and constitute a large percentage of the cost of production. It is one of the most expensive and important assets of many manufacturing companies representing a considerable percentage of the total invested capital. At any level of a firm, inventory is among the largest investment made and therefore logically deserves to be treated as a major policy variable, highly responsive to the plans and style of top management. However, to date in most organization, both analysts and managers have been relatively unsuccessful in convincing top management to give this area the due consideration that it logically deserves (Ogbo,2011).

Inventories are basically stocks of resources held for the purpose of future production and/or sales. Inventories may be viewed as an idle resource which has an economic value. Better management of inventories would release capital for use elsewhere productively, (Ghosh and kumar, 2003). Hence Inventory control implies the coordination of materials accessibility, controlling, utilization and procuring of material. The direction of activity with the purpose of getting the right inventory in the right place at the right time and in the right quantity is inventory control and it is directly linked to

production function of any organization. This implies that profitability of any organization directly and indirectly is affected by the inventory management system operated (Miller, 2010). Inventory of goods has many reasons why organization should maintain it.

It is economically unsound and physical impossible to have goods arrive in a system exactly when demands for them occur. Without stock at hand customers would have to wait for long period before their orders are fulfilled. Inventory management is the control of materials used and stored in a company with the objective of providing exactly what is required where and when it is required employing a minimum of residual stock and thus incurring the least possible cost (Agha,2010).

Hollander (2000) reveal 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 at hand. It could be referred to an enterprise idle resource. Those item which are either stocked for sale or are in the manufacturing process or are in the form of materials which are yet to be utilized represents inventories.

As stated earlier, a day-to-day practice in all field of human endeavour, households, manufacturing firms, servicing firms ect, is inventory control. Inventory control is the ability to supply goods and services at the right time with the right quality and quantity. It is a reliable means in which businesses are been managed to ensure customers are satisfied and organizations remain in operation via minimization of losses. A reliable inventory system implies higher confidence of customers and their attendant continuous patronage.

Production input like raw materials, human, financial equipment are included in the industry inventory. Other forms of inventory are partially finished goods (work in progress) and spare parts. Inventory is kept to meet reliability of operations, flexibility in production scheduling, change in raw material, delivery time an change in economic purchase order size (Inyama, 2006).

An inventory system provides the operating policies and organizational structure for maintaining and controlling goods to be stocked. A proficient management of inventory system requires an appropriate way of making decisions about how much to order and when to order and a means of keeping track of items in inventory. Decision on inventory in any organization depends on facts about on-hand stock level, demand information with regards to the forecasted quantity (with consideration of the forecasted errors), lead time and lead time variation, inventory holding costs, ordering cost and shortage cost. This information help the manager in charge of controlling inventory to meet the competitive advantage desired by the organization (Jossop 1986).

It is against this background that the researchers seeks to critically assess the impact of inventory control management on organizational performance with reference to Nigeria bottling company, Nile Mile Enugu.

2. AIMS of the Study

This research work seeks to achieve the following:

- To investigate how flexible inventory service will keep 7up bottling company from keeping too much and too little stock.
- To ascertain the extent at which inventory control management has made storage and retrieval of material easier.
- To explore and understand the extent to which inventory control management has reduce operational cost.
- To ascertain the relationship between operational feasibility, utility of inventory control management in the customer related issues of the organization.
- To ascertain the extent at which cost effectiveness technique are implemented to enhance the return on investment in the organization.

3. Literature Review

3.1 Inventory Management Concept Defined

Installation of a proper inventory control system in any organization in developing countries like Nigeria is of paramount necessity. Inventory management is defined as a science based art of ensuring that just enough inventory stock is held by an organization to meet demand (Coleman , 2000; Jay & Barry, 2006).). Inventory is the availability of any stock or resources used in an organization. An inventory system is the set of policies that controls and monitor inventory level and determine what level should be maintained, how large orders should be made and when stock should be replenished.

Inventory control is the supervision of the storage, supply and accessibility of items to ensure an adequate supply without excessive oversupply (Miller, 2010).

Inventory control means availability of materials whenever and wherever required by stocking adequate number and kind of stocks. The sum total of those related activities essential for the procurement, storage, sales, disposal or use of material can be referred to as inventory management. Inventory managers have to stock-up when required and utilize available storage space resourcefully, so that available storage space is not exceeded. Maintaining accountability of inventory assets is there responsibility. They have to meet the set budget and decide upon what to order, how to order and when to order so that stock is available on time and at the optimum cost (Benedict and Margeridis,1999). Hence, Inventory management involves planning organizing and controlling the flow of materials from their initial purchase unit through internal operations to the service point through distribution (Smaros, et al., 2003).

Inventory constitute one of the largest and most tangible investment of any retailer or manufacturing organization. Intelligent inventory management strategies can not only help boost profit but they can mean the difference between a business thriving or barely surviving. Holding inventories at the lowest possible cost and giving the objectives to ensure uninterrupted supplies for on-going operations is the aim of inventory management. When making decisions on inventory, management has to find a compromise between the different cost component, such as the cost of supplying inventory, inventory holding cost and cost resulting from sufficient inventories (Peterson and Silver, 1998; Zipkin, 2000). According to Miller (2010), inventory control is the activity which organizes the availability of item to the customers. It coordinates the purchasing, manufacturing and distribution functions to meet the marketing needs.

This role include the supply of current sales items, new product, consumables, spare parts, obsolescent items and all other supplies. Inventory enables a company to support the customer's services, logistics or manufacturing activities in situation where purchasing or manufacturing of the items is not able to satisfy the demand. Inventory plays an un-negligible row in the growth and survival of an organization in the sense that failure to an effective and efficient management of inventory, will mean that the organization will lose customers and sales will decline. In other to attain its organizational objectives, a business is to meet customer's needs. Customer desire has always been a vital issue in a company not only to maintain sales but also to increase it (Tersine, 1994; Potilen & Goldsby, 2003). Kotler (2002), posits that inventory management refers to all the activities involved in developing and managing the inventory levels of raw materials, semi-finished materials (working-progress) and finished good so that adequate supplies are available and the costs of over or under stocks are low.

Inventory management is primarily about specifying the size and placement of stocked goods. Inventory management 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. The scope of inventory management also concerns the fine lines between replenishment lead time, carrying costs of inventory, asset management, inventory forecasting, inventory valuation, inventory visibility, future inventory price forecasting, physical inventory, available physical space for inventory, quality management, replenishment, returns and defective goods and demand forecasting. Balancing these competing requirements leads to optimal inventory levels, which is an on-going process as the business needs shift and react to the wider environment (Ghosh and Kumar, 2003).

Rosenblatt (1977) says: "The cost of maintaining inventory is included in the final price paid by the customer. Good in inventory represent a cost to their owner; the manufacturer has the expense of materials and labour. The wholesaler also has funds tied up." Therefore, the basic goal of the manufacturers is to maintain a level of inventory that will provide optimum stock at lowest cost. Morris (1995) stressed that inventory management in its broadest perspective is to keep 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 human and material resources. Ogbo (2011) posits that the major objective of inventory management and control is to inform managers how much of a good to re-order, when to reorder the good, how frequently orders should be placed and what the appropriate safety stock is, for minimizing stock-outs. Thus, the overall goal on inventory is to have what is needed, and to minimize the number of times one is out of stock.

Ghosh & Kumar (2003) defined inventory as a stock of goods that is maintained by a business in anticipation of some future demand. This definition was also supported by Brag (2005) who stressed that inventory management has an impact on all business functions, particularly operations, marketing, accounting, and finance. He established that there are three motives for holding inventories, which are transaction, precautionary and speculative motives. The transaction motive occurs when there is a need to hold stock to meet production and sales requirements. A firm might also decide to hold additional amount of stock to cover the possibility that it may have under estimated its future production and sales requirements. This represents a precautionary motive, which applies only when future demand is uncertain. The speculative motive for holding inventory might entice a firm to purchase a larger quantity of materials than normal in anticipation of making abnormal profits. Advance purchase of raw materials in inflationary times is one form of speculative

behaviour.

3.2 The Reasons for Stocking Inventory

A firm would hold more inventory than is currently necessary to ensure the firms operations. Reasons for maintaining inventories:

3.3 Demand

A retailer stays in business when he has the product the customer wants on hand when the customer wants them. If not, the retailer will have to back order the product. If the customer can get the goods from some other source, he or she many chose to do so rather than wait than wait in order to allow the original customer to meet demand later (through back-order). Hence, in some instances a sale is lost forever if goods are not in stock.

3.4 Running Operations

In order to manufacture a product a manufacturer must have certain purchased items (raw materials component or sub-assemblies). Completing the production of a finished goods can be prevented when a manufacturer is running out of only one item. Inventory between successive dependant operations also serves to decouple the dependency of the operations. A work-centre often depends upon the previous operation to provide it with parts to work on. If work stops at a work-centre, all subsequent centre's will shut down for lack of work. Each machine can maintain its operation for a limited time, hopefully until operations resume at the original centre if a supply of work-in-progress inventory is kept between each work-centre (kuku, 2004).

3.5 Lead Time

Lead time is the time that elapses between when order is placed (either a production order issued to the factory floor or a purchase order) and actual time goods ordered are received. If an external firm or an internal department or plant (supplier) cannot supply the required goods on demand, then the client firm must keep an inventory of needed goods. The larger the quantity of goods the firm must carry in inventory depends on the longer the lead time.

3.6 Hedge

Inventory can also be used as a hedge against price increases and inflation. Before a price increase goes into effect, salesmen routinely call purchasing agents. This gives the buyer a chance to purchase material in excess of current need at a price that is lower than it would be if the buyer waited until after the price increase occur (kuku,2004)

3.7 Quantity Discount

Purchase of large quantities of goods often times attracts a price discount to the firms. This also frequently results in inventory in excess of what is currently needed to meet demand. However, the decision to buy in large quantities is justifiable if the discount is sufficient to offset the extra holding cost incurred as a result of the excess inventory.

3.8 Flexibility Of Inventory Service

Flexibility of inventory service provides an organization with the ability to keep inventory services to an agreed service level in a predictable fashion with acceptable risk and cost. This capability can be tested and valued by customers. Managing inventory to ensure high customer service level is critical in the supply chain. However, to maintain asset is very costly. Reflecting the level of availability of inventory to the customers are in three categories namely, raw material inventory, work-in-progress inventory and finished goods inventory (Lieberman et al 2002)

Excess in each side is wasteful, although there may be reasons for it, such as prevention of stock-outs, production runs, seasonality or improvement of customer's satisfaction levels (Lieberman et al, 1999). However, it is critical keeping the right amount of the three types of inventories to meet customer needs. In addition, inventory service flexibility can also be as pursuing high inventory utilization while reducing waste, because an important indication of management efficiency

and effectiveness is inventory utilization (Caplice and Sheffi, 1994).

In the business market, inventory management is the structuring of internal and external organizational groups and how resources are leveraged based on environmental demands. Furthermore, the relations between firms performance, capability and competence have seldom been studied simultaneously; the resource-based view of the firm contends that firm performance is a function of resource mix.

When resources and capability are heterogeneous, special, and difficult to replicate; when organizational offerings create more value or capability for customers, then competitive advantage is achieved. Thus, differences in performance across firms result from variances in service capability, which is further, decided by the resource or competence portfolios.

3.9 Flexibility

The survival of an organization in the long run is critically the ability of the organization to adapt to change (Upton,1994). In the short run, the competitive position of the firm is affected by the management flexibility and may impact on its overall profitability. Flexibility in supply chain management may well represent a potential source to improve a company's efficiency and may be a significant measurement of supply chain performance (Vikery et al, 1999). Especially through inter-firm inventory management flexibilities, organizations can reduce reliance on forecasting when and where inventory will need to be located to meet customer demand and instead allow suppliers to respond to demand on a just-in-time basis. Meanwhile, intra-firm inventory management flexibilities can be directly linked to overall firm performance for its control and coordination inventory allocation and delivery to multiple destinations at the warehouse level. The organizations within the supply chain should see improvements in performance as a result of both intra- and inter-inventory managerial flexibility.

Stock and Lambert (2001) proposed that one of the common delivery service variables is inventory service level. As a kind of service flexibility, the competence of a firm inventory management directly reflects inventory service level. On the one hand, intra-firm inventory management flexibilities enable a firm to have good control on stock and keep a high level of availability to customer demands, thus, by leveraging the service-cost trade off relationship, the organization can keep a reasonable level of raw material inventory, work-in-process inventory, and finished goods inventory and reduce inventory waste simultaneously.

On the other hand, inter-firm inventory management flexibilities allow a firm to manage stock between supply chain participants. These flexibilities seek a reasonable inventory service chain level based on a high level of coordination, participation, and close communication. Through these joint efforts, organizations along the supply chain can prevent running out of stock or overstocking.

Zhang et al, (2005) have argued that causal relationship exists between inventory management flexibility and performance. They suggested that good inventory management flexibility allows firms to leverage their managerial experience and intra- and inter- inventory management competences, and finally generate high levels of inventory service flexibility. That is because flexible competency, which is an internal management focus, provides the processes and infrastructure that enable a firm to achieve the desired levels of capability.

The outcome of an efficient inventory service is "developing service capabilities as these investments will provide firms with access to different market segments, hence, yield economic returns. So, the higher the level of inventory flexibility, the higher the performance of firms. Therefore, the simultaneous development of inventory management flexibility and service flexibility will reinforce a firm's ability to improve performance. This implies that inventory management flexibility is expected to positively influence performance via its positive impact on service flexibility (inventory service flexibility as a mediating variable).

4. Vendor Managed Inventory

Vendor Managed Inventory is a supply chain strategy whereby the vendor or supplier is given the responsibility of managing the customer's stock (Smaros et al., 2003). The vendor is given access to its customer's inventory and demand information for reasons of monitoring the customer's inventory level. Furthermore, the vendor has the authority and the responsibility to replenish the customer's stock according to jointly agreed inventory control principles and objectives (Smaros et al., 2003). Vendors generate purchase orders on an as-needed basis according to an established inventory level plan and shared forecast data, consumption data and historical sales data. Once the purchase order is made, an advance shipping notice informs the buyer of materials in- transit. The merchandize is then shipped, delivered and "logged", according to the shipment strategy. Even though Vendors Managed Inventory (VMI) at the retailer's shelves,

today the concept is usually applied to replenishment of inventories at retailer's distribution center (Pohlen and Goldsby 2003). "Inventory at the customer site may be owned by the supplier and bought by the customer only when used or owned by the customer and simply monitored by the supplier for replacement.

In the conventional business model, suppliers will bill their customers once shipment is made, depending on the agreed payment terms. However, in some VMI, payment will only be made based on what the manufacturers have pulled from the hub (Kuk, 2004). Inventory management aims to buffer organization from uncertainties in forecasting, consumer demand and vendor deliveries (Benedict and Margeridis, 1999). Vendor Managed inventory can help dampen the peaks and valleys, allowing smaller buffers of capacity and inventory. Furthermore, vendor managed inventory can be used to resolve the dilemma of conflicting performance measures for example end-of-month inventory level versus out- of-stock measure (Wailer et al, 1999).

When describing VMI some researchers make it synonymous with other concepts. Wailer et al, (1999), poist that Vendor Managed Inventory is one of the most widely discussed partnering initiatives for improving multi-firm supply chain efficiency and that it is also known as continuous replenishment or supplier-managed inventory (SMI). But in Pohien and Goldsby (2003) views, this is wrong. They claim that VMI involves the coordination of management of finished goods inventories outbound from a manufacturer, distributor or reseller to a retailer while SMI involves the flow of raw materials and component parts inbound to a manufacturing process.

As technology advances so does the integrated relationships. The sharing of point-of-sale data (POS) have facilitated consignment selling agreements where the product is not sold to the customer until an end user purchases the goods (Pohien and Goldsby, 2003). Vendor managed inventory moves supply chain management to the next level by aligning functional performance with process across multiple companies; requiring a shift of functions to the lowest cost firm as well as performing cost trade-off across company boundaries (Pohien and Goidsby, 2003).

4.1 The Suitability Of Vendor Managed Inventory

Letinkaya and Lee (2000) believe that VMI is an important coordination initiative. It can be used as one of the initial steps in a supply chain streamlining exercise or as a stand-alone process between trading partners. Vendor managed inventory relationship can be harder to enter into with manufacturers that have a lot of customers. Srnaros et al. (2003) shed some light on the problem in their investigation of the vendors. They claim that one major challenge for manufacturing companies is that usually only part of their customer base is involved in vendor managed inventory. This means that the vendors need to set up their customers in a way that both VMI and non-vendor managed inventory customers simultaneously can be efficiently served; this is both hard and costly.

4.2 Inventory Model: The Economic Order Quantity(EOQ) Model

Undoubtedly, the best-known and most fundamental inventory decision model is Economic Order Quantity Model. Its origin dated back to the early 1900s. The EOQ has been previously defined by Dervitsiotis (1981), Tersine (1994), Coleman (2002) and Ogbo (2011) as the ordering quantities which minimizes the balance of cost between inventory holding costs and re-order costs.

Ogbo (2011) stressed further that to be able to calculate a basic EOQ, certain assumptions are necessary:

- That there is a known, constant, stock holding costs;
- That there is a known, constant ordering costs;
- That the rate of demand are known
- That there is a known constant price per unit
- That replenishment is made instantaneously, that is, the whole batch is delivered at once.
- No stock-outs are allowed

It would be apparent that the above assumptions are somewhat sweeping and that they are a good reason for treating an EOQ calculation with caution. Also, the rationale of EOQ ignores buffer stocks, which are maintained to cater for variations in lead-time and demand. The above assumptions are wide ranging and it is unlikely that all could be observed in practice.

5. Research Design And Methodology

This study, in view of the nature and purpose of this research employed the Survey Research Method. Survey research

design describes the process of collecting data from members of a population in other to determine their current status in that population with respect to one or more variables. The sample design and procedure was based on simple random sampling.

6. Techniques for Data Analysis

These statistics allow for presentation of quantitative descriptions in a manageable way. These also aided the reduction and simplification of data, to form a sensible summary. Frequencies were used to give an indication of how many times a particular response occurred. And this assisted in fitting responses into particular categories. Apart from being easy to interpret, percentages were also used to show comparisons between categories of responses.

7. Findings

This study examined the relationship between inventory control management system and organizational performance in 7up bottling company, Nile Mile Enugu.

Its major objectives are to investigate how flexible inventory services will keep 7up bottling company from keeping too much and too little stock. These objectives were guided by four research questions and four hypotheses. The researcher questions and hypothesis were linked to existing theories and views on inventory control management.

Data for examining the research hypothesis were obtained through questionnaires administered to sample of 83 staff respondents of the company under study. The data collected were adequately analyzed and presented in tabular forms, and accurate interpretation drawn from them. Both the descriptive and inferential statistical techniques were used in the analysis of the data and testing the hypothesis at 0.10 significant levels. The finding that emerged from the study showed a significant relationship between effective inventory control management system and organizational performance.

Table 1: Respondents perception on inventory control management has reduced operational cost

Response	f_o	f_e	$f_o - f_e$	$(f_o - f_e)^e$	$\left(\frac{f_o - f_e}{f_e}\right)^2$
Strongly agree	17	17.75	-0.75	0.56	**0.03**
Agree	38	17.75	20.25	410	**23.10**
Disagree	8	17.75	-9.75	95	**5.35**
Strongly disagree	8	17.75	-9.75	95	**5.35**
					$\chi^2 = 33.83$

Computed χ^2 = 33.83
Confidence level = 90%
Source: Field Survey, 2013.

Tabulated value of χ^2 under three degree of freedom and 90% confidence level is 6.25. According to the result obtained we found that inventory control management can reduce operational cost.

Table 2: Respondents perception on significant relationships between operation feasibility, utility of inventory control management in the customer related issues of the organization.

Response	f_o	f_e	$f_o - f_e$	$(f_o - f_e)^e$	$\left(\frac{f_o - f_e}{f_e}\right)^2$
Strongly agree	17	17.75	-0.75	0.56	0.032
Agree	50	17.75	32.25	1040	58.59
Disagree	4	17.75	-13.75	189	10.65
Strongly disagree	0	17.75	-17.75	315	17.75
					χ^2= 87.022

Computed χ^2 = 87.022
Confidence level = 90%
Source: Field Survey, 2013.

Tabulated value of χ^2 under three degree of freedom and 90% confidence level is 6.25. According to result of our finding operational feasibility, utility of inventory control has significant relationship in the customer related issues of the organization.

The result that emerged from the analysis of data gathered to answer research questions revealed some of the reasons why organization evolve inventory control management system. Some of these reasons include the need to smoothen operational requirements, the need to maintain accountability and transparency and the need to optimize resources. Meeting up operational requirement or keeping operations running have been identified as the major reason for keeping inventory control.

The study also found out that flexibility in inventory control management is an important approach to achieving organizational performance. Flexible inventory services are associated with minimizing stock holding cost, minimizing waste and encouraging high inventory utilization. This view is supported by Caplice and Shaffi (1994) who asserted that inventory utilization is an important indicator of management efficiency and effectiveness. Upton (1994) believed that adopting flexible inventory service by the management enhances the competitive position of the firm and may impact on its overall profitability. Zhang et al (2005) avers that casual relationship exist between inventory management flexibility and performance. Thus, the higher the level of inventory flexibility, the higher the performance of firms. By implication, inventory management flexibility is expected to positively influence performance via its positive impact on services flexibility.

In addition, it was found that organizations benefits from inventory control management by way of easy storage and retrieval of material, improved sales effectiveness and reduced operational cost. Basically, cost reduction is at the centre of any inventory control system.

One of the objectives of effective inventory control system is to make sure that the firm does not hold much stock than is necessary, thereby incurring holding cost. Therefore, the rationale behind optimum stock level is to make sure that cost is kept as low as possible. Improving sales effectiveness hinges on the ability of the firm to meet with the demand requirement of the customers. The study also revealed that there is a relationship between effective inventory control and organizational performance. Inventory control management as pointed out contributes in different ways to improving performance. By reduction in cost, increase in profitability, improvement in sales efficiency, achievement of optional resources wages, waste reduction, meeting operational requirement etc. inventory control is found to be impacting positively on firms performance.

8. Conclusion

Effective inventory control management is recognized as one of the areas management of any organization should acquire capability. The ability of any organization to evolve effective inventory control management system will depend on the extent to which it perceives the benefits it stands to gain from such program. In general the findings that emerged from this study have indicated that organizations stand to gain a lot from effective inventory control management system. Some of this benefit include optimal use of resources, cost reduction, improved profitability, improved sales effectiveness, reduction of waste, transparency and accountability, easy storage and retrieval of stock, high inventory utilization amongst others. However, in order to achieve all these, organizations have to maintain flexible inventory service. Thus, the study found that there is a significant relationship between effective inventory control management system and organizational performance.

9. Recommendations

Since organization cannot relegate the importance of evolving and maintaining effective inventory control system to the background, there is the need for them to adopt a proactive attitudes towards the issue. Being proactive requires maintenance of the right level of inventory at any point in time. Organizations should avoid the dangers that are inherent in keeping too little or too much of stock.

To achieve the above, it is recommended that organizations adopt the inventory keeping method that best suits their operation. Here, just-in-time method could be considered as an option as it has been proven to be effective in maintaining the right level of inventory and also prevent stock-outs. There is also the need for organizations to train their personnel in the area of inventory control management. What this means is that only trained professional with the requisite skill should be in charge of inventory management.

The reason is obvious as most organizations inventory control programmers failed to achieve the intended objectives due to lack of skilled and trained professionals to manage it. In the present day advancement in technology,

inventory control management has been made easier with the use of software. The implication of this, is that organizations have wide range of choices of soft-ware that it can adapt to its operations in terms of its inventory control system. In fact, the era of manual control of inventory has phased out. Especially, with increasing volume of inventories in organizations, computer based inventory systems will prove more effective than manual based inventory control system.

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