

INVENTORY CONTROL SYSTEM AND PROFITABILITY OF TRADING ENTERPRISES IN GOMBE METROPOLIS, NIGERIA

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Abstract

The extent to which inventory control system affects profitability of manufacturing and trading businesses in Nigeria has been a subject of debate. The aim of the study was to investigate the extent to which inventory control system can impact on profitability of trading enterprises in Gombe metropolis in Nigeria. Data for the study were obtained from questionnaire designed on a five (5) point Likert scale. The questionnaire were administered on ninety-one (95) respondents comprising owners and employees in seven (7) wholesale and eleven (11) retail trading outfits operating in Gombe metropolis. Sixty-five (65) respondents representing 69percent response rate returned their questionnaires. The responses were analyzed descriptively using mean (\bar{x}) score of non-parametric statistics shown on a graph. Results of analysis, indicated that many of these enterprises did not have reliable inventory control system in their various enterprises though there was a reasonable agreement among the respondents that institution of this entrepreneurial planning and control tool was feasible and could have positive impact on profitability. The study recommended that stock taking and inventory control in trading enterprises should be made compulsory by Law for growth and profitability of the sector in Nigerian economy.

Keywords: *Inventory control, Profitability, Planning tool, trading businesses, stocktaking.*

Introduction

Inventory control system is very vital in today's management of organisations especially those in manufacturing and trading businesses. The efficiency of any inventory control system instituted by the organisation is directly measured by how prompt they can make goods and services available to customers at low-cost. Inventory control system is a means by which an enterprise ensures that just enough stock is held at all times to meet economically both its internal as well as its external commitment to each customer. The essence of any profit-making enterprise is to meet the demands of its customers realising that there are associated costs when these demands are not met. Costs such as loss of

turnover/sales, loss of goodwill and patronage can be severe and threat to existence of a business particularly, a trading outfit when effective demand for items of stock that are not readily available for customers. These costs referred to outage cost, cannot be readily quantified in most cases, in monetary terms (Adeniyi, 2012). Similarly, pilferage of goods and obsolescence can result when goods that are not demanded by customers are overstocked.

Inventory is generally categorised into raw materials, work in progress, and finished goods awaiting dispatch and sale. For a trading enterprise, the concern of inventory control system is the third category (finished goods). Entrepreneurial decisions regarding what finished goods to buy, where to buy and when to buy within the capital limited of such enterprise is critical. Inventory control decision for a trading enterprise therefore involves critical planning ahead in terms of (i) the quantity to order for sale, and (ii) when to make such order. These two key decisions are very important to avoid a situation of having to tie up capital in purchase of goods that are not readily demanded by customers. Stocking goods that are not readily salable could pave way for associated problems such as spoilage, obsolescence and pilferage. Provision of right goods (goods that customers demand), at the right time guarantees continuous customers' patronage and loyalty. Miller (2000) opined that for customers' satisfaction and continuous patronage, owners/managers of enterprises especially trading ones must be pro-active by having a clear understanding of three (3) forms of the flow cycle of its stocks namely: (i) Basic stock which involves a forecast of the exact quantity of items required to satisfy demands, (ii) Seasonal stock: the quality of items that are needed to be built up in anticipation of predictable increase in demand that do occur during a particular period of the year and (iii) safety stock - which is that quantity in addition to the basic stock/inventory that will serve as a buffer against uncertainty.

In managing the flow, distinction has to be made between fast and slow moving items. Fast moving items are those items of stock that enjoy frequent demands of customers that need constant monitoring to avoid associated costs of understocking these items. On the other hand, slow moving items are those that are not frequently demanded therefore excessive ordering of these items should be guarded to avoid costs of over stocking the items. Inventory system of an enterprise is therefore a managerial/entrepreneurial planning tool that has to do with finding a balance between different cost components such as cost of holding those goods in the store/warehouse and cost resulting from insufficient stock (Zipkin, 2000). Thus, inventory control system is a managerial planning tool of an enterprise that ensures proper supervision of the storage, supply and accessibility of stocks to customers without excessive or under supply (Miller, 2010). Intelligent inventory control system therefore can help boost profit by ensuring uninterrupted supply to

customers at the possible lowest cost (Naliaka&Namusonge, 2015). Balancing inventory control issues such as replenishment lead time, carrying costs of goods, inventory valuation, inventory visibility, forecasting, future inventory price, available space for goods are very germane for profitability. For trading enterprises operating in Nigerian economy principled on profit maximization, a distinction can always be made between those enterprises succeeding or barely surviving on the basis on how each of these enterprises take the issue of inventory control.

Statement of the Problem

In any trading enterprise, goods/inventory remains the major tangible investment be it wholesale or retail outfit. The more these goods/inventories are kept in the warehouse or store, the more their exposure to all the associated costs of holding them. A careful analysis of what the customers need, identification of those goods that are of high or low demand and making them available at the right quantity, where and when demanded, are critical in inventory control and decision of any typical trading business. High inventory/stock level can always lead to scraps, obsolescence, pilferage, increase carrying cost and storing costs (John &Matteson, 2011).

The problem of inventory control in trading enterprises in Nigeria has been a persistent issue especially in the area of discrepancies, theft, fraud, obsolescence, deterioration and breakages. Early detection of these problems would have been possible but, in most of these enterprises, regular stocking taking, account preparation and auditing of affairs are not normally done. Non-periodical checking of stock level has led many of these enterprises to either under stock fast moving items or over stock slow-moving ones. Also, stocks/goods of these enterprises are prone to frequent cases of theft, spoilage and obsolescence due to overstocking of slow-moving items.

Trading enterprises in Nigeria are predominately private businesses having profit making as their main objectives just like any other private business across the globe. However, this singular motive is marred in most of these enterprises in Nigeria due to improper care, control and management of this important investment (stocks) to which large sum of funds are always committed by operators in this business.

Objectives of the Study

The general objective of the study is to investigate the role of inventory control system on the survival of trading businesses in Nigerian economy. However, the specific objective of the study is to examine the impact that inventory control

practice can have on profitability of trading enterprises using selected trading businesses operating within Gombe metropolis.

Empirical Review

Shella, Minnesota, Moses and Sarah (2012) carried out a study on information sharing, inventory management and customer satisfaction. The aim of the study was to investigate the relationship between information sharing, inventory management and customers' satisfaction by distributors and retailers of manufactured products in Uganda. Using a survey questionnaire, data was obtained from 523 registered distributors and retailers with a response rate at 69 percent. Simple percentage of descriptive statistics was used to analyse the responses (data). The result of the analysis revealed that distributors and retail outlets in Uganda had neglected the issues of information sharing, inventory management and customers' satisfaction resulting to their inability to meet customers' needs. The study recommended that trading organisations' should take the issue of inventory management and customers' satisfaction seriously.

Thogori and Jane (2014) did a study on the role of inventory management on customers' satisfaction in Kenya; A study of DelmoteManufacturing Company in Kenya. The aim of the study was to investigate the role of inventory management on customers' satisfaction. Data was sourced primarily with use of questionnaires, interview guide and observations. Responses obtained from the questionnaire were statisticallyanalysed using descriptive statistics of simple percentage. Evidence from the analysis indicated that the enterprise had poor inventory management system resulting to inventory shortages. The study recommended implementation of efficient inventory control system that would arrest inventory related problems by enterprises.

Kwado (2016) conducted a study on the impact of efficient inventory management on profitability: Evidence from selected firms in Ghana. The aim of the study was to investigate the impact of efficient inventory management on profitability of manufacturing firms. Using secondary source, data was obtained from annual reports of four companies listed on Ghana Stock Exchange (GSE). The Ordinary Least Square (OLS) stated in the form of multiple regression models were used in data analysis: The result revealed that there was a significant strong correlation between inventory management and profitability of business enterprises in Ghana. The study recommended adoption of efficient inventory management for manufacturing organisations.

Lawrence (2013) did investigation on inventory management system and

performance of food and beverage manufacturing companies in Nigeria. The aim of the study was to explore the relationship between inventory control and performance of food and beverage companies in Nigeria. Using secondary source, data were obtained from annual financial reports and accounts of food and beverage companies listed on the Nigerian Stock Exchange (NSE). Simple and multiple regressions were used as analytical tools. The result showed that there was relative impact of inventory management on the performance of firms. The study recommended implementation of inventory control system for efficient performance of firms.

Nnaemeka and Agu (2013) investigated the impact of inventory control system on organisational efficiency. The aim of the study was to assess the impact of proper inventory management on efficiency of Emenite, Dromedas and Nigerian Bottling Company. Using primary source, data was obtained from 248 staff of these manufacturing firms. The analysis of the data was done with the use of Pearson product moment correlation and linear regression. The findings of the study revealed that there was significant relationship between inventory control and efficiency. The study concluded with a recommendation that manufacturing organisations should put in place adequate/inventory control system for efficiency. Talatu (2015) did a study on inventory control, effective making model and implementation for company's growth. The purpose of the study was to analyse factors involved in inventory control decision and its implementation for growth and efficiency of organisations. The study was a theoretical review that made use of theories and literature on the subject matter. It was found that inventory control system was an important tool for product planning noting that the nature of products and demand of consumers were key factors in inventory planning and control.

From the reviews, it is seen that quite a lot of studies have been done regarding inventory control system and its importance in manufacturing organisations but not much has been conducted on trading enterprises especially those operating in Nigerian economy.

Theoretical Framework

The study is anchored on relationship marketing theory. In the theory, Berry and Parasuraman (1991) stated that the theory is an attempt to explain the strategic role of managerial action aimed at generating customers' retention and profitability. Relation marketing believes that customer is the centre of business as profit earned from the relationship is a key measure of business's success. For a long-term relationship therefore, customers' satisfaction in terms of quality and timely

delivery is sacrosanct. The theory has three key assumptions namely: (i) that there always exists demand and market for goods and services; (ii) that continuous patronage of these goods depends on the quality and availability of these goods and services; and (iii) that enterprises always try as much as possible to satisfy the demands of customers for their continuous existence and profitability.

Implicit in the theory is the deterministic inventory model of Economic Order Quantity (EOQ). Drury (2005) viewed that EOQ model is an approach of determining the optimal inventory level that takes into account the inventory carrying costs, stock out and total costs which are very useful in the determination of the appropriate inventory level to hold to satisfy customers' demand. Appropriate level to hold so as to avoid associated costs of overstocking or understocking items is a key issue that bothers on continuous patronage of customers and profitability of a trading enterprise in a competitive business environment.

Methodology

The study adopted descriptive research design to report the way things happen (Mugenda & Mugewa, 2003). Data for the study was sourced primarily through questionnaire administered on ninety-five (95) randomly selected staff and owners of eleven (11) trading enterprises operating within Gombe. The eleven (11) enterprises comprises of five (5) wholesalers and six (6) retailers. Respondents were asked to express their opinions on the extent to which they either agreed or disagreed on each item of the questionnaire construct designed on a five (5) point Likert scale (5=strongly agree, 4= Agree, 3=Undecided, 2=Disagree, and 1=Strongly disagree)

Data Analysis

Responses obtained from sixty-five (65) respondents representing about 69 percent response rate were descriptively analysed using mean scores and standard deviation (std) of non-parametric statistics.

Results

Table 1: Inventory Control Practice, Response Mean and Standard Deviation.

S/N	Items of the Construct	SA	A	UND	D	SD	Mean	STD
1.	The enterprise has inventory control practice that can check its stock cycle.	2 (10)	1 (4)	13 (39)	33 (66)	16 (16)	2.08	-0.003
2.	The enterprise has trained staff to check inventory/stock.	0 (0)	0 (0)	2 (6)	36 (72)	27 (27)	1.62	-0.005
3.	There is adequate arrangement for weekly, monthly and annual stocktaking in the business.	1 (5)	2 (8)	21 (63)	19 (38)	22 (22)	2.09	-0.003
4.	Stock control practice in the enterprise is feasible.	20 (100)	18 (72)	7 (21)	5 (10)	15 (15)	3.35	-0.412
5.	Stock control system can help enterprise detect early cases of pilferage, theft, spoilage, obsolescence and breakages of goods/stocks.	31 (155)	19 (76)	0	9 (18)	6 (6)	3.92	0.003
6.	Right goods of right quality can increase sales.	28 (140)	21 (84)	0	14 (28)	2 (2)	3.91	0.173
7.	Customers' patronage can increase sales.	35 (175)	27 (108)	1 (3)	1 (2)	1 (1)	4.45	0.006
8.	Increase sales with proper monitoring of stock losses can promote profitability.	35 (175)	30 (126)	0 (0)	0	0	4.63	0.038
9.	Profitability of the enterprise can lead to growth in its assets, number of branches and employment opportunity.	29 (145)	30 (120)	6 (18)	0	0	4.35	0.006

Source: Authors Field survey, 2018.

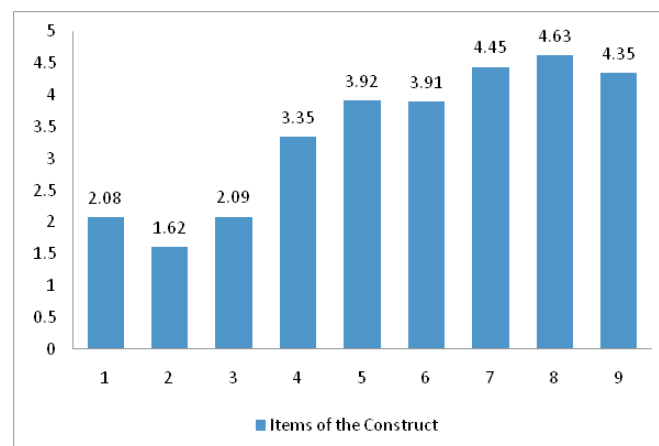


Figure 1: Graphical Representation of the Response Rate on each item of the Questionnaire construct.

Item two (2) of Figure 1 above has the lowest mean score of 1.62 with item eight (8) having the highest of 4.63 on a five (5) point Likert scale.

Interpretation of Results

The results as above showed that there was reasonable agreement among respondents that instructions of efficient inventory control practice could impact significantly on the profitability and growth of a trading enterprise. Items 5-8 of the construct on the issue of inventory control, profitability and growth all have a mean index above 3.0 on a five-(5) point likert scale with positive standard deviation (Std.) from the Mean. This indicated reasonable agreement among respondents that inventory control system in a trading enterprise could impact positively on profitability. The result further indicated that though inventory control practice could boost profitability, many of the enterprises of the study did not have adequate control system as the mean responses on item 1-3 of the questionnaire construct have mean scores below 3.0 with negative standard deviation of -0.003, -0.005 and -0.003. Though most respondents indicated that they did not have trained staff to handle stock control related issues in their enterprises, there was agreement that adoption of reliable inventory control system was feasible in these enterprises as this item four (4) on the construct had a mean score of above 3.0 on the scale through, these enterprises did not have trained personnel to keep reliable/adequate records of their transactions as the responses' mean on this issue had the lowest mean score index of 1.62.

Discussion of Findings

From the responses, there was reasonable agreement that a good inventory system in a trading enterprise could impact positively of profitability. This findings was in agreement with that of Lawrence (2013) and Kwando (2016). Adoption/implementation of inventory control system was crucial as the overall performance and survival of any trading business hinges on accurate record of stocks where cases of pilferages, theft, spoilage, obsolescence and breakages could easily be detected. The mean score of 3.92 from the responses was indicative of this. This finding tallied with that of Lawrence (2013) and Nnaemeka and Agu (2013) who discovered in their studies that implementation of inventory control system impacted on performance and profitability of trading enterprises.

It is unfortunate however that many trading enterprises in Gombe metropolis do not have inventory control system. The low mean score index of 2.08 from the questionnaire construct was an affirmation by the respondents and a reflection of what would happen elsewhere in Nigeria and indeed other developing nations of Africa as revealed in the studies of Shella et al (2013) and Thogori and Jane (2014).

Implications of the study

Trading is an enterprise that thrives on customers' patronage, continuous loyalty, sales and profitability. Business growth and expansion using indices such as increased asset, branch expansion and increased employment opportunity in a business are greatly hinged on profitability. Since profit maximization is a cardinal objective of any trading enterprise, availability of the right stock to meet customers' needs and satisfaction is critical to achieving this key objective (profit maximisation). Stocking the right goods and making them available when and where needed by customers and taking steps to avoid associated costs of either overstocking or understocking items not frequently or frequently demanded by customers' is also quite important. Competitiveness of a trading enterprise in today's Nigerian and indeed global environment depends largely on how seriously that business outfit takes the issue of its inventory control. Any trading enterprise that fails to do the needful in the areas of taking appropriate measures to control the flow of its inventory is just but merely surviving as such enterprise will soon crash out of business.

Conclusion

In most trading enterprises all across the globe, inventories or finished goods constitute the major investments of the entrepreneurs. Therefore, the need for proper control of this important asset to guard against wastage, theft, pilferage, fraud, obsolescence and avoidance of all unnecessary costs of holding too much or little quantity of stock cannot be over emphasized. Inventory control system in a trading enterprise is a profit booster. A tremendous growth and expansion will occur in the private sector of Nigerian economy as issue of inventory control is taken seriously by traders in goods that constitute a significant portion of operators in the sector.

Recommendations

Drawing from the results of the analysis and the findings of this study, the following recommendations are therefore put forward:

1. All trading enterprises operating in Gombe metropolis should endeavour to keep accurate records of their transactions, do their annual stock taking, prepare their accounts and have them audited. This is one of the surest ways

of bringing many of them especially the big operators in the business into the tax bracket of government.

2. For effective execution of (1) above, these enterprises especially the big operators e.g. supermarkets and wholesalers should engage the service of qualified personnel (accountants) while small business owners should engage the service of book-keepers to record all daily transactions adequately for profit determination on weekly, monthly and yearly basis.

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