Impact of Inventory Management and Procurement Practices on Organization's Performance

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Abstract

To remain competitive among other competitors in today's market, organizations have been compelled to lower their costs, increase revenue while maintaining highest quality of their products and services that are delivered to their customers. Procurement management serves as an important strategy for organizations to remain competitive for both present and future. In this competitive business environment costs control serves as an important instrument to remain competitive in the market. In such environment, inventory management ensures control over customers demands thereby resulting to customer satisfaction and increase financial performance. The purpose of this research work is to examine inventory management and procurement practices and their impact on organizational performance. The performance measures examined in this research are financial performance and customer satisfaction. The method used is secondary data collection by gathering information relating to inventory management and procurement practices from different articles, journals and books of various researchers. The results of this study found that automated procurement practice like e-product enhance organizational performance; implementation of world class procurement practices also enhance organizational performance. The study also found that inventory management enhance organizational performance.

Keywords: Inventory management, logistics, procurement

Introduction

Historically, inventory management globally has often meant too much inventory and too little management or too little inventory and too much management (Godana & Ngugi, 2014). inventory management refers to all the activities involved in developing and managing the inventory levels of raw materials, semi-finished materials and finished good so that adequate supplies are available and the costs of over or under stocks are low (Kotler, 2012). Inventories are essential for keeping the production wheels moving, keep the market going and the distribution system intact. They serve as key drivers for production and distribution systems of organizations.
Inventory is essential to organization for production activities, maintenance of plant and machinery as well as other operational requirements. According to (Salleem, 2004), management is very critical about any shortage of inventory items required for production. Any increase in the redundancy of machinery or operations due to shortages of inventory may lead to production loss and its associated costs; hence there is need for continuous inventory control.

According to Ruth (2012), procurements should be based on value for money rather than initial purchase price. The procurement function is responsible for managing the purchasing activity for the company (Lysons & Farrington, 2006). Therefore, effective and efficient procurement systems and collaborative relationships are essential to the achievement of organizational goals, cost reduction and supply chain performance. Through adoption of procurement practices, organizations around the world have begun to tackle difficulties associated with performance. These practices identify relevant performance measures that enables companies around the globe to determine performance, resources, costs and operational logistics from relocated department to manufacturing sites (Shah, 2013). Improved coordination and integration of procurement practices improved performance. When procurement practices are poorly coordinated or planned they cause long term damage to an organization stock prices and revenue; hence there is need for firms to solve it through supply chain continuity planning (Hartmann, Trautmann, & Jahns, 2008). The biggest setback in the procurement process is the poor coordination and management of procurement practices such as poorly identified needs and calculated, inaccurate budget and limited knowledge of procurement staff (Mamiro, 2010).

Implementation of e-procurement improved performance. Adopting e-procurement in B2B purchasing transaction enables organization reduce their transaction costs, boost the effectiveness of the internal procurement process and foster coordination between suppliers. Adopting e-procurement can improve the organization's efficiency and effectiveness by automating procurement processes, accelerates the internal process and fostering coordination between organizations (Barbieri & Zanoni, 2005).

Poor inventory management affect sales, customer services and revenue, which negatively impact an organization’s performance. Maintaining accurate records of inventory improves customer service by providing knowledge of customers’ demands; improves organization’s productivity by ensuring that materials are available when needed and maximizes revenue by avoiding holding excess inventory that will eventually end up being written off.

According to Burt et al.(2003), inventory constitutes 30% of the organization invested capital. In any manufacturing industry, nearly 60% to 70% of the total funds employed are tied up in Current Assets, of which Inventory is the most significant component. In the cost structure of most of the products, materials constitute 50% of the total cost, again pointing to the need for the proper budgeting and control on cost of materials. The objective of any commercial organization is to get the best mileage out of every rupee invested in the company (www.iimm.org).

In general, organizational performance has been defined as a set of both financial and non-financial indicators capable of assessing the degree to which organizational goals and objectives have been accomplished (Kaplan & Norton, 2005).

For the purpose of this research, organizational performance may be defined in terms of cost reduction and meeting customer service requirements by ensuring that the right item is bought and made available to the right manufacturing operations at the right time, right place, with the lowest possible cost and in the right quality. Organizations began to involve strategic suppliers in resource management decisions (Monczka & Morgan, 1996). Thus, many producers embraced the concept of supply base management, with the expectation of minimizing costs by cutting inventory and improving efficiency throughout the supply chain (Watts & Hahn, 1993).

Majority of the companies attain significant savings from effective materials management, which amounts between 50%-60% of total costs (Song, Haas, & Caldas, 2006). Effective management of materials can lead to a reduction in cost, resulting in a significant saving; hence improve organizational performance. Every dollar saved by reducing cost is more valuable than a dollar sales. A dollar profit cannot be made from a dollar sales; hence cost reduction positively impact an organization bottom-line profit. In order to achieve this, organizations must avoid incurring unnecessary cost and prioritize managing materials. Burt et al.(2003) argues that well and efficiently controlled inventories can contribute to the effective operation of the firm and hence the firm’s overall profit.
The various types of materials to be managed in any organization include purchased materials, work-in-progress, materials and finished goods (Banjoko, 2000). Excess stock could result in funds being tied down, increase in holding cost, deterioration of materials, obsolescence and theft; whiles shortage of materials can lead to interruption of products for sales; poor customer relations and underutilized machines and equipment (Mukopi & Iravo, 2015).

The main objective of this work is to examine the impact of procurement function and material management on organization’s performance. It focuses on two main performance measures such as financial performance and customer satisfaction.

**Inventory Management Concept**

According to Coleman (2000) Inventory Management ensures that organization maintain sufficient stock level to meet customers’ demands. It is therefore prudent for managers responsible for inventory to focus on satisfying customers needs and ensuring that costs associated with inventory are maintained at a lowest possible level. Inventory costs include ordinary and holding costs. Durry (2013). Holding costs refer to visible items in the form of stock such as insurance, obsolescence and funds being tied up in inventory; ordering costs involves order placing and receiving inventory. They ascertain the required quantity in arranging invoices, transportation cost of moving stucks to where they are needed and cost of inspecting goods. Shortage cost refers to a situation where the available quantity of inventory level is less than the quantity required by customers, they are the decision taken to sell, loss of customer goodwill, late charges and similar costs (Prempeh, 2016).

The biggest and most physical investment of any organization is its inventory; hence sophisticated inventory management strategies are required to assist in increasing revenue and ensures continuity of the business. Inventory control ensures that items are available to customers by coordinating the buying, production and distribution activities in order to meet market needs (Ogbo & Ukpere, 2014). In the perspective of retailers, a significant fraction of retailer’s assets are invested in inventory. In U.S retail markets, it can be calculated that there is more than 53% of total assets is invested in inventory on the retail business, so that they continuously seek to improve the management of inventory to reduce inventory holding costs (Gaur, Fisher, & Raman, 2005; Sack, 2000).

There are several reason for holding inventories. Organizations can hold certain quantity of stock level with the expectation that they will be needed in the future (Ghosh & Kumar, 1991). Managing inventory affects activities within an organization such as operations, finance and marketing. Inventories are held purposely for transaction, precautionary and assumption purposes (Bragg, 2005). Other reason of holding inventory is to tackle the uncertainty of demand which could cause lost sale or lost customers. Zhang, Hua, Wang, Zhang, & Fernandez (2018) believed that there are two strategies to combat the uncertainty of demand, one of those is inventory strategy. Moreover, the discussion of the function of holding inventory on the demand uncertainty environment has been made by Thorsen & Yao (2017) and Gu, Zhang, & Li (2015) who developed an inventory models to control inventory against demand and lead time uncertainty.

**Framework**

Koumanakos (2008) conducted a survey in Greece manufacturing firms dealing with food, textile and chemical for a period of two years to determine the impact of inventory management on organization performance. Lean inventory management enables organization improves it financial performance as the hypothesis tested and the result proposes that if organization hold enough inventory at it possessions, the organization will receive lower rate of return.

Ogbo & Ukpere (2014) in determining the impact of an effective system of inventory management on organizational performance, they conducted a survey on Seven-up Bottling Company, situated at Nile Mile Enugu. The results obtained from their investigation indicated that a flexible inventory control management is a vital strategy to attain the organizational performance. This can be achieved through easy storage retrieval of materials, boost sales effectiveness and minimises operational costs. The study also reveals that a link exist between flexible operation, the extent to which organization implement inventory management to customers and adopt low cost approaches that enhance the return on investment to the organization.

Agu, Obi-Anike, & Nnate (2016) conducted a survey on manufacturing organizations to confirm how inventory control impact productivity; evaluate the importance of the relationship between demand management and customer satisfaction.
and the impact of just-in time. Their results indicated that inventory control improves organization’s productivity; there is a co-existence between demand management and customer satisfaction; and just-in time improves growth in organization. However, for the smooth operation of any organization, it was recommended that through training, organizations capacitate it employees with knowledge on inventory control management to enable them better execute inventory management activities.

The best strategy to be adopted by companies in making decision to purchase should be the best procurement practices such as the establishment of supplier relationship, working as a team to procurement and better utilization of technology or e-procurement (Lundu & Shale, 2015). According to Karanja and Kiarie (2015), they conducted a study on Guarantee Trust Bank Limited, Kenya to determine the impact of procurement practices on organization performance in the private sector in Kenya. Their results indicated that e-procurement improve organizational performance and automated procurement practices help attain organization performance; proper inventory management in private sector leads to improved organizational performance.

Chang and Wong (2010) accessed the willingness of organization in implementing e-procurement for it operations in the marketplace and determine their performance to assess its benefit. The moderate variable used in the relationship between e-procurement adoption and e-marketplace participation was trust. Their result indicated that organizations that implement e-procurement are more capable to participate in the e-market and eventually improved the organization performance. Also, trust has moderate effect on firm willingness to adopt e-procurement when organization considers to participate in the e-market place.

**Inventory Management and Financial Performance**

In today’s competitive world, cost control remains a vital tool in ensuring sustainability in the market. Inventory management is seen as an important mechanism that ensures control in an organization financial statement, in this fast growing market. When inventories are properly managed, they productively produce capital inventory management impact on organization financial performance either directly or indirectly (Vipulesh, 2015).

Panigrahi (2013), conducted a survey on twenty cement companies in India to determine impact of inventory management on financial performance. He ascerted that the duration used in converting inventory into cash had inverse link with profitability. Similarly, Kilonzo et al., (2016) conducted an investigation on 24 government funded firms and their result indicated that inventories involve unnecessary investment. They therefore recommended that inventory holding should be properly managed in order to ensure smooth operation in a firm through reordering costs, carrying costs and stock out costs.

It is prudent for organizations to calculate it inventory turnover because stock turnover over a specific period directly impact the total profit of the organization Kilonzo et al (2016). This indicates that optimal level inventory turnover is an added advantage to an organization. It is also important for organizations to maintain optimal inventory level thereby interpreting the linkage between working capital management and corporate profitability established a negative relationship between inventory turnover in a given period and profitability of the organization (Lazaridis & Tryfonidis, 2006).

Christopher and Kamalavalli (2009) conducted a study on fourteen hospitals in India to determine the role of management of the working capital on profitability. Their result indicated that inventory turnover ratio, debt turnover ratio and working capital turnover ratio positively impact return on investment. Inventory management entails maintaining the lowest level of certain assets to attain greater value of assets of the organization. An econometric analysis about the implication of inventory turnover has been also studied by Gaur et al. (2005) who indicated that inventory turnover especially in retail industry have a high correlation with gross profit and working capital intensity. These results validate the findings by Koumanakos (2008) who revealed that the lower level of inventory turnover, the lower its rate of returns.

**Inventory Management and Customer Satisfaction**

Customer satisfaction is the customers’ perception about the organization activities that meet or surpass their expectation on products and services in a given period; hence customer satisfaction is the result of being loyal to a company and product repurchase (Eckert, 2007). Satisfaction from one organization may differ from the other depending on their line of
business. In manufacturing firms for instance, on-time delivery and producing items with correct specification can be used as instruments to determine customer satisfaction.

The goal of inventory is to meet customers' demands. Therefore, the absence of real-time inventory information on customer demands can result in inaccurate forecasts; hence translate to late, insufficient, and inconsistent deliveries of goods and eventually causes customer dissatisfaction (Thogori & Gathenya, 2014). Proper inventory management plays a crucial role in enhancing customer satisfaction in an organization.

Thogori and Gathenya (2014) conducted a research on Delomonte Company in Kenya to determine the role of inventory management on customer satisfaction among manufacturing firms in Kenya. Their result indicated that the long delay on goods ordered reduces customer satisfaction and also increase customer satisfaction. The result also indicated that the company does not have the capability to determine the exact quantity of stocks to maintain to be able to meet differences in demand; and company encounters inventory shortage, which can be translated to means that inventory shortage leads to profit as well as customer loss. Improved inventory management leads to improved customer satisfaction.

Eckert (2007) study investigates in inventory management and its role in improving customer satisfaction, with focus on retailers. The result of his study indicated that improved inventory management leads to increase customer satisfaction and supplier partnership, and knowledge and training of organization staff and technology. The importance of holding inventory on customer satisfaction has been also discussed by Patil & Divekar (2014) who studied the challenges such as demand variation, inventory management, lost sale and customer satisfaction. Their study on online found that better inventory management plays a significant role on enhancing customer satisfaction.

**Procurement Practices and Financial Performance**

Procurement functions/practices consist of two categories such as hard and soft. The human resource of procurement is considered the most paramount in any organization (Bag, 2012). Organizations implement wide range of human resource development practice to boost performance at various levels and boost in-house support and integration (Hartmann et al., 2008).

To be the best among competitors and better prepare for long term progress, organizations should incorporate the best procurement practices such as supplier development, value engineering, cost management, strategic sourcing and supplier integration to its operations. Due to the rise in competition in the global market organizations have resorted to the adoption of procurement strategies that lower prices and increase quality, meet expectations, reduced production time, swift response and financial requirements. Thus, procurement management has contributed to the improvement of internal activities in order to assist the organization’s external activities.

A broader knowledge in practices such as sourcing, manufacturing, marketing, logistics and human resource can boost profitability and market of manufacturing firms in India (Dubey, 2011). Bag (2012) conducted a survey on ABC Industries Limited in India. The result of his finding indicated that increasing in sales and market share significantly improve the company’s financial performance, as shown in the company’s financial statement. The practice of sourcing strategy is also studied by Heese (2015) who evaluated single and multiple sourcing for the firm cost reduction and profitability. In their research findings, it is concluded that a powerful firm might prefer using single supply sourcing rather than multiple sourcing but a weaker firm prefers using multiple supply sourcing. Thus, better supply management enhance profitability to the company.

Lundu and Shale (2015) conducted a survey on supermarkets at Kisumu City, Kenya to determine the effect of establishing good supplier relationships, use of team based approach in procurement, incorporating technology in the procurement and; strong support from the top management for procurement process on performance of these supermarkets. Their results indicated that the involvement of everybody in making procurement decision increase profit over time; implementation of innovation and e-procurement practices improves profitability of supermarkets over time and the involvement of top management in procurement decisions and activities and willingness to approve resources for the same as required increase profit over time.
Procurement Practices and Customer Satisfaction

Bag (2012) conducted a survey on ABC Industries Limited in India. The result of his finding indicated that the implementation of world class procurement practices in an organization improves customer satisfaction. He therefore, recommended that the key aim of all contributors in the supply chain is to satisfy customers and thereby achieved competitiveness.

Lundu and Shale (2015) conducted a survey on supermarkets at Kisumu City, Kenya to determine the effect of establishing good supplier relationships, use of team based approach in procurement, incorporating technology in the procurement and; strong support from the top management for procurement process on performance of these supermarkets. Their results indicated that being closer and integrated with suppliers resulted in improvement in customer satisfaction over time with less complaints registered; involvement of everybody in decision making boost customer satisfaction over time with fewer complaints; the better implementation of innovation and including e-procurement practices improved customer satisfaction with reduced complaint over time; and the participation of top management in procurement decision and activities and willingness to approve resources for the same as required improved customer satisfaction with less complaints registered over time.

In the present days, the development of information system and technology has changed the practices of procurement strategy. A traditional procurement tends to be inefficient and ineffective strategy in term of high costs of procurement activities and low responsiveness on customer. Thus, electronic procurement currently becomes a trend for most organizations. The key success of the use of e-procurement is customers’ satisfaction and it is significant to cost and benefit (profit) (Croom & Johnston, 2003). Other study related to the implication of the use of information technology on procurement that impact on service level has also been made by Lancioni, Smith, & Oliva (2000) who stated that the internet and other information technology has speeded up communication between supplier and buyers on transportation, inventory management and production schedule which finally increase the level of customer satisfaction.

Conclusion

In manufacturing companies inventory is the life blood for their operations and costs and customer satisfaction made up of the most aspect of the companies. Inventory management ensures that customers received their products on time; hence improves customer satisfaction. This study concludes that automated procurement practices lead to organizational performance. Robust procurement practices consolidate the supply chain, acquire new clients and increase customer delivery.

This work shows that customer satisfaction can be determined differently depending on the products or services an organization offers. However, efficient inventory management and strategic procurement practices are the most important tools that enhance customer satisfaction. When customers are satisfied with the products or services of a company, they become loyal to the company and also recommend the products and services to other customers thereby increase the customer base of the company and leads to increase in profitability. The degree of customer satisfaction determines profitability of any company; higher the satisfaction leads to increase in profitability of the company.


References


