Influence of Inventory Management Systems on Performance of Pharmaceutical Companies in Kenya

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Type of the Paper: Research Paper.
Type of Review: Peer Reviewed.
Indexed in: worldwide web.
Google Scholar Citation: IJSMP

How to Cite this Paper:

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Abdinasir (2020)
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Abstract

Effective management of inventory systems is essential to the performance of many organizations in the world, but several organizations still experience losses as a result of under and overstocking, ending of inventory and failing to satisfy neutral expectations. This can be attributed to failure to effectively manage inventory systems. This paper sought to ascertain the influence of inventory management systems on performance of pharmaceutical corporations in Kenya. Descriptive research design style was used in this study. Purposive sampling technique was accustomed to choose half (75) of the staff of the pharmaceutical corporations working within the procurement department. SPSS version 21 was used analyse data gathered. Regression and correlation methods were used in establishing existence of relationships present between the management performance and systems and also to determine existence of hypothetical relationships between variables. The study established that implementing systems was identified as a significant problem to the pharmaceutical corporations because they lacked adequate technologies for supporting the initiative. The research concluded that the pharmaceutical corporations did not incorporate inventory systems in a large extent despite its effectiveness and efficiency. As a result, the study recommends that the top leadership of the pharmaceutical corporations in operation in Kenya to encourage technological culture within their operations through coaching workers on modern technology currently being used in procurement. They ought to develop partnerships with ICT companies so as to reinforce competitive practises in their corporation.

Introduction

Globally, several organizations have knowledgeable inventory issues because of technological challenges and inability of the corporations to manage merchandise made, processed, and sent (Ajeet, 2008). After the introduction of managing inventory methods, variety of corporations have knowledgeable a vital improvement on potency and effectiveness. The use of technologies in inventory management systems has conjointly led to general productivity of corporations and therefore the ability to
retort to client dynamic wants (Baily, 2008). The study done by Sanghal (2005) disclosed that excess inventory was a major problem experienced by corporations. It is evident that the majority of the corporations’ knowledgeable big losses were attributed to their failure in handling their client needs. Concerns about over-stoking and unneeded product were a drag which led to reduced performance by the corporations. Agus and Noor (2006) in Malaysia disclosed that lean management ideas, technology integration and partnership were the sole drivers of performance within organizations regardless of any external or internal influences. In a study done by Roumiantsev and Netessine (2005) they conjointly disclosed that the aim of internal control was to reinforce potency and efficiency of the system. Provider productivity was addicted to effective inventory management policies, while not inventory systems, organizations can expertise losses and contrariwise. Greece Kournanakos (2008) jointly explained that control systems increased client knowledgeable and profit Kathurima, Ombul and Irovo (2016) explained that introducing technologies within the supply chain processes had increased potency and efficiency of corporations. Mwangangi (2016) disclosed that inventory management, transport management, order method management and knowledge flow management were direct measures of the performance of a firm. A study by Kombo, Obonyo and Ogutu (2015) on African nations to establish the link between data strategy and performance producing of producing clearly indicated that organizations were addicted to ways for perform effectively. Sabri (2006) counsel that corporations that don’t have inventory systems area unit possible to expertise losses. what is more, corporations ought to insist on achieving quality production, client central culture, maximizing profits and company social responsibility. It’s against this background that this paper wanted to establish the influences of management of inventory systems on the performances of Pharmaceutical company in Kenya.

**Objective of the Study**

To determine the influence of inventory management systems on performance of Pharmaceutical companies in Kenya.

**Theoretical Framework**

**Lean Theory**

Lean Theory was developed by Womack (1996), it can be traced to the manufacturing sectors in Japan. The Toyota Company first applied this idea in the 1950s. The theory explains that a company has a higher likelihood of competing if they can produce more with less. As a result, firms should ensure they implement policies which are aimed towards zero tolerance towards any wastage. Thus, firms have continued adopting lean practices since the 1950s to enable them achieve a competitive advantage within the local and international markets. The lean concepts in most organizations have since been supplemented with technology to reduce the prices production. According to Argan and Weele (2010) to ensure that inventory systems are effective, less resources ought to be added to the systems such as the factory space, human resources, time and equipment. The lean philosophies dictate that firms ought to increase greater synergy during the manufacturing processes while ensuring firms reduce the defects that may be experienced during the production processes (Argan & Weele, 2010). Womack et al (1996) outlined various principles of lean thinking, these are; an emphasis on value-adding activities, identification of non-value-adding activities, developing of linkages among value-adding activities aimed at delivering adequate customer experiences and continued improvements. Scheid (2010) further adds that lean principles are likely to cause positive changes in organizations by improving the ordering decisions, diversification, elimination of unnecessary costs eliminating activities which are not value adding within the supply chains. Due to this, Amaro (2009) concluded that enterprises using lean practices can be considered to be products of technology.

The use of this theory in this research is dependent on the notion that the pharmaceutical companies currently operating in Kenya ought to be more competitive if they are able to have use less inputs as compared to their level of outputs. Various principles are emphasized by lean thinking such as continued improvements on the systems, employee training, reverse logistics, team work, and research and development. To minimize costs and maximize the
profits among pharmaceutical companies, various strategies are used such as automation of the activities with the supply chain, supplier integration, and automating various internal processes of the business.

Empirical Review

Inventory Management Systems and Performance of Pharmaceutical Companies

According to Amoako and Gargeya (2001), information technology is now a key component of the organizational competitiveness in the current changing environment of businesses. Incorporation of technology within its systems is now a prerequisite for any business aiming at competing. It enables firms to dispatch services and goods, daily stocks, and make changes depending on the demands by the customers. Lyons and Gillingham, (2011) further explains that technologies such as electronic data have enabled better communication between organization and their customers. Further, in Amaro (2009) it is argued that incorporation of technologies revolutionized decisions in inventory management.

Use of technologies during procurement led to organizations cutting their operational costs by almost 50% (Baudin 2004). Due to this, it has led to greater accuracy in information which has led to better delivery of customer services. According to Baker (2011), use of technology has led to minimizing of costs as there is generation of real time information on the existing demand for services and goods.

Amino (2012) also explains that in enhancing customer standards, inventory control systems are the key driver. This is because these systems have contributed to better customer experiences. Various services are supported by the inventory systems such as manufacturing, warehousing, sales, receiving and placing orders. Meanwhile, firms currently in the changing business environment have been encouraged to invest in EDI to increase their effectiveness and efficiency. The EDI technology enables these companies to achieve various benefits such as; greater control of stock, supplier synergy, shorter lead time, reduction of the paper work, reduction in the number of workers, increased records of sales, enhancing communication and management of information (Brudan 2010).

Methodology

The researched adopted a descriptive research design to establish the influence of inventory management systems on performances of Pharmaceutical firms in Kenya. 150 workers designated from fifty Pharmaceutical corporations in operation in Kenya were the targeted population. This study utilized purposive sampling technique to pick half (75) of the staff in the 50 pharmaceutical firms working within the procurement department. According to Cooper and Schindler (2006), a sample is explained to be a representative of the whole population. Primary data was collected through questionnaires as the key data collection tool whereas secondary information was derived from printed materials like client orders and records in the inventory.

To determine validity, the researcher sought expert opinion in procurement and also of University Lecturers. Construct, criterion, and content validity of the instruments were measured to work out the accuracy of the instrument. During this study, Cronbach’s alpha methodology was accustomed confirm reliability of the variables. Thus, this method was most suitable in determining the reliability of the instrument used. Therefore, the critical value 0.7 was used as the acceptable reliability constant as explained by Borg and Gall (2003). This study adopted SPSS (21) in the analysis of data collected. Regression and correlation methods were used to determine the relationships between inventory management systems and performance. Further, to when checking the hypothetical relationships of the variables, the Logit model was most suitable as it helped to minimize heteroscedasticity and linearity challenges (Sekaran, 2006).

Empirical Findings

The respondents of the study were asked to point whether or not their Pharmaceutical firms had internal control practices. Majority (78%) of the Pharmaceutical corporations had internal control practises whereas 22% of them had no internal control observe because of the character of their business and distribution models.
On the influence of implementation of internal control practices and performance of their Pharmaceutical corporations, (98%) of the respondents that their pharmaceutical corporations had recognized inventory management practices since it contributed to performance of their corporations whereas book of them indicated that internal control practices didn't influence performance of their corporations. Further, the study wanted to ascertain the influence of internal control systems on the performance of their Pharmaceutical corporations. The findings were as shown in Table 1:

Table 1: Inventory Control Systems

<table>
<thead>
<tr>
<th>Indicators of Measurement</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automation of the procurement systems within the organization</td>
<td>68</td>
<td>4.26</td>
<td>.884</td>
<td>74%</td>
</tr>
<tr>
<td>The supplier needs have been customized within my organization.</td>
<td>68</td>
<td>4.21</td>
<td>.664</td>
<td>71%</td>
</tr>
<tr>
<td>Due to the use of real time system information, the inventory manager is able to make quick decisions</td>
<td>68</td>
<td>3.23</td>
<td>.587</td>
<td>63%</td>
</tr>
<tr>
<td>There is an efficient and effective means of disposing electronic waste within my organization</td>
<td>68</td>
<td>3.11</td>
<td>.673</td>
<td>61%</td>
</tr>
<tr>
<td>During prediction of demand, my organization used system information.</td>
<td>68</td>
<td>3.04</td>
<td>.596</td>
<td>59%</td>
</tr>
<tr>
<td>The inventory systems used in the firm are well understood by all the employees.</td>
<td>68</td>
<td>2.59</td>
<td>.498</td>
<td>48%</td>
</tr>
<tr>
<td>There is automation in the equipment used in the movement of good.</td>
<td>68</td>
<td>2.51</td>
<td>.333</td>
<td>46%</td>
</tr>
<tr>
<td>Effectiveness and efficiency are enhanced by the systems used.</td>
<td>68</td>
<td>2.21</td>
<td>.311</td>
<td>21%</td>
</tr>
<tr>
<td>The costs of organization are minimized by the systems used.</td>
<td>68</td>
<td>2.21</td>
<td>.306</td>
<td>19%</td>
</tr>
</tbody>
</table>

As illustrated in Table one above over fifty nine percent of the respondents indicated that their pharmaceutical firm were recognizing internal control systems as a live of enhancing their performance despite some internal and external challenges. For example, some respondents indicated that their firms automated their procurement methods with a mean of 4.26, companies tailor-made their systems to suppliers wants with a mean of 4.21, inventory managers created quicks decisions because of real time information with a mean of 3.23, companies disposed their waste electronic products a lot of with efficiency and effectively with a mean 3.11, prediction of demand was made by system information with a mean of 3.04, worker familiarity with the system with a mean of 2.59, instruments used to move products were automated with a mean of 2.51, systems used were economical and effective with a mean of 2.21 and decreased costs with a mean of 2.1. These findings inexplicit that despite the advantages that were associated with inventory control systems like efficiency and effectiveness, fast deciding, prediction of demand and customization of services to provider wants, implementation of systems was a significant challenge to pharmaceutical firms because of lack of applicable technology to support the initiative. It was noted that some workers were extremely resistant to new procurement technologies and top leaderships of the firms weren't dedicated to implementing of inventory control systems (Kazim, 2008). These findings conjointly corresponds with Kombo, Obonyo, & Ogutu (2015) who explained that inventory control systems were the sole drivers that enhance competitiveness of firms within the dynamic business environments. Kathurima et al. (2016) concur that technology has become the sole accelerator of globalisation among...
competitive corporations. Linkage of suppliers to within
the global business surroundings is increased by
technology integration within the system.

Conclusion and Recommendation
The study concluded unless pharmaceutical companies invest in inventory control systems competitiveness will be an uphill task. Therefore, for competitiveness of pharmaceutical companies in Kenya, advocating in technology, training workers, continuous improvement, motivation of workers, research and development have remained competitive practices that enhanced productivity of the firms. It was established that Pharmaceutical companies were not using inventory control systems to a large extent despite the efficiency and effectiveness. Therefore, this study recommends that top leaders of Pharmaceutical companies operating in Kenya should encourage technological culture in their systems by training employees on modern technologies in procurement. They should initiate partnerships with ICT firms in order to enhance competitiveness of their companies

References