Effects of Strategic Inventory Management on Performance of Services State Corporations in Kenya

Author’s Details:
Kivuva Mutava¹ Dr. Noor Ismail Shale²
¹,² Department Of Procurement And Logistics Management, Jomo Kenyatta University of Agriculture and Technology's, Kenya

Abstract

The objective of this study was to determine the effects of inventory management strategies on the performance of Service State Corporation in Kenya. A descriptive survey research design was used in this study. The population of this study comprises of all 119 representatives from the procurement, finance and stores department at the head office at Service State Corporation. The study used census sampling technique where all the subjects was given chance to give the information on how they think on the inventory Management strategy on Performance of Service State Corporation. Data was collected using structured questionnaire to ensure consistency. The data was analysed using descriptive analysis such as descriptive statistics, mean scores and standard deviations, frequencies distributions and percentages. The findings emphasized the effects of strategic inventory management practices on performance of Service State Corporations in Kenya, which is Just-In Time and stock safety level affect performance of Service State Corporations in Kenya. The research recommends that Service State Corporation in Kenya to practice this JIT system since the approach relies on a scheme in which company suppliers deliver their products directly to the company production centre in small quantities but more frequently – they deliver just the products needed for current production. Future researches will need to be carried in other industries and countries in order to show if the link between inventory management strategies and performance of Service State Corporations in Kenya can be generalized

Keywords: Just-In Time, stock safety level, performance of Service State Corporations

INTRODUCTION

The research presents the impact on efficiency at the Service State Corporation in Kenya of inventory management strategies. Inventory management requires 45 to 90 percent of all costs associated with perpetual inventory systems to ensure that the organization has the correct items on hand to prevent stock-outs, stop shrinkage (spoilage / theft), and have appropriate accounting. Many businesses have too much of their limited resource, capital, tied up in their major asset, inventory. Worse still they may have their capital tied up in the wrong kind of inventory (Buffa & Sarin, 2007).

Perpetual inventory systems go from eyeball frameworks to save stock frameworks to unending PC run frameworks. Valuation of stock is regularly expressed at unique cost, market worth, or current substitution costs, whichever is least. This training is utilized on the grounds that it limits the chance of exaggerating resources. Inventory valuation and suitable bookkeeping practices merit a book alone as are not managed here top to bottom.

The ideal inventory and legitimate product turnover will vary from one market then onto the next. Normal industry figures fill in as a guide for comparison. Too huge a stock may not be defended in light of the fact that the turnover doesn't warrant investment. Then again, on the grounds that items are not accessible to fulfil need, too little a stock may limit deals and benefits as clients head off to someplace else to purchase what they need where it is promptly accessible. Minimum inventories dependent on reordering time need to become significant parts of purchasing activity. Carrying costs, material purchases, and storage costs are altogether costly. Be that
as it may, stock-outs are costly too. Those expenses can be limited by productive inventory policies (Ogbo, 2011).

Stock control alludes to the process whereby the interest in materials and parts conveyed in stock is controlled within predetermined limits set as per Inventory strategy set up by the management. The activities of Inventory control subsequently include: determination of limits of inventories to be held, determination of inventory policies, setting out of investments pattern and its regulation as per individual and collective requirements, follow-up to analyse the working of the Inventory strategy and affecting changes as and when required. In this advanced time, there are numerous issues associated with selling and loading. In this manner, Inventory control is critical. For quite a long time, logistics organizations in the field of medicine have faced various challenges particularly in Inventory control which has affected effectiveness of their tasks.

The issues found include, under Inventorying, lack of inventory taking and theft by workers and delays in order and delivery or medical supplies (Xiong, 2016), inventorying that results in obsolete or expired items (Inventorying). Advances in information technology have dramatically improved the probability of applying successful methods for inventory management. Moreover, recent progress in research has resulted in modern and more general techniques that can dramatically reduce the cost of the supply chain (Axsäter, 2017).

Different departments in an organization handling inventory have varied goals on the level of inventory to hold. One of the major goals of Inventory control is to keep Inventory levels down to make cash available for other purposes. However, under this goal, the purchasing department prefers to order large batches to enjoy volume discounts (Bose, 2006). The production department also has its goal with regard to inventory, of maintaining long production runs to avoid time consuming setups and also have a large raw material inventory to avoid stops in production due to missing materials. On the other hand, the marketing department would like to have Inventory of finished goods to be able to provide customers a high service level. Therefore, it is seldom trivial to find the best balance between goals and that’s why inventory control is needed (Mercado, 2017).

Inventory control is the activity which organizes the availability of items to the customers. It functions to coordinate the manufacturing, purchasing, and distribution functions to meet the marketing needs. This role comprises the supply of new products, current sales items, consumables, obsolescent products and all other supplies. Inventory enhances an organization to support the customer service, manufacturing and logistics activities in circumstances where purchase of the items is inadequate to satisfy the demand. Lack of satisfaction arises from cases where the speed of manufacturing or purchasing is too protracted, or where quantities cannot be provided without Inventories.

Lewis, (2012) Inventory control facilitates organizations to find the appropriate inventory levels through different models such as economic order quantity and to monitor the level via inventory control systems for instance red line and two-bin method, or computerized inventory control systems. Appropriate inventory control requires organizations to perform Inventorying and apply suitable mechanisms to value Inventory to avoid overstating and understating profits (Kotabo, 2002).

Inventory control involves the coordinating of materials availability, controlling, utilization and procuring of materials. Inventory control is the direction of activities with the purpose of getting the right inventory in the right place at the right time and in the right quantity and it’s directly linked to production function of any organization which implies that the inventory management system operated will affect the profitability of an organization directly and indirectly (Alm, 2000). Inventory Control System is the process of managing inventory in order to meet customer demand at the lowest possible cost and with a minimum of investment (Byoungho, 2004).
Problem formulation

A crucial element for successful operational performance in firms is essential inventory management. To set equilibrium between the supply and demand of inventory is one of the major problems in inventory management. Enough inventories but not too much are the ultimate objective according to (Coyle, Bardi & Langley, 2013). This is why most organisations will seek a storage facility so that they do not run out of inventory when needed. However, the decline of performance in most corporations around the globe have been attributed to the supply chain management practices (Hussainey & Al-Najjar, 2012; Ntim et al., 2012a; Ademola et al., 2016). In the recent past, majority of commercial State Corporation have been experiencing weakening financial performance, and forecasts too have indicated a similar trend in the future (Ogwoka et al., 2017).

The procurement function usually takes large amounts of organization’s revenue (Gebauer & Segev, 1998). In the year 2013/14, the GOK expected to spend about 70% of the 1.6 Trillion shillings budget on procurement of goods and services. The procurement function is becoming an expensive undertaking for many organizations and if not properly done it can supplier flexibility to significant regret. On international scenes the global economy recorded a growth of 5.1% in 2006 compared to 4.5% (World Bank, 2003). Kenyan state corporations accounted for 20% of the country's Gross Domestic Product (GDP), provided employment opportunities to about 300,000 people in the formal sector and 3.7 million persons in the informal sectors of the economy (GOK, 2014).

According to annual Inventory taking conducted on by Auditors from the Kenya National Audit Office on August, 2014 in the Ministry of Works, the Inventory taking report revealed that some critical items were out of Inventory, leading to hasty buying because of low Inventory levels. The annual Inventory taking report claimed that the problem might have been attributed to poor management and long bureaucratic procedure. The report also revealed the cases of inaccurate recording or poor entering of some data information, which was a good indication of poor perpetual inventory system.

According to World Firm, (2007) showed that leading firms in Kenya are faced with problems of wrong forecasting due to an unavailability of enough inventory management information. Inventory out of crucial items in the Service State Corporation stores has led to hasty buying. Instances of inaccurate recording of data information, is evident where Inventory control ledgers and Inventory balances have discrepancy which is a good indication ineffective inventory Management strategies (GOK, 2013).

The government allocated funds in the year 2012/2013 for the implementation of inventory system. This means despite all this Inventory out and over Inventorying is still observed. All this points to inefficiencies in inventory management in a very sensitive. If Resources are already made available for enhancement of inventory management and some inventory management systems and strategy in place (Connor, 2013), what then are the role of strategic inventory management practices on performance of Service State Corporation in Kenya is the target of this study. The specific objective of this study is to determine the effects of just-in-time on the performance of Service State Corporation in Kenya and to identify how Inventory safety level affects the performance of Service State Corporation in Kenya.

Theoretical Review

This theory provides an understanding on the model Economic Order Quantity on how it affects the inventory management. Blackburn (2010), is among authors who agree that EOQ is one of the models widely used to manage inventory in many industries. EOQ model was created by F.W.Haris in 1913 and is otherwise called Wilson EOQ model, who critically investigated the model in detailed that is as indicated by Arsham (2006). The utilization of the model has demonstrated increment in certain expenses as different costs decline, a case of requesting costs decrease with the stock holdings, while holding costs rise and the all-out stock related
costs bend have a base point. It is otherwise called where absolute stock expenses are limited. EOQ is the degree of stock that limits the complete of stock holding expenses and requesting costs.

The EOQ model requires that for each thing Inventoried in the stores, there is have to decide the purpose of request and that most cost effective quantity to order. The model accept that all different factors are steady despite the fact that vulnerabilities are normal and regular all business. For instance uncertainty includes change for request, harm during transportation and postponement in delivery. Uncertainty sought after, will along these lines power EOQ to be changed in accordance with cradle against unsure business climate. The way that uncertainty sought after is by all accounts experienced much of the time, EOQ model ought to be fixed to adapt to this uncertainty.

An inventory management system for defective items with backordered shortages is explored, in which we assume that the quality of an ordered lot is not always 100% perfect, so a screening process to each product is conducted to split that lot into perfect and defective products. Meanwhile, the defective products include imperfect and scrap ones, which will be sold at a discount price and disposed of at a cost, respectively. KuoHsien et al., (2008) presented a model for finding the optimal order size and optimal backorder level for each cycle by minimizing a simpler objective of expected total cost per unit time, instead of utilizing the somewhat complex expected total profit per unit time in Eroglu and Ozdemir’s (2007) model. Sequentially, the authors also made numerous previous models as special cases of their model.

Empirical Review

JIT as an inventory management practice has been found by several studies to have a favourable effect on firm’s performance. This is supported by a study by Fullerton et al. (2003) which shows that firms which outshine their counterparts execute a large standard of JIT inventory practice than those who didn’t apply the JIT practice. As so, reduction of waste through some practices implemented such as preventive maintenance programs, set-up time reduction and uniform workloads. From the findings, firms were steadily more profitable than the competitors due to the application of the JIT techniques.

Just in Time

Contradictorily, a study by Cannon (2008) brought out conflicting results. The study researcher contended that overall firm’s performance should not be quantified with the inventory performance of the firm. Therefore the study examined the assimilation of the return on assets (ROA) as a performance’s measurement and a firm’s annual percentage change in inventory turnover as an inventory management measurement. In the study Cannon, (2008) showed that a bad impact on ROA was experienced due to an improvement on turnover taking into account the effects of time. An interpretation of the evidence showed that some turnover improvement associated with increased ROA while other turnover improvement associated with decreased ROA, which varied transversely from one firm to another pertaining to the firm’s performance and turnover improvement.

According to a study by Kotabo (2012), though there are many systems for control of Inventory, both manual and automatic, there are really two basic approaches on which these systems are based. Recording method which may take place either when materials fall to a pre-determined level or according to the situation discovered when levels are received on a periodic regular basis. The action level method of controlling Inventory by quality which involves fixing Inventory levels for each commodity which is recorded in the Inventory system. Under the action level methods of provision, commodities are ordered at unspecified intervals as and when ordering levels are related. This means that orders can only be placed usually for one item at time.
A study by Pandey, (2005) describes accounting as the use of statistical and accounting measures to maintain knowledge of the quantities of Stores present in each of the facility. It includes the use of physical inventories and materials balances to verify the presence of materials or to detect the loss of material after it occurs, in particular, through theft by one or more insiders. Brackus, (2010), study also noted that Accounting material control is concerned with the safe guarding the enterprises property in form of materials by properly recording the receipts, consumption of materials and the balance in storage. Williamson, (2005), examines application of various materials control techniques on the fact that material control procedures vary in complexity and accuracy.

The concept of Just-In-Time (JIT) system is used by Japanese management and applied in manufacturing and services companies and was introduced by Shigeo Shing and Taichi Ohno at the Toyota Motor plant. Hence, the JIT system includes the right items, right quantity and quality, right place or location in the right time. The researchers did not arrive to identify a clear and precise concept of just in time system. However, many researchers identified the concept of JIT system of managing the material flow in a plant in order to decrease or reduce the levels of inventory (Rahmani & Nayebi, 2014). Other researchers described the concept of JIT system as a long-term strategy involved to promote and encourage excellence and remove waste during the organization entire production task (Gyampah & Gargeya, 2001).

According to Gupta (2012) showed that JIT system come to be a philosophy and a managerial system include a collection of management methods and used high techniques in order to improve efficient and effectiveness operations by producing the right product and right quantity, on the right time and the right place. Additionally, JIT can be described as a strategic source that leads to achieve the competitive advantage for manufacturing companies (Lewis, 2000). Many scholars suggested that just in time system is focused on pull production concept which reduces the overall inventories in warehouses, while the push system focused on pushes the equipment and materials to next stage of production (Kootanee, Babu, & Taleri, 2013). Based on above definition, just in time can be defined as a system or strategy that is used by companies and involve many activities that are programed and planned in order to avoid overproduction and lead to achieve competitive advantage.

According to Kannan and Tan (2005) the main goals of using JIT system is simplifying the process of just in time system for elimination of waste and more controlling on raw materials and focusing on protective maintenance before the problem happened. According to Voss and Robinson (1987), the aims of just in time system to improve productivity indicators by elimination of waste which lead to high quality. Moreover, the main goals of just in time system is improving products quality and reduce the costs by using high techniques levels (Miltenburg, 2001). In addition, the goals of just in time system is to reduce set up time and inventories, emphasis on continuous improvement and knowledge of worker, layout of equipment, eliminate waste and achieve zero defect goals (Singh & Garg, 2011).

**Inventory safety Level**

Accountability has emerged as a central concept for both public and private organizations over the last two decades (Garsten and Montoya 2008). This is true in general, but also in relation to sustainability, where accountability is presented as highly desirable (Augustine 2012; Dubbink et al. 2007). Corporate accountability in relation to sustainability can manifest itself in, for example, sustainability reports (Hahn and Kühnen 2013), sustainability certifications (Bartley 2007), and product declarations (Schau and Fet 2008). With stakeholders’ sustainability focus increasingly emphasizing sustainability issues in opaque inventories (Zyglidopoulos and Fleming 2011), safety inventory level has also gained prominence (Mol 2014). Safety inventory level, though frequently discussed in the scholarly literature, is often inconsistently defined (Egels-Zandén et al. 2014). Still, two main dimensions of safety inventory level are outlined in existing literature. First, some scholars equate
safety Inventory level with traceability, i.e., the ability to track a product’s flow throughout the production process and inventory.

For example, Doorey (2011) and Laudal (2010) discuss Safety Inventory level in terms of disclosure of the names of the suppliers involved in producing a product. Scholars stress that safety Inventory level is about disclosing sustainability conditions at suppliers (Cramer 2008). Still, neither of these firms discloses the names of all suppliers involved in the inventory nor the factory audits of all disclosed suppliers, i.e., neither of them is fully transparent. One of these reasons include the need to smoothen operational requirements, the need to maintain accountability and accountability and the need to optimize resources. Meeting up operational requirement or keeping operations running have been identified as the major reason for keeping perpetual inventory system. Accountability and credibility supports the concept of accountability such that information with these attributes can be more reliably used to hold government accountable for delivering on promised service delivery within approved budgets. It is critical to note the increased focus on measuring outputs and outcomes and not just what was spent and what was received.

Li and Li (2009) presented a dynamic model of the safety Inventory in a Vendor Managed Inventory (VMI) system. Only the variability sourced by demand is considered in this model as the variability related to the suppliers disappears in the VMI system. Zhao, Lai and Lee (2001) evaluated alternative methods in the determination of the safety Inventory level in multilevel MRP systems by using a simulation approach. In addition, the results of the evaluation of the relation between the safety Inventory multiplier and different system performance measures such as service level, schedule instability, and total cost in different methods has been provided.

Desmet, Aghezzaf and Vanmaele (2010) presented an approximation model for safety Inventory in a two-echelon distribution system which incorporates the variance of the central warehouse and the retailers in the replenishment Inventory safety level. In addition, the variance of the service time of the orders at the warehouse which has substantial effect on the system’s Inventory safety level variance has been considered in this model. Safety Inventory level and location determination in the supply chain with a stochastic environment is a challenging task; therefore, there are many different assumptions in the models and approaches provided in this area to make it simpler. For example, some of these approaches exclude the suppliers’ variability, some of them have limitations in their applications, and some of them put limitation on the demand distribution, among others.

Methodology

The study adopted a descriptive survey design. The population in this study comprised all 119 staff in procurement, finance and stores departments at the head offices at Service State Corporations. Thus the effects of inventory management strategy on performance of Service State Corporations are relevant at this level prompting the choice of the departments. Therefore the study took a sample of 100% of total population which sufficient to allow generalization. The sample comprised of all 119 staff at Service State Corporations in procurement, finance and stores department at the head office. Each manager was issued with one questioner and procurement directors were expected to give information on the effects of Inventory Management strategy on performance of their respective Service State Corporations. The study developed the instruments with which to collect the necessary information containing both closed-ended and also a few open ended questions. The study used convergent validity to determine whether instrument accurately measured what they were intended to measure. Convergent validity was assessed using average variance extracted (AVE) as used by Cheon, Lee, Crooks and Song (2012) in the same thematic area. The adopted threshold for AVE values is 0.5 meaning that more than 50% of the variation was considered adequate for the study. Further, the study used content validity through consulting the experts in the thematic area as well as by giving the questionnaire to the supervisors.
whose comments were incorporated before final data collection was undertaken. For reliable instrument, a construct composite reliability co-efficient (Cronbach alpha) of 0.7 or above for all the constructs, was considered adequate (Mugenda et al, 2003). The results of this reliability test was analyzed and used to improve the research instrument.

Model specification

Regression models were used to analyse relationships and predictions among variables under the study. Multiple regression analysis was used to determine the relationship between dependent (Performance of Service State Corporation) and independent variables (JIT, safety level, perpetual inventory system and Order size policy inventory systems) the regression model thus become

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon \]

Whereby: \( \beta_0 \) is the regression intercept; \( \beta_1-\beta_4 \) are the regression coefficients; \( Y \) is the dependent variable (Performance of Service State Corporation in Kenya).

\[ X_1 = \text{Just in time} \]
\[ X_2 = \text{Inventory safety level} \]

Analysis of variance (ANOVA) was used to test the significance of the overall model at 95% level of significance. According to Mugenda (2008) analysis of variance is used because it makes use of the F – test in terms of sums of squares residual.

Results

This section highlights and presents the findings of the study. In this study, 119 questionnaires were distributed to the respondents.

Descriptive Analysis

The study sought to establish the effect of Just In Time on performance of Service State Corporations in a five-point likert scale. Table 1 illustrates the results, the organization receives goods from suppliers only when they are required to eliminate waste, the cost of warehouse is reduced by the organization because of JIT, the organization ensures high quality products are delivered on time, there is emphasis on the reduction of the replenishment Inventory safety level from suppliers and collaboration by suppliers has reduced the Inventory safety level. However, not every supplier makes a commitment to Inventory an inventory of approved Inventory for each hospital. The results on Inventory safety level summed up to a mean of 3.68 and a standard deviation of 0.83.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Just in Time</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization receive goods from suppliers only when they are required to eliminate waste</td>
<td>3.85</td>
<td>1.02</td>
<td></td>
</tr>
<tr>
<td>The organization also reduces cost of warehouse or storage due to JIT</td>
<td>3.68</td>
<td>1.04</td>
<td></td>
</tr>
<tr>
<td>The organization ensure high quality products are delivered in time</td>
<td>3.55</td>
<td>0.77</td>
<td></td>
</tr>
<tr>
<td>The organization managers highly focuses on the reduction of the replenishment Inventory safety level from suppliers</td>
<td>3.54</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Every supply makes a commitment to Inventory an inventory of approved Inventory for each hospital</td>
<td>3.34</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>The organization decreasing Inventory safety level s by supplier collaboration</td>
<td>3.69</td>
<td>1.01</td>
<td></td>
</tr>
</tbody>
</table>

http://www.ijmsbr.com
This study was interested in ascertaining descriptive analysis for safety level of Service State Corporation in Kenya. The findings on Just in Time summed up to a mean of 3.44 and standard deviation of 0.55. Inventory management process as stated by Halachmi & Bouckart, (2015) is a process in which a firm convene financially the requirements placed on it by restricting the amount of Inventory held in various forms. For cost minimisation and performance improvement, the quantities of Inventory in a firm should be held at an optimal level and this is the major objective of the perpetual inventory system.

**Table 2: Safety Level**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are verification document in receiving and issuing of inventory</td>
<td>3.31</td>
<td>1.07</td>
</tr>
<tr>
<td>Declaration of inventory is done effectively</td>
<td>3.3</td>
<td>0.99</td>
</tr>
<tr>
<td>Verification documents are filled well for future reference</td>
<td>3.29</td>
<td>1.32</td>
</tr>
<tr>
<td>Counter checking is done at entry and exit of the goods or services</td>
<td>3.57</td>
<td>1.16</td>
</tr>
<tr>
<td>The organization discloses and provides all inventory document when needed</td>
<td>3.27</td>
<td>1.12</td>
</tr>
<tr>
<td>Safety level</td>
<td>3.44</td>
<td>0.55</td>
</tr>
</tbody>
</table>

The study sought to establish the performance of Service State Corporation. The results summed up to a mean of 4.0645 and standard deviation of 0.88227 meaning that the company has high ability to develop new products. The results on performance of Service State Corporation summed up to a mean of 3.95 and standard deviation of 0.44.

**Table 3 Performance of Service State Corporation**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth in sales in relation to your expectations</td>
<td>3.613</td>
<td>0.909</td>
</tr>
<tr>
<td>Growth in profits in relation to your expectations</td>
<td>3.57</td>
<td>0.758</td>
</tr>
<tr>
<td>Increased market size in new markets in relation to your Competitors</td>
<td>3.505</td>
<td>1.239</td>
</tr>
<tr>
<td>Improvement in efficiency</td>
<td>3.839</td>
<td>0.924</td>
</tr>
<tr>
<td>High level of new customers</td>
<td>3.462</td>
<td>0.939</td>
</tr>
<tr>
<td>High ability to develop new products</td>
<td>4.065</td>
<td>0.882</td>
</tr>
<tr>
<td>Performance</td>
<td>3.95</td>
<td>0.44</td>
</tr>
</tbody>
</table>

**Inferential Statistics**

A correlation analysis of the independent factors and the dependent factor (performance of Service State Corporation) was conducted and the findings were summarized and presented in Table 4. The findings in Table 4 revealed that Just In Time has a positive and significant relationship with performance of Service State Corporation, \( r = 0.765 \) at 0.01 level of significance. Furthermore, the findings revealed that Inventory safety level has a positive and significant relationship with performance of Service State Corporation, \( r = 0.666 \) at 0.01 level of significance. Although these findings do not imply a cause-effect relationship, they point to the existence of a cause-effect linear relationship. The results in table 4 revealed that the model has a positive correlation with performance, \( R = 0.734 \). On the other hand, the value of R-square (0.734) and adjusted R-square (0.722) both indicate that 73.4% and 72.2% respectively of the variation in performance of Service State Corporation is accounted for by the independent variables in the model. The findings in Table 4 revealed that the mean square sum for the regression model was 11.64 while the one for the residuals was 0.192 giving a F statistic value of 60.658 which indicated that the regression model accounts for over 60 units in the change in performance of Service State Corporation compared to the residuals. The p-value indicates that the model is fit in predicting the change in performance of Service State Corporation.

http://www.ijmsbr.com
The findings in 4 revealed that Just In Time has a positive and significant effect on performance of Service State Corporation, \( \beta_1 = 0.222, p\text{-value} = 0.022 \) meaning that for each unit increase in the use of Just In Time, performance of Service State Corporation increases by 0.222 units. The conclusion is that Just in Time has a positive and significant effect on performance of Service State Corporation. In line with the findings, Carter and Price, (2013) assert that information is the life blood of all organizations. As such, Just in Time facilitates the flow of information in an efficient manner such that performance of Service State Corporation is improved. As well, Lysons, (2012) established that Just In Time enables Inventory to be limited to demand, reduces the risk of obsolescence, reduces probability of theft and provides information to buyers.

In addition, the findings revealed that Inventory safety level has a positive and significant effect on performance of Service State Corporation, \( \beta_2 = 0.19, p\text{-value} = 0.012 \) meaning that performance of Service State Corporation will increase by 0.19 units given an increase in the use of Inventory safety level. This means that Inventory safety level has a positive and significant effect on performance of Service State Corporation. In line with these findings, Aragon, (2003) indicated that timely and informative customer demand data can result in improved firm performance through reduced inventories.

### Table 4. Correlation And Regression Analysis

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>0.451</td>
<td>0.225</td>
<td>2.009</td>
</tr>
<tr>
<td>Just In Time</td>
<td>0.196</td>
<td>0.084</td>
<td>0.222</td>
</tr>
<tr>
<td>Inventory safety level</td>
<td>0.183</td>
<td>0.072</td>
<td>0.19</td>
</tr>
<tr>
<td>R</td>
<td>0.857</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Square</td>
<td>0.734</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.722</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Std. Error of the Estimate 0.43806

a Dependent Variable: performance of Service State Corporation

### Conclusion of the study

Based on the findings, the study infers that the Inventory safety level influences the performance of Service State Corporation. This concludes that state corporation verify document in receiving and issuing of inventory, declare inventory is done effectively, ensure documents are filled well for future reference, counter checking is done at entry and exit of the goods or services and discloses or provides all inventory document when needed.

Study also concludes that Just in Time positively affect the performance of service State Corporation. This means that just in time improves performance of service State Corporation. JIT is a flexible system and can be adapted to a wide range of healthcare settings. In addition to the above it helps in Cost reduction. When the supplies are delivered as needed, the costs associated with unused inventory are minimized. JIT as an inventory management practice has been found, by several studies, to have a favourable effect on firm’s performance. Firms which outshine their counterparts execute a large standard of JIT inventory practice than those who didn’t apply the JIT practice. As so, reduction of waste through some practices implemented such as preventive maintenance programs, set-up time reduction and uniform workloads. From the findings, firms were steadily more profitable than the competitors due to the application of the JIT techniques.

### Recommendations of the study

This study is a milestone for future research in this area, particularly in Kenya. Future research will need to be carried in other industries and countries in order to show if the link between strategic inventory management
practices and performance of Service State Corporation can be generalized. On Just in Time, the research recommends that Service State Corporation in Kenya to practice this JIT system since the approach relies on a scheme in which company suppliers deliver their products directly to the company production centre in small quantities but more frequently – they deliver just the products needed for current production. In fact, the products arrive “just in time” instead of being sent to storage first and then sent to a producer when they are needed. Through successful JIT management, companies will prevent the risk of being stuck with inventories that may become obsolete. On Inventory safety level, the research recommends that state cooperation to use of the Inventory safety level in inventory management for it reduces the cost of Inventory out and over-Inventorizing costs, and as a result, the reduction of the total cost. Further research should be conducted to investigate the other variables which influence 9.5% of the role of strategic inventory management practices on performance of Service State Corporation.

REFERENCES


