

# **EFFECT OF INVENTORY MANAGEMENT PRACTICES ON PERFORMANCE OF COMMERCIAL STATE CORPORATIONS IN KENYA**

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**International Academic Journal of Procurement and Supply Chain Management  
(IAJPSCM) | ISSN 2518-2404**

**Received:** 29<sup>th</sup> August 2019

**Accepted:** 5<sup>th</sup> September 2019

Full Length Research

**Available Online at:**

[http://www.iajournals.org/articles/iajpscm\\_v3\\_i1\\_180\\_197.pdf](http://www.iajournals.org/articles/iajpscm_v3_i1_180_197.pdf)

**Citation:** Mulandi, C. M. & Ismail, N. (2019). Effect of inventory management practices on performance of commercial state corporations in Kenya. *International Academic Journal of Procurement and Supply Chain Management*, 3(1), 180-197

## **ABSTRACT**

The increased forces of competition at the market place and globalization have meant that firms need to come up with the best way for survival hence inventory management. It is estimated that about 60-70% of the overall funds of firms in the manufacturing concern are tied up and represented by the values of the current asset and out of this, inventory takes up a largest portion. Organizations including commercial state corporations are faced by various challenges including excessive built up of inventories that increases tied up capital which limits investment in alternative channels, poor efficiency and effectiveness. The study sought to determine the effect of inventory management practices on performance of commercial state corporations in Kenya. The specific objectives of the study were; to determine the effect of just-in-time inventory system on performance of commercial state corporations in Kenya and to assess the effect material requirement planning on performance of commercial state corporations in Kenya. The study adopted a descriptive research design and

the 33 commercial state-owned enterprises were targeted. A total of 33 supply chain managers or their equivalent from these state-owned enterprises formed the study population. A census was adopted and thus the sample size comprised of 33 respondents. The study collected primary data using questionnaires and the analysis of the collected data was done using descriptive and inferential statistics. The findings were presented using tables and figures. The study established that just-in-time inventory system and material requirement planning have positive and significant relationship with performance. The study concludes that inventory management has positive and significant relationship with the performance of commercial state corporations in Kenya. The study recommends to the management of all commercial state-owned enterprises in Kenya to invest more resources in enhancing the functionalities of their JIT systems and MRP systems.

**Key Words:** *inventory management practices, performance, commercial state corporations, Kenya*

## **INTRODUCTION**

According to Balcik, Bozkir and Kundakcioglu (2016) proper inventory management is diverse covering activities like financing, purchasing as well as the selling policies in an organization hence there may be existing contradictory objectives when it is exercised in an organization. To illustrate this argument, Hicks, McWhirter, McArthur and Williams (2017) give a hypothetical case where the finance managers effort to minimize inventory levels (thus reduce on costs and improve on performance) may contradict with the marketing managers efforts of minimizing possibility and likelihood of inventory shortage in an organization. In its simplest term therefore, inventory management covers specifications for inventories, retention as well as control of the required level of inventories on one perspective and making sure that the total inventory costs are

kept as minimal or low as possible as the other perspective (Bertsimas, Kallus & Hussain, 2016). Inventory management strives to establish a balance between inventory shortage and excessive inventories. Inventory shortage is associated with reduced sales and disrupted production as well as unfavorable demand. On the other hand, a built up of excessive inventories could increase inventory holding and storage costs in terms of breakage, obsolescence, insurance and an opportunity cost arising from the funds that could otherwise have been used in other investment projects (Barrow & Kourentzes, 2016).

Efficient inventory management practice can be achieved with the help of various methods and techniques including just-in-time (JIT) system and material requirement planning (MRP). JIT ensures leanness and eliminates wastage where production is in response to demand (Inegbedion, Eze, Asaleye & Lawal, 2019). It helps in avoiding excessive built-up of inventories in an organization hence reduced tied up capital that positively contributes to performance of an organization. On the other hand, material requirement planning helps an organization to effectively forecast for inventory needs (the materials). It is an important inventory management method for scheduling and determining proper flow of raw materials in an organization (Volkov, 2017).

Proper inventory management will therefore help firms to meet or exceed customer expectations which results into better performance. According to Heizer, Render, Munson and Sachan (2017), inventory management helps firms to cut down on tied up capital which brings about maximization of the wealth of shareholders which is the underlying objective of most firms. At the same time, Laux, Mosher and Hurburgh (2015) argue that inventory management helps firms to minimize on inventory ordering and holding cost which results into maximization of the revenues generated. Zare, Chavez, Raymundo and Rojas (2018) indicates that proper inventory management helps firms to accurately forecast the inventory needs of the firm and thus enabling the firm to address demand uncertainties. Song, van-Houtum and Van-Mieghem (2019) opine that inventory management helps an organization to meet the set production or sales revenues which is an important component of performance. According to Shin, Wood and Jun (2016), inventory management helps firms especially manufacturing organizations to smoothen the operations as adequate inventories in place means there would not be disruptions in the production processes on account of inadequate inventories. From the aforementioned discussion, a positive relationship is anticipated between inventory management and performance.

In Kenya, inventory has an important role to play and it contributes to around 56% of the annual firm sales and turn over. The growing level of competition among firms in Kenya has resulted into the need for inventory management strategies for gaining of competitive advantage and thus ultimately improving on performance. The level of competition has also meant that Kenyan firms come up with best methods and techniques of measuring as well as management of the available scarce resources for elimination of waste. According to Heizer, Render, Munson and Sachan

(2017), firms that are able to manage their resources well including inventories are in better position to remain competitive and thus improve on their performance.

A number of companies in Kenya are experiencing cash flow problems and financial challenges because of poor management of inventories. Some examples of these companies include Uchumi Supermarket and Nakumatt Supermarket which have been put under receivership and are now in the process of liquidation. The financial challenges experienced by these firms is because in one way or the other, they built up a large amount of inventories resulting into an increase in tied up capital thus depriving the firms of capital required for other alternative investments. In the manufacturing sector, good example of a firm experiencing financial challenges is Mumias Sugar Ltd.

## **STATEMENT OF THE PROBLEM**

Firms are increasingly operating in an ever-changing and competitive environment that directly affects their ability to generate revenues. There are also customer dynamics including changing lifestyles and the demand for quality goods and products by firms and customers. All these challenges coupled with resource constraints have meant that firms need to come up with alternative ways of remaining competitive and improving on performance. Inventory management has emerged as a critical strategy for such firms to offer quality products that meet or exceed customer needs, increase responsiveness and meet demand expectations and uncertainties (Mangan, Lalwani & Lalwani, 2016). Commercial state corporations around the world have been characterized by poor performance in terms of service delivery to the public, increased corruption and embezzlement of funds. In Kenya, the 2013 presidential taskforce revealed that state-owned enterprises (SOEs) made losses in the financial year 2009/10 and 2010/11 and some of the reasons cited are lack of sound inventory management practices, poor reporting and tracking systems, lack of sound internal control systems and misappropriation of financial resources. Inventories constitute a significant portion of assets in most commercial state corporations and according to Atnafu and Balda (2018), a potential saving of 6% of the overall costs of the firm can be realized when inventories have been soundly and properly managed. According to Haq and Boddu (2017), it is widely acknowledged that the cost of holding inventories in an organization falls between 4-10% in an organization with proper inventory management which calls for the need to strike a balance between overstocking and under stocking in a firm which should ultimately lead to the optimum levels of inventory kept by the firm at all times. Literature suggests that inventory management and performance are correlated although the nature of relationship is mixed comprising of negative and positive, significant as well as non-significant relationships. Existence of this mixed relationship can however not result into conclusive decision and deductions on how inventory management relates with performance. For instance, Wafula (2016) examined the influence of inventory management on operational performance of oil marketing companies and established a positive relationship. This study however looked at specific attributes of operational performance and not simply

performance in general and was specifically on oil marketing companies. Elsayed and Wahba (2016) sought to determine the relationship between inventory management and performance of the firm within private commercial enterprises and noted a negative relationship. Atnafu and Balda (2018) examined inventory management and how it impacts on competitive ability and performance of the firm among small and micro enterprises in Ethiopia and established a positive relationship. It is noted that, in addition to performance, the study also covered competitive advantage. Eke, Obi-Anike and Agu (2016) analyzed how inventory management influences organizational performance with reference to selected firms in the manufacturing sector in Singapore. The study revealed the inventory management has significant effect on performance of the firm. Oballah, Waiganjo and Wachiuri (2015) studied inventory management practices and performance with reference to Kenyan public health institutions and established a positive relationship. Thus, although studies have been done to explore the relationship between inventory management and performance, very few have been done within the region and locally and those that have been done locally have focused on the private sector with some done on health institutions which results into knowledge and research gaps. To fill these gaps, the current study sought to determine the effect of inventory management practices on performance of commercial state corporations in Kenya.

## **GENERAL OBJECTIVE**

The general objective of the study was to determine the effect of inventory management practices on performance of commercial state corporations in Kenya.

## **SPECIFIC OBJECTIVES**

1. To determine the effect of just-in-time inventory system on performance of commercial state corporations in Kenya
2. To assess the effect of material requirement planning inventory system on performance of commercial state corporations in Kenya

## **THEORETICAL REVIEW**

### **Transaction Cost Theory**

This theory was formulated by Williamson (1975) and Ferris (1981) and it is used in explaining different behavior and outcomes. The theory indicates that there are some types of costs incurred by people without their full knowledge that such are costs. Such costs are incurred when people transact differently. This transaction cost theory will act the basis of economic reasoning and thinking among economic agents. The key claim of the theory is that people would always handle transactions such that the costs to be incurred in carrying out are minimized as low as

possible. The simple description of a transaction is the transfer of service or goods and it forms the basis of analyzing a transaction cost (Wiesner, 2017).

According to this theory, the management team of an organization may reduce the transaction costs especially those related to inventories through various strategies including order quantities, safety stock level policies, demand forecasting and bill payment policies. For instance, firms may negotiate supplier payment obligations and pay them on a periodic basis like on a monthly or quarterly basis as opposed to paying them on daily basis. Through this, a firm is in position to clearly separate the payment cycle from the delivery time or schedule. Sufficient level of credit may therefore be built up by the firm for smooth and efficient operations. This however, is related with the costs for instance storage costs and tied up capital. It is therefore the responsibility of the management to come up with a sound strategy that minimize these costs and generate more profits (Khalid & Ali, 2017).

Although some firms may accumulate a huge portion of inventories so as to minimize the ordering costs, this however brings about the holding costs of inventories. Thus, a proper decision should strike the balance between the benefits versus the risk (Parida, Wincent & Oghazi, 2016). This theory is relevant to the study in developing the optimum stock levels in the organization in ensuring the investment in stock maximizes returns and minimizes risks associated with the inventory costs and shortage cost. The theory therefore provides a linkage between Just-in-Time inventory management system and performance of an organization.

### **Theory of Constraints**

The theory of constraints was formulated by Goldratt (1984) and it seeks to raise the level of proficiency of the manufacturing throughput. The theory argues that an organization should be able to deal with a number of limitations including long queues and requisition of wrong material. The focus of the theory is on how well an organization can deal with all these issues and challenges for increased efficiency. This can only be possible when an organization applies proper inventory management practices. The theory indicates that an organization striving to enhance effectiveness in operations should first of all identify factors that act as constraints to the manufacturing system (Cheng, 2017).

There are a number of challenges and difficulties as far as application of the constraints as a concept is involved. These challenges include long lead times and unfulfilled orders. In order to identify the key issues that may hinder an organization from realizing its goals, the theory advocates for use of forecasting method. The theory is premised on three key issues; throughput, operational expenses and investment (Douissa & Jabeur, 2016). The various constraints that may limit an organization from attaining its goals are classified as internal and external constraints. Internal constraints may include factors like market demand that exceeds what an organization delivers. It can also be external such that an organization produces more than what the market consumes (Disney, Maltz, Wang & Warburton, 2016).

The theory of constraints has widely been applied in inventory management processes especially in organizations advocating for leanness in operations. Through identification and removal of constraints that slows down the system throughput, the theory of constraints aims at increasing the production capacity of the firm. This theory may therefore inform effective demand forecasting, material scheduling and planning which may result in only required materials ordered at any given time for all production cycles.

## **EMPIRICAL LITERATURE REVIEW**

### **Just-in-time Inventory System**

Upadhye, Deshmukh, Garg and Sharma (2015) looked at just-in-time, the issues in its implementation in India. The study focused on Corrugated Packaging Industries. The study adopted a survey method and data was collected from primary sources. Data analysis was done with the help of regression analysis. It was revealed that JIT has positive influence on performance of the firm. Chaudhari and Patel (2015) conducted a study to determine the implementation of JIT in a manufacturing concern. This was an empirical review that was achieved by reviewing relevant material and literature on JIT. From the findings, it was established that JIT is one of the widely acknowledged and recognized systems and philosophies of enhancing manufacturing excellence.

Kaswan, Rathi and Singh (2019) looked at JIT and its influence on decision making in the health care context in India. The study was empirical in nature and the review of literature suggested that JIT has positive effect on performance of the firm. Filippini and Forza (2016) sought to determine how JIT system impacts on performance using a case of Indian firms. This was an empirical study and it documented positive relationship between JIT as a system of inventory management and performance of the firm.

Qureshi, Iftikhar, Bhatti, Shams and Zaman (2013) did a study on critical elements relevant for implementing JIT management through the Information integration-based system. The study was done in cement industry in Pakistan. Survey responses were used to gather data from 400 operation managers in cement manufacturing firms. Questionnaires and interviews were used in collection of data. The findings indicated that JIT system of inventory management has a positive and significant influence on performance of the firm. It was shown that JIT system of inventory helps in minimization of defects while permitting continuous flow of operations in the firm. The study pointed out the need for increased commitment from the top management in implementation of JIT system.

Kariuki (2017) carried out a study to determine the influence of inventory management techniques on firms' performance. The study used a case of Laikipia County. The variables of the study included IT based system: JIT, VMI, and ERP system of managing inventories and

techniques of forecasting demand. A descriptive design was used and a total of 60 staff from the county formed the population of interest. The study noted that all firms need to implement and embrace inventory management techniques in order to positively influence on their performance. The study noted in particular, JIT results into improved communication and relationship and lower costs hence improving efficiency.

### **Material Requirement Planning**

An MRP system helps in optimizing performance of the firm through ensuring that the needs and requirements of the customers are met. It also minimizes on costs through optimal use of the resources in place. An MRP system according to Bertsimas, Kallus and Hussain (2016) aims at ensuring that the right item is purchased and put in place for production processes in the firm at the lowest costs as much as possible. According to Balcik, Bozkir and Kundakcioglu (2016), material requirement helps to determine the manufacturing requirements including scheduling materials required in the operations as well as procurement, storage and disposal of the materials. According to Sainadh and Sandhya (2018), the MRP first starts with a master production schedule that schedules the end products that should be completed in organization on a weekly basis during the period of planning. It relies on order of the customers, sales forecast and the manufacturing policy in place. According to RR, the MRP first starts in the sales department when a sales plan is drawn.

Keitany, Wanyoike and Richu (2014) sought to determine the role played by material management on performance of an organization with reference to Kenyan New KCC. The variables of the study included inventory control systems and lead time. A total of 49 respondents were sampled using stratified random technique. Questionnaires were used in collection of data. To present findings, tables and figures were used. The study established that inventory control and lead time (as components of MRP) all have positive effect on performance of the firm.

Imetieg and Lutovac (2015) looked at project scheduling method with time using MRP System. The study used a case of construction project in Libya. The study was empirical in nature and sufficient literature was reviewed to determine interaction between the variables. It was established that MRP ensures that materials are available for production, that products are available to be delivered to customers, which low amount of material are kept in store and that planned delivery schedules are in place. The study established correlation between costs and times of each activity in an organization.



## **RESEARCH METHODOLOGY**

### **Research Design**

Research design is an overall structure that provides an outline of how the study will be carried out. Bernard (2017) considers a research design as a blue print in any study as it determines the methods to be used for collection as well as analysis of the findings of the study. The study adopted a descriptive research design. Patten and Newhart (2017) argue that a descriptive design is majorly used in primary studies and it allows one to collect and make a summary of the findings in a clear way. Coolican (2017) indicates that a descriptive design is majorly used to answer questions about What, Why and How on a given phenomenon. The use of the descriptive design was justified on ground that it helped the researcher to describe the inventory management systems currently among commercial state corporations and how they have influenced its performance.

### **Target Population**

The term population is used to describe the whole list of items or events that are of major focus in a study (Patten & Newhart, 2017). The population is a group of homogenous items or events that the researcher has an interest in. The study targeted 33 state owned commercial enterprises and the respondents were supply chain managers or their equivalents from these state corporations. Hence, 33 commercial state corporations were the population of the study.

### **Sample Size and Sampling Technique**

According to Kombo and Tromp (2006), to sample is to select representative elements from the population for inclusion in the study. The study adopted a census since the population is small and therefore all the 33 commercial state corporations as respondents were included in the study. According to Yin (2015), census is ideal when the population is so small, less than 200 elements.

### **Data Collection Instruments**

The study collected primary data using questionnaires as the major tool. According to Creswell and Creswell (2017), primary data is the kind of information that is collected first hand and thus it has some degree of originality. Both the quantitative and qualitative data were used in the study. The questionnaires used in collection of primary data were structured. Structuring questionnaires made them to be standard and thus ease the process of analysis as such information was easily coded into the analysis software. The rationale for using the questionnaire is that each respondent is asked the same set of questions that provide an efficient way of collecting responses from the respondents prior to analysis (Saunders et al., 2003). The questionnaires were designed on a five-point Likert scale where 1=strongly disagree and

5=strongly agree. The questionnaire was divided into six sections based on the objectives of the study. Section A detailed the general information about respondents while the subsequent sections had information on JIT, MRP and performance of commercial state corporations respectively.

## **Data Analysis and Presentation**

Data analysis is the process of gathering, modelling and transforming data with the objective of highlighting useful information, suggesting conclusion and supporting decisions making (Fitcher, 2005). Once data had been collected from respondents in the field, it was cleaned and edited before being entered into the Statistical Package for Social Sciences (SPSS). The findings were done using descriptive as well as inferential statistics. The specific descriptive statistics include the use of means and standard deviations. Inferential statistics included the use of regression analysis. Tables, figures and other statistical tool were also used to represent the data in a simple and understandable way. The regression model adopted took the following form;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where: Y= Performance; X<sub>1</sub> = Just-in-time inventory system; X<sub>2</sub>= Material requirement planning; B<sub>0</sub>= Constant, and β<sub>1</sub>, β<sub>2</sub>= coefficient of predictors and ε = error term

## **RESEARCH RESULTS**

### **Just-In-Time Inventory System**

The study sought to determine the influence on JIT inventory system on performance. From the findings, the overall score showed a mean of 3.84 with standard deviation of 0.945. This means that respondents of the study generally agreed on various statements under JIT inventory system and how it influence performance. The low value of standard deviation infers that respondents generally had convergent views on JIT inventory system and how it influence performance. Respondents highly agreed on the fact that there was continuous improvement in supply chain operations within the firm (M=4.15, SD=0.770) and that there was reduction of the lead-time due to the adoption of Just-In-Time practices (M=3.89, SD=1.013). The findings are in line with Pinto et al. (2018) who see JIT as a philosophy of making the firm to timely respond to market demand without the need to overstock. It helps to eliminate wastages in operations and activities of the firm. According to Cheng (2017), JIT system ensures that the firm has minimum level of inventories. It helps to reduce wastage and reduce inventory costs in an organization.

On whether employees were encouraged to continuously improve in their activities in the firm, the mean was the lowest at 3.70 and standard deviation of 1.203. Respondents had divergent views on this statement as shown by a high standard deviation. The finding is in line with Tewari et al. 2016) who identified three key and fundamental principles that JIT is established on;

elimination of waste, continuous improvement in quality and encouraging worker participation in planning as well as execution. According to John, Etim and Ime (2015), JIT system calls for close collaboration and cooperation between the firm and its suppliers as this ensures that they get required items as and when required. Folinias, Fotiadis and Coudounaris (2017) also points out that JIT calls for continuous improvement, waste elimination and involvement of people.

### **Material Requirement Planning**

The study sought to bring out the influence on MRP on firm performance. From the findings, it was established that MRP had an overall score of 3.86; this means that respondents agreed on the statements that were provided. The overall value of standard deviation was also very low; this means that respondents had similar opinions on most of the statements under MRP. The statement with the highest mean ( $M=3.93$ ) was the fact that the firm has a material requirement planning system in place while the one with low mean ( $M=3.74$ ) was the fact that MRP system helped the firm to effectively schedule inventories. According to Balcik, Bozkir and Kundakcioglu (2016), material requirement planning helps to determine the manufacturing requirements including scheduling materials required in the operations as well as procurement, storage and disposal of the materials. The statements that resulted into divergent views from respondents include the fact that MRP system helps the firm to effectively schedule inventories ( $SD=1.095$ ), MRP system helps the firm to forecast the demand level ( $SD=1.055$ ) and that the use of MRP helps the firm to effectively plan for the raw materials ( $M=1.013$ ). According to Sainadh and Sandhya (2018), the MRP first starts with a master production schedule that schedules the end products that should be completed in organization on a weekly basis during the period of planning.

### **Performance of the Commercial State Corporations**

Performance was the dependent variable of the study. From the results, the overall mean score on the statements under performance of the organization was 3.83; this shows that respondents agreed on the statements. More specifically, respondents agreed more on whether their firm has significantly reduced its overall costs (4.07,  $SD=0.874$ ). Respondents slightly agreed on whether their firm ensured customers are satisfied with the products ( $M=3.56$ ,  $SD=0.974$ ).

### **INFERENCE STATISTICS**

In order to achieve the main objective which was to establish the effect of inventory management practices on performance of commercial state corporations in Kenya, regression analysis was carried out. The findings are presented in subsequent sections.

### **Just-In-Time Inventory System and Performance**

The study sought to determine the effect of JIT on performance. Table 1 gives the findings of the Model Summary.

**Table 1: Model Summary for JIT**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.897 <sup>a</sup>	.805	.797	.01809

From the findings in Table 1, the value of R square is 0.805; this means that 80.5% change in performances is explained by JIT system in place.

**Table 2: Analysis of Variance for JIT**

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	.034	1	.034	102.964	.000 <sup>b</sup>
Residual	.008	25	.000		
Total	.042	26			

The findings of the Analysis of Variance are shown in Table 2. From the findings, the value of F calculated is 102.964, which is much greater than F critical. This means that the overall regression model used in the study was significant.

**Table 3: Beta Coefficients for JIT Inventory system**

	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>		
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	<b>Sig.</b>
(Constant)	.337	.029		11.448	.000
JIT Inventory System	.070	.007	.897	10.147	.000

The findings of the beta coefficients and the significance are shown in Table 3. From the findings, the study established that JIT ( $p < 0.05$ ) has a positive and significant effect on performance.

### **Material Requirement Planning and Performance**

The study sought to assess the effect of MRP on performance of commercial state corporations. Table 4 gives the findings of model summary on MRP.

**Table 4: Model Summary for MRP**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.829 <sup>a</sup>	.688	.675	.02288

The study established that R square was 0.688; this means that 68.8% change in performance is explained by MRP.

**Table 5: ANOVA for MRP**

<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	.029	1	.029	55.058	.000 <sup>b</sup>
	Residual	.013	25	.001		
	Total	.042	26			

From Table 5, the value of F calculated is 55.058; this means that the overall regression model of the study was significant.

**Table 6: Regression Coefficient for MRP**

<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
1	(Constant)	.224	.025		8.910	.000
	MRP	.042	.006	.829	7.420	.000

As indicated in Table 6, MRP has positive and significant effect on performance. This is supported by p-value less than 0.05.

## **CONCLUSION**

### **Just-in-Time**

Just in time inventory system has positive and significant relationship with performance of commercial state corporations. Most organizations today have embraced JIT system in management of their inventories possibly because of its ability to eliminate waste.

### **Material Requirement Planning**

The study concludes that MRP has positive and significant relationship with performance of commercial state corporations. Although most of the organizations have MRP in place, the system is not highly effective in helping some of the organizations to schedule their inventories.

## **RECOMMENDATIONS**

### **Just-in-Time System**

Since JIT-system has positive influence on organizational performance, the study recommends to the management of all commercial state-owned enterprises in Kenya to invest more resources in enhancing the functionalities of their JIT systems and to involve employees in the implementation of the JIT for optimum performance

## **Material Requirement Planning**

The findings of the study confirmed that MRP system has positive and significant relationship with organizational performance. Based on this finding, the study recommends that commercial state owned enterprises in Kenya work to improve on their MRP systems, especially its use in scheduling of inventories so as to maximize the performance of the organization.

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