DECLARATION

Declaration by the Candidate

This project is my original work and has not been presented for award of degree in any other University or institution. No part of this project may be reproduced without the prior permission of the author and/or University of Nairobi.

Signature_____ Date_____

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Reg. No: D61/66987/2011

This project has been submitted for examination with my approval as University Supervisor.

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ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
EOQ	Economic Order Quantity
JIT	Just-in-time
JMI	Joint Managed Inventory
KCC	Kenya Cooperative Creameries
NGO	Non-Governmental Organizations
SCT	Strategic Choice Theory
SPSS	Statistical Package for Social Sciences
TCA	Transaction Cost Analysis
TQC	Total Quality Control
VMI	Vendor Managed Inventory

OPERATIONAL DEFINITION OF TERMS

Inventory	Refers to a complete listing of merchandise or stock on hand, work in progress, raw materials, finished goods on hand etc
Inventory Management	Refers to the activities employed in maintaining the optimum number or amount of each inventory item.
Operational Performance	The alignment of the various business units within a company in order to ensure that the units are helping the company achieve a centralized set of goals. This is done by reviewing and optimizing the operations of the business units
ABC Analysis	An analysis of a range of items that have different levels of significance and should be handled or controlled differently
Economic Order Quantity	Refers to the order quantity that minimizes the total inventory holding costs and ordering costs.
Vendor Managed Inventory	A means of optimizing Supply Chain performance in which the manufacturer is responsible for maintaining the distributor's inventory levels
Just-In Time	It is a production and inventory control system in which materials are purchased and units are produced only as needed to meet actual customer demand.

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ABSTRACT

The purpose of this study was to investigate the inventory management practices on operational performance in Non-governmental organizations in Kenya. The research objectives were to establish inventory management practices used by NGOs in Kenya, to determine the relationship between inventory management practices and operational performance of NGOs in Kenya and to establish the challenges faced by NGOs in the implementation of inventory management practices. This study was carried out through a descriptive research design. This study targeted 10 NGOs within Nairobi County. Stratified sampling design was used to sample the NGOs within Nairobi County. The sample size was 70 respondents. Data was analysed using descriptive statistics with the use of Statistical Package for Social Sciences (SPSS). This study established that a unit increase in ABC Analysis would lead to increase in operational performance of NGOs by a factor of 0.683, a unit increase in Economic order quantity would lead to increase in operational performance of NGOs by a factor of 0.702, unit increase in Vendor managed inventory would lead to increase in operational performance of NGOs by a factor of 0.793, a unit increase in Demand focus inventory would lead to increase in operational performance of NGOs by a factor of 0.699 and a unit increase in Automatic replenishment would lead to increase in operational performance of NGOs by a factor of 0.612. Vendor managed inventory was found to have more effect on operational performance of NGOs in Kenya compared to other inventory management practices studied. The study concluded that Effective inventory control management is recognized as one of the areas management of any organization should acquire capability. The ability of any organization to evolve effective inventory control management system will depend on the extent to which it perceives the benefits it stands to gain from such program. In general the findings that emerged from this study have indicated that NGOs stand to gain a lot from effective inventory control management system. Some of this benefit include optimal use of resources, cost reduction, improved profitability, improved sales effectiveness, reduction of waste, transparency and accountability, easy storage and retrieval of stock, high inventory utilization amongst others. The study recommends that NGOs adopt proactive attitudes towards the issue of proper inventor management practices. Being proactive requires maintenance of the right level of inventory at any point in time. The NGOs should avoid the dangers that are inherent in keeping too little or too much of stock. The study recommends that NGOs adopt the inventory keeping method that best suits their operation. Here, vendor managed inventory could be considered as an option as it has been proven to be effective in maintaining the right level of inventory and also prevent stock-outs. There is also the need for organizations to train their personnel in the area of inventory control management. Best practice inventory management software should be deployed by firms as a reliable strategy for managing the rising cost of the holding stock. This may involve training employees on the usage of the software, or by acquiring the services of external system consultants.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

The entire concept of organizational performance is based upon creation of value according to Carton (2011). Carton (2011) further argues that an organization is the voluntary association of productive assets, including human, physical, and capital resources, for the purpose of achieving a shared purpose. Those providing the assets will only commit them to the organization so long as they are satisfied with the value they receive in exchange, relative to alternative uses of the assets. Verbeeten and Bonns (2012) show that so long as the value created by the use of the contributed assets is equal to or greater than the value expected by those contributing the assets, the assets will continue to be made available to the organization and the organization will continue to exist. Verbeeten and Bonns (2012) further argue that the major objective of every business enterprise is to consistently outperform competition and deliver sustainable superior returns or values to the owner.

Inventory management techniques are extremely important for business operations because their success and cost reduction of the firm's expenditure necessitate improved operational performance and knowledge to the employees (Lambert, 2008). These techniques are critical and knowledge in them is highly desirable thus, managers and procurement staff need to be able to apply the techniques for the benefit of the organization (Fellows & Rottger, 2005).

Inventory management may be defined as the system used by a firm to control its investment in inventory (Stevenson, 2010). It involves the recording and monitoring of stock level, forecasting future demand and deciding on when and how to order (Adeyemi & Salami, 2010). The primary goal of inventory management, therefore, is to have adequate quantities of high quality items available to serve customer needs, while also minimized the costs of carrying inventory (Brigham & Ehrhard, 2013).

1.1.1 Inventory Management Practices

Inventory management may be defined as the system used by a firm to control its investment in inventory (Stevenson, 2010). It involves the recording and monitoring of

stock level, forecasting future demand and deciding on when and how to order (Adeyemi and Salami, 2010). The primary goal of inventory management, therefore, is to have adequate quantities of high quality items available to serve customer needs, while also minimized the costs of carrying inventory (Brigham & Ehrhard, 2005).

According to Miller (2010), inventory management involves all activities put in place to ensure that customers have the needed product or service. It coordinates the purchasing, manufacturing and distribution functions to meet the marketing needs and organizational needs of availing the product to the customers. Inventory management is primarily involved with specifying the size and placement of stocked goods. Inventory management is required at different locations within a facility or within multiple locations of a supply network to protect the regular and planned course of production against the random disturbance of running out of materials (Ketchen & Hult, 2007).

Bachetti et al. (2010) argue that inventory management need to be organized in a logical way to facilitate the organization knowledge of when to order and quantity to order. Economic order quantity enables organizations plan their inventory replenishment on a timely basis such as monthly, quarterly, half yearly or yearly basis. The management of inventories has an important bearing on the financial strength and competitiveness of organizations due to the reason that it directly affects the working capital, production and customer services (Vergin, 2012). Many practices are available for effectively managing inventories. There are traditional IM practices such as order quantity purchase, Always Better Control (ABC) practice and modern IM practices such as computerized inventory accounting Just-in time (JIT) and Vendor Managed Inventory (VMI).

1.1.2 Organizational Performance

The organization's performance is measured against standard or prescribed indicators of effectiveness, efficiency, and environmental responsibility such as, cycle time, productivity, waste reduction, and regulatory compliance as indicated by Adeyemi and Salami (2010). In order to improve operational efficiency an organization has to measure both the input and the output side of the inventory management.

Better management of inventories would release capital for use elsewhere productively (Ghosh & Kumar, 2003). Hence Inventory control implies the coordination of materials accessibility, controlling, utilization and procuring of material. The direction of activity with the purpose of getting the right inventory in the right place at the right time and in the right quantity is inventory control and it is directly linked to production function of any organization. This implies that profitability of any organization directly and indirectly is affected by the inventory management system operated (Miller, 2010)

Because of the relative largeness of inventories maintained by the non-governmental organizations (NGOs) in Kenya, a considerable amount of organization's fund is being committed to holding inventory. It thus becomes essential to deploy cutting-edge techniques to manage inventories efficiently so as to avoid the costs of changing production rates, overtime cost, sub-contracting, unnecessary cost of sales and back order penalties during periods of peak demand (Chen, 2005).

1.1.3 Inventory Management Practices and Performance

Inventory management is required at different locations within a facility or within multiple locations of a supply network to protect the regular and planned course of production against the random disturbance of running out of materials or goods (Blackstone & Cox, 2012). Effective inventory management determined how profit of an organization can be maximized. Maximizing of profit depend on minimizing cost and maximizing revenue. Maximization is an efficient concept which requires increasing profit without increasing the resources used (Hugo et al., 2009). The import of inventory management in organization is to ensure that at any point in time the capital of the business is not necessarily tied down in form of material in the store, which may provide opportunity for fraud and theft. In other word the management wishes to put at minimal rate stock losses, which emanate from store operation (Letinkaya & Lee, 2010). Thus, as business organization stock is of paramount important likewise the profit of the business.

Whitin (2009) argue that inventory problems of too great or too small quantities on hand can cause business failures. If a small business experiences stock-out of a critical inventory item, production halts could result. It is thus the management of this economics of stockholding, that is appropriately being refers to as inventory management. Therefore

it should be adequately taken care of because it has to do with profit of the business. A well planned and effective stock management can contribute substantially to a firm annual turnover (Dess & Robinson, 2014).

The right approach to inventory management can produce dramatic benefits in customer service with lower inventory, no matter how complex company network is. Therefore, Peel et al (2010) suggested that implementation of supply chain management (SCM) practices have greater impact on achieving competitive advantage as well as improving firm's performance. Howorth and Westhead (2013) notified that inventory management consists of everything from accurate record-keeping to shipping and receiving of products on time, therefore, an inventory management that is properly maintained can keep a company's supply chain running smoothly and efficiently.

1.1.4 Non-Governmental Organizations in Kenya

NGOs began to be registered in early 1990s, after their number began growing noticeably. The sector now employs more than 300,000 people full-time which is about 2.1 percent of the economically active population, and a sizeable 16.3 percent of non-agricultural employment (Kanyinga, 2004). NGOs are considered part of the civil society by international development agencies such as the World Bank, USAID and the United Nations, and by the wide literature on NGOs in developing countries. Most NGOs in Kenya are involved in one or more of the following eight types of activities: agriculture, education, environment, general development, peace and governance, health, emergency or refugee relief, and programs directed at disadvantaged communities (specifically women, children, youth, the disabled and the elderly).

The operations of NGOs in Kenya and other countries are hampered by many factors. These have implications for NGO autonomy. For instance, Bratton (2009) indicate that the operational environment of NGOs determines the effectiveness of programmes and projects undertaken by those NGOs. There are both external and internal environments that impinge on NGOs' performance and output. Operational environment: Economic-Donors, Political, Social, State departments, Beneficiaries, Law, Founders. Under systems theory, organizations' behavioural pattern largely depends on the environment (both external and internal) in which they are operating. How NGO's as organizations are

run depends on for instance, the political, economic and social conditions in the country (Lewis, 2011).

1.2 Statement of the Problem

The implementation of proper inventory management does not come without a risk factor and organizations should review the benefits and drawbacks of inventory management as the implementation and the impact of these practices can vary from organization to organization and from country to a country (Flynn et al., 2009). 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. Poor inventory management had become an issue of great concern since performance is regarded as the main stream for development of organizations. Gonzalez and Gonzalez (2010) noted that management and staff have minimal knowledge on how to apply the economic order quantity which negates the success of an organization.

Studies have found out that assessing NGO's operational performance was difficult and some NGO's had pulled out their operations and no investigations had been carried out to ascertain why this was happening (Falex, 2011), Spar & Dail, 2012). A study conducted by Maghanga (2011) established that for the tea processing firms to survive they need to embrace the changing competitive trends in the market. Best business practices need to be adopted for the business to remain relevant and competitive. However, the study did not cover the need to assess the inventory management practices and operational performance in organizations.

The study conducted by Githendu et al (2008) indicated that firms that have centralized stock holding have an advantage because they are able to control the stocks and avoid stock duplication in their subsidiaries. Since high value stocks are held, there are instances where the organization will have too much stock in their warehouse implying a huge part of their cash is tied down with stocks. Also, a proper inventory management system is lacking causing frequent stock outs for the organization. The study did not address inventory management practices that enhance service levels ensuring stocks are distributed on time and at the right place meeting customer's demands. Therefore this

study addressed the following question: what is the extent of inventory management practices on operational performance in Non-governmental organizations in Kenya?

1.3 Research Objectives

i. To establish inventory management practices used by NGOs in Kenya
ii. To determine the relationship between inventory management practices and operational performance of NGOs in Kenya.
iii. To establish the challenges faced by NGOs in the implementation of inventory management practices

1.4 Value of the Study

It is hoped that this study will provide adequate information that NGOs in Kenya can use to improve on their performance by managing inventory adequately. Thus operations managers will find this research useful for knowledge and operational implementation. The government will benefit indirectly in that as these NGOs streamline their inventory management. Donor funding institutions will also benefit from this study and they will know how to streamline their grant agreements with future project run by NGOs so that impacts are felt and funds donated do not go to waste. Academicians and scholars will also find this research valuable to their study and advancement of knowledge. They will be able to improve on the studies done under inventory management practices on operational performance of organizations.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter deals with the literature review on inventory control techniques and organizational performance. The chapter is divided into the following sub-headings; theoretical review, Inventory control techniques, conceptual framework, Empirical Review and Summary of the literature Review.

2.2 Theoretical Review

Theoretical review compares how different theories address an issue. The theories are strategic choice theory (SCT) and Transactional cost analysis (TCA). These are discussed as under:

2.2.1 Strategic Choice Theory

Strategic choice theory shows the relationship between top management choices and organization performance as well as interaction of the internal and external organization. The theory stresses the importance of management decisions on organizational performance (Child, 1972). Campling and Michelson (1998) established a strategic choice model that depicts the interdependence among the environment and organizations, actions and overall firm performance. The model aim at achieving high performance standards in order to increase efficiency where there are a limited resource, the theory failed to give much importance contextual factors like environment, technology and scale of operation into consideration and only considered how organizational structure aid in performance of organization.

Child (1972) further suggest that any organization with managers given power and responsibilities to direct and make decision regarding factors like inventory investment and the amount of inventory to carry have significant effects on organizational outcomes as well as performance. SCT argues that the right management choice will depend on environmental factors like suppliers, purchasing and inventory management decision made by the management. Ketchen & Hult (2007) suggest that SCT views managers as

personnel who are downstream decision makers directing decision and changing process in organization. Change or variations can be caused by contextual factors including environmental conditions and technology. Using new technology in inventory management such as RFID, bar codes and ERP systems are some technological changes that require decision making at corporate level with support from both business and functional level.

2.2.2 Transaction Cost Analysis

According to Halldorsson et al. (2007), Transaction Cost Analysis (TCA) is a theory that ensures that costs across the supply chain are kept at a minimal. Transaction cost approach has been widely used in different areas, especially in economics and organizational studies. In the early 1970s, the mathematical economist, Williamson, incorporated TCA into the general equilibrium model and set up his transaction cost economics in the new theory of the firm. Williamson (1975, 1981) suggests that organizations can reduce their transaction costs by vertical integration and increasing the level of trust at the same time. This kind of integration can reduces the costs of inventory management while increasing the service level of both internal and external customers while releasing capital to be used in other areas of the organization.

Organizational supply chain can however reduce transaction not only through vertical integration and increasing the level of trust among supply chain participants, but also though horizontal integration and economy of scale gained from the aggregation of supply and/or demand. The study of inventory management calls for an organization to ensure all costs are kept at a minimum hence the need to apply the theory of Transaction Cost Analysis (TCA).

2.3 Inventory Management Practices

Inventory management is a pivotal in effective and efficient organization. It is also vital in the control of materials and goods that have to be held (or stored) for later use in the case of production or later exchange activities in the case of services. The inventory management practices include ABC analysis model, Economic order quantity, Vendor managed inventory and Just-In in Time inventory. These practices are discussed as follows:

2.3.1 ABC Analysis

The ABC inventory control technique is based on the principle that a small portion of the items may typically represent the bulk of money value of the total inventory used in the production process, while a relatively large number of items may from a small part of the money value of stores (Flores & Clay, 2012). The money value is ascertained by multiplying the quantity of material of each item by its unit price. According to this approach to inventory control high value items are more closely controlled than low value items. Each item of inventory is given A, B or C denomination depending upon the amount spent for that particular item. "A" or the highest value items should be under the tight control and under responsibility of the most experienced personnel, while "C" or the lowest value may be under simple physical control (Ng, 2007).

ABC analysis is a well-established categorization technique based on the Pareto Principle for determining which items should get priority in the management of a company's inventory (Ramanathan, 2006). Flores and Whybark (2007) argue that ABC analysis is a technique for prioritizing the management of inventory. Inventories are categorized into three classes-A, B, and C. Most management efforts and oversights are expended on managing A items. C items get the least attention and B items are in-between.

The ABC approach according to Flores and Clay (2012) states that a company should rate items from A to C, basing its ratings on the following rules*:* A-items are goods which annual consumption value is the highest; the top 70-80% of the annual consumption value of the company typically accounts for only 10-20% of total inventory items. B-items are the interclass items, with a medium consumption value; those 15-25% of annual consumption value typically accounts for 30% of total inventory items and C-items are, on the contrary, items with the lowest consumption value; the lower 5% of the annual consumption value typically accounts for 50% of total inventory items. Through this categorization, the supply manager can identify inventory hot spots, and separate them from the rest of the items, especially those that are numerous but not that profitable (Ng, 2007).

2.3.2 Economic Order Quantity

Bachetti et al. (2010) argues that inventory management need to be organized in a logical way so that the organization can be able to know when to order and how much to order. This can only be achieved through the Economic Order Quantity (EOQ) computation. Economic order quantity enables organizations to plan their inventory replenishment on a timely basis such as monthly, quarterly, half yearly or yearly basis. By so doing, it enables firms to have minimal storage costs or zero within their warehouses since inventory is coming in and going out immediately. Thus, this tends towards the just in time concept of supply chain management adopted by Toyota motor Corporation in Japan which helps in having zero holding costs, (Schonberger, 2008). Thus, as organizations try to improve on the inventory management, the Economic Order Quantity (EOQ) and Re-order Point (ROP) are important tools that organizations can use to ensure that inventory supply does not hit a stock out as explained by Gonzalez and Gonzalez (2010).

Kenya as a country has come a long way and as discussed through a paper by GoK (2011) report, the government is doing immense work to ensure that poverty is reduced. This it does through partnership with private sector as well as development partners. Hence, a lot has been done to ensure that the value chain is managed appropriately and through this, agricultural inputs are procured and managed to suit the economic order quantity as well as marginal analysis (Amarnath, 2007).

2.3.3 Vendor Managed Inventory

Management of inventory determines the way an organization will thrust itself to high performance efficiency. Some organizations have resulted to vendor managed inventory (VMI) systems which aid the supplier to monitor customer's inventory usage. Through this VMI system, customers will avoid stock outs because the suppliers will have already replenished their inventory. The key aspect here is communication which should be planned well from the beginning of business relations between the supplier and the customer (Frahm, 2003).

Vendor managed inventory saves an organization immense finance and time since the supplier will be able to monitor its customer's inventory levels and make a point of replenishing them. As the customer and supplier interact, the communication channel needs to be clear and fast so that they may avoid instances of stock outs. Where the customer anticipates having an abnormal order levels, they should notify the supplier so that they can adjust their production to cater for the demand. Moreover, we now have Joint Managed Inventory (JMI) which is an advance level of vendor managed inventory (VMI). It seeks to integrate the supplier more firmly into the customer's organization by using the point of sale (POS) which allows the supplier to see the real time data of its customer's inventory (Frahm, 2003).

2.3.4 Just-In Time Inventory

Just-in-time (JIT) contributes greatly to the positive performance of an organization thus; inventory management needs to be undertaken with utmost keenness taking into account good procurement practices. A study was undertaken between 1981 and 2000 in the US to analyze inventory management and was found out that organizations that kept too much inventory in their warehouse operated an inefficient supply chain, while those that kept very few inventory in their warehouse were very efficient (Lai & Cheng, 2009). Thus, it was found out that keeping moderate inventory is good and it enables an organization operate minimal expenses of holding costs as well as keep setup cost at bare minimum, eliminate unwanted lead time and produce goods as per customers order. Eventually, this enables an organization achieve Total Quality Control (TQC) as efficient and effective supply chain management are employed within a firm's value chain (Datta, 2007).

Monden (2011) argue that a just-in-time inventory system keeps inventory levels low by only producing for specific customer orders. The result is a large reduction in the inventory investment and scrap costs, though a high level of coordination is required. This approach differs from the more common alternative of producing to a forecast of what customer orders might be. By using just-in-time concepts, there is a greatly reduced need for raw materials and work-in-process, while finished goods inventories should be close to non-existent. The use of just-in-time inventory has the following advantage;

There should be minimal amounts of inventory obsolescence, since the high rate of inventory turnover keeps any items from remaining in stock and becoming obsolete, Since production runs are very short, it is easier to halt production of one product type and switch to a different product to meet changes in customer demand, The very low inventory levels mean that inventory holding costs (such as warehouse space) are minimized (Frazier, 2008).

2.4 Challenges in Inventory Management

According to Stadtler (2008), identifying and maintaining the right amount of inventory is one of the biggest challenges that supply chain managers face. Inventory sits as a trade-off between customer satisfaction and material availability as well as increasing inventory holding costs and working capital. With the globalization of organizations, Non-governmental organizations are matching their international peers in terms of sophistication and maturity of supply chains. However, maturity of supply chains and the supporting technology does not complete eliminate the aforesaid trade-off completely.

The parameters that are used for managing inventory such as safety stock quantity, replenishment order quantity, reorder point in a Continuous Review policy, or review period in a Periodic Review policy use factors such as service levels, demands, and supplier replenishment lead times as inputs for their calculation (Inman, 2009). However rapidly changing markets, competitors, and product lifecycles have made review periods that worked in calmer times unsuitable for today's speed of business execution. Failure to monitor the environment and update these inputs on a frequent and detailed basis is a recipe for inefficient inventory investment. Companies set these parameters on a one-time basis, often at the start of a new process improvement initiative or an ERP implementation. However, failure to monitor the values fixed to the parameters and the parameters themselves, leads to their ineffectiveness in the long-term (Boone et al., 2011).

2.5 Empirical Literature Review

Sandeep et al. (2007) states that inventory management can bring unwarranted losses if the organization always has stock outs, lack of proper warehousing plans, delivering the wrong goods to the customers as well as lack of proper documentation for goods

procured. The staff needs to understand and apply the inventory management techniques to ensure that the organization gets value for its money. Stock and Lambert (2011), states that the objectives of inventory management are to increase corporate profitability, to predict the impact of corporate policies on inventory levels, and to minimize the total cost of logistics activities.

James (2008) highlights that distributors carry Ten to Thirty percent (10-30%) of additional inventory that is unnecessary. These cause unnecessary carrying cost, loss of customers, loss of sales, and loss of profit due to sloppy and inefficient inventory management. He further points out that there is the need to set out procedures to control physical inventory, to determine the true cost of managing inventory. Chopra and Meindl (2013), explained that inventory exists in an organizational operation because of the mismatch between supply and demand. Therefore, inventory's role is to increase the amount of demand that can be satisfied by having the product or service ready and available when the customer wants it.

Stock and Lambert (2011), explained that, corporate profitability can be improved by increasing sales volume or cutting inventory costs. Increased sales are often possible if high levels of inventory lead to better in-stock availability and more consistent service levels. Low inventory levels can reduce fill rates on customer orders and result in lost sales. Stock and Lambert (2008) further explained that, better inventory management can increase the ability to control and predict the reaction of inventory investment to changes in management policy. Therefore, inventory managers must determine how much inventory to order and when to place the order.

Cheruiyot (2013) observes that organizations should establish proper inventory control procedures, efficient and effective information system regarding stock so that they are able to balance the costs and risks of inventory control against the benefits got from having inventory readily available for smooth operations. Lower levels of inventory are also undesirable because it interrupts production, loss of goodwill and high ordering costs especially when ordering is frequent. Inadequate inventory levels leads to business closure due to shifting of customers to other efficient suppliers as a result of production/ operation interruptions (Ogoye, 2014).

According to Luthubua (2014) there are four aims of inventory management which include the following; Provide both internal and external customers with the required services levels in terms of quantity and order rate fill; Ascertain present and future requirements for all types of inventory to avoid over-stocking while avoiding "bottlenecks" in production; Keep costs to a minimum by variety reduction, economical lot sizes and analysis of costs incurred in obtaining and carrying inventories and to provide upstream and downstream inventory visibility in the supply chain.

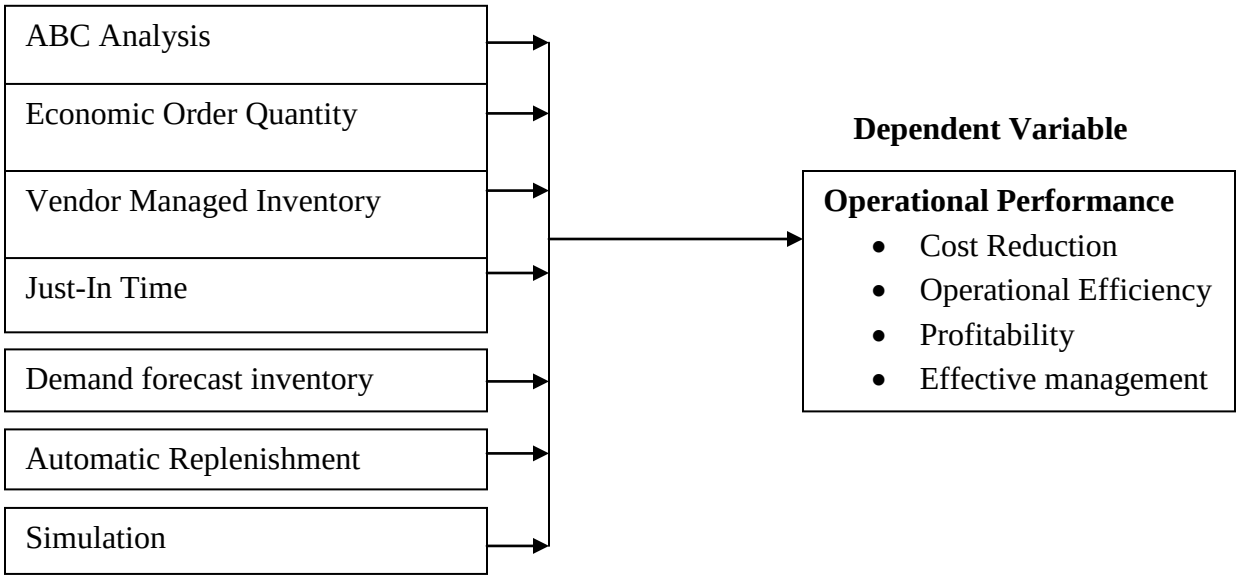
2.6 Summary of the Literature Review and Knowledge Gaps

The literature has revealed that ABC analysis, economic order quantity, vendor managed inventory and Just-in time inventory have a great influence on the control of inventories in an organization. NGOs performance is very important and they are looked at differently from those of the private sector. Performance for NGOs is measured by the compliance of donor reports presented to the donor following the laid down grant agreements (Ryfman, 2007). Likewise, over expenditure on budget allocation should not be seen since it depicts lack of leadership and planning. Therefore, NGOs should ensure their customers who are their project partners and farmers are treated with utmost respect and work together to improve the livelihood of the poor (Maalin, 2007).

The measure of performance depicts the way an organization can monitor its operations and make plans for managing it inventory levels by ensuring that replenishments are done in good time without any delay. These measures go a long way in cutting operational and logistical costs for the organization thus saving time and energy for the management (Stelth and Roy, 2009). Chopra and Meindl (2013), suggests that since inventory plays a significant role in a supply chain's ability to support a firm's competitive strategy and that the firm's competitive strategy requires very high level of responsiveness, a company can achieve this responsiveness by locating large amounts of inventory close to the customer.

2.7 Conceptual Framework

Figure 2.1: Conceptual Framework



Source: Author (2015)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter comprises of the research design, target population, sampling procedures and sample size, research instrument, pilot study, data collection techniques, data analysis and ethical issues.

3.2 Research Design

This study was carried out through a descriptive research design. Descriptive research design is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals (Saunders et al, 2009). Mathooko et al (2011) note that descriptive research includes surveys and fact finding enquiries and is applied where the study is using comparative variables in the field of study and the case at hand has no control over the variables and the researcher can only report on what has happened or what is happening.

3.3 Target Population

Orodho (2005) defines target population as a large population from whom a sample population is selected. The target population in this study was all the Non-governmental Organizations in Kenya. This study targeted 10 NGOs within Nairobi County, Kenya.

3.4 Sampling Design

Stratified sampling design was used to sample the NGOs within Nairobi County. The researcher carried out a census sampling to sample 10 operations managers and simple random sampling to sample 6 employees from each NGO. Therefore, the sample size was 70 respondents.

3.5 Data Collection

The primary data was collected using questionnaire that was related to specific objectives of the study. The questionnaire bore structured and unstructured questions to ensure data collection validity and reliability ensured deep insight on the statistical variables. The structured questions were presented in the Likert scale for respondents' measurement on

their opinions on various aspects of inventory management practices and operational performance that was guided by the study objectives. A self-administered questionnaire was dropped to each respondent and picked later after two weeks.

3.6 Data Analysis

The study used quantitative data of data analysis. Quantitative analysis was used on data collected through questionnaires. Collected data was coded and then quantitatively analyzed according to statistical information derived from the research questions. The coded data was then tabulated and presented for statistical analysis by calculating the percentages, means and variance on each variable by use of Statistical Package for Social Sciences (SPSS). Data results were presented in tables, graphs and charts to give a clear picture on the findings. Regressions and Analysis of Variance (ANOVA) test was used to determine the effect of inventory management practices on operational performance. The regression equation was: $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_3X_4 + \beta 3X\ 5 + \beta 3X6 + \varepsilon$

Whereby Y= Operational Performance; X1= ABC Analysis; X2= Economic Order Quantity; X3= Vendor Managed Inventory; and X4 = Just-In Inventory, X5 = Demand focus inventory and X6 = Automatic Replenishment while $\beta 1$, $\beta 2$, $\beta 3$and $\beta 4$ are coefficients of determination and ε is the error term.

3

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter shows the findings, presentation, interpretation and discussion of the findings obtained from the field. The chapter presents the background information of the respondents, findings of the analysis based on the objectives of the study. Descriptive and inferential statistics have been used to discuss the findings of the study.

The research objectives were:-

i. To establish inventory management practices used by NGOs in Kenya
ii. To determine the relationship between inventory management practices and operational performance of NGOs in Kenya.
iii. To establish the challenges faced by NGOs in the implementation of inventory management practices

Quantitative data was analyzed using descriptive statistics such as tables, figures, charts, mean and standard deviation with the use of Statistical Package for Social Sciences (SPSS).

4.2 Response Rate

A total of 65 respondents (operations managers, procurement officers and assistants). The overall response rate was 92.9% which was considered satisfactory to make conclusions for the study as it acted as a representative. According to Mugenda & Mugenda (2003), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. Based on the assertion, the response rate was excellent.

4.3 Background Information

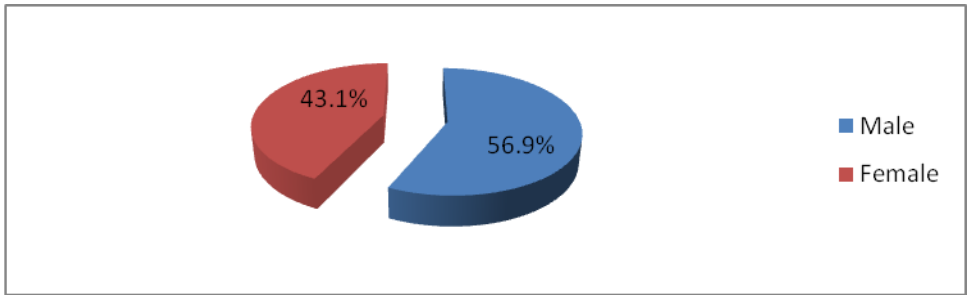
Background information is necessary for providing information regarding research participants and is necessary for the determination of whether the individuals in a particular study are a representative sample of the target population and testing appropriateness of the respondent in answering the questions for generalization purposes.

The background information comprised of the gender, work experience and level of education.

4.3.1 Gender

The study sought to determine the gender of the respondent and therefore requested the respondent to indicate their gender to which they gave their responses as shown in figure 4.1.

Figure 4.2: Respondents' Gender



Source: Research Data

Figure 4.1 shows majority (56.9%) were male and 43.1% were female. These findings shows that both genders were involved in this study and thus the findings of the study did not suffer from gender biasness.

4.3.2 Respondents' Work Experience

On work experience, the study revealed that most (41.5%) of the respondents as shown in Figure 4.2 had worked with the organization for a duration of between 6 and 9 years, 26.2% for a period of between 10 years and above, 18.5% for a duration of between 2 and 5 years and 13.8% for a period less than 2 years. This implies that majority of the respondents had worked with the organisation for a considerable period of time and thus they were in a position to give credible information relating to this study.

Table 4.1: Respondents' Work Experience

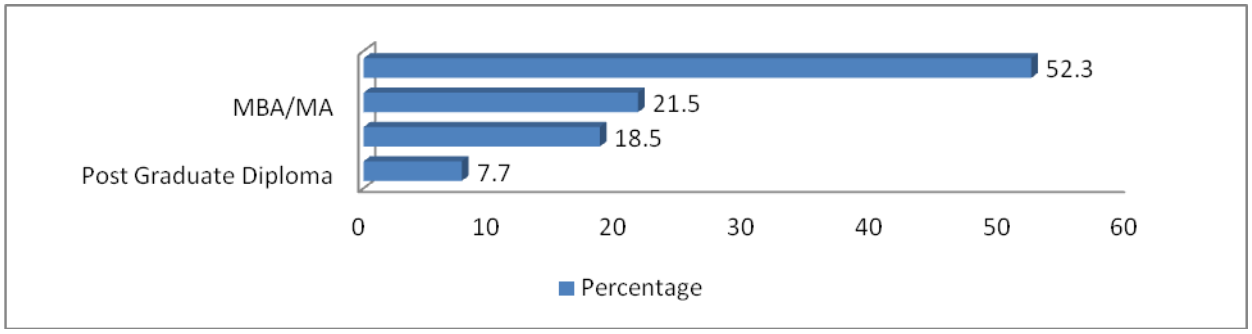
Years	Frequency	Percentage
>2	9	13.8
2-5	12	18.5
6-9	27	41.5
10+	17	26.2
Total	**65**	**100**

Source: Research Data

4.3.3 Education level

The study requested the respondents to indicate their highest level of education achieved, from the research findings, the study revealed that most of the respondents as shown in table 4.2 by 52.3% of the respondents held a University degree, 21.5% of the respondents were holders of MBA/MA, 18.5% of the respondents were holders of Diploma/College whereas 7.7% of the respondents held Post Graduate Diploma, this implies that respondents were well educated which means that they were in a position to respond to research questions with ease.

Figure 4.3: Education Level



Source: Research Data

4.4 Inventory Management Practices

The first research objective sought to establish inventory management practices used by NGOs in Kenya. The respondents were given a list of inventory management practices to indicate the extent to which they used scale of 1 to 5 (where Not at all (1), to a small

extent (2), to a moderate extent (3), to a large extent (4), to a very large extent (5). Results are shown in table 4.3.

Table 4.2: Inventory Management Practices

Statement	M	SD
Economic Order Quantity	4.7	0.542
Marginal Analysis	3.6	0.645
Just-in-time	4.1	0.402
Simulation	4.3	0.597
Order batching	3.2	0.441
Vendor Managed inventory	4.5	0.642
Activity Based Costing (ABC) Analysis	3.9	0.591

Key: **M** – Mean; **SD** – Standard Deviation
Source: Research Data

The results show that the Economic Order Quantity (EOQ) and Vendor Managed Inventory (VMI) were used to a very great extent (M=4.7, SD=0.542) and (M=4.5, SD=0.642) respectively. These were followed by Simulation (M=4.3, SD=0.597), Just-in-t=Time (M=4.1, 0.402), Activity Based Costing (ABC) Analysis (M=3.9, SD=0.591), Marginal Analysis (M=3.6, SD=0.645) and Order Batching (M=3.2, SD=0.441). These findings concur with the findings of Ramanathan (2006) who found that ABC analysis is a well-established categorization technique based on the Pareto Principle for determining which items should get priority in the management of a company's inventory. Bachetti et al (2010) argues that inventory management need to be organized in a logical way so that the organization can be able to know when to order and how much to order. This can only be achieved through the Economic Order Quantity (EOQ) computation. Management of inventory determines the way an organization will thrust itself to high performance efficiency. Some organizations have resulted to vendor managed inventory (VMI) systems which aid the supplier to monitor customer's inventory usage. Through this VMI system, customers will avoid stock outs because the suppliers will have already replenished their inventory.

According to Frahm (2003), Communication is the key aspect which should be planned well from the beginning of business relations between the supplier and the customer.

Monden (2011) argue that a just-in-time inventory system keeps inventory levels low by only producing for specific customer orders. The result is a large reduction in the inventory investment and scrap costs, though a high level of coordination is required. This approach differs from the more common alternative of producing to a forecast of what customer orders might be.

4.5 Relationship between Inventory Management Practices and Operational Performance

The second research objective sought to determine the relationship between inventory management practices and operational performance of NGOs in Kenya. The respondents were given a list of statement to indicate the extent to which they agreed of disagreed. The findings are shown in table 4.4.

Table 4.3: Relationship between Inventory Management Practices and Operational Performance

Statement	M	SD
Minimizes scrap and rejects	4.1	0.712
Prevents shortages and stock out costs	3.3	0.735
Enhances continuous production	3.7	0.642
Reduces production costs	4.3	0.574
Reduces delivery lead time	3.6	0.678
Minimizes machine down time	2.9	0.745
Reduces resource wastages	3.2	0.511
Boosts employee work morale	2.7	0.521

Key: M – Mean; **SD** – Standard Deviation
Source: Research Data

The results show that the respondents strongly agreed that inventory management practices reduces production costs (M=4.3, SD=0.574) and minimizes scrap and rejects (M=4.1, SD=0.712). These were followed by the statements that inventory management practices enhances continuous production (M=3.7, SD=0.642), reduces delivery lead time (M=3.6, SD=0.678), prevents shortages and stock outs (M=3.3, SD=0.735), reduces resource wastages (M=3.2, SD=0.511), Minimizes machine down time (M=2.9,

SD=0.745) and lastly boosts employee morale (M=2.7, SD=0.521). These findings concur with the findings of Sandeep et al. (2007) who stated that inventory management can bring unwarranted losses if the organization always has stock outs, lack of proper warehousing plans, delivering the wrong goods to the customers as well as lack of proper documentation for goods procured. The staff needs to understand and apply the inventory management techniques to ensure that the organization gets value for its money. Stock and Lambert (2011), states that the objectives of inventory management are to increase corporate profitability, to predict the impact of corporate policies on inventory levels, and to minimize the total cost of logistics activities.

Cheruiyot (2013) observes that organizations should establish proper inventory control procedures, efficient and effective information system regarding stock so that they are able to balance the costs and risks of inventory control against the benefits got from having inventory readily available for smooth operations. Inventory management is required at different locations within a facility or within multiple locations of a supply network to protect the regular and planned course of production against the random disturbance of running out of materials or goods (Blackstone & Cox, 2012). Effective inventory management determined how profit of an organization can be maximized. Maximizing of profit depend on minimizing cost and maximizing revenue. Maximization is an efficient concept which requires increasing profit without increasing the resources used (Hugo et al., 2009).

4.6 Challenges in the Implementation of Inventory Practices

The third research objective sought to establish the challenges faced by NGOs in the implementation of inventory management practices. The respondents were given a list of statement to indicate the extent to they agreed of disagreed. The findings are shown in table 4.5.

Table 4.4: Challenges in the Implementation of Inventory Practices

Statement	M	SD
Maintaining of supply chain performance	4.3	0.657
Maintaining relationship with suppliers	3.9	0.599
Availability of financial resources	4.6	0.642
Donor Support	3.6	0.431
Identifying and maintaining the right amount of inventory	4.4	0.487
Monitoring the environment and updating the inputs on a frequent and detailed basis	4.7	0.510
Monitoring the values fixed to the parameters	3.4	0.614
Rapid change in the markets, competitors, and product lifecycles	2.6	0.702
Supporting technology	4.0	0.691

Key: M – Mean; **SD** – Standard Deviation
Source: Research Data

From the findings, the respondents strongly agreed that Monitoring the environment and updating the inputs on a frequent and detailed basis (M=4.7, SD=0.510) as a challenge to the implementation of inventory management practices and availability of financial resources (M=4.6, SD=0.642), also identifying and maintaining the right amount of inventory (M=4.4, SD=0.487). These were followed by maintaining of supply chain performance (M=4.3, SD=0.657), maintaining relationship with suppliers (M=3.9, SD=0.599), Donor Support (M=3.6, SD=0.431), monitoring the values fixed to the parameters (M=3.4, SD=0.614) and lastly rapid change in the markets, competitors, and product lifecycles (M=2.6, SD=0.702).

These findings are in line with the findings of Stadtler (2008) who found that identifying and maintaining the right amount of inventory is one of the biggest challenges that supply chain managers face. Inventory sits as a trade-off between customer satisfaction and material availability as well as increasing inventory holding costs and working capital. The parameters that are used for managing inventory such as safety stock quantity,

replenishment order quantity, reorder point in a Continuous Review policy, or review period in a Periodic Review policy use factors such as service levels, demands, and supplier replenishment lead times as inputs for their calculation (Inman, 2009). However rapidly changing markets, competitors, and product lifecycles have made review periods that worked in calmer times unsuitable for today's speed of business execution. Failure to monitor the environment and update these inputs on a frequent and detailed basis is a recipe for inefficient inventory investment.

4.7 Operational Performance

Table 4.5: Operational Performance

Statement	M	SD
Effectiveness	2.9	0.614
Efficiency	3.1	0.806
Low Cost	2.4	0.745
Stock Outs	2.2	0.791
Lead time	2.6	0.510

Key: M – Mean; **SD** – Standard Deviation

Source: Research Data

From the findings on inventory management practices on operational performance, the respondents strongly agreed on efficiency (M=3.1, SD=0.806) and effectiveness (M=2.9, SD=0.614). These were followed by lead time (M=2.6, SD=0.510), low cost (M=2.4, SD=0.745) and stock outs (M=2.2, SD=0.791). As observed by Dess and Robinson (2014), a well planned and effective stock management can contribute substantially to a firm annual turnover. Westhead (2013) notified that inventory management consists of everything from accurate record-keeping to shipping and receiving of products on time, therefore, an inventory management that is properly maintained can keep a company's supply chain running smoothly and efficiently.

4.8 Regression Analysis

According to Kothari (2004) regression analysis is a statistics process of estimating the relationship between variables. Regression analysis helps in generating equation that

describes the statistics relationship between one or more predictor variables and the response variable (Gupta, 2007). The study adopted a multiple regression analysis so as to establish the relationship between the independent variables (ABC Analysis, Economic Order Quantity, Vendor Managed Inventory, Just-In Inventory, Demand focus inventory and Automatic Replenishment) and dependent variable (Operational Performance of NGOs). The study applied SPSS version 17 to code, enter and compute the measurements of the multiple regression.

4.8.1 Model Summary

Table 4.6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					F Change	Sig. F Change
1	.754[a]	.691	.578	.214	1.759	.002[b]

Source: Research Data

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in Table 4.7 the value of adjusted r squared was 0.578 an indication that there was variation of 57.8% on operational performance of NGOs due to changes in need identification, contractor selection, contractor competence and service level agreements at 95% confidence interval. This shows that 57.8% changes in operational performance of NGOs could be accounted to ABC Analysis, Economic Order Quantity, Vendor Managed Inventory, Just-In Inventory, Demand focus inventory and Automatic Replenishment.

R is the correlation coefficient which shows the relationship between the study variables and from the findings shown in the Table 4.9 is notable that there exists strong positive relationship between the study variables as shown by 0.754. Additionally, this therefore means that factors not studied in this research contribute 42.2% of operational performance of NGOs and a further research should be conducted to investigate the other factors (42.2%) that affect operational performance of NGOs.

4.8.2 Analysis of Variance (ANOVA)

Table 4.7: Analysis of Variance

ANOVA						
Model		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1	Regression	3.454	4	0.7437	1.759	0.002[b]
	Residual	25.13	51	0.4520		
	Total	**28.584**	**55**			

Critical value =1.3997

Source: Research Data

From the ANOVA statics in Table 4.10, the study established the regression model had a significance level of 0.002% which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value was greater than the critical value (1.759>1.3997) an indication that ABC Analysis, Economic Order Quantity, Vendor Managed Inventory, Just-In Inventory, Demand focus inventory and Automatic Replenishment all affects operational performance of NGOs in Kenya. The significance value was less than 0.05 indicating that the model was significant.

4.8.3 Regression Coefficients

Table 4.8: Regression Coefficients

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	0.475	0.072		.141	.005
ABC Analysis	0.683	0.083	.241	.567	.002
Economic Order Quantity	0.702	0.041	.493	.374	.003
Vendor Managed Inventory	0.793	0.037	.106	.643	.001
Demand Focus Inventory	0.699	0.027	.178	.579	.004
Automatic Replenishment	0.612	0.010	.068	.243	.004

Source: Research Data

The finding revealed that holding independent variables constant(ABC Analysis, Economic Order Quantity, Vendor Managed Inventory, Just-In Inventory, Demand focus inventory and Automatic Replenishment) to a constant zero, operational performance of NGOs in Kenya would be at 47.5%, a unit increase in ABC Analysis would lead to increase in operational performance of NGOs by a factor of 0.683. Flores and Whybark (2007) argue that ABC analysis is a technique for prioritizing the management of inventory. Inventories are categorized into three classes-A, B, and C. Most management efforts and oversights are expended on managing A items. C items get the least attention and B items are in-between.

A unit increase in Economic order quantity would lead to increase in operational performance of NGOs by a factor of 0.702. According to Bachetti et al. (2010), inventory management need to be organized in a logical way so that the organization can be able to know when to order and how much to order. This can only be achieved through the Economic Order Quantity (EOQ) computation. Economic order quantity enables organizations to plan their inventory replenishment on a timely basis such as monthly, quarterly, half yearly or yearly basis.

A unit increase in Vendor managed inventory would lead to increase in operational performance of NGOs by a factor of 0.793. Vendor managed inventory was found to have more effect on operational performance of NGOs in Kenya compared to other inventory management practices studied. Frahm (2003) observe that vendor managed inventory saves an organization immense finance and time since the supplier will be able to monitor its customer's inventory levels and make a point of replenishing them. As the customer and supplier interact, the communication channel needs to be clear and fast so that they may avoid instances of stock outs. Where the customer anticipates having an abnormal order levels, they should notify the supplier so that they can adjust their production to cater for the demand.

A unit increase in Demand focus inventory would lead to increase in operational performance of NGOs by a factor of 0.699 and a unit increase in Automatic replenishment would lead to increase in operational performance of NGOs by a factor of 0.612. Monden (2011) argue that a just-in-time inventory system keeps inventory levels

low by only producing for specific customer orders. The result is a large reduction in the inventory investment and scrap costs, though a high level of coordination is required. This approach differs from the more common alternative of producing to a forecast of what customer orders might be.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter provides the discussion of findings, gives the conclusions and recommendations of the study based on the objectives of the study.

5.2 Summary of the Findings

5.2.1 Inventory Management Practices

The study established that most of the respondents used Economic Order Quantity. It was also pointed that the respondents mostly used Vendor Managed Inventory. Simulation was also mostly used by the NGOs as inventory management practice. The respondents also agreed that they also used Just-in-Time. Activity Based Costing (ABC) Analysis was used as by most. Marginal Analysis and Order Batching were least used as inventory management practice.

5.2.2 Relation between Inventory Management Practices and Operational Performance

The study revealed that that inventory management practices reduces production costs, minimizes scrap and rejects and enhances continuous production, likewise, respondents agreed that inventory management practices leads to reduced lead delivery lead time. The respondents agreed that inventory management practices prevents shortages and stock out costs and reduces resource wastages. Finally, respondent agreed that inventory management practices minimize machine down time and boosts employee work morale.

5.2.3 Challenges in the Implementation of Inventory Practices

The study found that most of the respondents agreed that monitoring the environment and updating the inputs on a frequent and detailed basis was a challenge in the implementation of inventory. Also respondents agreed that availability of financial resources as major challenge. Identifying and maintaining the right amount of inventory was also indicated as a major challenge. The respondents agreed that maintaining of supply chain performance and supporting technology as a challenge to the implementation of inventory management practices. The respondents agreed that

maintaining relationship with suppliers was a challenge. Donor Support was also indicated as a challenge as and monitoring the values fixed to the parameters and finally the respondents agreed that rapid change in the markets, competitors, and product lifecycles

5.3 Conclusion

Based on the study findings, it is concluded that a significant relationship exists between inventory management practices and operational performance of NGOS in Kenya. Effective inventory control management is recognized as one of the areas management of any organization should acquire capability. The ability of any organization to evolve effective inventory control management system will depend on the extent to which it perceives the benefits it stands to gain from such program. In general the findings that emerged from this study have indicated that NGOs stand to gain a lot from effective inventory control management system. Some of this benefit include optimal use of resources, cost reduction, improved profitability, improved sales effectiveness, reduction of waste, transparency and accountability, easy storage and retrieval of stock, high inventory utilization amongst others.

5.4 Recommendations

The study recommends that NGOs adopt proactive attitudes towards the issue of proper inventory management practices. Being proactive requires maintenance of the right level of inventory at any point in time. The NGOs should avoid the dangers that are inherent in keeping too little or too much of stock. The study recommends that NGOs adopt the inventory keeping method that best suits their operation. Here, vendor managed inventory could be considered as an option as it has been proven to be effective in maintaining the right level of inventory and also prevent stock-outs. There is also the need for organizations to train their personnel in the area of inventory control management. What this means is that only trained professional with the requisite skill should be in charge of inventory management. Best practice inventory management software should be deployed by firms as a reliable strategy for managing the rising cost of the holding stock. This may involve training employees on the usage of the software, or by acquiring the services of external system consultants.

5.5 Suggestion for Further Studies

Based on the findings, the study suggests that further studies should be conducted on the influence of inventory management practices of supply chain management of NGOs in Kenya.

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APPENDICES

Appendix I: Introductory Letter

The Manager

……..
Nairobi- Kenya

Dear Sir/Madam,

Re: Research Study

I am a student undertaking a Master's degree in Business Administration at the University of Nairobi. I am carrying out a research on "*Inventory management practices and operational performance of Non-Governmental Organizations in Kenya".*

You have been selected to form part of the study respondents. This is to kindly request you to respond to the questionnaire. The information you provide will be used solely for academic purposes and will be treated with utmost confidence.

A copy of the final report will be availed to you upon request. Your assistance will be highly appreciated.

Yours Faithfully

Mildred Kemuma Onyoni
MBA, Student
University of Nairobi

Appendix II: Questionnaire

Instructions:

i. Do not write your name or that of your organization anywhere on this questionnaire

ii. Tick [√] where appropriate or fill in the required information on the spaces provided

Section A: Demographic Data

1. Gender: Male [ ] Female [ ]
2. How long have you worked in the current station?

   Less than 2 years [ ] 2 – 5 years

   6– 9 years [ ] 10 and above [ ]

3. What is your level of education?

   Diploma/College [ ] University Degree [ ]

   MBA/MA [ ] Post-graduate Diploma [ ]

4. Indicate the extent do you use the following listed inventory management practices?

   Not at all (1), to a small extent (2), to a moderate extent (3), to a large extent (4), to a

   very large extent (5)

Statement	**5**	**4**	**3**	**2**	**1**
Economic Order Quantity					
Marginal Analysis					
Just-in-time					
Simulation					
Order batching					
Vendor Managed inventory					
Activity Based Costing (ABC) Analysis					

Section B: Relationship between Inventory Management Practices and Operational Performance

The statements below relate to the relationship between inventory management practices on operational performance. Indicate the extent to which you agree or disagree. Please tick where appropriate

Key: Strongly agree(SA)=**5**, Agree(A)=**4**, Undecided(U)=**3**, Disagree(D)=**2**, and Strongly Disagree(SD)=**1**.

Please tick the option that best suits your opinion on the statement given.

Statement	**5**	**4**	**3**	**2**	**1**
Minimizes scrap and rejects					
Prevents shortages and stock out costs					
Enhances continuous production					
Reduces production costs					
Reduced delivery lead time					
Minimized machine down time					
Reduced resource wastages					
Boosts employee work morale					

5. Based on your overall assessment, to what extent does inventory management practices influence your organizational operational performance?

……
……
……
……

Section C: Challenges in the Implementation of Inventory Practices

The statements below relate to challenges in the management of inventory management practices. Indicate the extent to which you agree or disagree. Please tick where appropriate. Please tick where appropriate

Key: Strongly agree(SA)=**5**, Agree(A)=**4**, Undecided(U)=**3**, Disagree(D)=**2**, and Strongly Disagree(SD)=**1**.

Statement	**5**	**4**	**3**	**2**	**1**
Minimizes scrap and rejects					
Prevents shortages and stock out costs					
Enhances continuous production					
Reduces production costs					
Reduced delivery lead time					
Minimized machine down time					
Reduced resource wastages					
Boosts employee work morale					

Section D: Operational Performance

The statements below relate to operational performance. Indicate the extent to which you agree or disagree. Please tick where appropriate. Please tick where appropriate.

Statement	**5**	**4**	**3**	**2**	**1**
Minimizes scrap and rejects					
Prevents shortages and stock out costs					
Enhances continuous production					
Reduces production costs					
Reduced delivery lead time					
Minimized machine down time					
Reduced resource wastages					
Boosts employee work morale					

Appendix III: List of Targeted NGOs

1. Amref Health Africa
2. Care International Kenya
3. ICAP Kenya
4. Plan International Kenya
5. Islamic Relief Kenya
6. UNICEF Kenya
7. USAID Kenya
8. WHO Kenya
9. World Vision Kenya
10. ACF Kenya