INVENTORY MANAGEMENT AND ORGANIZATION PERFORMANCE, A CASE STUDY OF KAKIRA SUGAR WORKS

BY:

OKOME MICHEAL

A RESEARCH REPORT SUBMITTED TO THE COLLEGE OF ECONOMICS AND MANAGEMENT IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELORS' DEGREE IN SUPPLIES AND PROCUREMENT OF KAMPLA INTERNATIONAL UNIVERSITY

SEPTEMBER, 2018.

DECLARATION

I **OKOME MICHEAL,** declare that the work in this research report was done with my own knowledge and ideas so is my original work knowledge has never been submitted by any other student of the University or any other institution of learning.

Signature_____ Date_____

OKOME MICHEAL

Reg No. 1153-05084-00752

i

APPROVAL

This research proposal has been submitted with my approval as the University supervisor and is now ready for examination for the award of Bachelor's Degree in Procurement and Supply chain Management of Kampala international university

Signature_____   Date   _____

MR. MASABA RICHARD

(Research Supervisor)

DEDICATION

This research report is dedicated to my entire family for all their support morally and financially which has helped me to progress with my academic education at the Kampala International University.

ACKNOWLEDGEMENT

I want to thank the Almighty God, for providing me with his grace and opportunity to finish this academic study. I would also like to extend my sincere gratitude to all those who have contributed towards the successful completion of this dissertation.

I would also like to extend my sincere appreciation to my family members for their commitment, financial support and guidance, they have willingly offered to me, through my academics because without him, it wouldn't be a success.

My special thanks go to my Supervisor **Mr. Masaba Richard for** his time and patience taken to supervise this dissertation and for his valuable, intellectual and tireless guidance.

I also owe much gratitude to all my lecturers at the college of economics and management for their moral and career guidance that they accorded to me throughout my stay at the university.

MAY GOD BLESS YOU ALL

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE
INTRODUCTION

1.0 Introduction

This chapter includes the background of the study, the problem statement, the objectives, research question and the scope of the study and the significance of the study. This section presents the background information, statement of the problem. purpose of the study, research objectives and questions, significance of the study, assumptions of the study. limitations and delimitations of the study and the organization of the study.

1.1 Background to Study

In a world of intense competition fueled by globalization, increasing consumer awareness, and technological improvement, organizations that are keen towards large scale success must at all times hype its service availability as consumers can very easily divert their patronages elsewhere (Sharma, 2009). Consequently, managing inventory efficiently has become an important operational weapon for products and service firms wishing to survive the competitive pressures. To demonstrate how vital the efficient management of inventory is, we have been counseled to make a careful study and learning from the "proverbial Ant." Seemingly inconsequential, the biblical ant appears to have mastered the art and science of adequately keeping inventories of food and other materials for its future use.

Inventories represent those items which are either accumulated for sale or they are in the process of manufacturing or in the form of materials, which are yet to be utilized. An inventory system is the set of policies and s that monitor levels of stocks and determine what levels should be maintained, when stock should be replenished, and how large orders should be. Thus, inventory management may be defined as the system used by a firm to 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 and Ehrhard, 2005). According to Adeyemi and Salami (2010), inventory constitutes the most significant part of current assets of majority of Nigerian manufacturing

firms, in which flour milling companies are not an exception. Because of the relative largeness of inventories maintained by flow milling firms, 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 lost sales, costs of changing production rates, overtime cost, sub-contracting, unnecessary cost of sales and back order penalties during periods of peak demand (Chen, 2005). Effort must also be made by the management to strike an optimum investment in inventory since it costs much money to tie down capital in excess inventory. Consequently, we examine in this study the effect of inventory management practices on operational performance. Thus, Inventory management is a critical management issue for most manufacturing companies throughout the world and thus effective inventory flow management in supply chains is one of the key factors for success. The challenge in managing inventory is to balance the supply of inventory with demand. A company would ideally want to have enough inventories to satisfy the demands of its customers- no lost sales due to inventory stock-outs. On the other hand, the company does not want to have too much inventory staying on hand because of the cost of carrying inventory. Enough but not too much is the ultimate objective (Coyle, Bardi, and Langley, 2003).

Inventory management policies like; ABC Analysis, Minimum Order Quantity, Just in Time Inventory Management, Safety Stock Inventory, IFO and LIFO, Reorder Point Formula, Batch Tracking, and others have been of concern for many years to business firms. Inventory management plays a crucial role in enhancing effectiveness and efficiency in handling inventory of business firms. Companies like Kakira sugar works have been in continual search for sources of sustainable competitive advantage in their operations. Therefore, there is need for business enterprises to embrace effective inventory management practices in order to improve their competitiveness (Rajeev, 2008). In 1980s inventories of raw materials, work-in-progress components and finished goods were kept as a buffer against the possibility of running out of needed items (Kadri, 2012). However, large buffer inventories consume valuable resources and generate hidden costs (Salawati, Tinggi, &Kadri, 2012). Too much inventory consumes physical space, creates a financial burden, and increases the possibility of damage, spoilage and loss (Nyabwanga & Ojera, 2012). On the other hand, too little inventory often disrupts business operations (Dimitrios, 2008).

Inventory Management system is the process of managing inventory in order to meet customer demand at the lowest possible cost and with a minimum of investment, Byoungho (2004). A successfully implemented inventory management program takes into account such things as purchasing goods commensurate with demand, seasonal variation, changing usage patterns, and monitoring for pilferage, Eliram (1996). A preliminary step in the process of inventory management is to determine the approximate costs of carrying inventory. According to Langabeer and Stoughton (2001), these costs include such expenses as storage costs, inventory risks, and the loss-of-opportunity costs associated with tying up capital. Inventory management is a vital function to help insure the success of manufacturing and distribution companies. The effectiveness of inventory management systems is directly measurable by how successful a company is in providing high levels of customer service, low inventory investment, maximum throughput and low costs, Eliram (1996). The challenge of productive inventory management is to support an upward trend in sales while keeping the investment at the lowest level consistent with adequate customer service. Management of inventory, which typically represents *230% to 90% of all expenses for business*, is needed to ensure that the business has the right goods on hand to avoid stock-outs, to prevent shrinkage (spoilage/theft), and to provide proper accounting (Agu, O.A 2013).

Stock or Inventory constitutes a substantial proportion of the current asset group. It represents investments made for obtaining a return (Duru, Oleka&Okpe, 2014). Inadequate inventory has an adverse potential effect on the smooth running of the business, while excess inventory involve extra cost, which can reduce the firm's profits (Panigrahi, 2013). Excessive stock is not desirable for longer periods because high inventory levels increase carrying cost and as inventory is increases; the profitability decreases (Priyank&Hemant, 2015). Hence, a suitable inventory management strategy will help in ensuring that the firms always keep an optimal amount of assets. Freeing frozen amounts in the form of stocks or inventories increases the firm's efficiency in the use of its resource (Ziukov, 2015). As such, a well-functioning inventory system has a great effect on total firm's performance as well as that of the firm's managers (Cacioppo, K. 2010).

Inventory management is a system concerned with integration of information, transportation, acquisition, inspection, material handling, warehousing, packaging and control of supplies and occassionary security of inventory (keaf, 2003). Inventory management aims at discovering and maintaining optimal levels of investment in all types of inventories and maximizing the flow of goods, information and other related resources like people and energy from the point of origin to the point of final consumption (Knot, 2005) . In most manufacturing companies today, a lot of money is tied up in inventory and stock accumulates due to variations in demand and supply forces and therefore it is a concern of senior management to manage inventory levels in aggregates so as to forecast changes in market needs (B allou, 2010). Inventory management and planning involves determining when and how much to order forecasting demand and stock replenishment, identifying the most effective source of supply, inventory monitoring and information management while meeting the every growing customer needs who demand that products are delivered on time and in good condition (Berling. P. 2011).

Kakira Sugar Works is the largest manufacturer of sugar in Uganda, producing an estimated 165,000 metric tonnes of sugar annually, accounting for about 47% of the national output in 2011 (*Among, Barbara. 2008*). The sugar produced by the companies is marketed to the Eastern African countries of South Sudan, Democratic Republic of the Congo, Burundi, Rwanda, Tanzania, Kenya and Uganda. Kakira Sugar Works is the flagship business of the Madhvani Group of Companies, the largest conglomerate in Uganda, accounting for over 10% of the Gross Domestic Product (GDP) of Uganda in 2010. Kakira Sugar Works possesses its own social infrastructure: free schools for employees' children, roads, hospitals, staff housing (*Flick, David, 2007*). Kakira Sugar Works is a (100%) subsidiary of the Madhvani Group, based in Kakira, Uganda. The Group's shareholding is private and is not widely, publicly known .As of November 2013, Kakira Sugar Works Limited is in the middle a US$75 million (about UGX:191 billion) factory expansion and upgrade. US$30 million (about UGX:76.5 billion), wasraised through a 10-year corporate bond on the Uganda Securities Exchange, and the remainder was sourced from local banks (*15 November 2013*)Kakira Sugar Works announced in July 2014 that it would start the construction of an ethanol-producing plant by the end of 2016 (*Fred Ojambo , 2014*).

Kakira has been producing sugar for the Ugandan market since the 1930's and we know how to please the consumer. Our brand is the most popular countrywide because it is sweet, has distinctive taste and flavour, and has a rich, golden colour that scores top marks. As a brand Kakira's longstanding heritage ensures that it is all familiar and has a trusted household foundation amongst all Ugandans..

1.2 Statement of the problem

Inventory management has been adopted by Kakira Sugar works Ltd with the aim of maintaining optimal levels of inventories so as to avoid unnecessary investment in inventories and maintain enough inventories to meet customer demands by monitoring the flow of items from one point to another (Wilbum, M. (2012). Manufacturing companies like Kakira Sugar works Ltd faces inefficiencies in its attempts to maintain optimal inventory levels as well as inconsistencies of poor color prints, delayed deliveries, long supplier lead time, poor quality prints of its advertisements and magazines, low customer turn over and uncertainty of customer demand. This has greatly compromised inventory management and operation efficiency of Kakira Sugar works. (Internal Audit records, 2005).Despite the considerable effort by Kakira Sugar works solve the above inefficiencies by training staff in latest techniques of inventory management, reducing supplier lead time, improving on the quality of products and training customer care personnel, there still exist a high level of customer complaints and therefore the study intended to investigate inventory management policies and organization performance in manufacturing companies.

1.3 Purpose of the study

The purpose of the study is to examine the effect of inventory management policies on performance of manufacturing companies.

1.4 Objectives of the study

The research study aimed at achieving the following objectives.

i). To investigate the inventory management techniques used by Kakira Sugar works

ii). To determine the role of inventory management to Kakira Sugar works

iii).To determine the challenges influencing inventory management to Kakira Sugar works

1.5 Research question

The research study aims at answering the following research questions.

i). What are the inventory management techniques used by Kakira Sugar works?

ii). What is the role of inventory management to Kakira Sugar works?

iii).What are the challenges influencing inventory management in Kakira Sugar works?

1.6 Scope of the study

1.6.1 Geographical scope

The study was carried out from Kakira Sugar works located in the town of Kakira, Jinja District, Eastern Uganda on P.O. Box 121, Kakira Estate, Jinja, Uganda. This location lies approximately 15kilometers (9.9 mi), by road, northeast of Jinja, the nearest large town. Kakira is located approximately 100 kilometers(62 mi), by road, east of Kampala, the capital of Uganda and the largest city in that country.   Kakira Sugar Works Limited, is a leading sugar manufacturer in Uganda, the third-largest economy in the East African Community. The main factories of the company are located in the town of Kakira, in Jinja District, Eastern Uganda. This location lies approximately 16 kilometres (9.9 mi), by road, northeast of Jinja, the nearest large town. Kakira is located approximately 100 kilometres (62 mi), by road, east of Kampala, the capital of Uganda and the largest city in that country. The coordinates of the main factory are:0°30'36.0"N, 33°17'24.0"E (Latitude:0.5100; Longitude:33.2900). In addition to the factories in Kakira, the company maintains a corporate office along 5th Street, in Bugoloobi, in Kampala Industrial Area, and offices and warehouses, in Kakira, Jinja and Kampala (*Ojambo, Fred, 2015*).

1.6.2 Subject scope

The study focused on inventory management   as the independent variable, organization performance as the dependent variable.

1.6.3 Time scope

The study was conducted within five months i.e. from May to September 2018 because this period might be long enough for me to acquire and compile all necessary data required for the completion of the research dissertation. The study considered records and those items related to inventory management policies and organization performance for the period of ten years (2007-2017).

1.7 Significance of the Study

Kakira Sugar works Ltd:

The study will help Kakira Sugar works Ltd to find ways of meeting their customers' satisfaction through various ways such as compliance and time delivery. Through proper inventory management , the company's image is protected. This is because with customer satisfaction, there is always a repeated sale to the manufacturing organization to create customer retention.

Policy makers:

Overall, this study provides useful strategic data to government and its agencies, the businesses community and all stakeholders, in order for them to can help industries or manufacturing companies to improve on the inventory management policies

Academicians:

This study has also made literature available on the effect of Inventory management policies on operational performance of manufacturing industries for future researchers since the topic had not yet been thoroughly researched.

The findings of the study will help the researcher achieve vital requirements for the award of a bachelor's degree of supplies and procurement management of Kampala International University.

1.8. Conceptual Framework

Independent Variables

- Vendor Managed inventory
- Just - in-Time
- Material Requirement Planning
- Periodic Review Systems

Dependent Variable

- Proper inventory management
- Customer satisfaction
- Efficiency and effectiveness
- Competitive Advantage
- Level of Profitability
- Error free goods
- Increased output

Intervening variables

- Government Policy
- Organizational Structure
- Procurement Strategies

Explanation of the conceptual framework

Independent variables say; inventory management methods like Vender Manage Inventory, Just in Time and Material Requirement planning when well managed in Kakira Sugar works, it give positive outcomes such as customer satisfaction. This is also achieved when dependent variables such as competitive advantage, level of profitability, error of free goods and other intervening factors say; government policy, organization structure are also in place as the study as showed. However Kakira Sugar worksLtd also experiences stock outs, poor inventory management, non compliance due to the facts that independent variable are not well maintained and dependent are aimed at hence negative outputs. The study also showed that intervening factors such as government policies, organizational structure and procurement strategies sometimes lead to negative outcomes.

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter focuses on providing the theoretical models that are related to the topic of the research study. The chapter also presents the findings of the past researches in regards to the impact of inventory management practices and performance of organizations, with a special attention paid to consumer goods manufacturing firms.

2.1 Concept of Inventory Management

Inventory Management is the process of maintaining sufficient stock of items to meet customer needs, weighed against the cost of carrying inventory to determine the appropriate inventory levels (Nair, 1995). It is senior management's effort to discover and maintain the optimum level of investment in all types of inventories from raw materials and suppliers to finished goods so as to monitor changes in market demands with accuracy (Cachon, G. &Terwiesch. 2006). Inventory is considered to have originated from the military's need to supply themselves with arms, ammunition, and rations as they moved from their base to a forward position (Harris, 2010). Inventory is held in order to forecasts future changes in customer needs as well as meet customer requirements. This helps in managing loopholes associated with inventory like having inadequate inventory which disrupts production while the other danger is that of excessive inventories because it introduces unnecessary carrying costs and obsolescence risks (Waters, C.D.J., 2003) A lot of money is tied up in inventories and inventory management is now well recognized in most companies as being so vital because we are in a take off stage and entering still competition and therefore inventory management helps in maintaining optimal stock levels by identifying how much to order, when and how many to order to avoid over investment or under investment in inventories so that the business activities are not disrupted (Toorney, J. W. 2010). Inventory management is part of supply chain which plans, implements and management of the efficient, effective forward and reverse flow of goods, services and related information between the point of origin and the point of final consumption in order to meet customer and legal requirements (Zhang, C. N. 2008).

Inventory as a business concept evolved only in the *1950's and* was mainly due to the increasing complexity of supplying one's business with materials and slipping out products in an increasing globalized supply chain and inventory management calling of experts in the field called inventory and supply chain logisticians (Harland, C.M., 2006). This can be defined as having the right time in the right quantity at the right time at right place for the right price in the right condition to the right customer and is the science of process and incorporates all industry sectors. The goal of inventory management is to manage the fruition of project life cycles supply chains and resultant efficiencies (Edwin S and Florence, M. 2015).

Most organizations have three types of inventory which includes raw materials, work in progress and finally finished goods. As such inventory management is a very important process of production, it avails physical materials used in production of finished products and the process begins with purchasing operation and ends with products ready for sole to customers (Wilfred I. U 2014).

Types of inventory

Raw materials: These are basic inputs that are converted into finished goods / products through the manufacturing process. (Morse, 1989) raw materials are those units which have been purchased and stored for future production and these are in the form of Un manufactured / un processed products. (Pandey; 2003). Donald; 1986 stresses that the buying of raw materials so as to ensure smooth production processes in an organization.

Work in progress: This is concerned with products that are still in the production process to be converted into finished products and they are important in covering the gap that may be left by the company running out of stock of finished products (Pandey. 1995).Work in progress provides buffer stock between different stages between un processed materials and finished products hence providing flexibility in the process (Lam, J., &Postle. R. 2006).

Finished goods inventories: These are completely manufactured products which are ready for sale (Harogren, 1982). Stock of raw materials and work in progress facilitate smooth production while stock of finished goods is required for smooth marketing operations and if finished goods inventories are not kept. Present as well as future sales may be lost because customers can demand for more goods anytime (Nair, 1985)

Supplies: Pandey (2003) asserted that supplies are maintained by the film to smoothen its production process's supplies include office supplies, plant cleaning, materials like soup, brooms, oil and light bulbs, these materials don't enter the production process but are necessary in the production process. Alkinson (2005) stresses that supplies are a small part of inventory, and do not involve significant investment. Therefore a sophisticated system of inventory management may not be maintained for the supplies and planning is not hectic but very crucial to efficiently manage inventory to offer the best to the customers.

Inventory management mostly concentrates on the *first* three inventories raw materials, work in progress and finished goods as well as supplies (Morser, 1981). This is because the levels of these inventories depend on the nature of the business. A manufacturing firm will have substantially high levels of all inventories while a retail or whole sale firm will have a very high level of finished goods inventories and no raw materials and work in progress inventories.

2.2 The inventory management techniques used by Kakira Sugar works

The inventory management techniques that are universally adopted by firms include Economic Order Quantity (EOQ) model, ABC model, Vendor Managed Inventory (VMI) and Just-In-Time model. Yet, this research study focused on Simulation, Economic Order Quantity (EOQ) model, Bar-coding, Just-In-Time model, ABC model and Vendor Managed Inventory (VMI) because, as emphasized by Agus and Noor (2006), these inventory management practices enable a practitioner respond quickly to reduced inventory levels.

Economic Order Quantity (EOQ) Model:

The economic order quantity, which is also recognized as the Wilson EQQ model, is an inventory management technique that identified the most favorable quantity to order, which is in line with minimizing the total variable expenses that are needed to order as well as to hold inventories (Lee, 2002). Economic Order Quantity denotes the optimal ordering level of an

inventory which helps in the minimization of expenses. This inventory management approach (EOQ) makes the assumption that the demand for an item is well-known, the lead time is well-known and constant, that the receipt of an order happens immediately, the discounts of quantity are not computed as part of the model and that inventory's shortages do not happen. The EOQ graphs demonstrate the association between the costs of ordering, the expense of holding inventories and the economic order quantity (Nair, 1995).

Just in time (J.I.T) Model

The Just in Time is an inventory management practices with the objective of maintaining just sufficient material at the right place and at the right time in order to make first the right quantities of inventories (Carison, 2002). This concept was established by manufacturing businesses in Japan in which inventories are acquired only when demanded in a business for

ABC Analysis

This is a popular way to analyze your inventory. Under this method, you classify the inventory into three categories, such as A, B and C. These categories are based upon the inventory value and cost significance. Also, the number of items and values of each category are expressed as a percentage of the total. This inventory management approach is based on the doctrine that a small portion of the items might characteristically represent the bulk of the value of money of the total inventory utilized in the process of production, whilst a comparative number of items can be from a small fraction of the financial value of stores (Flores& Clay, 2012). ABC analysis is sound recognized categorization technique as far as the pareto principle is concerned, whose main purpose is for establishing the items that should be prioritized in the management of an inventory (Ramanathan 2006). Flores and Whyback (2007) is of the view that ABC analysis is a method for prioritizing inventories. Inventories are classified into 3 sub-classes, including A, B and C. A large portion of the efforts of management are utilized on administering A Items A, B in-between and C items get the least attention.

Vendor Managed Inventory (VMI)

Management of inventory supply determines the way an organization will propel itself to high performance effectiveness and competence. Kakira Sugar works Ltd has resulted to VMI systems which assist the provider to Kakira Sugar works Ltd clientele inventory usage. Through the VMI system customers of Kakira Sugar works Ltd can avoid stock outs since the supplier will already have replenished the stocks and also there will be no costs related to handling of inventory since the supplier will know the quantity that is needed and which product will be put on the shelves. The input phase here is communication which should be of good intention from the beginning of business and should bring about a positive relation between the supplier and the customer (Frahm, 2003).

Bar-coding

Bar-coding is the most popular used method of tracking a product for purposes of understanding the level of inventory, reorder and deliveries or sales; this enables to avoid issues of stock outages or overstocking. Bar-coding helps to track a particular item at any specific time. The staffs in the stores of Kakira Sugar works Ltd along with overseers can use bar-coding systems to ensure that work orders are linked, and that the purchase orders are thoroughly linked to the level of stock which is replenished, and that all auxiliary parts in addition to equipments are tracked. So as to guarantee that the data processed by the barcode is helpful, the ERP (Enterprise Resource Planning) system, utilized as the pillar for the bar-coding system, has to be precise at the moment of roll-out in order to ensure the data is significant and effortlessly analyzed (Eroglu, Brent and Waller, 2011).

Material Requirement Planning (MRP):

This is a technique of working backwards from the scheduled quantities and need dates for finished products specified in a master production schedule to determine the requirements for components needed to meet the master production budget schedule. (Cooper, 2003) This inventory management technique in Kakira Sugar works Ltd determines what components are needed how many are needed, when they are needed and when they should be ordered so that they are likely to be capable when needed (Ohno, R. & Mae, M. 2012).

Simulation

The uses of simulation in inventory management usually occur for purpose of responding to the wish for a proper decision making process that would take into consideration the complexities and variances within the environment of a system. A majority of simulation researches regarding inventory systems endeavored to establish the most appropriate arrangement for the inventory system in order to attain the predetermined goals. A small number of simulation models were established to address the inventory system optimization. A number of researches used simulation to establish an inventory management approach associated with tracking signals to assess performance. The other established models aimed at special situations of inventory state (Eckert, 2007). Badri (1993) established a simulation based decision-support system for management ling and managing inventory by taking into consideration the impact of changes in demand, the point of reordering, the management of the stock level, period between the reviews, as well as the lead time. Nonetheless, the approach took into consideration just the case of one product inventory model. In this research, the replica established by Badri (1993) was expanded to integrate a generalized multi-product inventory system. The model recognizes all important expenses: cost associated with purchase, expenses relating to ordering, the holding inventory's expenses, the expertise related to back ordering, as well as the cost of reviews, and cost associated with the lost sales.

Stock Review

Stock review is a regular analysis of stock versus projected future needs. This can be done through a manual review of stock or by using inventory software. Defining your minimum stock level will allow you to set up regular inspections and reorders of supplies. Make sure to take into account certain situations that can arise, such as vendors taking longer than average to replenish stock (Green, James H. 2010). This will aid you in using just-in-time ordering, where the inventory is held for a minimum amount of time before it moves to the next stage in the supply chain. In businesses where manual inventory management techniques are still in use, the primary inventory management methods include: Visual management, Tickler management and Click-sheet management . Companies like Kakira Sugar works Ltd are starting to invest in software to automate the review, and it will help organizations keep track of their inventory, ensure timely reorders, and avoid costly shortages (Lee, H. &kleiner, B. 2001).

2.3 The roles of inventory management in Kakira Sugar works

Good inventory management is essential to the successful operation of Kakira Sugar works Ltd, for a number of reasons. One of the most important is the proportion of the organizations' budget that represents money spent for inventory. Although the amounts and dollar values of the inventories carried by different types of health care providers vary widely. in a typical hospital's budget 25 to 30 percent goes for supplies and their handling. On the national scene, health care supplies constitute 8 to 9 percent of production expenditures (Olsen, S.O. 2003).

Inventory plays a significant role in the growth and survival of an organization like Kakira Sugar works Ltd in the sense that ineffective and inefficient management of inventory will mean that the organization loses customers and sales will decline. Prudent management of inventory reduces depreciation, pilferage, and wastages while ensuring availability of the materials as at when required (Homgren, T Charles. (2008).

Inventory management is critical to Kakira Sugar works' success in today's competitive and dynamic market. This entails a reduction in the cost of holding stocks by maintaining just enough inventories, in the right place and the right time and cost to make the right amount of needed products. High levels of inventory held in stock affect adversely the procurement performance out of the capital being held which affects cash flow leading to reduced efficiency; effectiveness and distorted functionality (Rego, M. 2005).

Inventory management is necessary at different locations within Kakira Sugar works Ltd or within multiple locations of a supply chain, to protect (the production) from running out of materials or goods. Adequate inventories kept in manufacturing companies will smooth the production process. The wholesalers and retailers can offer good customer services and gain good public image by holding sufficient inventories. The basic objective of inventory management is to achieve a balance between the low inventory and high return on investment (ROT). (Kumar Ordamar, Zhang, 2008). Inventory levels have been seen as one of the most interesting areas for improvement in organization materials management (Kumar Ordamar, Zhang, 2008).

Inventor management policies are vital to the successful functioning of manufacturing and retailing organizations like Kakira Sugar works Ltd. They may consist of raw materials, work-in-progress, spare parts/consumables, and finished goods. It is not necessary that an organization has all these inventory classes (Shafle, S. 2004). But, whatever may be the inventory items, they need efficient management as, generally, a substantial share of its funds is invested in them. Different departments within the same organization adopt different attitude towards inventory. This is mainly because the particular functions performed by a department influence the department's motivation. For example, the sales department might desire large stock in reserve to meet virtually every demand that comes. The production department of Kakira Sugar works Ltd similarly would ask for stocks of materials so that the production system runs uninterrupted. On the other hand, the finance department would always argue for a minimum investment in stocks so that the funds could be used elsewhere for other better purposes (Knights, M. (2008).

According to Mugenda&Mugenda (2009), Inventory represents an important decision variable at all stages of product manufacturing, distribution and sales. in addition to being a major portion of total current assets of many organizations. Inventory often represents as much as 40% of total capital of industrial organizations (Moore, Lee and Taylor, 2003). It many represent 33% of company assets and as much as 90% of working capital, (Sawaya Jr. and Giauque, 2006). Since inventory constitutes a major segment of total investment, it is crucial that good inventory management be practiced to ensure organizational growth and profitability.

According to Temeng et al (2010), historically, however organizations like Kakira Sugar works Ltd have ignored the potential savings from proper inventory management, treating inventory as a necessary evil and not as an asset requiring management. As a result, many inventory systems are based on arbitrary rules. Unfortunately, it is not unusual for some organizations to have more funds invested in inventory than necessary and still not be able to meet customer demands because of poor distribution of investment among inventory items (Temeng, Eshun and Essey, 2010:199). Based on the above analogy, therefore this paper evaluates the inventory management and organizational effectiveness in manufacturing organizations in Enugu State, with respect to: Emenite and Hardis and Dromedas both at Emene Enugu as well as the Nigeria Bottling Company at 9th Mile concern also in Enugu (Amstel, P.V. 2011).

Managing inventory in a cost-efficient way helps Kakira Sugar works Ltd to optimize its profits. This begins with negotiating the lowest costs with the suppliers. Buying in volume or committing to suppliers in long-term relationships can help with this. Managing inventory once Kakira Sugar works has it is vital as well. If you order too much inventory, you have to pay more money for employees to organize it and manage it. You have more expenses for storage areas where you hold it. You also risk waste on expired or rotted items. Having too little inventory can lead to stock-outs, which is bad for customer service.

As a product manufacturer, inventory is the driving force behind Kakira's ability to generate revenue and profits. Revenue is the money collected at the time of selling inventory. Profit equals final income after you subtract your variable costs. This means the ability to get inventory at the lowest cost possible and sell it at the highest price is key to a successful, profitable operation (Christopher, M. 2008).

Turning over inventory efficiently is also important. Calculating inventory turnover ratio allows Kakira Sugar works Ltd to see how efficiently it sells through its inventory. The formula is costs of goods sold divided by your average inventory level for a given period. A high turnover rate means you get products off the shelf while they have maximum value to customers. Kakira Sugar works Ltd may also make room for newer merchandise while it's trendy or in demand whereby a lower turnover ratio leads to higher management costs and more waste. It also forces Kakira Sugar works Ltd to have more sales promotions to clear out excess products (Harrisson, F. 2011). High levels of inventory increases the probability that the customers are likely to get what they want, increases sales and service levels (Cachon & Terwiesch, 2006). High inventory levels however lead to both stock holding costs and in-store logistics errors. This is because it becomes difficult for the employees of Kakira Sugar works Ltd to perform shelving and replenishment which makes goods physically available in the store but the employees cannot trace those (phantom products) (Ton &Rainan, 2005).

Maintaining optimum levels of inventory is important to Kakira Sugar works Ltd because excess inventory results in stock holding costs (rental charges, opportunity costs, obsolescence costs, breakages, pilferage) and inadequate inventory (stock Outs) iSalso costly as customers may leave to competitors (Berling, 2011). For each sale that an organization does loose as a result of stock

outs, the company not only looses profits but also customers who may be dissatisfied and source for an alternative reliable supplier (Knights, 2008). When inventory management (maintaining adequate inventory levels) is carried out efficiently, it ensures that the materials needed in an organization are available in the right quality, quantity thus avoiding issues of overstocking and under stocking and ultimately guaranteeing organization performance and increased profits (Ewuolo, et al, 2005).

2.4 The challenges influencing inventory management in Kakira Sugar works

According to Miller (2010), inventory management involves all activities put in place to ensure that customer has 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 specil'ing the size and placement of stocked goods. Inventory management in Kakira Sugar works Ltd 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.

The scope of inventory management also involves managing the replenishment lead time, replenishment of goods, returns and defective goods and demand forecasting, carrying costs of inventory, asset management, physical inventory, available physical space, demand forecasting, inventory valuation, inventory visibility, future inventory price forecasting and quality management. With a balanced of these requirements, it is possible to reach an optimal inventory level, which is an on-going process as the business needs a shift and react to the wider environment (Ogbo et al, 2014).

Inventory management means availability of materials whenever and wherever required by stocking adequate number and kind of stocks. The sum total of those related activities essential for the procurement, storage, sales, disposal or use of material can be referred to as inventory management (Harrisson, F. 2011).

Inventory managers have to stock-up when required and utilize available storage space resourcefully so that available storage space is not exceeded. Maintaining accountability of inventory assets is their responsibility. They have to meet the set budget and decide upon what to order, how to order and when to order so that stock is available on time and at' the optimum cost (Pandey, I. M. (2004). Hence, inventory management in Kakira Sugar works Ltd involves planning to organize and management ling the flow of materials from their initial purchase unit through internal operations to the service point through distribution (Wang, H. -2007).

2.5 Conclusion

Inventory constitutes the most significant part of current assets of larger majority of Indian manufacturing industries. Because of the relative largeness of inventories maintained by most firms, a considerable sum of an organization's fund is being committed to them. It thus becomes absolutely imperative to manage inventories efficiently so as to avoid the costs of changing production rates, overtime, sub-contracting, unnecessary cost of sales and back order penalties during periods of peak demand.

CHAPTER THREE
METHODOLOGY

3.0 Introduction

In this chapter, the research methodology used in the study is described. The research design, population and sample are described. The instrument used to collect the data, including methods implemented to maintain validity and reliability of the instrument are also described. Finally, the profile of the case organization (Kakira Sugar works) is also presented at the latter part of this chapter.

3.1 Research Design

Research design is the plan and structure of investigation so conceived as to obtain answers to research questions. A quantitative approach was followed. Burns and Grove (1993) define quantitative research as a formal, objective, systematic process to describe and test relationships and examine cause and effect interactions among variables. A descriptive survey design was used. A survc7 is used to collect original data for describing a population too large to observe directly (Mouton, 1996). A survey obtains information from a sample of people by means of self-report, that is, the people respond to a series of questions posed by the investigator (Polit and Hungler, 1993). In this study the information was collected through self-administered questionnaires distributed personally to the subjects by the researcher. A descriptive survey is selected because it provides an accurate portrayal or account of the characteristics, for example behaviour, opinions, abilities, beliefs, and knowledge of a particular individual, situation or group. This design was chosen to meet the objectives of the study, namely to determine the knowledge and views of the top management officials of Kakira Sugar works and their staff with regard to inventory management policies and organization performance.

3.2 Population of the study

The population of the study included about two hundred and thirty five (230) staff members of Kakira Sugar works. The study population of this consisted of all Staff and Management in the Kakira Sugar works. The target population of the study consists of staff from the finance and accounts, procurement, sales/marketing,, management and transport and logistics.

3.3 Sampling techniques and Sample Size

Sampling is a key component of any investigation and involves several considerations. The aim of most investigations is to obtain information about a population. A census or sample of the population is taken for analysis. The sampling techniques used for this study was purposive and convenience sampling techniques. Purposive sampling technique was used to select staff and departmental personnel who acquire and manage stock at the Company. Convenience sampling used to select a representative number of the different units of the company .Thus the sample size for the study was 45 employees of Kakira Sugar works Ltd. The selection of the sample was based on chance selection and the readiness and availability of the respondents. A total of 45 questionnaires were administered in order to ascertain the perceptions of both staff and management with respect to inventory management by Kakira Sugar works. Therefore, in this study, a sample size of 45 is considered adequate for the study.

Table 1: Showing the Sample Size and population distribution

Category	Population	Sample Size	Sampling technique
Finance and Accounts staff.	34	06	Purposive
Procurement	51	04	Purposive
Sales/marketing	42	10	Convenience sampling Purposive
Management	06	03	Purposive
Production department	29	04	Simple random
Transport and logistics	10	05	Simple random
Packaging department	38	11	Convenience sampling Purposive
Stores department	20	06	Simple random
Total	**230**	**45**	

Source: Kakira Sugar works Ltd Journals, 2018.

3.4 Sampling Procedure

A representation number of respondents were selected among workers of Kakira Sugar works Ltd using simple random method and this method helped to get information by selecting the population which conforms to certain characteristics that I am interested in.

3.5 Sources of Data

Data was collected using both primary and secondary data collection techniques.

3.5.1 Primary data

Primary data was collected using questionnaires. Primary data was gathered basically through structured questionnaires and interviews with "Key informant members". According to Oso and Onen, (2008) questionnaires are a data collection technique in which the respondents respond to the number of items in writing. Questionnaires were chosen simply because of the time limitation and partly because the Research was dealing with an elite community (respondents).

3.5.2 Secondary data

Therefore, for the purposes of this study, secondary data was collected through the use of a literature survey. Under this method both published and non-published reviewed materials such as books, reports, articles, docum.nts, journals and internet resources were used. The literature survey further provided a useful background of the study topic in question.

3. 6 Data Collection Methods.

Questionnaire

The researchers designed a questionnaire with both opened and closed ended questions from the area of research. The questionnaires were structured carefully to avoid respondents not getting meaning of questions. Simple and easy words were therefore used so that respondents easily understood as well as answer them. Possible answers were provided to enable respondents tick which ever answer they find suitable in terms of their response to the question. Participants were asked to indicate their level of agreement with each statement/item from 1(Agree), 2(Strongly Agree), 3(Disagree), 4(Strongly Disagree).

The main advantage of scaled-responses is that it permits the measurement of intensity of respondents' answers compared to multiple choice responses. The scaled responses incorporate numbers which can be used directly as codes (McDaniel & Gates. 2001).

Published Reports

The researchers also took into consideration some reports that have been published already by other researchers that have bearing on the topic of this study.

Divers conclusions have been made by researchers on various topics which were of importance to this research. The reports aided the researcher to get some information for the research. (Bernstein et al 2008).

3.7 Data Processing, Analysis and Presentation

3.7.1 Data processing.

This includes; editing, tabulation and coding.

Editing was done to check the completed responses with purposes of detecting and eliminating errors and identifying vital information that was essential in coding and tabulation.

Coding was done according to whether or not the response was a representative of the objective of the study and realistic to the subject matter.

Tabulation involved mainly the use of simple statistical techniques like use of tables and percentages to test significance of the information from which meaning interpretation was drawn.

3.7.2 Data presentation and analysis

After successful retrieval of filled in questionnaires and conducting of interviews, raw data was entered into Excel Sheets and outcomes were presented as percentages using tables as a primary analysis.

3.8 Ethical Considerations of the Study

There was the need to ensure that the study did not contravene the ethical issues. Hence, the following measures were taken: The research questions were framed such that inconvenience and embarrassment caused to the participants in the research. Kakira Sugar works staffs and management was assured of their utmost confidentiality with regards to information provided. Data obtained was treated with confidentiality. Those who participated in the study will not be coerced but did so voluntarily. The consent of the respondents was obtained before they participated in the research.

CHAPTER FOUR
PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.0 Introduction

This chapter comprises of presentation, analysis and interpretation of the findings in relation to the study objectives and can be evidenced below.

4.1.0 Demographic characteristics of the respondents.

Findings on the demographic characteristics of the respondents were considered and can be evidenced below.

4.1.1 Gender composition of the respondents

Findings on the gender of respondents were considered and can be evidenced in the table below

Table 2: Gender composition of the respondents

Gender	Frequency	Valid Percent	Cumulative percent
Male	25	56	56
Female	20	44	100
Total	45	100	

Source: Primary data, 2018

From table 2, above 56% of the respondents were male and 44% were female. This means there is no bias in the study.

4.1.2 Period spent working with Kakira Sugar works.

Findings on the period spent working with Kakira Sugar works were considered and can be evidenced in the table below.

Table 3: Period spent working with Kakira Sugar works.

Time of service	Frequency	Valid Percent	Cumulative percent
Less than a year	6	14	14
1-2 years	12	23	37
3-4 years	18	37	74
5 years and above	9	26	100
Total	45	100	

Source: Primary data; 2018

From table 3, 14% of the respondents had spent a period of less than a year, 23% had spent 1 to 2 years, 37% had spent 3-4 years and 26% had spent 5 years and above. This means that respondents had experience regarding the study.

4.1.3 Education level of the respondents

The researcher was interested in the level of education so as o find out the skills, expertise and perhaps experience in trade licenses. The responses were as shown below.

Table 4: Education level of the respondents

Education level	Frequency	Valid Percent	Cumulative percent
Secondary	6	12	12
Certificate	9	20	32
Diploma	8	18	50
Degree	15	34	84
Post graduate	7	16	100
Total	45	100	

Source: Primary data; 2018

From table 4, 12% of the respondents were secondary level holders, 20% were certificate holders, 18% were diploma holders, 34% were degree holders and 16% were post graduate holders. This implies that respo0ndents had the capacity to answer questions in the questionnaire.

4.1.4 Age group of respondents

The study captured different age brackets of respondents in order to establish the most prevalent group, the respondents were asked to state their age. The distribution was as in table 5 below.

Table 5: Age distribution of respondents

Age group	Frequency	Valid Percent	Cumulative percent
Under 25 years	9	20	20
25-35 years	12	27	47
36-45 years	14	31	78
46 and above	10	22	100
Total	**45**	**100**	

Source: Primary data;2018

From table 5 abobe, 20% of the respondents were under 25 years of age, 27% were between 25 to 35 years, 31% were between 36 to 45 years and 22% were 46 years and above. This shows that most respondents were mature enough to answer question in the questionnaire.

4.1.5. Marital status of the respondents

The researcher was interested in this so as to know the level of commitment of employees to their jobs as evidenced 6 below;

Table 6: Marital status of the respondents

Marital status	Frequency	Valid Percent	Cumulative percent
Married	15	33	33
Single	9	20	53
Widowed	6	13	66
Divorced	7	16	82
Engaged	8	18	100
Total	**45**	**100**	

Source: Primary data; 2018

From table6, 33% of the respondents were married. 20% were still single, 18% were married 20% were still single, 18% were engaged, 16% of the respondents were divorced and 13%)were widowed. This means that most of the employees were committed to their work and exhibited a high level of responsibility towards their work.

4.2.0 Findings on inventory management .

Findings on Inventory management were considered and can be evidenced in tables below

4.2.1 Inventory management techniques are well understood by the majority employees in the organization.

Findings on whether Inventory management techniques are well understood by the majority employees in Kakira Sugar works

Table 7; Inventory management techniques are well understood by the majority employees

Response	Frequency	Valid Percent	Cumulative percent
Strongly agree	8	·18	18
Agree	12	27	45
Not sure	2	3	48
Disagree	20	45	90
Strongly disagree	3	7	100
Total	**45**	**100**	

Source: Primary data; 2018

From table 7 above, 18% of the respondents strongly agreed that they understood well the meaning of inventory management techniques, 27% agreed,3% were not sure 45% of them disagreed and 7% strongly disagreed This indicates that inventory management techniques are not well understood by the majority of the employees of the organization.

4.2.2 Inventory management is conducted annually in the organization.

Findings on whether inventory management is conducted annually by the organization were considered and can be evidenced in table 8below.

Table 8: Inventory management is conducted annually in Kakira Sugar works Ltd.

Response	Frequency	Valid Percent	Cumulative percent
Strongly agree	20	44	44
Agree	8	18	62
Not sure	0	0	62
Disagree	14	31	93
Strongly disagree	3	7	100
Total	45	100	

Source: Primary data; 2018

From table 8, 44% of the respondents strongly agreed that inventory management is conducted annually in the organization, 18% agreed, 31% disagreed and 7% strongly disagreed with the view. This shows that inventory management is not conducted annually in Kakira Sugar works.

4.2.3 The organization puts greater emphasis on monitoring optimal stock levels and keeping inventory records.

Findings on whether the organization puts greater emphasis on monitoring optimal inventory levels and keeping inventory records were considered and can be evidenced below.

Table 9: The organization puts greater emphasis on monitoring optimal stock levels and keeping of inventory records

Response	Frequency	Valid Percent	Cumulative percent
Strongly agree	15	35	35
Agree	18	40	75
Not sure	1	3	78
Disagree	6	12	90
Strongly disagree	5	10	100
Total	45	100	

Source: Primary data; 2018

From table 9 above, 35% of the respondents strongly agreed that the organization puts greater emphasis on monitoring optimal inventory level and keeping inventory records; 40% agreed, 3% were not sure, 12% disagreed and 10% strongly disagreed. This means that the organization put greater emphasis on monitoring optimal inventory levels and keeping inventory records.

4.2.4 Raw materials and finished goods occupy the highest levels of activity,

Findings on whether raw materials and finished goods occupy the highest level of activity were considered and can be evidenced in table 10 below

Table 10. Raw materials and finished goods occupy the highest level of activity in the organization

Response	Frequency	Valid Percent	Cumulative percent
Strongly agree	25	55	55
Agree	18	40	95
Not sure	0	0	95
Disagree	2	5	100
Strongly disagree	0	0	100
Total	45	100	

Source: Primary data; 2018

From table 10 above, 55% of the respondents strongly agreed that raw materials and finished goods occupy the highest level of activity in the organization. 40% agreed and 5% disagreed This indicates that raw materials and finished goods occupy the highest level of activity in the organization.

4.2.5 There are other items maintained by the organization apart from raw materials and finished goods.

Findings on whether there are other items maintained by the organization were considered and can be evidenced in table 11 below;

Table 11: There are other items maintained by Kakira Sugar works apart from raw materials and finished goods.

Response	Frequency	Valid Percent	Cumulative percent
Strongly agree	13	29	29
Agree	11	24	53
Not sure	6	13	66
Disagree	8	18	84
Strongly disagree	7	16	100
Total	45	100	

Source: Primary data; 2018

From table 11, 29% of the respondents strongly agreed that there are other items maintained by the organization, 24% agreed, 13% were not sure, 18% disagreed and 16% strongly disagreed.. This shows that there are other items maintained by the organization

4.2.6; All inventories are inspected by the organization.

Findings on whether all inventories are inspected were considered and can be evidenced below.

Table 11: All inventories are inspected by the organization

Response	Frequency	Valid Percent	Cumulative percent
Strongly agree	13	30	30
Agree	7	15	45
Not sure	4	10	55
Disagree	9	20	75
Strongly disagree	12	25	100
Total	45	100	

Source: Primary data; 2018

From table 11 above, 30% of the respondents strongly agreed that all inventories are inspected by the organization, 15% agreed, 10% were not sure, 20% disagreed and 25% strongly disagreed. This indicates that not all inventories are inspected by the organization.

4.2.7 Economic order quantity is the major inventory management technique most preferred by the organization.

Findings in whether economic order quantity is the most preferred inventory management technique were considered and can be evidenced below

Table 12. Economic Order quantity technique most preferred by the organization.

Responses	Frequency	Valid Percent	Cumulative Percent
Strongly agree	6	13	13
Agree	14	23	38
Not sure	16	33	71
Disagree	4	10	81
Strongly disagree	8	19	100
Total	45	100	

Source: Primary data; 2018

From table 12, 13% of the respondents strongly agreed that economic order quantity is the most preferred inventory management technique, 25% agreed, 10% were not sure, 19% disagreed and 33% strongly disagreed. This shows that economic order quantity is not the mostly preferred inventory management technique by the organization.

4.2.8 There are other inventory management techniques apart from economic order quantity.

Findings on whether there are other inventory management techniques used by the organization were considered and can be evidenced below.

Table 13: There are other inventory management techniques apart from economic order quantity.

Responses	Frequency	Valid Percent	Cumulative Percent
Strongly agree	17	35	35
Agree	22	50	85
Not sure	2	6	91
Disagree	1	2	93
Strongly disagree	3	7	100
Total	45	100	

Source: Primary data; 2018

From table 13 above, 35% of respondents strongly agreed that there exists other inventory management techniques apart from economic order quantity, 50% agreed, 25 were not sure, 7% disagreed and 6% strongly disagreed. This means that there are other inventory management techniques that the organization uses apart from economic order quantity system.

4.3.0 Findings on organization performance

Findings on customer satisfaction were considered and can be evidenced in tables below.

4.3.1 Kakira Sugar works is the major product offered to the customers by the organization

Findings on whether Kakira Sugar works is the major product offered to the customers were considered and can be evidenced in table 14 below.

Table 14: Kakira Sugar works is the major product offered to the customers by the organization

Responses	Frequency	Valid Percent	Cumulative Percent
Strongly agree	18	40	40
Agree	10	22	62
Not sure	4	9	71
Disagree	7	16	87
Strongly disagree	6	13	100
Total	45	100	

Source; Primary data; 2018

From table 14, 40% of the respondents strongly agreed that Kakira Sugar works is the major product offered to the customers, 22% agreed, 95 were not sure, 16% disagreed and 13% strongly disagreed. This means that Kakira Sugar works Newspaper is the major product offered to the customers by the organization.

4.3.2 Kakira Sugar works provides quality products to its customers.

Findings on whether Kakira Sugar works provides quality products to its clients were considered and can be evidenced below.

Table 15: Kakira Sugar works provides quality products to its customers

Responses	Frequency	Valid Percent	Cumulative Percent
Strongly agree	4	8	8
Agree	19	42	50
Not sure	4	9	59
Disagree	12	28	87
Strongly agree	6	13	100
Total	45	100	

Source: Primary data; 2018

From table 15, 8% of the respondents strongly agreed that Kakira Sugar works provides quality products to its customers; 42% agreed, 95 were not sure, 28% disagreed, 13% strongly disagreed. This means that Kakira Sugar works does not provide quality products to its customers.

4.3.3. Individual clients are the major customers of the products offered by the organization.
Findings on whether individual clients are the major customers of the products were co9nsidered and can be evidenced below.

Table 16.Individual clients are the major customers of the products offered by the organization

Response	Frequency	Valid Percent	Cumulative percent
Strongly agree	7	16	16
Agree	15	33	49
Not sure	0	0	49
Disagree	20	44	93
Strongly disagree	3	7	100
Total	45	100	

Source: Primary data; 2018

From table 16, 16% of the respondents that individual clients are the majority customers of the products offered by the organization, 33% agreed 44% disagreed and 7% strongly disagreed.. This shows that individual clients are not the major customers of the products offered by the organization.

34

4.3.4 Distribution channels of Kakira Sugar works are convenient and attractive to customers.

Findings on whether distribution channels of Kakira Sugar works are convenient and attractive to customers were considered and can be evidenced below.

Table 17: Distribution channels of Kakira Sugar works are convenient and attractive to customers.

Responses	Frequency	Valid Percent	Cumulative Percent
Strongly agree	0	0	0
Agree	13	28	28
Not sure	1	2	30
Disagree	24	55	85
Strongly disagree	7	15	100
Total	45	100	

Source; Primary data; 2018

From table 17; 28% of the respondents agreed that distribution channels of Kakira Sugar works are convenient and attractive to customers, 2% were not sure, 55% disagreed, 15% strongly disagreed This implies that the distribution channels of Kakira Sugar works is not convenient and attractive to customers.

4.3.5 There is a high level of products sales in the organization.

Findings on whether is a high level of product sales in the organization were considered were and can be evidenced below.

Table 18: There is a high level of product sales in the organization

Response	Frequency	Valid Percent	Cumulative percent
Strongly agree	5	11	11
Agree	16	36	47
Not sure	2	4	51
Disagree	19	42	93
Strongly disagree	3	7	100
Total	45	100	

Source: Primary data; 2018

From table 18 above, 11% of the respondents strongly agreed that there is a high level of product sales in the organization, 36% agreed, 45 were not sure. 42% disagreed and 7% strongly disagreed. This implies that there is a low level of product sales in the organization.4.3.6 Customers care and handling aims at targeting new customers as well as maintaining existing ones, Findings on whether customer care and handling aims at targeting new customers as well as maintaining existing ones were considered and can be evidenced below.

4.4 Relationship between inventory management and organization performance

Findings on the relationship between Inventory management Organization performance were considered and can be evidenced in the table below;

Table 19: Relationship between inventory management and Organization performance

	Inventory management	Organization performance
Inventory Pearson Correlation	1.000	
management Sig (2-tailed)	.	.713**
N	45	.000
		45
Organization Pearson Correlation	.713**	1.000
performance Sig (2-tailed)	.000	.
N	45	45

**. Correlation is significant at the 0.01 level (2-tailed)
Source; Primary data; 2018

From table 19 above, findings show that there is a strong positive relationship between inventory management and Organization performance at Pearson correlation coefficient r =0.713. Since r >0.5, it implies that the relationship is strong. Therefore Organization performance is greatly affected by inventory management and this calls for more effort to be laid on inventory management to increase the level of Organization performance.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS
5.0 Introduction

This chapter involves the summary, conclusion and recommendations. The summary is based on the study objectives, conclusion based on the problem statement and recommendations based on the conclusion.

5.1.0 Summary of the findings

Findings revealed that inventory management techniques are not well understood by majority employees, inventory management is conducted annually by the organization, the organization puts greater emphasis on monitoring of optimal inventory levels and keeping inventory records, Raw materials and finished goods occupy the highest level of activity, not all inventories are inspected by the organization and that economic order quantity is not the most preferred inventory management techniques.

The findings showed that the most preferred inventory management techniques in Kakira Sugar works is Economic order quantity EOQ.This shows that the company strive to minimize ordering and carrying cost by determining the optimal level in inventory management.

The findings revealed that customers in Kakira Sugar works do not offer the best services to its customers since there are delays in product delivery leading to customer complaints and also the companies do not retain customers due to limited quality of products in the company.

The findings showed that inventory management had significant relationship on customer satisfaction as shown by the positive correlation coefficient between inventory management and customer satisfaction.This revealed that proper inventory management techniques such as Economic order quantity may lead to customer satisfaction especially when an order is placed and delivered on time as expected by the customers.

Findings indicated that the Kakira Sugar works is the major product offered to the customers, individual clients are not the major customers of the products offered by Kakira Sugar works, Kakira Sugar works does not provide quality products to its clients, the distribution channel of

Kakira Sugar works is not convenient and attractive to customers, there is a low level of product sales and customer care and handling aims at targeting new customers as well as maintaining existing ones.

Findings showed that there is a strong positive relationship between inventory Organization performance at Pearson Correlation coefficient whereby $r = 0.713$. Since $r > 0.5$,. This implies that inventory management enhances organization performance of Kakira Sugar works.

5.2.0. Conclusion

The study focused on finding the inventory management techniques that is mostly used in Kakira Sugar works, the indicators of customer satisfaction and the relationship between inventory management and customer satisfaction. From the findings the most preferred inventory management technique is Economic order quantity which helps in minimization of costs associated with inventory which contributes to findings the best price level to customers.

Overall the study found that inventory management in Manufacturing companies Kakira Sugar works Ltd is improving as the company is struggling to make sure that qualified and competent professionals are employed and highly paid and who are knowledgeable with the computerized inventory system with the goal of ensuring high performance as far as materials management is concerned, unlike previous years where materials management functions were or stores operations were conducted manually using stores ledger which was not effective and in addition to that materials management functions were ignored and operated by unqualified people in materials management on which the government resulted to operating manufacturing companies at loss with no any return since no proper management was exercise over materials management section.

5.3. Recommendations

The researcher made the following recommendations basing on the research objectives findings and analysis in line with others who have written on the same research.

Kakira Sugar works should also emphasize on Economic order quantity since it attempts to reconcile the problem of how much inventory should be added when inventory is replenished.

The company should also strive to improve inventory management techniques so that they can produce quality products to customers leading to retaining of their customers.

In addition Kakira Sugar works should improve on production scheduling process so that they produce the best quality products which are desirable to its customers and thus build to trust to its customers leading to a positive impact towards to the company.

Management of Kakira Sugar works have to ensure that inventory management is understood well by majority of employees. This can be done through training and sensitization of employees regarding the importance on inventory management.

The study recommended that manufacturing firms should minimize the cost of production (which includes materials, labour and service costs) to attain their optimum performance level.

The costs involved in inventory-production that are incurred by manufacturing companies are categorized under holding stocks and ordering costs.

The study recommended that improved anticipation of future developments in manufacturing firms in Uganda will improve their performance. The study further recommended that there should be unified data, information sharing and channels relationships and use of inventory management systems as a competitive tool in the manufacturing firms for realizing their corporate competitive strategy.

Management of Kakira Sugar works have to make sure that all items are inspected and inventory management conducted annually, so that they do not get problem concerning inventory monitoring and record keeping

Management of Kakira Sugar works should put more effort in attracting more individual customers so as to increase on its clientele.

Management of Kakira Sugar works Ltd need to put more efforts should also be put on checking the product quality and pricing mechanism so as to increase on its product sales and get more profits.

Management of Kakira Sugar works to improve on its distribution channel so as to make its products more convenient and attractive to customers.

5.4 Areas for further research

Further research need to be carried out on the effect of logistics efficiency on the level of customer satisfaction in Manufacturing Companies.

Further studies should be carried out on the effect of value analysis and customer care on the level of customer satisfaction.

The researcher carried out this study in Kakira Sugar works as an area of interest to find out the relationship between inventory management and customer satisfaction but that aside, the study was not wide extensively leading to hindrances, for instance limited time, finance and uncooperativeness of some staff. Therefore further research should be carried out in other companies such as Nile breweries, Kakira Sugar works Ltd

REFERENCES

Anichebe, N.A AndAgu, O.A (2013) Effect Of Inventory Management On Organisational Effectiveness, Information And Knowledge Management. 3,(8)

Agarwal.V. (2007), "Contemporary Issues in Supply Chain Management ", *A Case Study of Manufacturing Industries, Supply Chain Management. New Centuty Publication.* New Delhi.

Allen, D.R. & Wilburn, M. (2012), "Linking Customer and Employee Satisfaction to the Bottomline", *A Comprehensive Guide to Establishing the Impact of Customer and Employee Satisfaction on Critical Business Outcomes.*

Ballou, R. (2011). *Basic Business Logistics Transportation Material Management, Physical Distribution.* 2nd Edition, Prentice Hall, New Jersey.

Ballou, C.P. (2004). *Business Logistics/Supply chain management planning, organizing and management ling the supply chain.* 5th Edition, Volume 6.2001:2.

Bhausaheb, A. N. &Routroy, S. (2010), "Evaluation of Inventory Performance for Perishable Products Through Simulation", *Journal of Operations Management. (9),* 7 1-72

Brewer, P.C &Speh, T.W. (2010). Using the Balanced scorecard to Measure Supply Chain Perfo rmance. *Journal of Business Logistics.* (12), 78-80

Cachon, G. &Terwiesch. (2006), "Matching supply with Demand", An Introduction to Operations Management.McGraw-Hill.New York

Carlson, J. El. (2002). *Just-in-time approach to system wide efficiency and quality borrows from industrial techniques,* Strategies for Healthcare Excellence, 6(2), 9-12.

Cannon, A.R. (2008). Inventory Improvement and Financial Performance. *International Journal of Production Economics* 115, 581—593.

Cacioppo, K. (2010), "Measuring and Managing Customer Satisfaction", Quality Digest. Retrieved on 31st July from: Retrieved March 23, 2007,

Campton, J. (2004), "How to Manage Customer expectations". Customer relationship Management. Retrieved on 24th July from: http://www.destinationcrrn.com!

Christopher, M. (2008), "Logistics & Supply Chain Management ", *vol*4. Financial Times Prentice Hal. Great Britain

Cachon, G.P. and M.L. Fisher (2000). *Supply Chain inventory Management and the Value of* \

Shared Information, Management Science 46, 1032   1048

Cecil Bozarth and Robert Handfield, (2006). *Introduction to Operations and Supply Chain Management,* Prentice-Hall.

Dimitrios, P. (2008). The effect of inventory management on firm performance, *International Journal of Productivity and Performance Management.* 57 (5)

Eroglu, C. and C. Hofer (2011).Lean, Leaner, Too Lean?The Inventory-Performance Link Revisited, *Journal of Operations Man agement29, 356 -369.*

Eroglu, C., Brent, W., and Wailer, M. (2011). Consumer driven retail operations, The moderating effect of consumer demand and case pack quantity. *International Journal of Physical distribution and logistics management,* 41(5), 420-434

Edwin S and Florence M (2015) The Effect Of Inventory Management On Profitability Of Manufacturing Companies In Kenya: A Case Study Of Listed Cement Manufacturing Companies In Kenya, International Journal Of Management And Commerce Innovations 3(2) 111-119,

Fullerton R.R., C.S. MeWatters and C. Fawson (2003). An Examination of the Relationship between JIT and Financial Performance, *Journal of Operations Management* 21,

Green, James H. (2010). *Production and Inventory Management Handbook,* 3rd edition, New York, McGraw-Hill.

Harrisson, F. (2011).*Supply chain management workbook,* Butterworth Heinemann, Great Britain.

Homgren, T Charles.(2008). *Cost Accounting Management Emphasis,* 5th Edition, Prentice Hall, New Jersey.

Harroson P and Jundem G. (2000).*Supply Chain Management,* 3rd Edition, Mac Graw Hill Book Company, Singapore.

Knights, M. (2008). Managing stock levels: materials management and Inventory Management

Kothari, C.R. (2006). *Research Methodology: methods & techniques.*(1st ed). Nairobi: New age International Publishers

Lee, H. & Kleiner, B. (2001). Inventory Management in Womens Retail Clothing Industry: *Management Research News.* (24), 40-230

Mitchell (2004). *Determinants of Governance Choice in Business-to-Business Electronic markets:* An Empirical Analysis Working paper. Ross school of Business, University of Michigan

Morganm N.E.A. &Rego, M. (2005).Understanding Firms Organization performanceinformation Usage. *Journal of Marketing,* (69), 131-i 51

Mpwanya, M.F. (2005).*Inventory Management as a Determinant for Improvement of Customer Service.*Department of Business Management Faculty of Economic and Management Sciences.University of Pretoria

Mugenda & Mugenda (2009).*Research methodology;* (3rd ed). Nairobi. Longman Publishers.

Mutua, M. (2010).*The Role of Stock Management in Organizations Performance:* A Case Study of Kenya Vehicle Manufacturers Thika.

Narkotey, M.A. (2012). *Inventory management in the Ghana Health Services and Its Role in Healthcare Delivery:* A Case study of health facilities in HO Municipality, Kwaen Nkuruma University of science and technology

Ohno, R. & Mae, M. (2012). *The Impact of ChangingLead-time on Inbound Logistics*

Olson, J. and Dover, P. (197 9).Disconfirmation of Consumer Expectations through Product Trial.*Journal of applied psychology.*64 179-189

Pandey, I. M. (2004).*Financial Management* 9th (ed), Vikas Publishing House PVT Ltd.

Shafie, S. (2004). The Effectiveness of Vendor Managed Inventory (VMI) Towardslinproving International Journal of Academic Research in Business and Social Sciences *January 2014,*

Toften, K. and Olsen, 8.0. (2003). *Export market Information Use, Organizational Knowledge and firm performance:* A Conceptual Framework. Industrial marketing review, 20 (1) 95-100

Ton, Z.A. &Rarnan. (2005). *Cross-Sectional analysis ofphantom products at retail stores.* Working papers

Toomey, J.W. (2000).*Inventory Management: Principles Concepts and Techniques.* Vol 12 pg 230-59.

Tuli, K. &Bharadwaj.G.S. (2009).*Organization performanceand Stock Returns Risk. Research Collection Lee Kong Chian School of Business.* Singapore Management University

Verstegen, M. & Amstel, P.V. (2011). Total logistics Concept: A method of Improving Logistics Performance. *The International journal of Logistics management,* (2), 63-73

Viale, D. (1991).*Basics of Inventory Management:* From Warehousing to distribution. Adam Wilcox. United States of America.

Wang, H. (2007). *Inventory Managemer with alternative Lead times.* Retrieved on 17th July from: http://papers.ssrn.com/sol3/papers.cfln?abstract id=1 121250

Wildding (2003). The 3 Ts of Highly Effective Supply Chains: Journal *of Supply Chain Practice,* (5), 3

Wilson N. (2006). The Supply Chain of perishable products in Northern Europe. *British Food Journal,* 98 (6) 9-15

APPENDICES
APPENDIX I: QUESTIONNAIRES

Dear respondent;

I am **OKOME MICHEAL** a student of Kampala International University carrying out a research on *"inventory management and organization performance, a case study of Kakira Sugar works"*. The information obtained will be strictly for academic purposes and it will be treated with utmost confidentiality.

Instructions

Please I kindly request you to you to spare some time and fill this questionnaire appropriately by ticking in the boxes [✓] provided from the alternatives provided on each question. Your responses will only be used for this academic purpose and will be treated with utmost confidentiality. Thank you very much for your time and co-operation

SECTION A: Demographic Characteristics

1. Kindly indicate your gender. (Tick as appropriate)
a) Male [ ]   b) Female [ ]

2. Select your age bracket. (Tick as appropriate)
a) Under 25 years [ ]   b) 25-35 years [ ]
c) 36-45 years [ ]   d) 46 and above [ ]

3. Working experience
a) Less than a year [ ]   b) 1-2 years [ ]
c) 3-4 years [ ]   d) 5 years and above [ ]

3. Marital Status
a) Married [ ]   b) Single [ ]
c) Widowed [ ]   d) Divorced [ ]   e) Engaged [ ]

4. Highest level of education attained? (Tick as appropriate)

a) Secondary Level ☐   b) Diploma level ☐

c) Certificate ☐   d) Post graduate ☐

Any other (specify)..

Part B: Inventory Management Practices

Please indicate using the scale which of the following inventory management practices are successful in the warehousing firm.

4.What are the inventory management techniques used in Kakira Sugar works

....
....
....

5. During Stock review we can tell good or poor performance by comparing the actual situation to the government established and documented standards and regulations?

(1) Strongly Agree ☐   (2) Agree ☐   (3) Not sure ☐

(4) Disagree ☐   (5)Strongly Disagree ☐

6. Have the storekeeper or (stockler) achieved the purposes for which they were established?

(1) Strongly Agree ☐   (2) Agree ☐   (3) Not sure ☐

(4) Disagree ☐   (5)Strongly Disagree ☐

Any additional comments ....

7. Do the Storekeepers have full independence in performing their daily duties?

(1) Strongly Agree ☐   (2) Agree ☐   (3) Not sure ☐

(4) Disagree ☐   (5)Strongly Disagree ☐

Any Additional comments ....

8. Does the system create challenges to the organisation?

(1) Strongly Agree ☐   (2) Agree ☐   (3) Not sure ☐

(4) Disagree ☐   (5)Strongly Disagree ☐

9. Do the Storekeepers have a power to advice the Management and contribution concerned with stock matters so as to result in positive change in Stock Management discipline?

(1) Strongly Agree ☐   (2) Agree ☐   (3) Not sure ☐

(4) Disagree ☐   (5)Strongly Disagree ☐

10. Does physical inventory vary from the system stock at stocktaking in the last 3 years?

(1) Strongly Agree ☐   (2) Agree ☐   (3) Not sure ☐

(4) Disagree ☐   (5)Strongly Disagree ☐

Any Additional comments ....

11. Through stock, Storekeepers can help the client to diagnose problems and come up with practical/workable solution?

(1) Strongly Agree ☐   (2) Agree ☐   (3) Not sure ☐

(4) Disagree ☐   (5)Strongly Disagree ☐

12. Does the Councils use accurate, reliable, timely and useful stock document for decision making?

(1) Strongly Agree ☐   (2) Agree ☐   (3) Not sure ☐

(4) Disagree ☐   (5)Strongly Disagree ☐

Any Additional comments ....

13. Do the Storekeepers have the required competence in performing their duties ?

(1) Strongly Agree ☐   (2) Agree ☐   (3) Not sure ☐

(4) Disagree ☐   (5)Strongly Disagree ☐

14. How can inventory management lead to the performance of Kakira Sugar works?

....

....

....

15. What are the challenges facing inventory management based in Kakira Sugar works?

....

....

....

16. What measures should be taken to solve the problems of inventory management in Kakira Sugar works?

....

....

....

....

THANK YOU FOR YOUR COOPERATION

APPENDIX II; WORK PLAN

Activity	Time in month				
	May	June	Jul	Aug	Sep
Proposal writing	██				
Data collection		██	██		
Data analysis				██	
Submission of the dissertation					██

49

APPENDIX III: BUDGET

Item	Amount
Stationary -papers and pens	50.000/-
Transport	100.000/-
Phone calls	100.000/-
Internet usage	30.000/-
Typing and printing	50.000/-
Miscellaneous	200.000/
Total	**530.000/=**