

INVENTORY MANAGEMENT AND PROFITABILITY OF COMPANIES
IN KAMPALA: A CASE STUDY OF MEGA STANDARD
SUPERMARKET

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DECLARATION

I, Nambasa Martha, hereby declare that this research report is my own original work, that all reference sources have been truthfully reported and acknowledged, and that this document has not beforehand, in its completeness or in part, been submitted to any University in order to obtain an academic award.

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APPROVAL

This is to certify that this research report has been submitted with my approval as the
in as the supervisor.

Supervisor's name: Mr. Mulindwa Fred

Signature: 

Date: 

DEDICATION

This book is dedicated to my father Mr Kalanzi Martin, brother, Mwebe Morris and mum Mrs Juliet and other family members. May God bless you and make you a blessing.

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ABSTRACT

The major aim of this research was to find out the relationship between inventory management and profitability of companies. The research topic was "Inventory management and profitability of Companies in Kampala" A Case study of Mega Standard Supermarket. The objectives of the study were; to examine the inventory management practices used in Mega standard Supermarket, to examine the factors affecting profitability of Mega standard Supermarket and to study the relationship between inventory management and profitability of Mega standard Supermarket.

Cross sectional and correlational research designs were used. The researcher applied purposive sampling on 70 employees from Mega Standard Supermarket who constituted the survey population. To achieve the objectives, the researcher collected data from both primary and secondary sources. Primary data was obtained from respondents through questionnaires and interviews while secondary data was obtained using existing literature like books, magazines, brochures, journals and internet. Data from the field was analyzed using frequencies and percentages. The data was also edited, coded and well arranged in order to ensure accuracy and completeness.

According to the research findings, the researcher discovered that most factors examined had a negative impact on profitability of the company. The factors included cost of acquiring raw materials, tax liability on the profits and cost of production. Profitability of Mega Standard Supermarket was mainly affected by high costs of acquiring raw materials, high tax liability on profits, low productivity per employee and increasing cost of production. It was also established that there is a positive relationship between inventory management and profitability of companies. This implied that the more effort Mega Standard Supermarket channels towards improving the inventory management practices, the higher will be its profits.

One of the recommendations was that management of Mega Standard Supermarket should understand all the factors that affect profitability of the company and then come up with feasible measures and solutions for each. This will help to maintain high profits in the company.

CHAPTER ONE

INTRODUCTION

1.0 Background of the Study

In the first two decades of the nineteenth century industry and commerce all over the world have taken giant companies earlier achievements spread over the centuries. This phenomenal growth has several contributory closes but the most important ones which sets pace of development is a concept of scientific management in production, marketing distribution, accounting and administration every subject which have become the subject of absorbing study specialized application and spectacular results. Boute, R., Lambrecht, M., Lambrechts, O., Sterckx, P. (2006) Inventory is defined as the blocked Working Capital of an organization in the form of materials. As this is the blocked Working Capital of organization, ideally it should be zero. But we are maintaining Inventory. This Inventory is maintained to take care of fluctuations in demand and lead time. In some cases it is maintained to take care of increasing price tendency of commodities or rebate in bulk buying. Lambrecht, M., Lambrechts, O., Sterckx, P. (2006) Inventory Management must be designed to meet the dictates of market place and support the company's Strategic Plan.

The many changes in the market demand, new opportunities due to worldwide marketing, global sourcing of materials and new manufacturing technology means many companies need to change their Inventory Management approach and change the process for Inventory Control. Deloof, M. (2003) A survey of 351 management accountants by the National Association of Accountants (NAA) in a cross-section of industries to assess current inventory management practices in the U.S indicated that: just-in-time inventory management techniques are increasing in popularity, as are automated time-phased inventory re-order system. The survey further established that 85 per cent of respondents have no plans to change their inventory controls and that actual business experience is relied upon more than inventory quantitative models. Also, the survey established that some inventory management practices such as assessing inventory levels and balancing stock-out costs against expenses related to higher inventory levels are seldom used in practice (Romano, 2011).

Maintaining optimal inventory levels reduces the cost of possible interruptions or of loss of business because of scarcity of products, reduces supply costs, and protects against price fluctuations. The inventory conversion period has a negative effect on a business's performance. For instance, shortening the inventory conversion period could increase stock out costs of inventory which results in losing sales opportunities and leads to poor performance (Deloof, 2003). Lazaridis & Dimitrios (2005) highlighted the importance of firms keeping their inventory at an optimum level by analyzing the relationship between working capital management and corporate profitability and stressed that its mismanagement will lead to excessive tying up of capital at the expense of profitable operations. A similar study by Rehman (2006) established a strong negative relationship between inventory turnover in days and profitability of firms. Greater seasonality of demand and supply of products; quantity and variety of products demanded and supplied; batch sizes; the need to create 'buffer' stocks to cover for supply uncertainties and the lead time affects the level of inventory held by businesses (Cachon & Olivares, 2010). This view is also held by Sander et al. (2010) who asserted that the amount of inventory ordered at particular intervals does affect the replenishment intervals.

Gruen & Corsten (2007) document that stock-outs have serious implications for businesses and they affect consumers, retailers, and manufacturers. Consumer purchase behaviors, such as product replacement, delayed purchase, or not making a purchase sometimes result from such events. Zinn & Liu (2008) posit that when faced with a stock-out, a consumer may find, try, and ultimately prefer a substitute product. This consumer may be lost forever, resulting in a negative impact on the long-term value of the firm's market share. A loyal consumer also may visit another firm to find the desired product, a situation that may result into loyalty switching. They further assert that repeated stockouts negatively affect retailers through the loss of customers and employee time, while the manufacturer simultaneously is harmed by lost sales, brand switching, and a loss of brand. Greater seasonality of demand and supply of products; quantity and variety of products demanded and supplied; batch sizes; the need to create 'buffer' stocks to cover for supply uncertainties and the lead time affects the level of inventory held by businesses (Cachon & Olivares, 2010). This view is also held by Sander et al. (2010) who asserted that the amount of inventory ordered at particular intervals does affect the

replenishment intervals. Gruen & Corsten (2007) document that stock-outs have serious implications for businesses and they affect consumers, retailers, and manufacturers. Consumer purchase behaviors, such as product replacement, delayed purchase, or not making a purchase sometimes result from such events. Zinn & Liu (2008) posit that when faced with a stock-out, a consumer may find, try, and ultimately prefer a substitute product. This consumer may be lost forever, resulting in a negative impact on the long-term value of the firm's market share. A loyal consumer also may visit another firm to find the desired product, a situation that may result into loyalty switching. They further assert that repeated stock outs negatively affect retailers through the loss of customers and employee time, while the manufacturer simultaneously is harmed by lost sales, brand switching, and a loss of brand. They also maintained that approximately half of the customers who searched for an out-of-stock product finally quit the search, hence aggravating the negative effect of stock-outs. Profitability is a key factor as to why many business units start. When competition is rising, it becomes more and more essential for companies to provide good service in terms of inventory management one has to make sure the stock is available when demand is arising and certainly to make sure to make a good off between cost minimization and high quality service. Byaruhanga, (2005) Profitability ratios indicate the ability of the manufacturing firm to earn returns (profits) on investment. They relate profits to other aspects such as assets or sales to assess the effectiveness of the companies in generating profits (returns) from its operations. Kakuru, (2003)

1.1 Statement of the problem

Oftentimes, inventory is the largest asset item on a manufacturer's balance sheet. As a result, there is a lot of management emphasis on keeping inventories down so they do not consume too much cash. According to the employees of Mega Standard Supermarket, overstocking and expiration of goods before they are displayed to the shelves are some of the problems in the inventory department. This leads to the loss of some customers and employee time, while the company simultaneously is harmed by lost sales, brand switching, and a loss of brand. This increases the cost of possible interruptions, loss of business because of scarcity of products and increases supply costs. Because inventory is among a company's largest assets, effective management of inventory is critical to profitability. With this background in

mind, this study investigated the relationship between inventory management practices and profitability of companies in Kampala.

1.2 Purpose of the study

To evaluate the role of inventory management on the profitability of companies in Kampala.

1.3 Objectives of the Study

In order to carry out a meaning research, the researcher was guided by the following specific objectives.

- i. To examine the inventory management practices used in Mega standard Supermarket
- ii. To examine the factors affecting profitability of Mega standard Supermarket
- ii. To study the relationship between inventory management and profitability of Mega standard Supermarket

1.4 Research questions

This study was guided by the following research questions;

- i. What inventory management practices are used in Mega standard Supermarket?
- ii. What factors affect profitability in Mega standard Supermarket?
- i. What is the relationship between inventory management and profitability in Mega standard Supermarket?

1.5 Scope of the study

1.5.1 Content scope

This study examined the impact of inventory management on profitability of companies.

1.5.2 Time scope

The study was conducted between the months of April and June 2014.

1.5.3 Geographical Scope

The study was conducted at Mega Standard Supermarket located in Kampala near Shoprite.

1.6 Significance of the study

- i. The study is designed for employees from all organizations that have inventory to manage profit or non-profit public or private service or manufacturing
- ii. The skill learned applies to middle managers administrative personnel and organization as a whole in knowing how to manage inventory
- iii. Findings will also be available for reference by academicians, researchers who seek to conduct further research in any of the variable under this study.
- iv. The study will be helpful to the government in setting the rate of taxation depending on the profitability of the company.

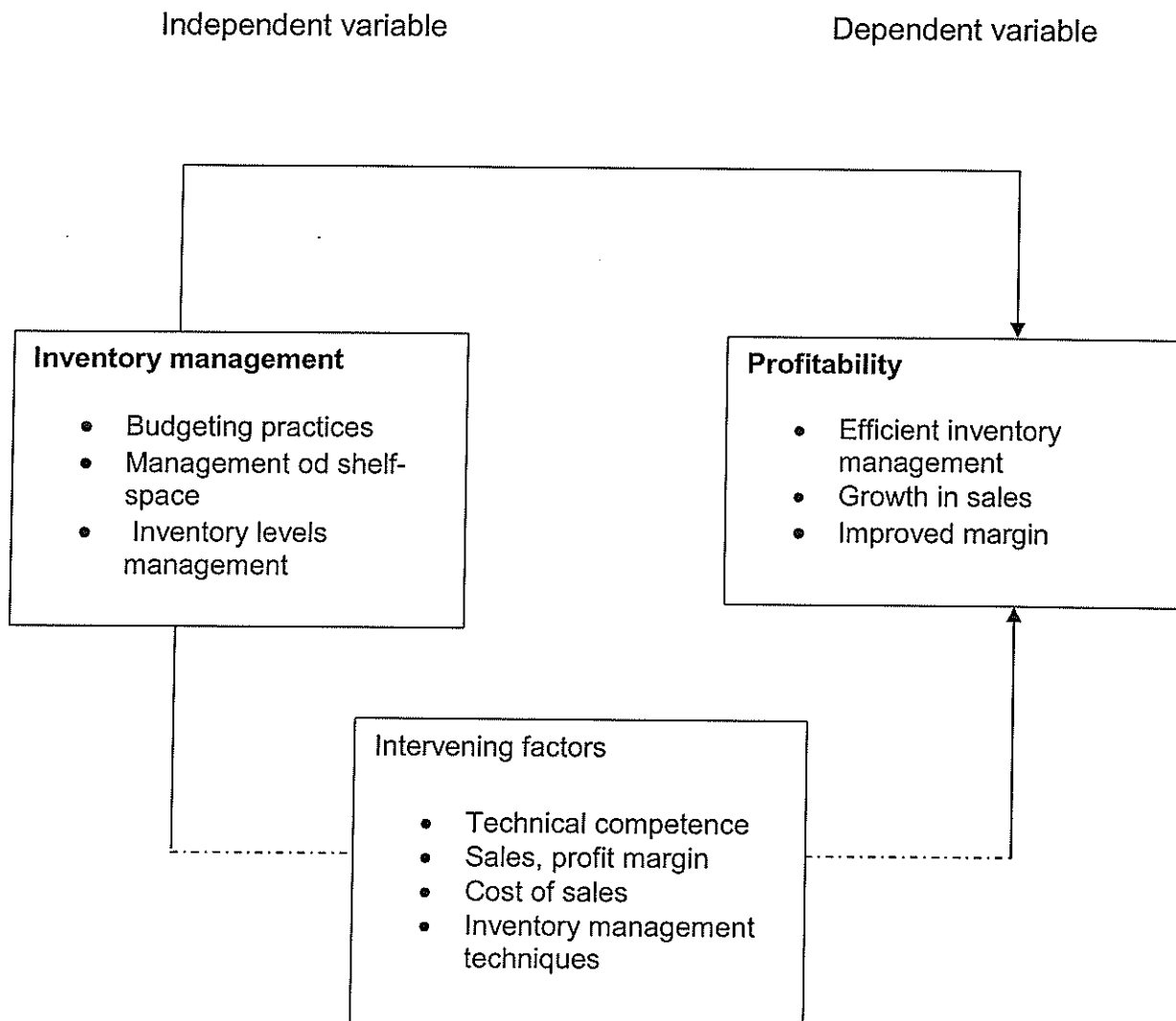
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter is concerned with the different view by different authors as far as the relationship between inventory management and profitability in companies. It contains different literature from different authors.

2.1 Conceptual framework



Source: Researcher's conceptualization, 2014

The Literature on inventory management practices reviewed identifies effective inventory management practices as determinants of profitability model. Profitability could therefore be improved if effectiveness levels of inventory management practices are improved.

2.1 The Concept of Inventory Management

Inventory refers to the value or quantity of raw materials, supplies, work in progress (WIP) and finished stock that are kept or stored for use as need arises (Lyons and Gillingham, 1981). Raw materials are commodities such as steel and lumber that go into the final product. Supplies include items such as Maintenance, Repair and Operating (MRO) inventory that do not go into the final product. Work in progress is materials that have been partly fabricated but are not yet completed. Finished goods are completed items ready for shipment (Kothari, 1992). Inventory management is the art and science of maintaining stock levels of a given group of items incurring the least cost consistent with other relevant targets and objectives set by management (Jessop, 1999). It is important that managers organizations that deals with inventory, to have in mind, the objective of satisfying customer needs and keeping inventory costs at a minimum level.

The word “inventory” has been defined in many ways, as indicated in the literature. Three definitions have been chosen seem to be more appropriate to the topic developed in this dissertation. “Inventories are stockpiles of raw materials, suppliers, components, work in process, and finished goods that appear at numerous points throughout a firm’s production and logistics channel”(Ballou, 2004). According to Chase, Jacobs and Aquilano (2004), inventory is the stock of any item or resource used in an organization. An inventory system is the set of policies and controls that monitor levels of inventory and determine what levels should be maintained, when stock should be replenished, and how large orders should be. Finally, Pycraft et al (2000) defined inventory or stock as “the stored accumulation of material resources in transformation system. So a manufacturing company will hold stocks of materials, a tax office will hold stocks of information and a theme park will hold stocks of customer (when it is customers which are being processed we normally refers to the stocks of them as a queues”).

2.1.1 Objectives of Inventory Management

Magad and Amos (1989) assert that the primary objective of inventory management is to improve customer service. This is done through protection against stock out due to demand variability in the market place. Kothari (1992) asserts that the aim of inventory management is to increase production efficiency. Closely related to the

function of production control, maintaining an inventory allows for efficient materials management. Magad and Amos (1989) argued that the key issue to be considered in formulating inventory policy is cost minimization. Therefore the objective of inventory management is to minimize inventory investment. One benefit of good inventory control is improved managerial efficiency in all functional areas of management.

2.2 Theory of Economic Order Quantity (Wilson EOQ Model)

Mathematical models have been developed within the scope of operations management to determine the optimal inventory level. The most widely used model is the EOQ model. This model was developed by F.W.Haris in 1913. But still R.H. Wilson is given credit for his early in- depth analysis of the model (Arsham, 2006). The model is also known as the Wilson EOQ model. According to this model, some costs (ordering costs) decline with inventory holdings, while others (holding costs) rise and that the total inventory-associated cost curve has a minimum point. This is the point where total inventory costs are minimized. The economic order quantity is the level of inventory that minimizes the total of the inventory holding cost and ordering cost.

2.3 Reasons for holding Inventory

Virtually every enterprise finds it necessary to hold stocks (or inventory) of various items and materials. That is because it would be practically impossible to operate with only one of each item to be sold or used in manufacture or used in office work. A reserve or a fund or inventory of each item or material used or sold frequently is therefore maintained, so that as items or materials are sold or used they can be replaced or replenished from the stocks held in reserve. Due to uncertainty in future demand, and because of the unguaranteed availability of supplies, stock is therefore held to ensure an availability of goods to minimize the overall costs associated with the management of stock. The purpose of holding stock by a firm is for three motives [Drury 2000] that is the precautionary, transaction and speculative motives.

Precautionary Motives: According to Gittinger (1995), precautionary motive means that stock held to guard against risk of unpredictable changes in demand and supply. In most cases, the level of demand of goods and the time required for supply can not be known with certainty. Therefore, to ensure product availability, the organization maintains additional amount of safety stock to meet regular production and market

needs. Firms should invest in stock control for precautionary motive to act as a buffer or link between demand and supply so that production can be geared to a more constant output. Precautionary motive necessitates holding of inventories to guard against the risk of unpredictable changes in demand and supply forces and other factors. (Pandey: 2002)

Transaction Motive: Balloon (1987) stated that inventories should be held to improve customer service and therefore goods should be spotted at a place where customers can get them in the quantities they wish. The transaction motive is aimed at facilitating smooth operations on daily basis. According to Pandey (2002) Transaction motive emphasizes the need to maintain inventories to facilitate smooth production and sales operation.

Speculative Motive: Firms should maintain back up inventory either in excess or low levels to take advantage of current and future demands or price fluctuations. They should therefore purchase goods and stock them in advance when they anticipate price increase in future and also prepare for contingencies that may befall a company, for instance, strikes, prices, goods among others (Kakuru: 2000).

Speculative motive influences the decision to increase or decrease inventory levels to take advantage of price fluctuations (Pandey: 2002). The above reasons in addition to encouraging production purchases and transportation economies will influence firms to hold stock to allow smooth operations in the organization.

According to Kenneth and Brian (2006) said that reason for keeping inventory includes the following reason:-Reduce the risk of supplier failure or uncertainty-safety and buffer stocks are held to provide some protection against such as strikes, transport breakdowns due to floods or snow, crop failures, wars and similar factors, Protect against lead time uncertainties, such as where supplier's replenishment and lead time are not known with certainty – in such case an investment in safety stocks is necessary if customer services is to maintain at acceptable levels, Meet unexpected demands or demands for customization of products as with agile production and smooth seasonal or cyclical demand, Take advantage of lots or purchase quantities in excess of what is required for immediate consumption to take advantage of price and quantity discounts, Hedge against anticipated shortage and price increases, especially in times of high inflation or as a deliberate policy of

speculation and Ensure repaid replenishment of items in constant demand, such as maintenance supplies and office stationery.

According to Bloomberg, Lemay and Hanna [2002:136-137] have identified five reasons for holding stock, namely:

- a. Economies of scale. A firm can realize economies of scale in manufacturing, purchasing and transportation by holding inventory. If the business buys large amounts, it gets quantity discounts. In turn, transportation can move larger volumes and get economies of scale through better equipment utilization. Manufacturing can have loner production runs if more material is inventoried, allowing per units fixed cost reductions.
- b. Balancing supply and demand. Some firms must accumulate inventory in advantage of seasonal demand. A toy manufacturer see some demand year – round, but 60 percent or more of sales will come in the Christmas season. By manufacturing to stock, production can be kept throughout the year. This reduces idle plant capacity and maintains a relatively stable workforce, keeping costs down. If demand is relatively constant but input materials are seasonal, such as in the production of demand fruits, then finished inventory helps meet demand when the materials are no longer available.
- c. Specialization. Inventory allows firms with subsidiaries to specialize. Instead of manufacturing a variety of product and then ship the finished products directly to customers or to a warehouse for storage. By specializing, each plant can again economies of scale through long production runs.
- d. Protection from uncertainties. A primary reason to hold inventory that is to say to offset uncertainties in demand. If demand increases and raw material stocks run outs, the production line shuts down until more material is delivered. Likewise, a shortage of work in process means the product can not be finished. Finally, if customer order outstrips finished goods supply, the resulting stock outs could lead to the lost customers leading the poor services delivery to the organization.
- e. Buffer interface. Inventory can buffer key interfaces, creating time and places utility. Key interfaces include [1] supplier and purchasing, [2] purchasing and production, [3] production and marketing, [4] marketing and distribution, [5] distribution and intermediary, and [6] intermediary and customer. Having

inventory at these interfaces helps ensure that demand is met and stock outs are minimized.

2.4 Inventory Management Practices by Mega Standard Supermarket

In order to achieve the objectives of minimizing stock related costs, firms should maintain adequate levels of stock in order to enable smooth business operations. A number of practices have therefore been advanced to handle these costs. Kalyango (2001) highlights the following practices that minimize stock related costs;

2.4.1 Inventory Planning and Scheduling

This is how units of stock are required by an organization in a given period to enable smooth business operations. A good stock plan set in advance will enable planners to set procurement/ purchase dates and quantities that are consistent with the plan to avoid disruptions due to inventory shortages (Dilworth 1992).

2.4.2 Inventory Recording

Accurate and up-to- date stores records are keys to effective stores management. The basic procedures include counting and recording promptly after receipt or production and whenever there is a store transaction, issue of stores should be properly authorized and show details such as code number, quantity of the transaction and the voucher reference (Muller, 2003).It is undertaken by organizations to reduce the errors of stock management and to ensure accurate and reliable stock records. It involves spot checks/ surprise checks, stock taking, which is the physical counting and measuring of quantity of each item in stock and recording the results (Brooks et al 2007).The documents used in inventory include but not limited to;

Purchase requisition note. Document raised by either the storekeeper or user department to the purchasing officer requesting for inventory /materials need for use.

Goods received note. Document prepared on receipt of stock to the stores.

Stock record card/Bin cards: used for recording materials received and used in the store. Bin card has three columns which include the receipt column, issue column and Balance column.

Materials return note. These permit the unused materials to be returned to the store from the production department and other user departments.

Shortages note. This is a document issued by the stores department to requisitioned information him/her that materials required are in short supply or not available in the store.

Scrap note. This is a document used for recording scrap generated and it allows such a scrap to be handed over to the store department in exchange for good materials (Kamukama, 2006). Inventory recording is undertaken by organizations to reduce the errors of stock management and to ensure accurate and reliable stock records. It involves spot checks/ surprise checks, stock taking, which is the physical counting and measuring of quantity of each item in stock and recording the results (Brooks et al 2007).

2.4.3 Recording technique

Inventory recording is undertaken to reduce the error relating to inventory accountability and accuracy in a firm's investment in inventories. Wood Frank (1996) indicates that stock accounting is important in any firm as it registers the changes in the level of stock held to realize maximum value and avoid misuse of funds. Inventory recording may take it form of stock taking and sport checks which are a process of physically counting, weighing or other wise measuring the quality of each item in stock and recording system should reduce the discrepancies between stock in record and the physical stock

2.4.4 Inventory Valuation

It is also a stock control technique, which refers to the establishment of the value of stock and therefore its implication on the profits. Lacey (1994) identified the following methods of stock valuation; First in First out (FIFO), Last in First out LIFO) and the average price method.

2.4.5 First in First out (FIFO)

This is a method whereby prices of goods are determined by depending on the oldest stock until all the units are finished and then the second oldest is used to determine the prices and the trend continues. According to (Kamukama, 2006) FIFO

method follows the principle that materials received first are issued first. After the first lot or batch of materials purchased is exhausted, the next lot is taken up for supply. The inventory is priced at the earliest costs. This means that the unused raw materials (closing stock) are constituted by the goods which were not recently purchased.

2.4.6 Physical Inventory Counts

The inventory value should be provided to UIS Accounting Office within one week after the fiscal year end. Adjustments to correct discrepancies must be adequately documented by management (Piasecki, 2003).

2.4.7 Inventory control

Inventory control is the activity which organizes the availability of items to the customers of the organization. It co-ordinates the purchasing, manufacturing and distribution functions to meet the marketing needs. This role includes the supply of current sales items, new products, consumables, spare parts, obsolescent items and all others supplies (wild, 2002) Lysons and Gillingham (2003) write that inventory/stock control refers to the techniques used to ensure that stocks of raw materials, WIP and finished goods are kept at levels which provide maximum service levels at minimum costs. An effective Inventory Control System should; Minimize time and carrying costs, Maintain sufficient stock for smooth production, sales operation and on sufficient customer service. And control investment in inventories or keep an optimum level (Pandey, 2002). Different business concerns may apply different inventory practices to meet specific requirements and circumstances to help in containing the costs associated with inventory.

2.4.7.1 Inventory recording

It is undertaken by organizations to reduce the errors of stock management and to ensure accurate and reliable stock records. It involves spot checks/ surprise checks, stock taking, which is the physical counting and measuring of quantity of each item in stock and recording the results (Brooks et al 2007).

2.4.7.2 Checking Receipts

Receipts into store are normally checked (or either by weighing, counting or measuring). If this is done properly, it provides a good foundation for all subsequent operation by ensuring, that the quantities are correct in the first instances.

2.4.7.3 Checking /Issues

It should be a matter of routine for the store house staff to check the quantities and descriptions of all issues made before they are handed over. It is also common practice to expect the recipient to counter-check the quantity received and to sign for it. This provides a reasonable assurance that quantities taken off stores are correct.

2.4.7.4 Spot checking

Spot-checking is the practice of making random checks of some items at irregular and unspecified intervals. It is often done by senior stores officers in course of their supervisory duties, but can also operated in paralleled with the stocktaking programme, irrespective of whether the periodic or continuous method is in use. Where the main stocktaking is carried out annually on a periodic basis, spot checking throughout the year is the best safe guard against malpractice during the period between stock takings.

2.4.7.5 ABC Analysis

This has already been covered before, but is also regarded as a material control tool. It's considered as the best approach and based on the principle of selective control. The maxim is "put your effort where the results are maximized. (Kamukama, 2006). ABC analysis: Brown (Bloomberg, Lemay and Hanna 2002) notes that the ABC analysis categorizes products based on importance. Importance may come from cash flows, lead time, stock outs, sales volume, or profitability. Once the ranking factors is chosen, break points are chosen for classes A, B, C and soon. The 80-20 concept is particularly useful in distribution planning when the products are grouped or classified by their sales activity. The top 20 percent might be called A times, the next 30 percent B items, and the remainder C items. Each category of items could be distributed differently. For example, A items might receive wide geographic distribution through many warehouses with high levels of stock availability , whereas C items might be distributed from a single, central stocking point(e.g. a plant) with

lower total stocking level than for the A items. B items would have an intermediate distribution strategy where few regional warehouses are used (Ballou 2004).

2.4.7.6 Two bin system

This method is common used when materials are relatively inexpensive or non-essential. The inventory is divided and placed in two separate compartments or bins. The first bin contains quantity of items that will be used between the time an order is received and the cover the usage between the dates of placing an order to the date of delivery. New supply is ordered as soon as the first bin is empty. (Axsater, 2006)

The two-bin method for replenishing material is easy to implement and equally easy to use for tracking usage. In the Part A diagram, items are used from the first section of the bin only. When all the material is used, the second section of the bin is opened for use and an order is placed with the vendor for a refill. In the Part B diagram, the item is placed in a barrel or keg. When the item level falls to the lower section of the keg, the item is reordered.

2.4.7.7 Just –in- time (JIT) system

This is a demand –pull” system under which products are only manufactured to satisfy a specific customer order (Horngren 1999). As the name suggests the idea is that inventories are acquired and inserted in production at the exact times they are needed, this requires efficient purchasing, very reliable suppliers and an efficient inventory handling system.(Van Horne:p469).In this system supplier delivers the components and parts of the production line just in time to be assembled. Other names for this or very similar methods are zero inventories and stockless (Koonzt: 2003).Just-in-time inventory management is an approach which works to eliminate inventories rather than optimize them. The inventory of raw materials and work-in-process falls to that needed in a single day. This is accomplished by reducing set-up times and lead times so that small lots may be ordered. Suppliers may have to make several deliveries a day or move close to the user plants to support this plan. (Muckstade et al 2010)

2.4.7.8 Inventory Levels

This is a stock management technique, which involves controlling the amount of stock held by an organization. The main aim of this technique is to strike a balance between profitability and liquidity to ensure that there is no under or over stocking. According to Kamukama [2006] short adherence to stock control should be established in order to minimize the costs associated with stock.

Re-order level is a level fixed between and represents a stage at which emergency and immediate steps have to be taken for acquiring new stock. It gives a warning to the stores that materials have reached the lowest point and if no emergencies are taken, they will be completely exhausted. The re-order level must be sufficient enough to cover the maximum possible consumption of stock during the reorder period.

Re-order level = Maximum daily usage x maximum lead time/period.

Minimum stock level or safety stock. This is maintained to prevent stock outs. It represents the quality below which the stock of an item should not be allowed to fall. This safety stock should be used only in abnormal circumstances minimum stock level/safety stock=Re-order level – (average rate of consumption x average lead time)

Maximum stock level; This represents the upper most amount of stock the company can maintain at any time. Maximum level indicates the level above which stock should not be allowed to rise. Maximum stock level+ Re-order level + EOQ (Minimum usage x minimum lead time)

Average stock level

This is computed as minimum stock level + maximum stock level

2

Or

Average stock level = Minimum level + Re- Order quantity (OEQ)

2

2.5 Inventory management Policies used in organizations

Dilworth (1992) contends that inventory planning and scheduling shows how units of stock are required by an organization in a given period to enable smooth business operations. He elaborates that a good stock plan set in advance will enable planners to set procurement/purchase dates and quantities that are consistent with the plan to avoid disruptions due to inventory shortages. Muller (2003) explicitly notes that accurate and up-to-date stores records are keys to effective stores management. The basic procedures include counting and recording promptly after receipt or production and whenever there is a store transaction, issue of stores should be properly authorized and show details such as code number, quantity of the transaction and the voucher reference. It is undertaken by organizations to reduce the errors of stock management and to ensure accurate and reliable stock records. It involves spot checks/surprise checks, stock taking, which is the physical counting, and measuring of quantity of each item in stock and recording the results (Brooks et al 2007). Stores management is concerned with ensuring that all the activities involved in storekeeping and stock control are carried out efficiently and economically by those employed in the Store. In many cases it will also encompass the recruitment, selection, induction and the training of stores personnel, and much more. A store is an area set aside into which all the items and materials required for production and/or for sale/distribution are received, where they are housed for safekeeping, and from which they will be issued as required (Muller, 2003).

Carry (1994) equally illuminates that having a stores management system means that the store is an open access area. Otherwise, people would just help themselves and there would be no control over the amount of stock taken or used. It's cost of buying and replacing stock would be even worse if there was no control under the things on impulse, use of some items, not bothering with the others and this would add to the cost. Needham (1995) argues that one of the main purposes of an organization is to produce and sell goods efficiently and this could be through a good system of stores management. We need to have some way of measuring what it costs to make sales. If their costs can be reduced in proportion to the sales that are made, the organization can be said to be becoming more efficient. Dickerson (1995) explains the critical role of stores management is to provide the level of stock that will sustain operations of a firm at minimum costs, which calls for carrying out stock

management, forecasting on future demands, determining how much inventory to hold, when to place orders and how many units of stock to order at a given time. In doing this, firms will be aimed at maintaining inventory/stock levels, which will balance benefits of having optimum levels of stock against the costs associated with having high and low levels of inventory.

These costs include unnecessary tie up of funds, excess carrying costs, risk of liquidity, production hold up and failure to meet deliveries on time. Inventory is any resource used to satisfy current or future needs (Render et. al 1994). Inventory also known as stock refers to the resources used to satisfy current and future needs to enterprise of all goods and costs of all goods owned and held for sale (Ender et. al 1994). Chasten Flattery and O'Connor (1984) further observed that a Company has in its possession and legal title to it. Lysons et. al 2003, defines inventory as an American accounting term for the value or quantity of raw materials, components, assemblies, consumables, work in progress (WIP) and finished stock that are kept or stored for use as the need arises. Inventory management involves providing the required inventory levels that will sustain the organization's daily operations at minimum costs. This covers issues like determining the level of stock to order, when to order, establishing receipt and inspection procedures and providing proper storage facilities. Without proper stock control procedures in place, firms are likely to face two undesirable inventory levels. That is to say excessive/ high levels of inventory or inadequate/ low levels of inventory (Dickerson 1995). Lucay (1994) observes that excessive levels of stock are undesirable because they increase the risks of inventory becoming obsolete, stock loss through damage and theft, increased storage costs like rent, insurance and unnecessary tie up of the firm's funds. He further state that a firm would be foregoing profits when it continues maintaining excessive levels of inventory, which implies that the probability position of the firm is being threatened in the long run since funds are not being invested in other profitable ventures. Gupta (1994) 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.

According Cooper et al (2002), there are four policies for inventory management. Inventory control is the managerial procedure for implementing an inventory policy. Inventory control defines how often inventory levels are reviewed to determine when and how much to order. Coldfeller (2003) adds that the control system allows you to determine mistakes that have been made or identify areas that need immediate attention. The perpetual inventory control policy reviews inventory status daily to determine inventory replacement needs. Perpetual depends on accurate tracking of all stock-keeping units. It is implemented through re-order point e order quantity. Periodic review policy, reviews the inventory status of an item at regular time intervals say weekly or monthly. The basic re-ordering point is adjusted to consider the extended intervals between reviews.

2.6 Profitability

Profitability management, coordinating firms day-to-day activities through careful forethought and great management, is at the core of firms transformation in this critical period. Firms created a tightly aligned business model that enabled it to manage away the need for its component inventories. Not only was capital not needed, but the change generated enormous amounts of cash that firms use to fuel its growth. At the heart of manufacturing firm's profitability management is a seemingly impossible dilemma: the firms have to adopt a build-to-order system. Demeter, K. (2003) Primary a company ability to generate revenue in excess of the costs incurred in producing those revenues is what is referred to as profit. One of the commonly encountered instances of profit is the value of that is left over from any outgoing enterprise business or business operations after costs are accounted for. In accounting this is usually measured in monetary terms. Durio, A., Isaia, E. (2004)

2.6.1 Factors that affect profitability

Profitability is affected by changes in sales volume, costs and prices. Increase or decrease of selling price, volume, variable costs, fixed costs or a combination of all has an effect on profitability (Pandey, 1995).

In order for a firm to maximize its profits, it has to develop strategies that will sustain profits in the long run. These strategies are described below (Van Horne, 1996) Prepare realistic budgets and plans for more accurate forecasting, and provide comprehensive reports on demand. Capture costs at the activity level to understand

the underlying causal relationship and acquire a detailed picture of how corporate resources are used. Carry out continuous estimation of returns from customers, products and channels at the transaction level where costs are incurred (Pandey, 1995). Align the organization with long term goals by communicating the firm's mission and vision to employees and allowing them to participate in decision making.

Adopt appraisal techniques such as value chain analysis, balanced score card, porter's five forces and "BCG" matrix. The company should strengthen the expenditure control policy. This will reduce on unnecessary expenditures and improve the profit levels.

2.7 Theoretical framework

The mathematical inventory models used with this approach can be divided into two broad categories—deterministic models and stochastic models—according to the *predictability of demand* involved. The demand for a product in inventory is the number of units that will need to be withdrawn from inventory for some use (e.g., sales) during a specific period. If the demand in future periods can be forecast with considerable precision, it is reasonable to use an inventory policy that assumes that all forecasts will always be completely accurate. This is the case of *known demand* where a *deterministic* inventory model would be used. However, when demand cannot be predicted very well, it becomes necessary to use a *stochastic* inventory model where the demand in any period is a random variable rather than a known constant. There are several basic considerations involved in determining an inventory policy that must be reflected in the mathematical inventory model.

The study will use the scientific inventory management theory comprises of the following steps:

1. Formulate a *mathematical model* describing the behavior of the inventory system.
2. Seek an *optimal* inventory policy with respect to this model.
3. Use a computerized *information processing system* to maintain a record of the current inventory levels.
4. Using this record of current inventory levels, apply the optimal inventory policy to signal when and how much to replenish inventory.

Because inventory policies affect profitability, the choice among policies depends upon their relative profitability. Some of the costs that determine this profitability are (1) the ordering costs, (2) holding costs, and (3) shortage costs. Other relevant factors include (4) revenues, (5) salvage costs, and (6) discount rates.

The **cost of ordering** an amount z (either through *purchasing* or *producing this amount*) can be represented by a function $c(z)$. The simplest form of this function is one that is directly proportional to the amount ordered, that is, $c = cz$, where c represents the unit price paid. Another common assumption is that $c(z)$ is composed of two parts: a term that is directly proportional to the amount ordered and a term that is a constant K for z positive and is 0 for $z = 0$

The **holding cost** (sometimes called the *storage cost*) represents all the costs associated with the storage of the inventory until it is sold or used. Included are the cost of capital tied up, space, insurance, protection, and taxes attributed to storage. The holding cost can be assessed either continuously or on a period-by-period basis. In the latter case, the cost may be a function of the maximum quantity held during a period, the average amount held, or the quantity in inventory at the end of the period.

2.8 Relationship between inventory management and profitability

This study aims to analyze determinants of firm profitability by means of variables related with inventory management practices using companies, the results show that, accounts receivables period, inventory period and leverage significantly and negatively affect profitability of companies. Traditional approach to interaction between cash conversion cycle and profitability posits that relatively long cash conversion periods tend to decrease profitability. Trade activities of a firm can be considered as a process in circulation where cash is converted into assets and assets into cash. Cash available for trade activities of the firm has an important multiplier effect due to its turnover ratio. Higher cash turnover ratios enable managers to minimize short-term investments whose rates of return are relatively lower compared to long-term investments and consequently increase profitability.

Studies regarding working capital are mostly related with improving models to determine optimal liquidity and cash balance, rather than analyzing underlying reasons of relationships between liquidity, working capital management practices

and profitability. Pioneer studies of Baumol, (1952) about an inventory management model and of Miller (1966) about a cash management model may be considered as the best-known studies in this field. In a study by Kamath, (1989) about working capital management practices in retailing firms, it has been concluded that there is a reverse relationship between cash conversion cycle and profitability.

The results of a more detailed study by Soenen, (1993) have shown that, in case of overlooking industrial differences, there does not exist any statistically constant relationship between cash conversion cycle and profitability. However, in case of considering industrial differences, the relationship between the mentioned variables has shown dissimilarities across industries as positive in some industries and negative in others. In a similar study to our study, Deloof (2003) has discussed possible relationships between cash conversion cycle and profitability by dividing cash conversion cycle into its components (inventory, accounts receivables and accounts payables periods). Results of the study have concluded that increases in all of these periods affect profitability negatively.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

Under this section, the process of the research was presented. It included; the research design, where the study was carried out, study population, sampling procedures, research instruments, the research methods, how data was analyzed and the limitations which was met.

3.2 Research design

This study employed a cross-sectional survey research design. This research strategy was preferred because it permits the collection of data through questionnaires administered to a sample and that the data collected by this design can be used to suggest reasons for particular relationships between variables and produce models for these relationships (Saunders & Thornhil, 2007). A survey design was also preferred for it facilitates the collection of a considerable amount of data quickly, efficiently and accurately. (Oso & Onen, 2005).

3.3 Study population

The target population of this study was 230 employees of Mega standard supermarket.

3.4 Sample size

The respondents were randomly selected and categorized. The 70 employees were selected using stratified random sampling technique. The sample size was computed using the formula;

$$n = 1 + \frac{NC^2}{C^2 + (N-1)e^2} = \frac{230 * e^2}{0.5^2 + (230-1)*0.05^2} = 70$$

3.4.1 Sampling Procedure

The study used both simple random sampling and purposive sampling procedures. Purposive sampling was used to select different activities in the area of investigation

in order to get first-hand information from the key informants. Simple random sampling was used because respondents had equal chances of being selected.

3.5 Data collection methods

To obtain data about the research variables, primary and secondary data sources was used as elaborated below;

3.5.1 Primary Source

This involved use of firsthand information that was obtained from the field using interviews and questionnaires. The type of data included the social- demographic characteristics of the respondents (age, gender, level of education etc), perceptions of human rights in relation to child abuse.

3.5.2 Secondary Source

This included the already existing literature about the role of inventory management and profitability. This information was collected from reports, circulars, newspapers, magazines and internet.

3.6 Research instruments/tools

In order to obtain adequate data to solve the research problem, the following data collection instruments/methods was used:

3.6.1 Questionnaire Method

A comprehensive questionnaire covering all the aspects of the study variables was designed. The first section of the questionnaire covered general information (gender, age, education, marital status). The questionnaires pre-tested before being administered on the respondents. A Structured questionnaire was self-administered to the respondents of the Mega standard Supermarket to gather primary quantitative data. The questionnaire was divided into three sections: demographic information, inventory management and profitability. The questionnaire was designed to elicit responses relating to inventory management practices.

3.7 Data Analysis

It included editing the findings, coding and tabulation in the computer. Microsoft excel was used for analysis. Main ideas in qualitative data were clearly recorded.

Perceptual responses were captured in a five-point Likert scale. Perceptual profitability measures were preferred since financial data on the company was not publicly available, making it difficult to check the accuracy of any financial data reported. The Likert scale was also preferred as it is able to deal with a large number of items and difficulties in eliciting specific information from the respondents (Singh & Smith, 2006). Correlational analysis was used to establish the relationship and magnitude between inventory management and profitability of companies.

3.8 Validity

Validity of instrument was computed using content validity index, where two experts were asked to rate the relevance of the questions to study variables using scale of relevant, quite relevant, somewhat relevant and not relevant. The proportions of relevant and quite relevant scores were computed from each expert as follows. Expert 1, CVI was 0.7548, expert 2, CVI was 0.6785. This implied that the questions were relevant.

3.9 Ethical considerations

It is important during the process of research for the researcher to make respondents to understand that participation is voluntary and that participants are free to refuse to answer any question and to withdraw from participation any time they are chosen. Another important consideration, involves getting the informed consent of those going to be met during the research process, which involved interviews and observations on issues that may be delicate to some respondents. The researcher undertakes to bear this seriously in mind. Accuracy and honesty during the research process is very important for academic research to proceed. A researcher should treat a research project with utmost care, in that there should be no temptation to cheat and generate research results, since it jeopardizes the conception of the research. Personal confidentiality and privacy are very important since the thesis was public. If private information has been accessed then confidentiality has to be maintained (Stephen, P. 2002). All respondents were therefore, be re-assured of this before being involved.

3.10 Limitations of the study

The measurement scales that were used in this research are adopted from previous studies on the research variables which studies have been conducted mostly in developed nations where socio-economic settings are characteristically different from the region of analysis.

Some respondents were unwilling to show cooperation in filling questionnaires. This was due to a number of studies that had been done on the institution and respondents were reluctant to give out any information for fear of implications. However the researcher got an introductory letter from the university assuring respondents of confidentiality of the information and was thus accepted to carry out a research. The target respondents though accessed took a lot of time filling the questionnaires which impacted on the time taken in the field and the subsequent final response rate.

CHAPTER FOUR

PRESENTATION, INTERPRETATION AND ANALYSIS OF FINDINGS

4.0 Introduction

In this chapter, the researcher presents, interprets the findings of the study and analysis in line with the set objectives.

4.1 Background information of the respondents

The study investigated on social characteristics of the respondents in the locality. The reason was to establish whether such characteristics have a strong bearing on the role of inventory management practices on organizational performance in Mega Standard Supermarket Hospital. The findings are tabulated in the subsequent tables.

4.1.1 Gender of respondents

The research further investigated the respondents' gender. The reason was to find out if both sexes hold same views or different ones on the role of inventory management practices on organizational performance in Uganda. This is presented statistically below;

Table 1: Showing the gender of respondents

Gender	Frequency	Valid Percent
Male	39	55.0
Female	31	45.0
Total	70	100.0

Source: Primary Data

Table 4.2, shows that male respondents constituted 55% while female respondents were 45%. This implies that during the study more male respondents took part than women.

4.1.2 Age Brackets of respondents

The researcher explored on the age of the respondents in regard to the role of inventory management practices on organizational performance in Uganda. The results are tabulated below;

Table 2: Showing the age of respondents

Age bracket	Frequency	Valid Percent
20-30	25	35.0
31-40	20	28.0
41-50	8	17.0
50+	14	20.0
Total	70	100.0

Source: Primary data

The table presents that 35.0% of the respondents were between 20-30 years, 28.0% were between 31-40 years, 17% were between 41-50years, while 20% were above 50 years.

4.1.3 Level of education of the respondents

The researcher also considered the academic background of respondents to establish how it relates to the role of inventory management on profitability of companies. The findings are presented in the table below;

Table 3: Showing the academic background of respondents

Level of	Frequency	Valid Percent
Certificate	18	26.0
Diploma	32	45.0
Degree	16	24.0
Others	4	5.0
Total	70	100.0

Source: Primary data

From the table 26.0% of the respondents had certificates, 45% had diplomas, 24% had degrees, while 5% had others qualifications.

4.1.4 Department of the respondents

The researcher also considered the education levels of the respondents to establish how it relates to the role of inventory management practices on company profitability in companies. The findings are presented in the table below;

Table 4: Showing departments of the respondents

Department	Frequency	Valid Percent
Stores	32	46.0
Top management	24	34.0
Accounts	4	6.0
Purchasing	6	9.0
Others	4	5.0
Total	70	100.0

Source: Primary data

From the table 46% of the respondents were from stores department, 34% were from Top Management, 6% were from Account department, 9% were from Purchasing department while 5% had others department

4.2 Inventory management practices used by mega standard supermarket

The study investigated into the inventory management practices used by Mega Standard Supermarket. The inventory management practices were found to include: accurate and up-to- date stores records, stock plan, Proper accounting and recording, surprise checks, proper stores management. To provide further analysis of the inventory management practices, the researcher sought responses on the usage of these practices as perceived by the employees using the five point likert scale questionnaire. Respondents had to indicate whether they strongly agree, agree, undecided, disagree and strongly disagree. Findings were analyzed using means. A mean of 2.5 means that respondents agree on the existence of the inventory management practices, and a mean of less than 2.5 means that they

disagreed with the statement meaning that the inventory management practices are not perceived to exist.

Table 5: Chi square Test for the inventory management practices

Inventory management practices	N	Mean	Df	Assmp.sig.	Mean difference	Standard deviation
Up-to-date records	70	2.1234	3	0.2334	2.1234	2.101
Stock plan	70	2.0123	3	0.2344	2.0123	1.981
Proper accounting	70	2.1123	3	0.1100	2.1123	2.031
Surprise checks	70	1.8347	3	0.2321	1.8347	1.798

Source: Primary data

Table 5 shows significant differences in the perceptions of the respondents on the inventory management practices and their application. Respondents had a weak positive perception of up-to- date records (Mean=2.1234, p-value>0.05). This means that up-to-date records though used as an inventory management practice, respondents agreed wasn't used effectively. This perception was also revealed for other inventory management practices (Mean=2.0123, p-value>0.05; Mean=2.1123, p-value>0.05 and Mean=1.8347, p-value> 0.05 respectively for stock plan, proper planning and surprise checks. This analysis led to the observation that the practices used in inventory management include; up-to-date records, a good stock plan, surprise checks and proper planning which are used by Mega standard Supermarket when managing their inventories but they were found not to be used effectively.

4.3 Factors affecting profitability

In order to examine the factors that affect the profitability of Mega Standard Supermarket, respondents were asked questions relating to profitability and findings are presented below. The profitability of Mega standard supermarket was measured by return on assets, return on investment and improved margin. Factors affecting profitability results are shown below.

Table 6: Showing factors affecting profitability

Factors	Strongly agree		Agree		Not Sure		Disagree		Strongly disagree		Total	
	Frq	Vd%	Frq.	Vd%	Frq.	Vd%	Frq.	Vd%	Frq.	Vd%	Frq.	Vd%
cost of acquiring raw materials is increasing	-	-	-	-	2	6.3	16	50.0	14	43.8	32	100.0
demand of the firm's products is increasing	1	3.3	1	3.3	6	20.0	13	43.3	9	30.0	30	100.0
tax liability on profits is increasing	1	3.4	2	6.9	6	20.7	18	62.1	2	6.9	29	100.0
sales of the products are increasing	1	3.1	-	-	2	6.3	1-1	-13.8	15	46.9	32	100.0
activity per employee is increasing	1	3.2	-	-	3	9.7	9	29.0	18	58.1	31	100.0
company is stiff competition from other firms	-	-	2	6.7	-	-	14	40.0	16	0.0	32	100.0
cost of production is increasing	-	-	2	6.7	-	-	12	40.0	16	53.3	30	100.0

Source: Primary data

Results from table 6 above indicate that reduction in cost of acquiring raw materials of the business (93.8%) while the least being felt neutral (5.1 %). Looking at the demand of the products, 73.3% of the employees realised that the demand is increasing, while only 6.6% indicated it is not increasing the rest 20.0% felt neutral. In case of tax liability of the business, 70.0% of the respondents of the respondents revealed profits are reducing whereas 10.0% indicated they are still high and the rest responded either agreed nor not (20.7%)

With respect to the sales of the firm's products, majority of the respondents were in strong agreement that the sales are increasing (90.3%) while only (9.3%) indicated

not increasing. Results in table 6 showed that respondents of Mega standard supermarket indicated that productivity per employee is increasing (87.1 %) while only 3.2% indicated were not in agreement and the rest 9.7% felt neutral. Competition from rival firms as indicated by (93.8%) of respondents. The rest (6.3%) indicated not important. The cost of production as revealed by (93.3%) of the respondents is increasing while only (6.7%) was neutral.

4.4 Correlation Analysis

The third objective was to establish the relationship between inventory management and profitability. Spearman's correlation coefficient was used to determine the degree of relationship between the inventory management and profitability because of the categorical variables and qualitative nature of data analyzed.

Table 7: Showing Correlation Matrix

	1	2
Inventory management	1.000	
Profitability	0.494**	1.000
** Correlation is significant at the 0.05 level (2-tailed)		

Source: Primary Data

The relationship between inventory management and profitability was determined using Spearman's correlation coefficient as shown in the correlation Matrix table 7 above. Table 7 indicates that there was a significant positive relationship between inventory management and profitability ($r=0.494$, $P\text{-Value}<0.05$). This implied that proper inventory management in Mega standard Supermarket enhanced profitability.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

In this chapter the researcher gives the discussion of findings, conclusions and recommendations in line with the research questions and objectives.

5.1 Discussion of the findings

5.1.1 Inventory management practices used by Mega Standard Supermarket

The study investigated into the inventory management practices used by Mega Standard Supermarket. The researcher first asked respondents whether there are various Inventory management practices used by Mega Standard Supermarket. Respondents had a weak positive perception of up-to- date records (Mean=2.1234, $p\text{-value}>0.05$). This perception was also revealed for other inventory management practices (Mean=2.0123, $p\text{-value}>0.05$; Mean=2.1123, $p\text{-value}>0.05$ and Mean=1.8347, $p\text{-value}> 0.05$ respectively for stock plan, proper planning and surprise checks.

The study findings indicated that the methods used by Mega Standard Supermarket to manage inventory are stock valuation where by the system used FIFO to record the value of the stock that is held at a particular period for accountability purposes and writing of final accounts to be submitted to the Accounting department. The organization has a strong data centre for its stock such as receipts, invoices which help in keeping record of all the relevant prices so as to carry out a stock valuation. From the findings, it was evident that inventory management leads to efficiency and effectiveness by avoiding over stocking and under stocking.

To ensure this stock taking is carried out to determine the stock levels and hence determine the company's worth. It also helps to determine the balance of stock and check for any variances and make reconciliations to make sure that the physical stock corresponds with what is within the records. This helps management to detect for any variations and consider possible solutions to solving these problems. The stock control techniques used are JIT to control carrying or holding costs. The other is EOQ that controls the quality and timing of purchases. This in the end helps the

organization to hold stock that is readily needed. The inventory records are enough to be relied on and there is segregation of duties on record keeping in Mega Standard Supermarket.

5.1.2 Factors affecting profitability of Mega standard Supermarket

The study explored factors affecting the company's profitability. The researcher discovered that most factors examined had a negative impact on profitability of the company. The factors included cost of acquiring raw materials, tax liability on the profits, cost of production and productivity per employee. Results indicated that reduction in cost of acquiring raw materials of the business (93.8%) while the least being felt neutral (5.1 %). Increase in demand for products leads to increased profits, while decrease in demand reduces profits, keeping other factors constant. Respondents were asked whether the demand for products of Mega Standard Supermarket is increasing. This implies that Mega Standard Supermarket is incurring high tax liability which affects the level of profits (profits after tax).

Looking at the demand of the products, 73.3% of the employees realised that the demand is increasing, while only 6.6% indicated it is not increasing the rest 20.0% felt neutral. In case of tax liability of the business, 70.0% of the respondents of the respondents revealed profits are reducing whereas 10.0% indicated they are still high and the rest responded either agreed nor not (20.7%) The findings revealed that profitability is affected by changes in sales volume, costs and prices. Increase or decrease of selling price, volume, variable costs, fixed costs or a combination of all has an effect on profitability. The results indicated that 50% of the respondents strongly agreed that the cost of production is increasing. With the increase in the cost of production it certainly means that the profits are reducing since more money is put into production. If the price is hiked because of the cost of production, more customers will opt for other products. This will see a reduction in the profitability of Mukwano industries due to cost of production.

5.2.3 Relationship between inventory management and profitability

Correlation analysis was done on the two variables. This analysis was aimed at establishing the relationship between inventory management and profitability of Mega Standard Supermarket.

According to the results, Spearman correlation coefficient ($r=0.494$) proved that there was a positive relationship between inventory management and profitability. This implied that the more effort Mega Standard Supermarket channels towards improving the inventory management practices, the higher will be its profits.

5.2 Conclusion

The study revealed that Mega Standard Supermarket holds stock that is used to satisfy current and future needs of the people of Kampala. The Mega Standard Supermarket carries out monthly stock taking of items in stores and stock is inspected for quality and right specifications. Basing on the findings, Inventory management helps organizations to cut down costs incurred by an organization. It can therefore be concluded that inventory management practices are related to profitability of companies, corporation or business as regards service delivery.

Mega Standard Supermarket should hold stock in order to maximize economies of scale, balance supply and demand, specialization and presentation from uncertainties. Inventory is a significant asset in organizations. Its effective management is a key task with in the auspices of operations and viewers of organization. Inventory control in an organization co-ordinates the purchasing, manufacturing and distribution functions to meet the marketing needs and ensures that organizations performance is in line with the set objectives and centres on customer satisfaction. Inventory management challenges interfere with a company's profits and customer service. They cost an organization more money and lead to an excess of inventory overstock that is difficult to move. Inventory management is one of the important key activities of any organization.

Profitability of Mega Standard is mainly affected by high costs of acquiring raw materials from suppliers, high tax liability imposed on profits, high costs of production and low productivity per employee. These factors when combined together have

contributed to the decline in profitability of the company. However, there were favorable factors like increase in sales and demand for the company's products as revealed by the respondents. These helped to supplement on the profitability of the company. Correlation analysis revealed that there is a positive relationship between inventory management and profitability of Mega Standard Supermarket. This was evidenced by Spearman correlation coefficient ($r=0.494$) However, this was not solely responsible for the decline in profitability of the company.

5.3 Recommendations

As a result of the study here are some of the possible suggestions and policy recommendations to ensure that stock control is the most desired. Mega Standard Supermarket should put a lot of efforts in the following;

Verification and tendering to ensure that the organization gets reliable suppliers. Installation of a strong control and inspecting system so as to detect fraud and theft of stock. The stores should be enlarged and tidy so as to ensure maximum usage of space among others.

There is need to segregate duties of receipt and recording of stock in order to reduce fraud and theft. Mega Standard Supermarket should install a computerized package to deal with recording of inventory so as to avoid unintentional errors. Supplier's delivery date and time should be fixed for organization's suppliers.

They should also be aware of the days and time during which they are expected to make deliveries and when facilities will be available to accept such deliveries. This will curb the system of suppliers delivering materials at will, reduce the burden of store officers and avoid unnecessary delays, stock out and costs.

Employees other than stores officers should not be allowed into the stores unless it is strictly on business. The habit of employees using the store area for their lunch break should be discouraged by organizations. Stores ledger comprising all items of stock held in various stores located from the physical stock itself should be kept. The detailed entries of all issues should be reflected in such ledgers. This serves as checks and balances on all the sub stores, and as a good source for audit purposes.

To avoid duplication of records due to price variance, the FIFO (first in first out) and LIFO (last in first out) system of issues should be adopted. This will ensure the elimination of the need to open several cards for single items because of price variation. All receipt and issues should be numbered serially and recorded with duplicates and distribution to appropriate section of the organization. For easy identification of materials in the stores and to reduce fatigue, appropriate coding system should be employed. This can be done by using letters, figures or a combination of both. The system could be based upon the nature of the stores items, the purpose for which items are bought, or on any other basis regarded as suitable for the business.

There is need for organization to ease out effective inventory management for it ensures reliability. Holding inventory helps organization to ensure reliable delivery to customers, no matter what happens. There should be inventory management for smooth production flows in an organization and improve the profitability of the company. There is need for inventory management since it helps organizations to meet higher than expected demand. This helps organizations from running out of inventory.

Management of Mega Standard Supermarket should understand all the factors that affect profitability of the company and then come up with feasible measures and solutions for each. This will help to maintain high profits in the company.

5.4 Areas of further research

Further research should be done in the areas of;

The role of inventory management towards service delivery in local government; the role of record management towards proper inventory management; the Importance of inventory management practices on the performance local governments and the importance of inventory control systems on the performance of organizations

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APPENDIX I: QUESTIONNAIRE TO THE RESPONDENTS OF MEGA STANDARD SUPERMARKET

Dear Sir/ Madam,

I am a student at Kampala International University, carrying out a study entitled INVENTORY MANAGEMENT AND PROFITABILITY OF COMPANIES IN KAMPALA using Mega standard Supermarket as a case study. I kindly request you to spare some time and fill this questionnaire. The information given will be used for academic purposes only and will be treated with utmost confidentiality. Your cooperation is highly appreciated.

SECTION A: BACK GROUND INFORMATION ON THE RESPONDENT

(Please tick in the appropriate Box)

1. Sex: Male ☐ Female ☐

2. Age: 20 – 30 years ☐

31 – 40 years ☐

41 - 50 years ☐

51 – 60 years ☐

60 and above ☐

3. Marital status:

Single ☐

Married ☐

Separated ☐

Divorced ☐

4. Level of Education:

Primary	<input type="checkbox"/>	Secondary	<input type="checkbox"/>
Diploma	<input type="checkbox"/>	Degree & Post –graduate	<input type="checkbox"/>
Others (specify)			

5. Which department do you belong to?

Top management	<input type="checkbox"/>	Stores	<input type="checkbox"/>
Purchasing	<input type="checkbox"/>	Accounts	<input type="checkbox"/>
Please specify.....			

Use the key below answering the following questions: Apply a tick where applicable using the following key. SA – Strongly agree, A – Agree, NS – Not Sure, D – Disagree, SD – Strongly disagree

SECTION B: INVENTORY MANAGEMENT PRACTICES USED BY MEGA STANDARD SUPERMARKET

	SA	A	NS	D	SD
There are various Inventory management practices used Mega Standard Supermarket					
Accurate and up-to- date stores records is an Inventory management practices used Mega Standard Supermarket					
Good stock plan is an inventory management practices used by Mega Standard Supermarket					
Proper accounting and recording is a means of inventory management in most Mega Standard Supermarket					
Spot checks/surprise checks help in inventory management in Mega Standard Supermarket					
Inventory control systems have led to reduction of costs incurred by the organization					

SECTION C: FACTORS THAT AFFECT PROFITABILITY

(Show the extent to which you agree with the following statements by ticking in one of the boxes provided.)

	Response	SA	A	NS	SD	D
1	The cost of acquiring raw materials is reducing.					
2	The demand of the firm's products is increasing.					
3	The tax liability on the profits is reducing.					
4	The sales of the firm's products are increasing.					
5	Productivity per employee is increasing.					
6	The company faces stiff competition from rival firms.					
7	The cost of production is increasing.					

Thank you for your cooperation