THE IMPACT OF INVENTORY MANAGEMENT CONTROL SYSTEM ON THE PERFORMANCE OF SELECTED SUPERMARKETS IN MOGADISHU CITY

BY

SHUKRI MAHAMOUD YUSUF

BBA/10031/81/DF

ARESEARCH DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE AWARD OFTHE DEGREE OF
BACHELOR OF BUSINESS ADMINISTRATION
OF KAMPALA INTERNATIONAL
UNIVERSITY

MARCH, 2011

DECLARATION

I SHUKRI MAHAMOUD YUSUF do here by declare that this work (inventory management control system and performance in supermarket) is my own and has never been presented in this university for a degree award. Or any other institutions.

Every effort was made to trace the owners of copyright material and that no copyright was infringed.

Signature .... Shukri

Student: Shukri Mahamoud Yusuf

Date : 10/05/2011...

APPROVAL

This is to approve that this work has been supervised and corrected by me and it is now for submission to the faculty business and management of Kampala International University.

Signed ---

MR. MICHAEL RUTEGANDA

Date---10/05/11--

DEDICATION

This work is dedicated to my almighty God, my parent Mrs. Dahabo Ali and my uncle Mahad Ali, My finance Ifrah and lastly my supervisor Mr. Michael Ruteganda who has dedicated a lot of his valuable time to my work.

ACKNOWLEDGEMENT

My heartfelt gratitude to my family for their tireless effort, parental love , guidance and provision in ensuring that I got the best education . Thank you , because without you I wouldn't be smiling!

To my supervisor Mr. Michael Ruteganda, many thanks for your expert assistance and the guidance through out research project .

Last but not least I thanks all my friends who have made it possible for me to produce this piece of work through their contribution in various ways. God bless you all.

TABLE OF CONTENTS

CHAPTER FOUR

CHAPTER FIVE

CHAPTER ONE
INTRODUCTION

1.1 Background

Management and control of inventory of supermarkets is an important managerial work in achieving the organizational goals and maintaining competitive advantage in today's complex business environment. The fact is supermarkets purchase large volume of inventory that will be sold to customers after adding markup percentage on the cost of the items. The supermarkets may hold the inventory in store before selling and this may affect the performance of the supermarket because inventories are subject to expire, loss and theft.

In the words of Burton (1978), inventory control and cost control is the same thing and should not overlook inventories as a key cost factor in the business world. The control methods chosen must be customarily designed to fit your own situation, and depends on such factors as seasonal variation of sales, available capacity, the kind of products made, the variety of products assembling methods and the other control systems already in place and working.

The primary goals of inventory management are to have sufficient quantities of high-quality inventory available to serve customer needs while minimizing the costs of carrying inventory. Low quality leads to customer dissatisfaction, returns, and a decline in future sales. Also purchasing or producing too few units of a hot- selling item causes stock out that mean lost sales revenue.

According to Don and Maryanne (1995), managing level of inventory is fundamental to establishing a long term competitive advantage in quality, product engineering, prices overtime, excess capacity, ability to respond to customers (due- date performance), lead times and overall profitability are all affected by inventory levels.

Estimate of future sales are most important to an effective control system and they must be accurate, detailed, and timely. He further argued that to control inventory there must be a technique. The technique is sample input data franks timecards, mechanical downtime records, ration delay studies. Production and waste reports, sophisticated computer monitors or written logs are used to help identify the cost of inventories.

After the civil war in Somalia the business growth was incompatible with the anarchy and chaotic situation, the business was growing faster than expected. Among them are the supermarkets, in which their number is currently 36 supermarkets; the daily increasing number of this type of business is making it an issue worthy to investigate.

1.2 Statement of the Problem

Supermarkets are firms which needs effective control of inventories. The fact is that like any other merchandising firms – supermarkets maintain large amount of inventories that are intended for reselling to customers in order to make a profit. These inventories require warehousing and proper issuing procedure because they may have different expiry date and require different storekeeping conditions (the atmosphere of store).

It is common for supermarkets to encounter problems such as inventory theft, loss and expiry goods because supermarkets purchase large volume of inventories that are to be held in store before selling to customers.

Since the supermarkets maintain stock of different purchased inventory at different time periods, which inventory to sell first and systematic method of controlling the out flowing sales of these inventory demands a scientific and methodological system of implementing this task; getting solution for this problem will be the fundamental issue of this research.

The limited knowledge of the supermarket owners and managers in Mogadishu to the commonly accepted systems caused the stock inventory mismanagement which consequently gives rise to thousands of dollars worthy inventory to expire and become obsolete and gains a tangible loss.

1.3 Purpose of the Study

The purpose of this study is to explore the inventory management controls and performance of supermarkets in Mogadishu, Somalia. Specially, management and control of inventories will be defined as ordering, warehousing and issuing procedure of inventories.

In particular, the study will determine and describe how ordering, warehousing, inventory costing and issuing procedure of inventories have relation on the performance of supermarkets.

1.4 Objectives of the study

i. To investigate and assess the relationship between inventory management control system and the performance of the supermarkets in Mogadishu

ii. To examine the magnitude of the impact of the inventory management control system on the management and financial performance

iii .To investigate how the inventory management control system contributes to the effective and efficient performance of these supermarkets

1.5 Research Questions

i. What is the relationship between inventory management control system and the performance of the supermarkets in Mogadishu?

ii. How does the inventory management control system effects on the management and financial performance?

iii. How does the inventory management control system contribute to the effective and efficient performance of the supermarkets?

1.6 Scope of the Study

The study will be concerned with the purpose of describing the management and control of inventories and the performance of supermarkets. It will be conducted in Mogadishu, Somalia between January 20011 up to April 2011 The study will focus on determining the management and control of inventories and performance of supermarkets.

1.7 Significance of the study

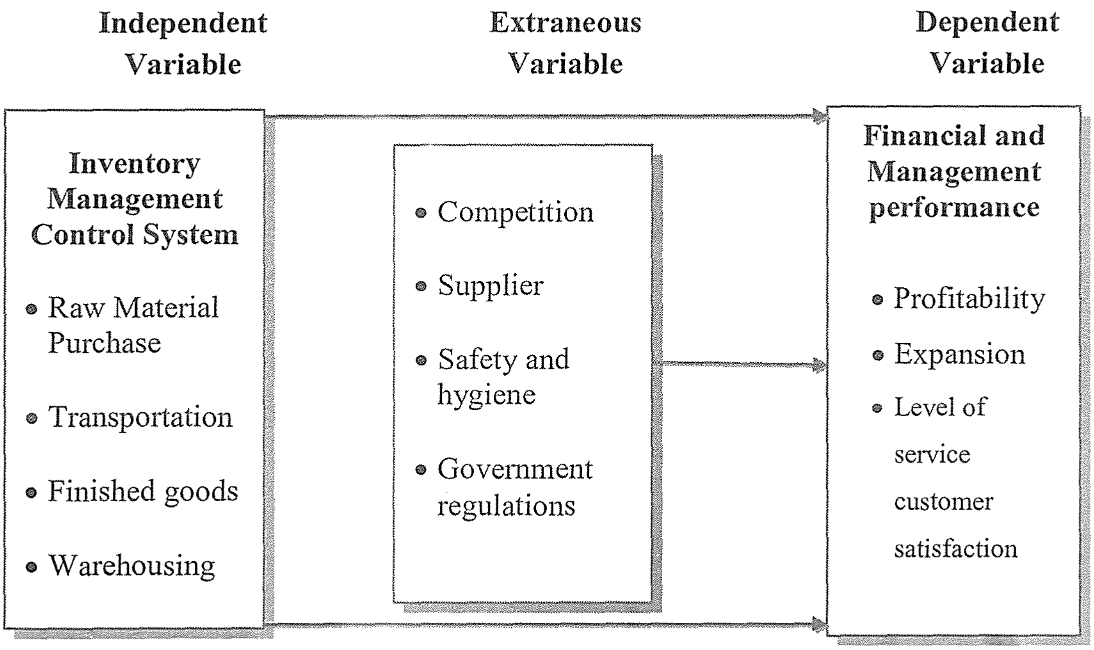
The researcher will yield data and information that will be useful for understanding the relationship between inventory management controls and performance of supermarkets. The finding and the recommendations of this study should be useful for finance managers in supermarkets. They will not rely on personal experience in managing and controlling inventories, but make their decisions on concrete knowledge of understanding inventory management controls and performance of supermarkets their respective firm. This will improve their performances.

The researcher also hopes that the study will form a basis for further research on impact of inventory management controls and performance of supermarkets.

This would lead to the generation of ideas for better understanding of inventory management controls and performance of supermarkets.

1.8 Conceptual frame work

Figure 1: An illustration of the conceptual framework



Source: Researcher, 2011

In figure 1: this figure directly affecting variables like that are called Independent variable, there are other factors which indirectly affects the independent variable these are known as extraneous variable.

In this study, we will have a lot of extraneous variables in which some of them are not under our control like: Competition, Supplier, Safety and hygiene, government regulation and others which are determined by forces outside quasi-independent factors.

As long the study is concerned the controllable extraneous variables will either be benefited or eliminated. Those which are out of our control will be dealt with accordingly.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

According to, Eppen, and Schmidt (1987) Inventories are held for many resources some distributing hold inventory in order to fill quickly on order placed by a customer. Otherwise in many cases, the customer would order from a competitor.

According to Eugene and Joel (2001) Inventories may be classified as

(1) Suppliers

(2) Raw material

(3) Work in process and

(4) Finished goods are an essential part of visually all businesses operation inventory level depends heavily upon sales.

However, where're receivable build up after sales have been modes inventory most be acquired ahead of sales, this is critical difference, and the necessary of forecasting sales before established target. Inventory levels making inventory management a difficult task. Also, since errors, in the establishment of inventory levels quickly lead either to last sales or to excessive caring costs, inventory management is as importance as it is difficult.

Inventory management techniques are covered in depth in production management courses. Still, since financial manager have a responsibility both for raising the capital needed to carry inventory and for the firms overall profitability, we need to cover the financial aspects of inventory management here.

According to William (2002) inventory is a stock or store of goods, firms typically stock hundreds or even thousands of items in inventory, ranging from small things such as pencils, paper, clips, screws, nuts, and bolts to large items such as machines, trucks, construction equipment, and airplanes.

Naturally, many of the items a firm carries in inventory related to the kind of businesses it engages in. thus, manufacturing firms carry supplies of raw materials, purchased parts, partially finished items , and finished goods, as well as spare parts for machines, tools, and other supplies. Department stores carry clothing goods, furniture, carpeting, stationery, appliance, gifts, cards, and toys. Some also stock sporting goods, paints, and tools. Hospital stock drugs, surgical supplies, life monitoring equipment, sheets and pillow cases, hold supplies, magazines, baked goods, dairy products, produce, and other items.

Proper inventory management requires close coordination among the sales, purchasing, production, and finance department. The sales /marketing department is generating the fist to spot changes in demand. These changes most be worked into the company's purchasing and manufacturing schedules and the financial manager most arrange any financing needed to support the inventory builders lack of coordinative among departments, poor sale forecast or both can lead to disaster.

2.2 The nature and importance of inventories

According William (2002) inventories are a vital part of business. Not only are they necessary for operations, but also they contribute to customer satisfaction. To get a sense of the significance of inventories, consider the following: although the amounts and dollar values of inventories carried by difference types of firms varies widely, a typical firm probably has about 30 percent of its current assets and perhaps as much as 90 percent of its working capital invested investment (ROI), which is profit after taxes divided by total assets. Because inventories may represent a significant portion of total assets, a reduction of inventories can result in a significant increase in ROI.

The major source of revenues for retail and wholesale businesses is the sale of merchandise. In fact, in terms of dollars, the inventory of goods held for sale is one of the largest assets of a merchandising business.

2.3 Objectives of inventory Control

Inadequate control of inventories can result in both under-and over stocking of items. Under stocking results in missed deliveries, lost sells, dissatisfied customers, and production bottlenecks: overstocking unnecessarily ties up funds that might be more productive else where.

Inventory management has two main concerns. One is the level of customer service, that is, to right goods, in sufficient quantity, in the right place, at the right time. The other is the cost of ordering and carrying inventories.

The overall objectives of inventory management is to achieve a satisfactory levels of customer service while keeping inventory costs within reasonable bounds. Toward this end, the decision maker tries to achieve a balance in stocking.

Managers have a number of measures of a performance they can use to judge the effectiveness of inventory management. The most obvious, of course, is customer satisfaction, which might measure by the number and quantity of back orders and/or customer complaints. A widely used measure is inventory turnover, which is the ratio of annual cost of goods sold to average inventory investment. The turnover ratio of annual many times a year the inventory is sold; generally, the higher the ratio the better because that implies more efficient use of inventories.

A benefit of this measure is that it can be used to compare companies of different size in the same industry. Another useful measure is days of inventory on hand, a number that indicates the expected number of days of sales that can be supplied from existing inventory. Here, a balance is desirable; a high number of days might imply excess inventory, while a low number might imply a risk of running out of stock.

2.4 Functions of inventory

Inventories serve a number of functions. Among the most important are the following:

(i) To meet anticipated customer demand. A customer can be a person who walks in off the street to buy a new stereo system, a mechanic who requests a tool at a tool crib, or manufacturing operation. These inventories are referred to as anticipation stocks because they are held to satisfy expected demand.

(ii) To smooth production requirements. Firms that experience seasonal patterns in demand often build up inventories during off season periods to meet overly high requirements during certain seasonal periods. These inventories are aptly named seasonal inventories. Companies that process fresh fruits and vegetables deal with seasonal inventories. So do store that sell greeting cards, skis, snowmobile, or Christmas trees.

(iii)To decouple operations. Historically, manufacturing firms have used inventories as buffers between successive operations to maintain continuity of production that would otherwise be disrupted by events such as breakdown of equipment and accidents that cause a portion of the operation to shut down temporary. The buffers permit other operations to continue temporarily while the problem is resolved. Similarly, firms have used buffers of raw materials to insulate production from distributions in deliveries from suppliers, and finished goods inventory to buffer sales operations from manufacturing distribution.

(v)To protect against stock outs. Delayed deliveries and unexpected increases in demand increases the risk of shortages. Delays can occur because of weather conditions, supplier stock outs, deliveries of wrong material, quality problems, and so on. The risk of shortages can be reduced by holding safety stocks, which are stocks, which are stocks in excess of average demand to compensate for availabilities in demand and lead time.

(vi)To take advantage of order cycles: To minimize purchasing and inventory costs, a firm often buys in quantities that exceed immediate requirements. This necessity storing some or the entire purchased amount for later use. Similarly, it is usually economical to produce in large rather than small quantities. Again, the excess output must be stored for later use. Thus, inventory storage enables a firm to buy and produce in economic lot sizes without having to try too much purchases or production with demand requirements in the short run. This result in periodic orders, or order cycles. The resulting stock is a known as cycle stock. Order cycles are not always based on economic lot sizes. In some instants, it is practical or economical to group orders and/or to order at fixed intervals.

(vii)To hedge against price increases: Occasionally a firm will suspect that a substantial price increase is about to be made and purchase larger than normal to avoid the increase. The ability to store extra goods also allows a firm to take advantage of price discounts for larger orders.

(viii)To permit operations: The fact that production operations take a certain amount of timed (they are not instantaneous) means that there will generally be some work in process inventory. In addition, intermediate stocking of goods including raw materials, semi finished items, and finished goods at production sites, as well as goods stored in warehouses leads to pipeline inventories throughout a production distribution system.

2.5 Requirement for effective inventory management

Management has two basic functions concerning inventory. One is to establish a system of keeping track of items in inventory, and the other is to make decisions about how much and when to order. To be effective, management must have the following:

1. A system to keep track of the inventory on hand and on order.
2. A reliable forecast of demand that includes an indication of possible forecast error.
3. Knowledge of lead times and lead time variability.
4. Reasonable estimates of inventory holding costs, ordering costs, and shortage costs.
5. A classification system for inventory items.

2.6 Types of inventory

Stephen, Randolph and Bradford (1991) put forward for a manufacturer inventorying is normally classified into one of three categories. The first category is raw material that is wherever the firm uses as a starting point in its production processes. Raw materials might be something as basic as irons are for a steel manufacturer or soothing sophisticated as disk drives for a computer.

The second types of inventory is work-in- progress, which is just what the name suggests unfinished product. How big this portion of inventory is depends in large part on the length of the production process. For an airframe manufacture, for example, work-in-progress can be substantial.

The third and final of inventory is finished goods that are product ready to ship or sell. There are three things to keep in mind concerning inventory types. First the names for the different types can be a little misleading because one company, raw materials could be another finished goods.

Finally, Avery important distinction between finished goods and other types of inventories is that the demand for an inventory item that becomes part of another item is usually termed derived or dependent demand because the firms Neal for these inventory types depends on its need for finished items, in contrast the firms demand for finished goods is not derived from demand for other inventory items, so it is sometimes said to be independent.

2.7 Inventory costing methods

Charles, George and Stricken (1997). The two most commonly encountered methods of costing inventories are variable costing and absorption costing. These two methods differ is only one conceptual respect. Whether fixed manufacturing costing (both direct and indirect) are inventor able casts the inventor able cast for a manufacturing company are casts associated with the acquisition and conversion of materials and all manufacturing input, into goods for sale; those costs are first recorded as an asset and than subsequently became on expense when the goods are sold.

2.7.1 Variable costing: is method of inventory costing in which all variable manufacturing costs are included as inventor able costs. All fixed manufacturing costs are excluded from inventor able costs; they are costs of the previous in which all variable costs.

2.7.2 Absorption costing: is method of inventorying costing in which all variable manufacturing costs and all fixed manufacturing costs are included as inventor able costs. The inventory valuation under both methods all variable manufacturing costs (both direct and indirect) are capital table costs. That is, they are first recorded as an asset when they incurred. Under variable costing, fixed manufacturing cost (both direct and indirect) are deducted as a period cost in the period in which they are incurred.

Examples of variable direct manufacturing costs are direct materials and direct manufacturing labor. An example of fixed direct manufacturing costs is the annual lease cost of a machine dedicated exclusively to the assembling of single products. The annual lease costs of a building in which multiple products are assembled illustrates a fixed indirect manufacturing cost. They then became expenses in the form of cost of goods sold when sales occur.

2.8 Retail method of inventory costing

The retail inventory method of estimating inventory cost is based on the relationship of the cost of merchandise available for sale to the retail price of the same merchandise. To use this method, the retail prices of all merchandise acquired are accumulated, next, the inventory at retail is determined by deducting sales for the period from the retail price of the goods that were available for sale during the period. The estimated inventory cost is then calculated by multiplying the inventory at rate by the ratio of cost to selling (retail) price for the merchandise available for sale.

One of the major advantages of the retail method is that it provides inventory figures for use in preparing monthly or quarterly statement when the periodic system is used. Department stores and similar merchandisers like to determine gross profit and operating income each month but take a physical inventory only once a year. In addition, comparing the estimated ending inventory with the physical ending inventory, both at retail price, will help identify inventory shortages resulting from shoplifting and other causes. Management can then take appropriate actions.

The retail method may also be used to facilitate taking a physical inventory at end of the year. In this case, the items counted are recorded on the inventory sheets at their retail (selling) prices instead of their cost prices. The physical inventory at selling price is then converted to cost by applying the ratio of cost to selling (retail) price for the merchandise available for sale.

2.9 Estimating inventory cost

According to Carl, Philip and James (1996) in practice, it may be necessary to know the amount of inventory when perpetual inventory records are not maintained and it is impractical to take a physical inventory.

For example, a business that uses a periodic inventory system may need monthly income statement, but taking a physical inventory each month may be too costly. Moreover, when a disaster such as fire has destroyed the inventory, the amount of the loss must be determined. In this case, taking a physical inventory is impossible, and even is perpetual inventory records have been kept, these records may also have been destroyed. In such case, the inventory cost can be estimated by using (1) the retail methods or (2) the gross profit method.

2.10 Gross profit method of estimating inventories

The gross profit method uses the gross profit estimated for the period to estimate the inventory at the end of the period. The gross profit is usually estimated from the actual rate during the current period. By using the gross profit rate, the dollar amount of sale for a period can be divided into its two components: (1) gross profit and (2) cost of merchandise sold. The latter amount may then be deducted from the cost of merchandise available for sale to yield the estimated cost of merchandise on hand.

2.11 Management control system

According to Charles, George and Stricken management control system is a means of gathering and using information to aid and coordination the process of making planning and control decisions through out the organization and guide the behavior of its managers and employees (pp.788).

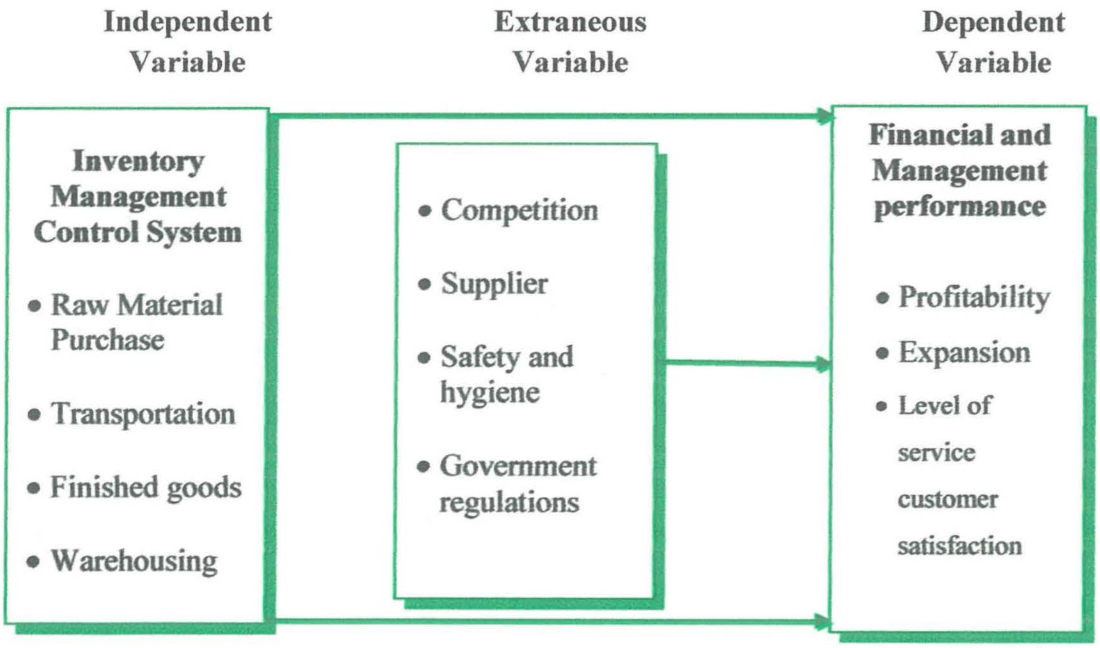
Management control system: gather and report information for management control at various levels Total organization level for example, stock price, net income, return on investment, cash finding and the recommendations of this study should be useful for finance managers in supermarkets. They will not rely on personal experience in managing and controlling inventories, but make their decisions on concrete knowledge of understanding inventory management controls and performance of supermarkets their respective firm. This will improve their performances.

The researcher also hopes that the study will form a basis for further research on impact of inventory management controls and performance of supermarkets.

This would lead to the generation of ideas for better understanding of inventory management controls and performance of supermarkets.

1.8 Conceptual frame work

Figure 1: An illustration of the conceptual framework



Source: Researcher, 2011

In figure 1: this figure directly affecting variables like that are called Independent variable, there are other factors which indirectly affects the independent variable these are known as extraneous variable.

The management control system for this manager should focus on the R/D activities required for different drug projects, the number of scientists needed, the scheduled dates for completing different projects and budgeted performance. Finally effective management control system should motivate manager and employees. Motivation is the desire to attain a selected goal combined with the result drive or pursuit toward that goal. Management control system motivates manager and employee s to exert effort toward attaining organization goals through a variety of toward s tied to the achievement of those goals.

To summarize, the primary criterion for evaluating a system is how it promotes the collective attainment of top management goals in a cost- effective manager. Control to applying this criterion is how well the management control system first the organization structure and decision-making responsibility of individual managers , as well as how well it motivates individuals will in the organization

2.13 Inventory management in retail organization

According to Charles, George and Stricken (2000) Inventory management is the planning, coordinating, controlling activities related to the flow of inventory into through, and from the organization. Consider retailers where cost of goods sold constitutes the largest singles cost item.

2.14 Costs associated with goods for sale

1. Purchasing cost: are the costs of goods acquired from suppliers including incoming freight or transportation costs. These costs usually make up the largest single cost category of goods for sales. Discount for different purchase order sizes and supplier credit terms affect purchasing costs.
2. Ordering costs: are the cost of peppery, issuing, and paying purchase orders plus receiving and inspecting the items included in the orders, related to the number of purchase orders processed are purchase approval and special processing costs
3. Transportation costs: arise when an organization holds in inventory of goods sole. These costs includes up in inventory and the costs associated with storage, such as space rental insurance obsolescence , and spoilage

4. Stock out costs: occurs when an organization runs out of a particular item for which there is customer demand. A company may respond to the shortfall or stock out by expending an order from a supplier.
5. Quality costs: the quality of product or services is its conformance with a preannounce or prosperities standard.

2.15 Job ordering costs system

According to Don and Maryanne (2003), firms operating in job order industries produce a wide variety of products or jobs that are usually quest distinct from cache others. Customized or built to order products fit into of this category's as do services that very from customer to customer.

Job order systems may be used to produce good for inventory that are subsequently sold in the general market. Often, however job a associated with a particulate customer order. The key feature of job ordering costing is that the cost of one job differs from that of another job and most be monitored separating. In the job order firms collecting costs by job provides vital information for management once a job is completed the unit cost can be obtained by diving the total manufacturing.

2.16 Nature of inventory and cost of goods sold

According to Robert, Patrice and Daniel (2004) inventory is tangible property that is held for sale in the normal course of business or used in producing goods or services for sales.

Merchandise inventory: goods or merchandise held for resale in the normal course of business the goods usually are acquired in finished condition and reading for sale with out further processing.

When Harley division purchases raw materials and merchandise inventory, the amount recorded should include the invoice price plus other expenditures related to the purchase, such as fright charges to deliver the items to its warehouses (freight in) and inspection and preparation costs in generals the company should ceases accumulating purchase, costs when the raw materials are ready for use or when the merchandise inventory is read for shipment.

And additional costs related to selling the merchandise inventory to the dealers such as marketing department salaries and dealer training sessions, are incurred after the inventory id read for use. So, they should be included in selling general and administrative expenses in the period they are incurred.

2.17 Inventory control

2.18.1 Meaning of inventory control

According to Eugene (1989), inventory control is the technique of maintaining inventory items (raw materials, work in progress, finished products, and factory supplies) at desired levels. Manufacturing firms face several inventory control problems as compared to service oriented organizations.

In manufacturing organizations, production is of some tangible physical product. Therefore, emphasis is given to control of all inventory items. In service organizations, the focus is on service, and therefore there is very little emphasis on inventory control. In such service firms, services are used as they are generated and not stocked for future consumption. However, there are some service organizations, such as hospitals, military organizations, educational institutions which have to maintain inventories of items related to their nature of work.

2.18 Inventory system

2.18.1 Perpetual inventory system

According to Robert, Patrice and Daniel (2004) the amount of purchases for the period is always accumulated in the accounting system the amount of cost of goods sold and ending inventory can be determined by using one of two difference inventory systems perpetual or periodic. .in perpetual inventory systems a detailed record is maintained for each type of merchandise stocked showing:

1. Units and cost of all beginning inventory
2. Units and cost of each purchase
3. Units and cost of the goods for each sale

4. Units and cost of the goods on hand at any point in time.

This up to date record is maintained on a transaction by transaction basis, in a complete perpetual inventory systems, the inventory record gives the amount of both ending inventory and cost of goods sold at any point in time.

To this point in the text, all journal entries for these and sale transaction here been recording using a perpetual inventory system. In a perpetual inventory systems recorded a companion cost of goods sold entry is made, decreasing inventory and recording cost of goods sold. As a result information on cost of goods sold and ending inventory is available on a continuous.

In a perpetual inventory system detailed records of the cost of each inventory purchases and sale are maintained this systems continuous perpetual- shows the inventory that should be on hand for every items. For examples, a ford dealership has separate inventory recorded for each automobiles ferule and van on its lot. With the use of bar codes and optical scanners, a grocery store can keep a daily running recorded of every box of cereal and sells. Under perpetual inventory systems the cost of goods sold is determined each time a sale occurs

2.18.2 Periodic inventory systems

Under the periodic inventory systems no up to date record of inventory is maintained during the year an actual physical count of the goods reaming on hand is required at the end of each point. The number of units of each type of merchandise on hand is multiplied by their units cost to compute the dollar amount of the ending inventory.

Before affordable computers and bar code reader were availed, the primary reason for using a periodic inventory system was its low costs. The primary disadvantage of periodic inventory system is the lack of inventory information. manager are not informed about low stock or over stocked situations most modern companies could net survive with out the information.

According Jerry, Donald and Paul (2003) a merchandiser keeps trade of its inventory to determine what is available for sale and what has been sold. One of two systems is used to an account for inventory a perpetual inventory system or a periodic inventory system.

In a periodic inventory system detailed inventory records of the goods on hand are not kept throughout the periodic, this cost of goods sold is determined only at the end of the accounting periodic that is periodically. At that times to determine the cost of goods on hand.

To determine the cost of goods sold under a periodic inventory system the following steps are necessary.

1. Determine the cost of goods on hand at the beginning of the accounting periodic
2. Add to it the case of goods purchased
3. Subtract the cost of goods on hand at the end of the accounting period.

2.19 Inventory control system.

According to Eugene and Joel (2001).inventory management required the establishment of an inventory control system. Inventory control system, run the gamut from very simple to extremely complex, depending on the size of the firm and the nature of its inventory.

For example, one simple control procedure is the red line methods inventory items are stocked in a bin, red line is drawn around the inside of the bin at the level of the reorder point, and the inventory clerk places an order when the red line shows. The two bin method has inventory items stocked I n two line. When the working bin is empty, an order is placed and inventory is drawn from the the second bin. These procedures work well for parts such as belts in a manufacturing process, or for many item in retail businesses.

2.20 Computerized systems

According to Eugene and Joel (2001).most computerized today employ computerized inventory control system, the computer starts with an inventory count in memory. As withdraws are made, they are recorded by computer, and the inventory balance is revised.

When the reorder point is reached, the computer automatically places an order, and when the order is received, the reorder balance is increased as we noted earlier, retailer such as well-marts have carried this system quite for each item has a barcode, and as an item is checked out, the code is read a signal is sent to the computer, and the inventory balance is adjusted at the same line the price is led into the cash resister tope. When the balance drops to the reorder points an order is placed.

A good inventory control system is dynamic into static. A company such as wall-mark or general motors' stocks hundreds of thousands of different items. The sales of individual items can rise or fall quite separately from resign or falling overall corporate sales.

As the usage rote for an individual item begging to rise or fall the inventory manager most adjust its balance to avoided running short or ending up with obsolete items if the charge in the usage rate appears to be permanent, the safety stock level should be reconsidered, and the computer model used in the control process should be reprogrammed.

2.21 Determining inventory quantities

According to Jerry, Donald and Peal (2003) many businesses take a physical inventory count on the last day of the year. Businesses using the periodic inventory system must like such a count to determine the inventory on hand at the balance sheet date and to compute cost of goods sold. Even businesses using a perpetual inventory system must take a physical in inventory quantities consists of two steps: (1) Taking a physical inventory of goods on hand (2) Determining the ownership of goods.

2.22 Taking a physical count inventory

Taking a physical inventory involves actual counting, weighting, or measuring each kind of inventory on hand. In many companies, taking an inventory is a formidable task. An inventory count is generally more accurate when goods are not being sold or received during the counting. So, companies often take inventory when the business is closed or when businesses is slow.

To minimize errors in taking the inventory, a company should adhere to internal control principles and practice that safeguard inventory:

1. The counting should be done by employees who do not have custodial responsibility for the inventory.
2. Each counter should establish the authenticity of each inventory item.
3. There should be a second count by another employee.
4. Renumbered inventory tags should be used. All inventory tags should be accounted for.
5. At the end of the count, a designated supervisor should check that all inventory items are tagged and that no items have more than one tag.

After the physical inventory is taken, the quantity of each kind of inventory is listed on inventory summary sheet. To ensure accuracy, the listing should be verified by second employee. Later. Unit costs will be applied to the quantities in order to determine a total cost of the inventory which is the topic of later.

2.23 Determining ownership of goods

Before we can begin to calculate the cost of inventory, we need to consider the ownership of goods. Specifically, we need to be sure that we have not included in the inventory any goods that do not belong to the company.

Good in transit. Goods are considered in transit when they are in the hands of a public carries at the statement date. Goods in transit should be included in the inventory of the party that has legal title to the goods. Legal title is determined by the term of sale , as shown in

1. *FOB (Free On Board) shipping point:* ownership of the goods passes to the buyer when the public carrier accepts the goods from the seller.
2. *FOB (Free On Board) destination:* legal title to the goods remains with the seller until the goods reach the buyer.

Consigned goods: In some lines of businesses, it is customary to acquire merchandise on consignment. Under such an arrangement, the holder of the goods the goods until the goods are actually sold to a customer. Because consigned goods are not owned by the consignee, they should not be included in the consignees physical inventory count. But, the consignor should include merchandise held by the consignee as part of its inventory.

2.24 Purposes of inventory distribution

According to Richard, Nicholas and Robert (2001) all firms keep a supply of inventory for the following reasons:

1. *To maintain independence of operations.* A supply of materials at a work center allows that center flexibility in operations because there are costs for making each new production setup; this inventory allows management to reduce the number of setup.

   Independence of workstations is desirable on assembly lines as well. The time that it takes to do identical operations will naturally vary from one unit to the next? Therefore, it is desirable to have a cushion of several parts within the workstation so that shorter performance time can compensate for longer performance times. This way the average output can be fairly stable.

2. *To meet variation in product demand.* If the demand for the product is known precisely, it may be possible to produce the product to exactly meet the demand. Usually, however, demand is not completely known, and safety or buffer stock must be maintained to absorb variation.

3. *To allow flexibility in production scheduling.* A stock of inventory relieves the pressure on the production system to get the goods out. This causes longer lead times, which permit production planning for smoother flow and lower- cost operation through larger lot- size production.

4. *To provide a safeguard for variation in raw material delivery time.* When material is ordered from a vendor, delays can occur for a variety of reasons: a normal variation in shipping time, a shortage of material at the vendors plan causing backlogs, an unexpected strike at the vender's plant or at one of the shipping companies, a lost order, or a shipment of incorrect or defective material.

5. *To take advantage of economic purchase order size.* There are costs to place an order: labor, phone calls, typing, postage, and so on. Therefore, the larger each order is, the fewer the orders that need be written. Also, shipping costs favor larger orders the larger the shipment, the lower the per-unit cost.

2.25 Inventory costs

According to Eugene and Joel (2001) the twin goals of inventory management are:
1. To ensure that the inventories needed to system operations are available, but 2. To held it costs of ordering and carrying inventories to the lowest possible level. Inventorying is costing to store; therefore. There is always pressure to reduce inventory in part of firms overall cost containment strategies.

2.26 Improving Business Performance with Inventory Management

According to Ossai, (2009) inventory control is a day-to-day practice in all fields of human Endeavour, households, manufacturing firms, servicing firms etc. The ability to store or stock materials for the provision of goods and services is inventory control. It is a sure way of managing businesses to ensure that customers are satisfied and organizations remains in operation via minimization of losses. A reliable inventory system implies higher confidence of customers and their attendant continuous patronage.

Inventory in the industry includes production inputs like human, financial, equipment and raw materials. Other forms of inventory are spare parts and partially finished goods (work in process). Inventory is kept to meet independence of operations, variation in product demand and flexibility in production scheduling, variation in raw material delivery time and variation in economic purchase order-size

An inventory system provides the organizational structure and operating policies for maintaining and controlling goods to be stocked. An effective management of inventory system requires a means of keeping track of items in inventory and an appropriate way of making decisions about how much to order and when to order. Decisions about inventory in any establishment requires information about on-hand inventory level, demand information with regard to the forecasted quantity (with a consideration of the forecast errors), lead-time and lead-time variation, inventory holding costs, ordering costs and shortage cost. This information aids the inventory control manager in meeting the competitive advantage desired by the organization.

In this era of product obsolesce caused by reduced product life cycle, inventory system should inevitably conform to Just-In-Time (JIT) production philosophy to bring about reduced process lead-time for service provision. This situation warrants reduction of the work-in -process (W.I.P) inventory level to reduce holding cost hence maximizing service quality, utilization of product and on-time delivery of goods and service to designated customers. The inventory system is always conscious of meeting target at minimum W.I.P inventory level.

Good inventory control system always guards against stock-out, which results in an increase W.I.P inventory cost that affects the production process negatively. Better demand management through appropriate forecast of stock usage helps to maintain an optimal stock that will achieve a desirable cover against unforeseen variation in service provision. It will equally put the firm in a good position to follow the market-changing trend of goods and service provision without recourse to accruing losses brought about by high inventory level of obsolete materials.

When there is no discipline in planning operations in an organization especially where the capacity is tight, there is always a problem of high number of expedited orders; stock-outs and customers service failures. This uneconomical production trend resulting from poor master production schedule (MPS) policies borders on poor inventory systems which did not embrace material requirement planning (MRP) principles in the formulation of explicit demands from organizations aggregate planning. When poor data management envelops an organization, operations planning and control system, MPS decisions are found to be improper and inventory system is affected by the limited flow of information.

If efficient equipment maintenance operation will be achieved in the industry, the spare parts inventory should conform to explicit demand for the service provision. This implies that the service level of the firm will be duly considered in planning the level of inventory for maintaining the equipment.

The efficiency of a plant/equipment in an industrial setting is a measure of the extent of downtime accruing from the component equipment. When downtime accrues on the equipment, the plant obviously malfunctions or breakdown and there is loss of revenue. In order to ensure prompt equipment maintenance and the attendant minimal downtime, critical levels of spare parts should be kept in accordance with the maintenance schedule of the equipment. This critical stock level is dependent on the demand rate, which may be a function of the equipment breakdown or frequency of preventive maintenance over a certain period.

In order to effectively manage inventory in any business, software will be utilized. This is because the human levity has the tendency of hampering the accuracy of the inventory controlled manually thereby affecting the business performance. When software is used in managing a business inventory flow, the entrepreneur will be in a position to predict with a high degree of certainty the expected income over a time frame. This is because most of the software has the ability to cost inventory inflow and outflow thereby making it easy to make categorical statement about the business profitability.

2.27 Inventory purchases merchandising firm

According to Hampton Freeze prepares a production budget, since it is a manufacturing firm. If it was a merchandising firm, then instead of a production budget, it would prepare a merchandise purchases budget showing the amount of goods to be purchased from its suppliers during the period.

The merchandise purchases budget is in the same basic format as the production budget, expect that it shows goods to be purchased rather than goods to be produced as figure 1.

Figure 1:

Budgeted cost of goods sold (in units or in dollars)..............	xxxxx
Add desired ending merchandise inventory	xxxxx
Total needs..	**xxxxx**
Less beginning merchandise inventory.............................	xxxxx
Required purchases (in units or in dollars)....................	**xxxxx**

The merchandising firm would prepare an inventory purchases budget such as the one above for each item carried in inventory. Some large retail organizations make such quantities are on hand to meet customer needs.

2.28 Inventory loan

According to Randolph and Bradford (2001).Inventory loan: short term loan to purchase inventory come in three basic forms: blanket inventory liens, trust receipts, and field warehouse financing.

1. *Blanket inventory lien:* a blanket lien gives the lender a lien against all the barrower's inventories.
2. *Trust receipt:* trust receipts is device by which the borrower holds specific inventory in trust for the lender automobile deer financing , for example, is done by use of trust receipts this type of secured financing is also called floor planning , in reference to inventory on the showroom floor. However, it is some what cumbersome to use trust receipt for say, whet grain.
3. *Field warehouse financing:* in field warehouse financing public warehouse company arts as a control sent to supervise the inventory for the lender.

2.29 Inventory flows

According to Robert, Patricia and Daniel (1998).The flow of inventory costs for merchandisers, both wholesaler and retailers, is relatively simple. When merchandise is purchased, the merchandise inventory increased. When the goods are sold, cost of goods sold is increased and the merchandise inventory is decreased.

Fist raw material must be purchased. These raw materials include steel and aluminum casting, forgings, sheet, and bars as well as certain motorcycle component parts including carburetors, batteries, and tires, which are produced by its small network of suppliers. When used, the cost of each material is removed from the raw materials inventory and added to the work in process inventory, along with two other components of manufacturing costs.

Direct labor and factory overhead costs also are added to the work in process inventory when incurred in the manufacturing process. Direct labor cost represents the earnings of employees who work directly on the products being manufactured. Factory overhead costs include all manufacturing costs that are not material or direct labor costs. For example, the salary of the factory supervisor and the cost of heat, light, and power to operate the factory are including in factory overhead. When the motorcycles are completed and ready for sale, the related amounts in work in process inventory are transferred to finished goods inventory. When the finished goods are sold, cost of goods sold in increased and the finished goods inventory is decreased.

2.30 Other sources

There are variety of other sources of short term fund employed by corporation two of the must important are commercial paper and trade credit.

Commercial paper is of short term notes issued by large and high rated firms. Typically, these notes are of short maturity, ranging up to 2 today's. Because the firm issues these directly the interest rate the barrowing the firm obtains can be significant below the rate a bank would change for a direct loan.

Another option available to a firm is to increase the account payable period, in other words it may takes longer to pay its bills. This amount to barrowing from suppliers in the from trade credit. This is an extremely in part loan of financing for similar business in poetical.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter covers the design in which the research will be implemented, the target population of the study and the sampling procedure that will be used to select the required sample size.

After the sample selection the data collection technique will be briefly described, and the last stage of analyzing the collected data will be illustrated in this chapter.

3.2 Research Design

The study will be conducted through cross-sectional survey design. Cross sectional survey design is the study of a particular phenomenon at a particular time (Mark, Philip, and Adrian, 2003). This design is best suitable for identifying the effect of management and control of inventories on performance in supermarkets. Because there are many supermarkets that sell different inventories and these differences must be considered in order to generate meaningful information. In addition to this, inventory is common in all supermarkets.

3.3 Target population

The study will primarily focus on supermarkets since they are more likely to maintain a large amount of inventory compared to those in service industries. Data are acquired from selective companies within supermarket industries

The study will employ purposive sampling techniques. According to Amin (2005), "purposive sampling is the type of sampling where the researcher uses his/her own judgment or common sense regarding participant from whom the information will be collected." The researcher usually selects a sample of ten supermarkets based on his/her own experience of knowledge of the group to be sampled and has in mind that these respondents have the information he/she requires.

3.4 Sampling design and size

The target population of this research is 36 supermarkets in Mogadishu, Somalia. The research using random sampling had selected five supermarkets as a sample, and used self administered and structured questionnaires.

3.5 Data collection techniques and procedure

A quantitative data will be collected from sample size of ten firms from the supermarket firms from January 2009 up to November 2009 using self administered and structured questionnaire. The data will be collected by the researcher because respondent may require assistance on some items on the questionnaires.

3.5.1 Validity test and Reliability test

The instruments will be checked in order to ensure the validity and reliability of the data presented in this study. One structured and self administered questionnaire will be used throughout the research. Validity is the quality of the test doing what is designed to do (Salkind, 2000); where reliability consists of both true score and error score.

3.5.2 Ethical consideration

The data collected in this study will be used for graduation purpose and will be kept as confidential. Respondents have the right to ignore items that are secret or not relevant to the topic being studied

3.6 Data analysis

Data will be analyzed by using descriptive analysis such as means, median and mode to interpret and present the finding in this study.

-

CHAPTER FOUR

4.0 RESEARCH FINDINGS AND ANALYSIS

4.1 Overview

This chapter covers the data collected in the research; interpreted, analyzed and described in charts, tables and qualitatively analytical approach. In this chapter it will be put forward a demographical study on Mogadishu supermarkets staff, their inventory management system and their internal control on inventory, and other inventory management related topics of these supermarkets.

4.2 Demographic studies on Supermarkets staff

The research covered a preface phenomenon of studying the sample population in accordance of their gender and age, for the simplicity of getting the most accurate data for the research and assuring the application of gender balance employment, and the expertise of the employees according to their ages.

As shown in **Figure (4)1:** The research discovered that sixty-percent (60%) of supermarket employees in Mogadishu are male, while only forty-percent (40%) are female; which is a symbol of low level of female employment or unequal employment opportunities for the female job seekers.

In the interview, the management defended that the female job seekers are always little compared to the male; and also the skills of doing such tasks always belongs to the male workers.

Figure (4) 1:

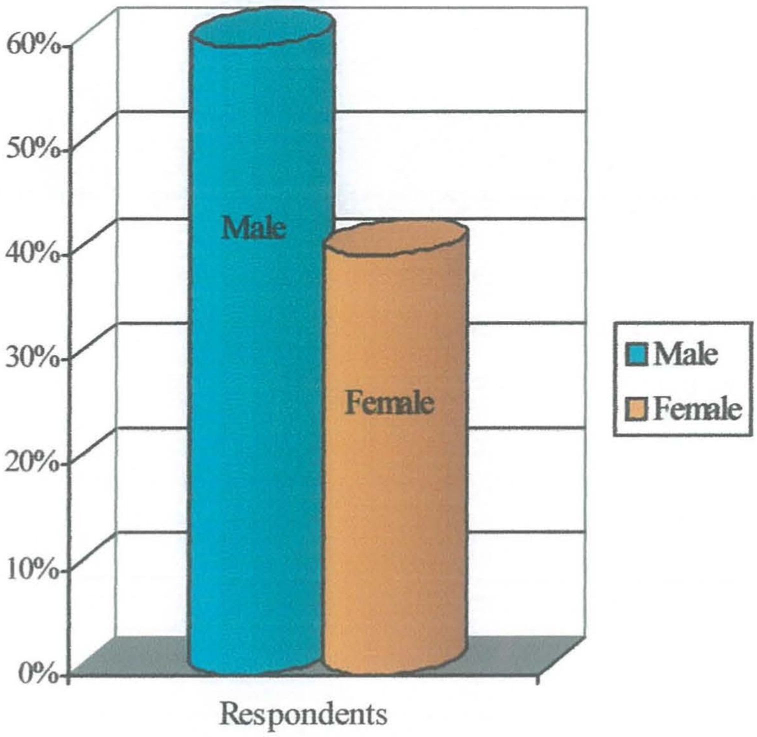
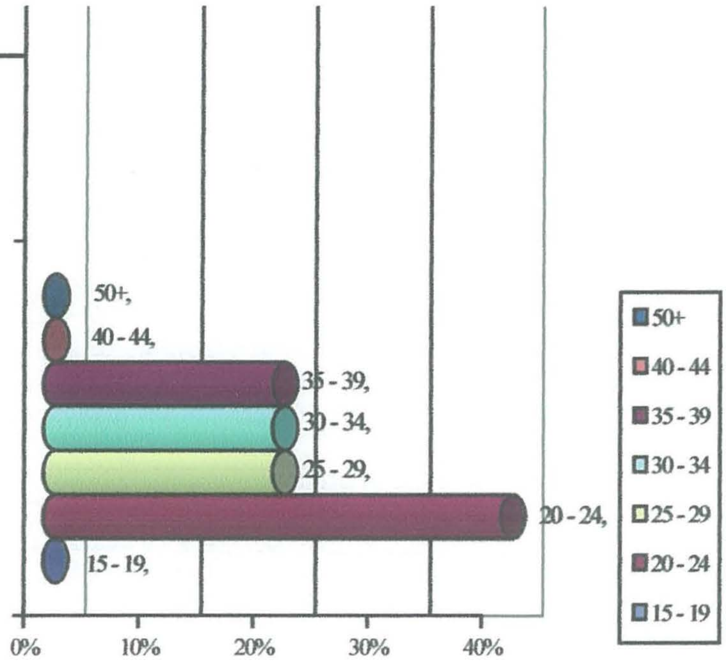


Figure (4) 2: The age analysis the research done came to know that the employees of the age between "20 – 24" makes the biggest percentage of currently working employees which are forty-percent (40%) out of the entire employees, while the ages between "25 – 29" makes only twenty percent (20%) and the ages between "30 – 34" makes also twenty percent (20%) and the remaining range between "35 – 39" makes twenty percent.

It is worthy to mention that, the research did not come across employee younger than twenty years old nor employee older than thirty-nine years old. This indicates that the currently working generation is the generation between the ages of 20 to 39; which falls in the middle class age.

Figure (4) 2:

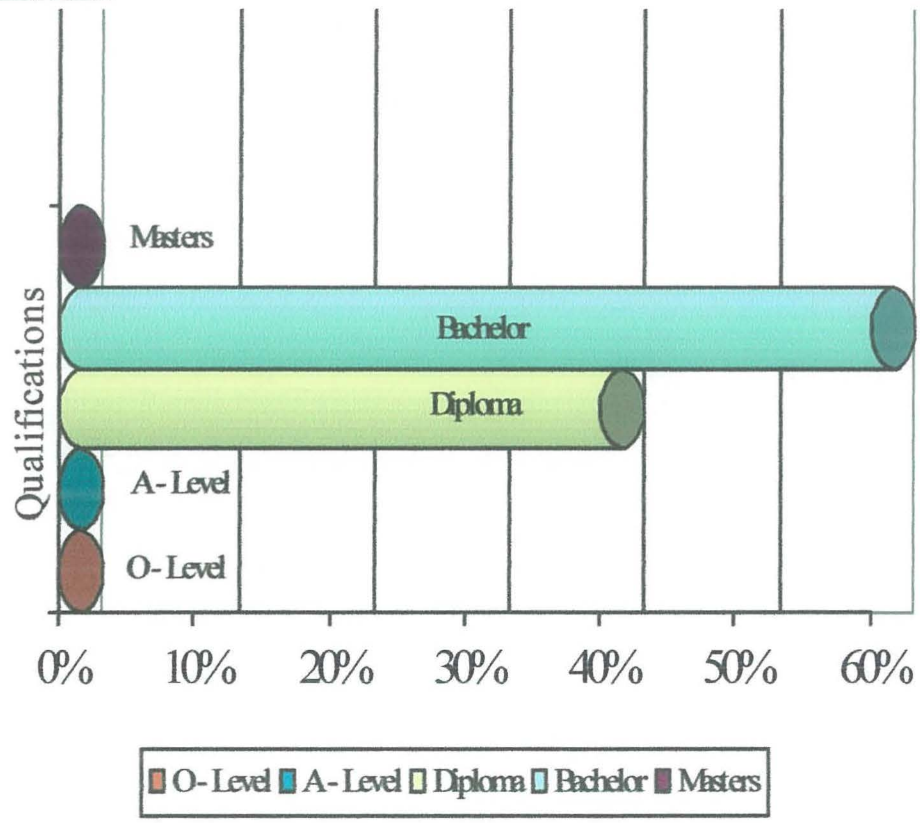


50+	0%
40 - 44	0%
35 - 39	20%
30 - 34	20%
25 - 29	20%
20 - 24	40%
15 - 19	0%

According to Figure (4)3, the educational level and qualifications of the employees, the research found that sixty percent (60%) of the employees are bachelor holders, while forty percent (40%) of the workers are Diploma holders. The research did manage to meet neither above bachelor credential holder employee nor below Diploma holder employee.

This is a very good symbol on the average educational level of Mogadishu supermarkets employees; which on the other hand, shows the availability of the employees with higher credentials in the labor market, it shows that the Bachelor holders are in a big number in the labor market of Mogadishu.

Figure (4)3:



4.3 Safeguarding of Inventory and risk avoidance

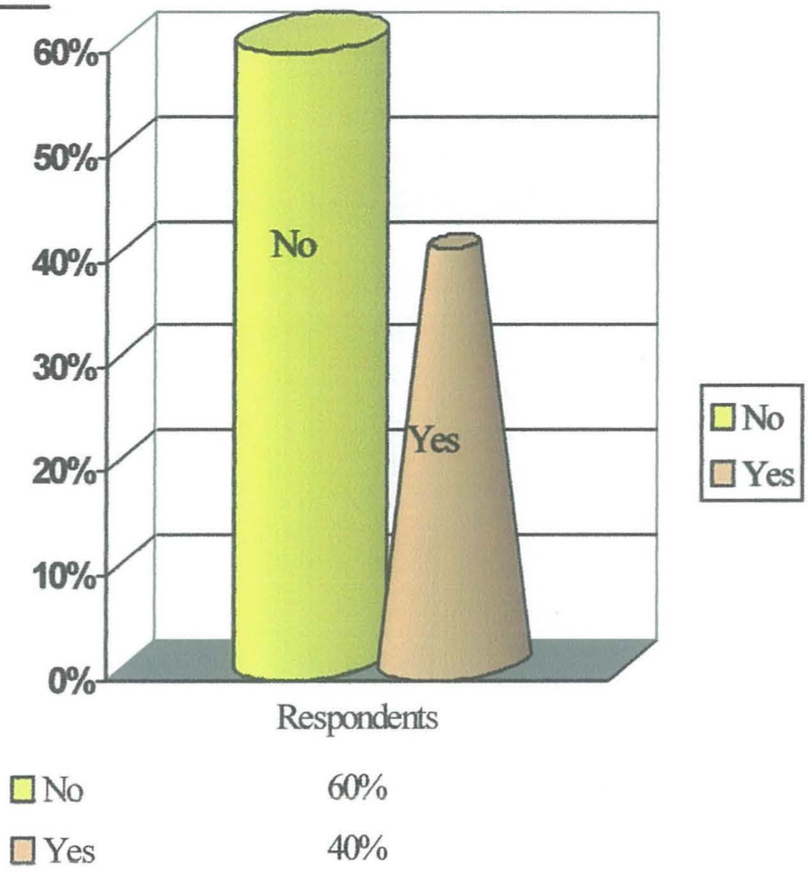
Investigating whether the management takes the appropriate steps to safeguard inventory against risk of loss by theft (e.g. inventory kept in locked building, rooms, or cages, access to which is granted only to authorized personal), the research used a technique of discovering that. The answers from the respondents became as it appears on figure four.

As in **Figure four** Sixty percent (60%) of the respondents agreed on that the management does not take the appropriate steps to safeguard inventory against risk of loss by theft or fraud. While the other forty percent (40%) agreed that the management does take the appropriate procedures for safeguarding the inventory; the procedures the supermarkets undergo by safeguarding the company's inventory in Mogadishu supermarkets are classified as five consequent steps, which include:

1. Proper procurement or purchase procedure from the supplier to the stock in full control system
2. Inventory control in the stock, keeping in locked buildings or rooms, in the access only of authorized individuals
3. Fully segregated duties to the personnel involved stock maintaining, up to the sales personnel (Frontline workers)
4. Full transparency and accountability on each individual's assignment
5. Urgent action based on the feedback.

These are the procedures given by the managers in the interview by the research. However the managers are in charge of safeguarding the company's inventory using the human power available for the super markets.

Figure (4) 4:



As it can be comprehended from figure four that majority of the management in Mogadishu Supermarkets doesn't take the necessary steps to safeguard the inventory and avoid possible risks like theft and fraud; due to low level of internal control.

The forty percent (40%) managers who have strong control over the safety of the supermarkets inventory normally use the above mentioned five steps procedure of internal control and possible risks avoidance.

4.4 Inventory record reconciliation and reporting

In order to know whether the inventory records are reconciled (and differences explained) to produce reports on regular basis, Mogadishu supermarkets maintain day-to-day records of the inventory, some of them do periodically based on, e. g. Weekly, Biweekly, Monthly, Quarterly, Semi-annually or Annually.

In Mogadishu supermarkets sixty percent (60%) uses regular records and reports of the inventory, as obtained in the interview uses simple procedures which is as follows:

1. Recording the beginning inventory in the stock
2. Maintaining daily records of the inventory purchased during the period
3. Counting physically the inventory at the end of the period, (The period depends on the accounting period selected by the supermarket)

stration (4)1:

Amal Supermarket
Inventory-sold Statement
For the month of March, 2009

Beginning Inventory	$ 6,500.00
Add: Inventory Purchased	11,200.00
....	
Total Inventory in stock for the month...........	$ 17,700.00
Less: Ending Inventory	4,500.00
Total Inventory sold during the month	**13,200.00**

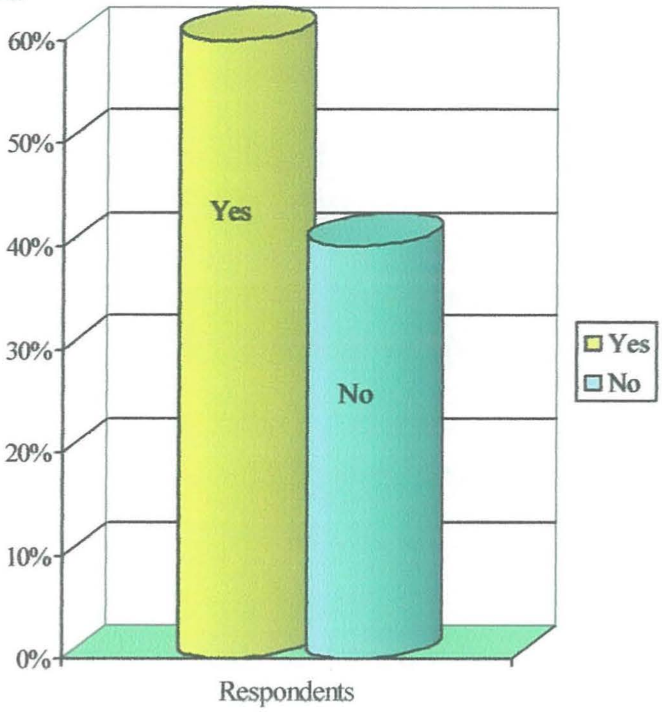
Amal Supermarket
Inventory-on-hand Statement
For the month of March

Beginning inventory...	$ 6,500.00
Add: Inventory Purchased................................	11,200.00
Total Inventory in stock for the month................	$ 17,700.00
Total inventory sold during the month	13,200.00
Ending March and Beginning April Inventory.....	4,500.00

4. Correcting any necessary difference or giving full explanation
5. Making necessary adjustments based on the beginning inventory, the purchased inventory during the period and the sales referring to sales vouchers
6. Preparing inventory-sold statement and inventory-on hand statement As shown in figure (4) 5; Majority of the supermarkets in Mogadishu do record, reconcile and prepare a regular report on inventory, while only forty-percent (40%) do not have that specific procedures of keeping in track with their inventory.

Source: Amal Supermarket statement, 2009

Figure (4) 5:



4.5 Internal control over inventory

Each department is responsible for safeguarding the university's assets, whether those assets are in the form of cash, merchandise, or supplies. A system of internal control is needed to ensure that appropriate management of these assets occurs. Good inventory internal controls incorporate the following.

1. Written departmental inventory management policy and procedures. Staff must be trained on departmental policy and procedures.

2. Adequate separation of duties between those responsible for the physical inventory (ordering, receiving, distributing/selling) and those responsible for the inventory accounting records (approving payments, charging departments/ customers, maintaining the perpetual inventory balance in the Finance System and reconciling the Finance System).

3. An internal inventory system that records all inventory activity, including acquisitions, sales, returns and adjustments.

4. Adjusting the Finance System inventory value for all inventory activity, including acquisitions, sales, returns, and adjustments.

5. Securing the inventory in such a manner so that inventory may not be removed or otherwise affected without a record being made of the event.

Conducting a periodic count and costing of the inventory. This must be done at least annually for the university's June 30 fiscal year-end. More frequent counts should be made depending upon the size and vulnerability to misappropriation of the inventory. Compare the count and costing to the inventory record system and to the Finance System. All differences should be investigated and explained.

Managers have a number of measures of a performance they can use to judge the effectiveness of inventory management. The most obvious, of course, is customer satisfaction, which might measure by the number and quantity of back orders and/or customer complaints.

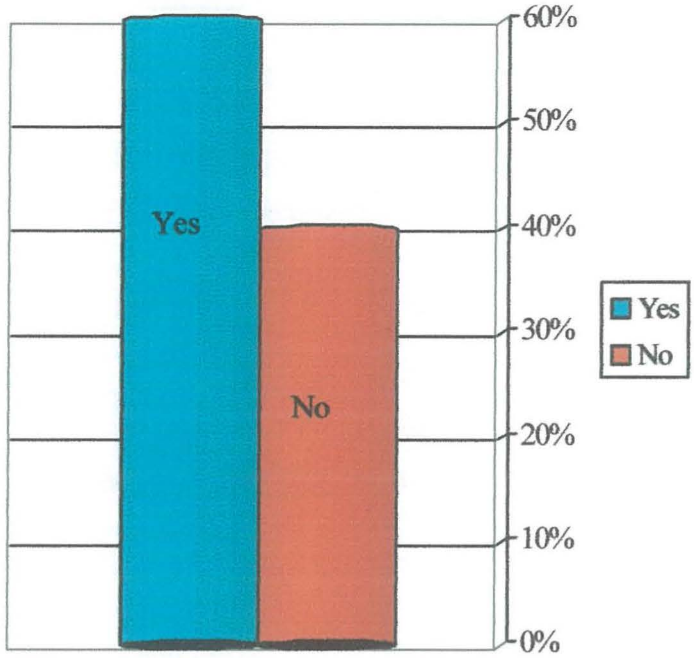
The research studied on; if the inventory released from storerooms only on the basis of requisitions which are approved by responsible official of the department or not.

The finding became as shown in Figure 6; that sixty percent (60%) of the supermarkets get their requisitions of inventory from the storeroom only the authorization of the managers (The responsible official); While the remaining forty percent have other authorized individuals other than the responsible official in charge.

Inadequate control of inventories can give rise to both under and over stocking of items. Under stocking results in missed deliveries, lost sells, dissatisfied customers, and production pitfalls: overstocking unnecessarily ties up funds that might be more productive else where.

Inventory management has two main concerns. One is the level of customer service, that is, to right goods, in sufficient quantity, in the right place, at the right time. The other is the cost of ordering and carrying inventories.

Figure (4) 6:



4.6 Writing-off of spoilage inventory

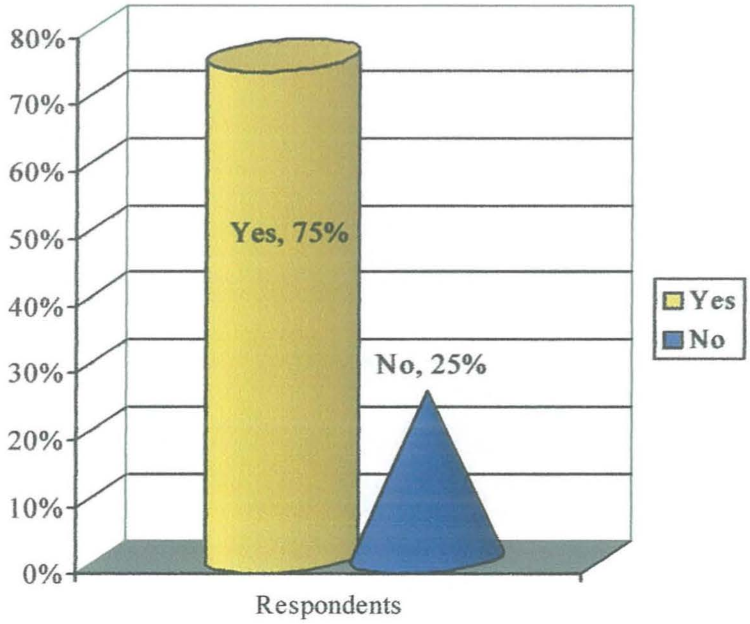
If the supermarkets experience frequent breakage or damage of their products or their product has a short life span and you deal with spoilage, keep a clipboard in an easily-accessible location so they write down important information about their un-sellable goods, like the product name, how many units they lost, why they can't sell them and the date they pitched them. Periodically and before they take a physical inventory or close your books for a period, adjust the available quantities of their products in working point to get the un-sellable products off their books. This will keep their inventory quantities current, their inventory valuation accuracy.

Mogadishu supermarkets apply various strategies of writing-off the spoiled inventories; the spoiled inventories include: Expired inventories, damaged or affected and all spoiled items.

The strategies have in common writing off the inventory from the books of accounts and recording in adjusting entries. The procedure these supermarkets undertake vary from one to another, but most commonly agreed steps include:

1. Controlling and monitoring the quality of the inventory in stock
2. Categorizing them into classes in accordance of their quality and durability; e. g. Perishable, expiration due date.
3. Grouping together the perishable or non-durable inventories, and putting them aside
4. Under-pricing the still-consumable inventories, and discarding the fully-spoiled and expired inventory

Figure (4) 7:



4.7 How the supermarkets determine the ownership of Inventory

In considering the ownership of goods Mogadishu supermarkets have also the usage of the two commonly used types of ownership based on the shipping in order to assure that they have not included in the inventory any goods that do not belong to the supermarket.

Good in transit. Goods are considered by the supermarkets as the word "in transit" when they are in the hands of a public carries at the statement date. Goods in transit are included in the inventory of the party that has ownership of the goods.

As acquired through the interview, the supermarkets classify their in-transit inventories as thee following two types:

- FOB (Free On Board) shipping point: ownership of the goods passes to the buyer when the public carrier accepts the goods from the seller.

- FOB (Free On Board) destination: legal title to the goods remains with the seller until the goods reach the buyer.

Consigned goods: In some times some supermarkets use of businesses, it is customary to acquire merchandise on consignment. Under such an arrangement, the supermarkets hold the goods until they are actually sold to customers. Because consigned goods are not owned by the consignee, they should not be included in the consignees physical inventory count. But, the consignor should include merchandise held by the consignee as part of its inventory.

4.8 Purposes of inventory distribution of Mogadishu supermarkets

Inventory control system help determine the quantity of products and timing of facility orders and delivery schedules. As acquired in the interview with the managers, the eighty percent (80%) supermarkets keep a supply of inventory for the following reasons:

1. To maintain independence of operations. A supply of materials at a work center allows that center flexibility in operations because there are costs for making each new production setup; this inventory allows management to reduce the number of setup.

   Independence of workstations is desirable on assembly lines as well. The time that it takes to do identical operations will naturally vary from one unit to the next? Therefore, it is desirable to have a cushion of several parts within the workstation so that shorter performance time can compensate for longer performance times. This way the average output can be fairly stable.

2. To meet variation in product demand. If the demand for the product is known precisely, it may be possible to produce the product to exactly meet the demand. Usually, however, demand is not completely known, and safety or buffer stock must be maintained to absorb variation.
3. To allow flexibility in production scheduling. A stock of inventory relieves the pressure on the production system to get the goods out. This causes longer lead times, which permit production planning for smoother flow and lower- cost operation through larger lot- size production.

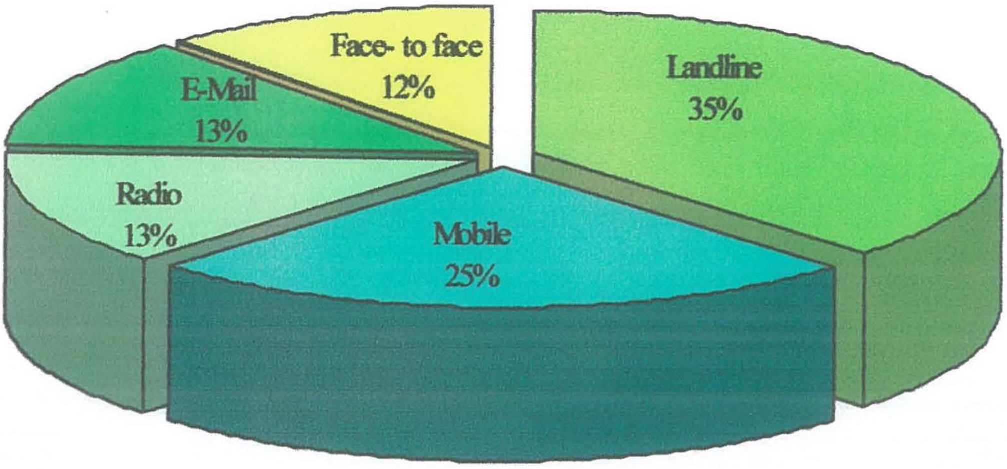
4. To provide a safeguard for variation in raw material delivery time. When material is ordered from a vendor, delays can occur for a variety of reasons: a normal variation in shipping time, a shortage of material at the vendors plan causing backlogs, an unexpected strike at the vender's plant or at one of the shipping companies, a lost order, or a shipment of incorrect or defective material.

5. To take advantage of economic purchase order size. There are costs to place an order: labor, phone calls, typing, postage, and so on. Therefore, the larger each order is, the fewer the orders that need be written. Also, shipping costs favor larger orders the larger the shipment, the lower the per-unit cost.

4.9 Means of communication in inventory distribution

The communications used by the supermarkets in Mogadishu are as it appears on the Figure 8; the customers use different ways as a medium of communications and ordering the inventory they require, the most number of customers which is thirty-five percent (35%) use fixed line to communicate the supermarkets, that is due to the political instability in Mogadishu; the customers that use cell phones are twenty-five percent (25%), while the electronic mail using customers are thirteen percent (13%), Customers that use High Frequency [HF] Radios for communicating the supermarkets are thirteen percent (13%). The least number of customers are those who come to the supermarket directly (Face-to-face) who are twelve percent (12%).

Figure (4) 8:



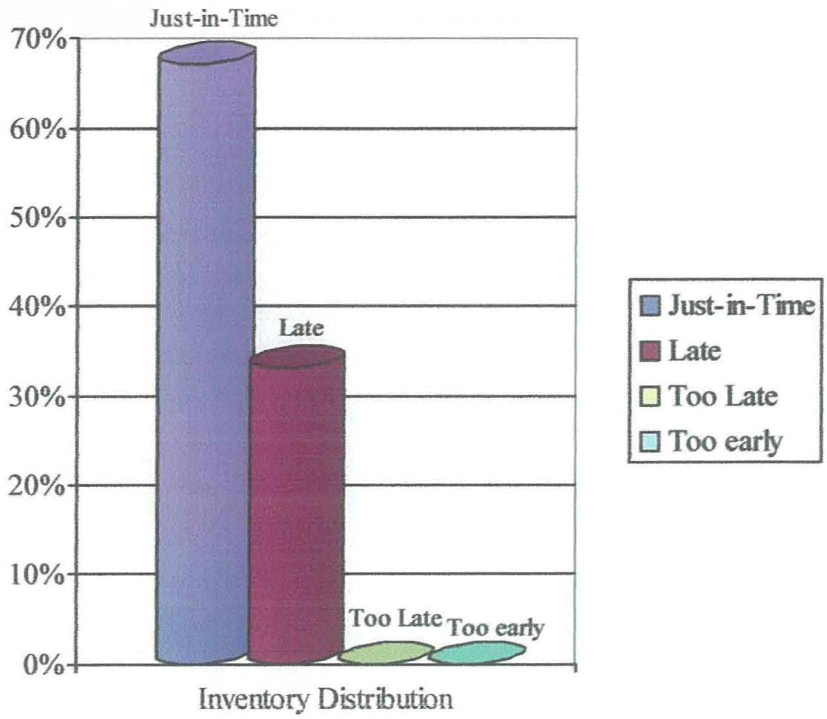
One of the value added activities of the inventory; however, the inventory quality is tangible and material, if the means of communication is not the appropriate for the distribution of these inventory.

In summary, the supermarkets in Mogadishu due to the security instability; uses fixed line mode of communication, the cell phones are the second and Radios, E-mail and face-to-face are on the same line of usage by the supermarkets in Mogadishu.

4.10 Time of inventory distribution

The research studied on time of inventory distribution in the supermarket's area, as shown in *figure 9*; sixty-seven percent (67%) of the inventory are distributed just-in-time (JIT); while thirty-three percent (33%) of the inventory are distributed in a late period.

Figure (4) 9:



Just-In-Time (JIT) refers getting the inventory in the time demanded; Lateness refers to distributing the inventory in a late time but still acceptable; too late takes longer time than even lateness, and too early refers to distributing the inventory early before the desired time.

Distributing the inventory late is critical and distributing early before the required time is also another problem but being on time is the best option.

4.11 Inventory costing methods

Two most commonly encountered methods of costing inventories in supermarkets are variable costing and absorption costing. As gained through the interview with the managers by the researcher.

These two methods differ is only one conceptual respect as explained in the literature review. Whether fixed manufacturing costing are inventor able casts the inventor able cast for a manufacturing company are costs associated with the acquisition of goods for sale; those costs are first recorded as an asset and than subsequently became on expense when the goods are sold.

Variable costing: is method of inventory costing in which all variable manufacturing costs are included as inventor costs. All fixed manufacturing costs are excluded from inventor able costs; they are costs of the previous in which all variable costs.

Absorption costing: is method of inventorying costing in which all variable manufacturing costs and all fixed manufacturing costs are included as inventor able costs. The inventory valuation done by majority of the supermarkets, under both methods all variable manufacturing costs (both direct and indirect) are capital table costs. That is, they are first recorded as an asset when they incurred. Under variable costing, fixed manufacturing cost (both direct and indirect) are deducted as a period cost in the period in which they are incurred.

4.12 Business Performance with Inventory Management

As the result of the interview with the managers; inventory control is a day-to-day practice in all fields of human Endeavour, households, manufacturing firms, servicing firms etc.

The ability to store or stock materials for the provision of goods and services is inventory control. It is a sure way of managing businesses to ensure that customers are satisfied and organizations remains in operation via minimization of costs. A reliable inventory system implies higher confidence of customers and their attendant continuous patronage.

Inventory in the supermarkets includes production inputs like human, financial, equipment and raw materials. Inventory is kept to meet independence of operations, variation in product demand and flexibility in production scheduling, variation in raw material delivery time and variation in economic purchase order-size

An inventory system provides the organizational structure and operating policies for maintaining and controlling goods to be stocked. An effective management of inventory system requires a means of keeping track of items in inventory and an appropriate way of making decisions about how much to order and when to order.

Decisions about inventory in the supermarkets requires information about on-hand inventory level, demand information with regard to the forecasted quantity (with a consideration of the forecast errors), lead-time and lead-time variation, inventory holding costs, ordering costs and shortage cost. This information aids the inventory control manager in meeting the competitive advantage desired by the organization.

In this era of product obsolesce caused by reduced product life cycle, inventory system should inevitably conform to Just-In-Time (JIT) production philosophy to bring about reduced process lead-time for service provision.

This situation warrants reduction of the work-in -process (WIP) inventory level to reduce holding cost hence maximizing service quality, utilization of product and on-time delivery of goods and service to designated customers. The inventory system is always conscious of meeting target at minimum W.I.P inventory level.

Good inventory control system always guards against stock-out, which results in an increase WIP inventory cost that affects the production process negatively. Better demand management through appropriate forecast of stock usage helps to maintain an optimal stock that will achieve a desirable cover against unforeseen variation in service provision. It will equally put the firm in a good position to follow the market-changing trend of goods and service provision without recourse to accruing losses brought about by high inventory level of obsolete materials.

CHAPTER FIVE

5.0 CONCLUSION AND RECOMMENDATION

The research made the following conclusions drawn from the findings, their perspective recommendation are also made. The most significant conclusions driven from the conclusions:

The sound inventory control of the supermarkets has a tangible impact on the performance of supermarkets in Mogadishu.

1. The internal control on inventory in Mogadishu supermarkets are not adequate enough to fully safeguard the value of their assets

2. The bigger the inventory control management system application, the better the performance of Mogadishu supermarkets

3. The medium of inventory distribution used by the Mogadishu supermarkets is currently the most appropriate among the available options

4. The inventory distribution time used by the supermarkets and managing the spoilages is also recommendable. Just-in-time usage is the mostly used in Mogadishu super market and the most appropriate

RECOMMENDATIONS

From the conclusions, the research found important for the supermarkets to implement the following recommended actions for the fitness and smooth-going of their operations:

1. The management should maintain a better sound internal control over the inventory management using the generally accepted strategies; the recommended strategies include:
    a. Proper Inventory costing methods like: Variable costing and absorption costing, retail method of inventory costing, gross profit method of estimating costs

    b. Better knowledge for inventory costs; the costs incurred for an inventory is regarded as the cost of that inventory, thus managers should have a better knowledge of recognizing and distinguishing costs

2. The inventory control management should be regarded by the management as a significant player in maximizing the company's profit and wealth maximization

REFERENCES

Amin, M. (2005). *Social science research: Concepts and analysis*. Kampala: Makerere University.

Brevard, E. Henry, R. & James, C. (1993). *Principle of financial accounting.* Boston: Houghton Mifflin Company.

Burton, E. (1978). *Successful cost reduction control.* Englewood: Prentice-hall Inc,

Charles, T., George, F. & Stricken M.(2000). *Cost accounting*. New Jersey: Prentice-hall Inc,

Donr, H. & Maryanne, R. (2001). *Management accounting.* Ottawa: Nelson Thomson learning.

Donr, H. & Maryanne, R. (1995). *Cost Management.* Ohio: South western college

Donr, H. & Maryanne, R. (2000). *Management accounting*. Ohio: South western college.

Eppen, J. & Schmidt, M. (1987). *Introduction management science*. Engle word cliffs: McGraw Hill Inc.

Eugene, F. & Joe F. (1999), *Fundamental financial management.* Santiago: Harcourt Brace company

Edward, J., Vander B. & Charles F. (1999). *Principles of cost accounting*. Ohio: South Western college.

Eugene, F. (1989). *Fundamental financial management*. Chicago: Dryden press.

Eugene, F and Joel F. (2001). *Fundamental financial management.* Santiago: Harcourt Inc.

Jerry, P., Donald and Paul, S. (2003). Financial accounting. London: McGraw Hill

Kilter, P. & Armstrong, G. (2004). *Principles of marketing*. New Jersey: Pearson education inc.

Michael, M. (1997). *Cost accounting*. Washington: McGraw-hill Company.

Mark, S., Phillips, L. & Adrian, T. (2003). *Research methods for business students*. New Delhi: Pearson education limited.

Robert, N. & Visa G. (2003). *Management accounting*. Santiago: Harcourt inc,

Robert, L., Patricia, A, & Daniel, G. (2004). *Financial Accounting*. Boston: McGraw hill Irwin.

Salkind, N. (1991). *Exploring research*. New York: Macmillan publishing

Stephen, L. Randolph, S. & Branford, R. (2001). *Essentials of corporate finance*. Boston: McGraw Hill

APPENDIXES

Appendix A: Time frame

No.	Activity	Time frame
1	Proposal writing	January2011
2	Proposal submission	February 2011
3	Research proposal reading and correction by supervisor	February 2011
4	Questionnaire designing and pre-testing	March 2011
5	Data collection	March 2011
6	Data analysis and completion	April 2011

Appendix B: budget

No.	Item	Unit cost	Units	Total
1.	Travel costs			60,000.00
2.	Stationary	15,000.00	3.00	45,000.00
3.	Secretarial services			30,000.00
4.	Communication	200	500 minutes	100,000.00
5.	Contingency			80,000.00
	Total			**315,000.00**

APPENDIX C: INSTRUMENTS

Appendix 1: Questionnaire

The purpose of this questionnaire is to find out information regarding how inventory management control system and performance in supermarket. The findings from this research will be primarily used for academic purpose. All information provided herein will be treated with strict confidentiality.

Part 1

Circle the response

1. Gender Male ☐

   Female ☐

2. Age 15-19 ☐

   20-24 ☐

   25-29 ☐

   30-34 ☐

   40-44 ☐

   45-49 ☐

   50+ ☐

3. What qualifications have you attained?

   O-level ☐

   A-level ☐

   Diploma ☐

   ☐

Bachelor

Master

Other specify

....

....

Part 2

Questions

1. Has management taken the appropriate steps to safeguard inventory against risk of loss by theft (e.g. inventory kept in locked building, rooms, or cages, access to which is granted only to authorized personal

a. Yes

b. No

2. Are inventory records reconciled (and differences explained) to produce reports on regular basis? (Current inventory is adjusted at the yearend by fiscal year end physical accounts)

a. Yes

b. No

3. Is inventory released from storerooms only on the basis of requisitions which are approved by responsible official of the department?

c. Yes

d. No

4. Do you monitor and approve the write-offs of obsolete and inactive inventory

4. Yes

5. No

5.What is the effect of monitoring inventories on the performance of the supermarkets

....

....

6. Are adequate provisions made for cut-off of receipt and issues

   a. Yes ☐

   b. No ☐

7. If applicable , are issuing and billing procedures designed and correlated so as to ensure the billing of all items

   a. Yes ☐

   b. No ☐

8. What is the relationship between inventory management controls and performance of the supermarkets

....

....

....

9. What are the mean of communication used inventory distribution work?

☐ Landline telephone

☐ Mobile telephone

☐ Radio cell

☐ Electronic mail

☐ Face to face conversation

10. What would you generally say about time of inventory distribution in your area?

☐ Just in times

☐ Late

☐ Too late

☐ Too early

11. What would you generally say about time of inventory distribution in your area?

☐ Just in times

☐ Late

☐ Too late

☐ Too early

12. What would you say about adequacy of the amount distribution in the inventory?

☐ Total adequate

☐ Fairy adequate

☐ In adequate

☐ Very adequate

13. Which area is the communities have the most problem?

☐ Agriculture

☐ Education

☐ Water

☐ Security Health