

**FACTORS INFLUENCING INVENTORY CONTROL OPERATIONS IN MEAT  
PROCESSING FIRMS IN KENYA; A CASE STUDY OF KENYA MEAT COMMISSION**

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## **DECLARATION**

This Project is my original work and has not been presented for a diploma in any other University.

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Declaration by the supervisor

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

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## **DEDICATION**

I am pleased to thank my family members especially my parents for their support offered to me.

## **ACKNOWLEDGEMENT**

I would like to acknowledge my supervisor for the professional guidance offered in my proposal writing. I want to thank The Management University of Africa for the opportunity to carry out this research work. To all institutions which assisted me in completing the research I acknowledge their support. Finally to my mother and sisters you encouraged and sacrificed a lot on my behalf through this slippery ladder of education. I owe a lot of thanks to you. To all individuals and institutions who contributed to make this research a reality by giving information particularly staffs of the Kenya Meat Commission who assisted by answering the questionnaire and offered information which made me complete the project. Your contribution towards the project enabled me the successful completion of my work. Please accept my acknowledgement.

## **ABSTRACT**

The study focused to determine factors influencing inventory control operations in meat processing firms in Kenya with a case study of Kenya Meat Commission Headquarters Athi River off Mombasa Road. Inventory control operations entails the methods that companies use to organize, store, and replace inventory, to keep an adequate supply of goods at the same time minimizing cost. The objectives of the study were; to find out how product development affect inventory control operation, to establish the extent at which lead time affects inventory control operation, to determine how technology affects inventory control operation and then to assess the effects of inventory shrinkage inventory control operation at Kenya meat Commission. The study adopted a descriptive design where a quantitative research method was used to ensure establishment of correlations and cause effect relationship that is important in viability of the constructs. The target population of the study was 180 employees of Kenya Meat Commission where a sample of 90 respondents will be obtained. The data collections instrument for the study will be questionnaire to acquire the data from the respondents. The study was piloted to ensure the validity and reliability of the research instrument for a credible study. The data obtained was analyzed using SPSS and then presented on tables and figures for interpretation.

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## **ACRONYMS AND ABBREVIATIONS**

**EMF:** Equipment Manufacturing Firms

**EOQ:** Economic Order Quantity

## OPERATIONAL DEFINITION OF TERMS

**Product development:** This involves the modification of an existing product or its presentation or the formulation of a completely new product that corresponds to a customer request or a newly defined market niche (Booz, 2012).

**Lead time:** This is the time that elapses among the setting of an order (both a buy order and a manufacturing order issued to the store or the manufacturing facility floor) and in fact receiving the products ordered (Hanna, 2015).

**Technology:** Technology enables companies to react better to existing challenges and to better anticipate future developments. The use of IT in supply chain management (SCM) enables the company to record inventory, suppliers and customers (Powell, 2010).

## **CHAPTER ONE**

### **INTRODUCTION TO THE STUDY**

#### **1.0 Introduction**

The chapter presents the context of the study in which it also explores the company or organization in which the study will be carried out. Statement of the problem, objectives, research questions, meaning, scope and limitations of the study. The whole study is anchored in this chapter.

#### **1.1 Background of Study**

The concept of inventory management and control began to attract attention as early as 1910. For example, in 1915 Harris developed the Economic Order Quantity (EOQ) to help organizations determine the optimal order quantity (Harris, 2015). A probabilistic model was developed in 1953 and a dynamic model in 1958 to improve inventory control in complex and dynamic business environments (Liang, 2009). In today's business environment, companies are using cutting edge technology to improve inventory control. Computerized inventory control systems such as Enterprise Resource Planning, Just in Time and Electronic Data Interchange are becoming increasingly popular in companies (Sage, 2012)

According to Stevenson (2010), inventory management is defined as a framework that is used in companies to control their interests. In stock. It includes tracking and monitoring inventory, assessing the future request, and determining when and how to arrange. On the other hand, Deveshwar and Dhawal (2013) suggested that inventory management is a method that companies use to organize, store and organize. Replace inventory to maintain adequate supplies while minimizing costs.

Inventory management is an important part of all inventory management decisions in an organization, such as: The camp at all times. In addition, the company goes to great lengths to control storage costs through inventory management (Bill 2013). Esther (2011) found that an

effective inventory management system will reduce the level of operational difficulties that can lead to an organization's success, such as executing, managing and planning the distribution and shipping network. Hence, improving an organization's inventory management will greatly improve the quality of its business performance result. The framework can guide federal managers to improve the accuracy and reliability of inventory management (United States General Accounting Office, 2002). Similarly, the University of Mississippi's National Institute of Food Service Management developed a reference guide for inventory management and tracking in 2012. The argument in support of the development of this guide is that inventory management is one of the critical components of management only in the US Department of Agriculture (USDA) and in any other management as well (National Food Service Management Institute, 2012).

Silver, Pyke, and Peterson (1998: 1011) further argue that the United States and other Western countries have sought to improve productivity by reducing the amount of direct labor expended per unit of production. high proportion of work in many manufactured products; however, the share of unit labor costs has steadily declined in recent years; In fact, the ratio of materials purchased to sales (in dollars) for US companies reached 60 percent in 1985. Even large manufacturing companies, like American automakers, buy up to 60 percent of the product's value, which means that resource inventory management is an area that holds great promise for improving productivity. From the mid to late 1980s for his remarkable performance in quality and inventory management. The great interest in just-in-time manufacturing (JIT) shows that ongoing inventory management is also in need of improvement.

The food industry is diversified and diversified, divided into different segments such as the fresh produce industry, the organic food industry, the processed food industry and the forage industry. Each segment requires different supply chain strategies such as sourcing and sourcing, inventory management, warehouse management, packaging and labeling system, and distribution management, hence the unique characteristics of the food supply chain (Georgiadis, 2009).

According to Sunil & Meindl (2014). ) the supply chain consists of all parties that are directly or indirectly involved in fulfilling a customer request. The supply chain includes not only manufacturers and suppliers, but also shippers, warehouses, dealers and the customers themselves. That the supply chain within each organization includes all functions that are

connected with receiving and fulfilling a customer request. These roles include new product development, marketing, operations, sales, finance, and customer service, among others. This is in line with Kietzman's (2010) observation that the supply chain is a network of retailers, distributors, carriers, storage facilities and suppliers involved in the manufacture, delivery and sale of a product to the consumer. Consists of several companies that coordinate activities to differentiate themselves from the competition.

### **1.1.1 Kenya Meat Commission (KMC)**

The Kenya Meat Commission (KMC) was founded in 1950 by a parliamentary resolution with the aim of providing cattle breeders with a good market and offering consumers high quality meat and meat products. It is a public institution and by far the oldest and oldest. Most experienced meat processor in Kenya and the largest region in East Africa.

KMC reopened on June 26, 2006 after 15 years of closure with the aim of promoting the Kenyan meat industry both domestically and for export, and its enormous capacity should complement the government's efforts to recover the Kenyan economy.

KMC is a fully integrated meat processor whose strength lies in the unmatched efficiency of its meat processing equipment, coupled with the ability to process large quantities of quality meat to the tastes and preferences of consumers. Products and services to compete with the world's best. We are committed to maintaining the highest standards of hygiene and excellence in products as well as customer care and service. In addition, the Commission is modernizing its equipment and machinery to meet the world's best meat processing standards.

It focuses on efficiency, effectiveness and innovation in everything we do, as well as professionalism in all aspects of our business. We have a sophisticated training program for our employees in order to build the necessary capacities for the constantly changing market. needs.

As part of its strategy, KMC intends to regain its leadership position in the market and once again be the market standard for quality products and services. The Kenya Meat Commission is the largest and most licensed export slaughterhouse modern in the East, Central and Horn of Africa. The Kenya Meat Commission supplies high quality meat products to international

markets such as: Middle East i.e. UAE, Kuwait, Qatar, Saudi Arabia, East Africa, i.e. Tanzania, Uganda, Central Africa, i.e. Democratic Republic of the Congo, North Africa, i.e. Sudan, Egypt..

## **1.2 Statement of the Problem**

Inventory is the most important part of working capital in any organization and because of the relative size of the inventories held by the majority of organizations; they are allocated a considerable amount of an organization's resources. According to Dimitrios (2008), inventory management practices have been identified as an important problem area that needs the highest priority. In order to achieve sustainable, tangible results, the cause must be at the root. The problem must be identified and addressed efficiently. Therefore, inventory management practices deserve the utmost attention. The reason for performing inventory management practices is to ensure the regular supply of materials when needed. Insufficient stocks hinder the production process and reduce the sales volume. On the other hand, Rajeev (2010) suggests that excessive inventory immobilizes working capital and increases maintenance costs.

Poor Inventory Control is a manufacturing company's nightmare as it has resulted in a low rate of production of the resource spent. A cursory survey shows that manufacturing companies such as Dresser Rand Nig. Ltd., Siemens Nig. Ltd. and Nigeria Engineering Work Ltd. Among other things, they suffer from low productivity in material, capital, time and energy management, which is mainly due to poor inventory management strategies. Under this premise, Prepeh (2015) could assure that in manufacturing companies around 60% 70% of the total funds used are immobilized in current assets, the inventory of which is the most important component they have no scientific method for classifying stocks and they do not follow a specific inventory management strategy, but are based on a rule of thumb. , Inability to meet customer demand and low capacity utilization.

## **1.3 Objectives of Study**

### **General Research Objective**

The overall objective of this study was to find out the factors influencing inventory control operations in meat processing firms in Kenya; a case study of Kenya Meat Commission.

### **1.3.1 Specific Objectives**

- i. To find out how product development affect inventory control operation at Kenya Meat Commission.
- ii. To establish the extent at which lead time affects inventory control operation at Kenya Meat Commission
- iii. To determine how technology affects inventory control operation at Kenya Meat Commission
- iv. To assess the effects of inventory shrinkage on inventory control operation at Kenya meat Commission.

### **1.4 Research Questions**

- i. How does product development affect inventory control operation at Kenya Meat Commission?
- ii. To what extent does lead time affects inventory control operation at Kenya Meat Commission?
- iii. How technology does affects inventory control operation at Kenya Meat Commission?
- iv. To what extent does of inventory shrinkage affect inventory control operation at Kenya meat Commission?

### **1.5 Significance of the study**

#### **1.5.1 Kenya Meat Commission**

The study will be essential to the firm since it will offer the appropriate information on the factors influencing inventory control operations in meat processing firms in Kenya. The established factors from the study can be used by the firm to formulate strategies that help in inventory management.



### **1.5.2 Others Researchers**

This study will provide the literature that future researchers in the related field can review to learn more about the existing situation and the available gaps on which to base their studies in constructing the study constructs.

### **1.6 Scope of the study**

The research study explored the factors influencing inventory control operations in meat processing firms in Kenya. A case study Kenya Meat Commission. The study targeted staff in leadership positions and those not in leadership positions working at Kenya Meat Commission. Therefore the total population to be targeted was 180 employees of the company.

### **1.7 Chapter Summary**

The chapter has highlighted the background of the study on the global and local perception on factors influencing inventory control operations in meat processing firms in Kenya. The statement problem that establishes the reason for the study, the research objectives offers the premises on which the whole research project is done. The scope identifies the analysis areas of the study and significance of the study.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This section comprises literature review of theories and past studies carried out in the field, critical literature review, summary of findings and gaps to be filled and conceptual frame work.

#### **2.1 Theoretical Literature review**

This research was based on two theories namely; Theory of Theory of Constraint and Resource Dependence Theory.

##### **2.1.1 Theory of Constraints**

The Theory of Constraints (ToC) is a management philosophy that aims to increase the performance of production throughput, or the overall performance of the system as measured by sales, by identifying those techniques that constrain the manufacturing device (Goldratt, 2004). . This retention principle is based entirely on the imperative that a chain is only as strong as the weakest link or the weakest link or orders that have not been fulfilled or completed with a large additional attempt (overtime), high levels of pointless inventory or loss of the corresponding inventory levels, incorrect material orders, large number of emergency orders and excursion grades, high response rate, loss of important customer loyalty, frequent changes or lack of manipulation with regard to the order of priority, which indicates conflicts in the planning of sources (Goldratt, 2004). Under the concept of constraints (ToC), overall performance measurements are based on the concepts of throughput, inventory levels, and operating prices (Kazim, 2008).

The Theory of Constraints measurements are based on a simple advertisement that emphasizes the influence of the inventory handling device on the development towards organizational competitiveness. Proof of the effectiveness of any warehouse management device is the diploma, which improves the organizational competitiveness of commercial enterprises. The Concept of Constraints (ToC) methodology suggests that the productivity of the organization depends on the software of inventory management practices in the public domain.

### **2.1.2 Resource Dependence Theory**

According to Harrison et al., (2011) resource dependence theory (RDT), Firms ensure official and orderly links with other firms in order to find ways to minimize doubts and enable dependency on other firms. This makes companies interdependent and therefore combines resources into a resource package that is unique and difficult to imitate. Likewise, the research of Sambharya and Banerji (2016) has supported the RDT theory by showing that linking the company with other companies has made it possible to develop superior products that give the company an advantage both financially and operational performance. The theory therefore shows that companies that enter into strategic partnerships with suppliers can create bundles of resources.

## **2.2 Empirical Literature Review**

### **2.2.1 Product development and inventory control**

The creation of products with new or different properties that offer the customer new or additional benefits. Product development can involve the modification of an existing product or its presentation, or the formulation of a completely new product that corresponds to a customer request or a newly defined market niche. The product development process consists of the activities of companies in the development and introduction of new products. A new product that is brought to market develops in a sequence of phases, starting with a product concept or template that is evaluated, developed, tested and brought to market (Booz, Allen and Hamilton, 2012). This sequence of activities can also be viewed as a series of phases of information gathering and evaluation. In fact, as the new product is developed, management becomes increasingly informed (or less uncertain) of the product and can evaluate and reevaluate its original decision to develop or launch. After this information and evaluation process, the new product can be improved. Decisions by companies that limit the level of risk and minimize the resources used on products that eventually fail. Company resources and needs (Booz, 2012).

Inventory management needs to take into account the different types of products that are in stock, for example some products may be perishable and therefore have a shorter shelf life than others. In this case, inventory needs to be managed to ensure that these items are rotated after expiration dates. (Winner Roy 2013).

The essential purpose of forecasting in manufacturing scheduling is to make certain that the product is to be had to the consumer on the proper quantity, price, time and place. Accurately forecasted call for might also additionally result in multiplied consumer satisfaction, decreased inventory outs, green manufacturing, decreased product obsolescence, and higher controlled shipping, advanced negotiation phrases with the provider and greater knowledgeable pricing in addition to promoting choices (Stock and Lambert, 2011). The call for forecast identifies necessities for which the deliver chain ought to agenda stock and operational assets. Accurate forecasting have to be a primary awareness for conditions in which lengthy replenishment lead instances and big economies of scale are each present (Bowersox et al. 2010). Making choices below uncertainty is much less than premier and allocating assets amongst logistics sports without understanding what product can be wanted is extraordinarily difficult. Because of this, it's miles vital for businesses to adopt a few form of call for forecasting and then they talk the outcomes to specific departments that want to recognize exactly how a lot product can be required (Jenni, 2014). Forecasts of destiny call for have an effect on the promotional strategies, allocation of income force, pricing and marketplace studies sports. Additionally the forecasts additionally decide manufacturing schedules, shopping and acquisition strategies (Stock and Lambert, 2013.)

### **2.2.2 Lead time and inventory control operation**

Lead time is the time that elapses among the setting of an order (both a buy order or a manufacturing order issued to the store or the manufacturing facility floor) and in reality receiving the products ordered.

If a supplier (an outside organization or an inner branch or plant) can't deliver the specified items on call for, then the patron organization ought to hold an stock of the wanted items. The longer the lead time, the bigger the amount of products the organization ought to bring in stock. (Hanna 2015)

Total lead-time is made from time dedicated to processing orders, to buying and production gadgets, and to transporting gadgets among the numerous levels of the deliver chain. However, lead instances can frequently be decreased if gadgets are transported right away after they may be synthetic or arrive from suppliers (David Simchi et al., 2011). Lead-time generally consists of

components: Information lead instances (i.e., the time it takes to method an order) and Order lead instances (i.e., the time it takes to supply and deliver the item). Information lead time may be decreased through the usage of very state-of-the-art and contemporary-day verbal exchange device at the same time as Order lead time may be decreased via green deliver chain management (Simchi-Levi, David, 2010)

Alp and John (2013) assert that the first-class manner to hedge a deliver chain towards random fluctuations in call for is thru amendment of lead-instances withinside the device dynamically. They argue that this will be completed via having flexibility withinside the deliver chain lead-instances through operating with a couple of three suppliers, the usage of a couple of transportation options, having the choice to expedite positive processes, or having exclusive feasible routes for a unit to undergo the deliver chain. Jader (2012) argues that discount in lead time in provider transport isn't always a brand new concept. He asserts that the possibility to lessen lead time in provider transport lies withinside the provider method itself. The time it takes to offer a specific provider to a client may be very significant. He similarly shows that for an organisation for you to lessen lead time, it must consist of lead time discount as a corporation strategy. This will allow the corporation to deal with lead time .troubles extra efficiently.

Inventory manage in a deliver chain is critical for agencies to meet their client needs in addition to controlling costs. However, the uncertainty can disrupt the deliver and manufacturing method (Koh and Saad, 2013).

Wazed and al. (2009) have diagnosed the important elements of uncertainty in a actual production surroundings consisting of call for, dealer lead time, pleasant and capacity. Dolgui and Prodhon (2009) have proven that protection inventory, protection lead time, and lot-sizing regulations may be used to conform the MRP structures for an unsure surroundings. The simulation studied with the aid of using Whybark and Williams (2016) proved that it's far higher to offset protection lead time than protection inventory below timing uncertainty. It seems that the the usage of of this precept may also limit the fee of the stock and fulfill a constraint at the customer support level. There are different research withinside the literature which have proven comparable choices. Hegedus and Hopp, (2011) have proven that the protection lead time is favored to enhance shipping performances than conserving a protection inventory below timing

uncertainties. They concluded that growing degrees of the deliver variability decreases the shipping overall performance.

Wikner et al. 2011 word that a twenty percentage discount in height amplification may be performed if lead instances are reduced. Metters( 2009) discover the value of the bullwhip impact with the aid of using organizing an empirical decrease certain at the profitability effect of the bullwhip impact and observed that putting off the bullwhip impact can growth product profitability with the aid of using 10– 30%. They additionally factor out a lead time discount method that would put off the bullwhip impact might additionally generate vast financial savings in inventories and different costs. Chen et al. 2010 show that growing the lead time will growth the variety of orders from store to manufacturer. The preferred consensus in contemporary kingdom is that the foundation reasons for bullwhip impact are: call for forecasting, non-0 lead time, deliver shortage, order batching, charge fluctuation and lead time forecasting However, it's also apparent from such contributions as Chaharsooghi, Heydari and Michna (2010) argues that lead instances may be crucial whilst comparing stock manage the overall performance of a deliver.

Safety inventories additionally a completely critical issue in discount of lead time analysis. A big range of researchers-Cheng Hsiao (2009), Jack C. Hayya, Terry P. Harrison. X. James (2010), Christoph H. Glock (2010) have labored out the impact of lead time discount on protection inventory. Further, it's been proven that lead time is correlated with economic overall performance indicators, consisting of ROI (Return of Investment) or common profit (Christensen et al., 2012). This underscores the significance of dealing with lead time inversely associated with the call for rate. In comparison to the overall assumption that lead time crashing fee relies upon at the range of orders only (Ben-Daya and Abdul raouf (2010), Ouyang et al.(2011), Ouyang, and Chang (2011).

### **2.2.3Technology and inventory control**

In today's current world, big and small businesses are the usage of the greater superior technology and automatic stock manipulate systems. Now a days, the IT primarily based totally technology is taken into consideration because the prerequisite for manipulate and control of deliver chain. A current observe carried out in U.S discovered that the U.S. primarily based

totally producers had been closely relies upon at the advantages delivered through IT. These advantages encompass the superior deliver chain quickness, attain better efficiency, lessen cycle time and supply merchandise to clients in well-timed manner (Shore.B& A.R. Venkatachalam, 2013). The researchers additionally located that using IT isn't always a assure of higher overall performance of organization (Lucas Jr. H.C & V.K. Spitler, 2009). Some researchers argued that that variation of recent generation may be without difficulty duplicated the opposite corporations working to your enterprise and it can't offer a sustained aggressive aspect to the organization (Powell & A. Dent-Micallef, 2010). The use of IT in deliver chain control (SCM) allows the organization to hold document of stock, providers and clients. But it does now no longer imply that there may be no outlet the usage of the guide stock control system.

In this twenty first century, the net and net-primarily based totally technology are impacting enterprise in numerous ways. The diverse net and net technology which are utilized in stock control encompass e-mails for having access to and contacting clients, internet site technology designed for distributing, searching, and retrieving files over the Internet. These new technology are promising to shop prices, to enhance purchaser and dealer relationships, enterprise techniques and overall performance, and to open new enterprise opportunities (Nelly 2010)

These technology permit businesses to reply higher to current demanding situations and enhance the anticipation of destiny traits. As with the case with in advance innovations, wealthy multi-facetted interactions are happening among traits withinside the place, worldwide enterprise environment, paintings environments, and technical innovations (Thompson and Cats-Baril 2013). One place that has these days and considerably won interest is the Business-to-Business (B2B) stock control that encompasses the products and offerings in addition to better-stage control duties and logistics.

Supply chain control emphasizes the long-time period gain of all events at the chain thru cooperation and statistics sharing. This confirms the significance of IT in SCM which is basically resulting from variability ordering (Yu et al, 2011). There had been increasingly research of IT's impact on deliver chain and interorganizational relationships (Grover et al, 2012). IT seems to be an essential component for collaborative relationships. A famous perception is that IT can increase the statistics processing skills of providers, thereby allowing or helping extra dating similarly to lowering uncertainty (Subramani, 2014.).IT decreases transaction prices among

shoppers and providers and creates a greater relational/cooperative governance structure, results in nearer buyer-dealer relationships (Bakos&Brynjoolfsson, 2013) can also additionally lower believe-primarily based totally interorganizational partnerships and gets rid of a human detail in buyer-dealer interaction, at the same time as believe is constructed on human interaction (Carr &Smeltzer, 2012).

According to the Zengwa and Choga (2016) examined the position of records and communicate generation (ICT) in company' stock control. Questionnaires, interviews and observations have been used as studies methods. The take a look at uncovered that the companies' appropriation of ICT inventory management more desirable the inventory ability via steady getting ready of exchanges, availability of records from a introduced collectively database, profitability and productiveness over each one of the offices. The tool enabled checks and balances on all inventory transactions. It moreover found out that ICT helped in advancing standardized inventory control actions, diminishing on work-load as well as on improving the great for the stock function. The research moreover established that but ICT has brought to the effective management of inventories there have been nonetheless stages to be more desirable as they contrarily stimulated the talent of the entire gadget.

According to the Mongare and Nasidai (2014) investigated the effect of records and communicate generation on stock manipulate gadget in shipping organization. Questionnaires have been used as the principle records series Descriptive records evaluation technique changed into to research the amassed records. Stock control is vital for each one of the partners. It has particular meanings to the pretty more than a few stakeholders. Stock manipulate has numerous consequences depending upon the planning, that is, whether or not the short term or long time influences are those in question. Inventory manipulate gadget answers do now not constantly require more generation, committed employees or staffing resources. Rather, cutting-edge technology infrastructure, collectively with system and pc structures with community connectivity may be used. Inventory manipulates and related technology assure actual upgrades withinside the management of acquirement, materials management chain. The affiliation have to be centered in phrases in their wishes and the usage of the right technological know-a way to acquire goals, rather, than acquiring generation of inventory control because of the reality different companies



have it. Government hobby in ensuring targeted media transmission enterprise need to be major to lower or expel avoidable prices of actualizing inventory control.

#### **2.2.4 Inventory shrinkage and inventory control operation**

Inventory shrinkage refers to the loss of inventory between the time you buy from a supplier and the time it is sold to your customers. Simply put, you've paid for the items, but they're not available to your customers. . The cost of lost inventory to your customers makes your prices less competitive, which negatively impacts future sales. Minimizing inventory waste starts with close tracking. This is achieved through frequent counting of cycles and the use of a good warehouse and inventory management system. The only thing worse than a problem you know is one you don't know. The sooner you find out about your inventory running out problem, the faster it will be resolved (Max, 2015)

Inventory running can create significant problems for businesses as it can result in lost sales and profits. In fact, the 2016 Homeland Security Survey found that inventory depletion cost companies a whopping \$ 45.2 billion in 2015, also known as inventory turnover, over a defined period of time. Ogbo and Onekanma (2014) agree that inventory levels in your store have an added benefit for the company as customers are instantly satisfied, which translates into a better performance rating. With inventory in its warehouse, a company has the advantage of on-time delivery and stock-outs are inexperienced. Organizations keep inventories for a variety of reasons. Inventories fulfill important functions in the entire production system and since "it is physically impossible and economically impractical that every article inventory arrives exactly where and when it is needed", it is necessary to maintain a certain amount at all times. Transparency in inventory management techniques is absolutely important because it eliminates corruption, the biased procurement process, the acquisition of substandard goods for the organization, this test is extremely expensive (Githui, 2012).

Like any business threat that impacts profitability, inventory depletion can be addressed. The first step in tackling inventory depletion is to identify the cause. The Global Retail Theft Barometer reports that approximately 43% of the inventory depletion between 2013-14 was due to theft by employees, another 37.4% due to robberies in customer stores, 8.9% due to supplier fraud and the remaining involvement due to administrative errors. The exhaustion of inventory in

your company can be something else. It requires an examination to identify the cause so that it can be treated properly.

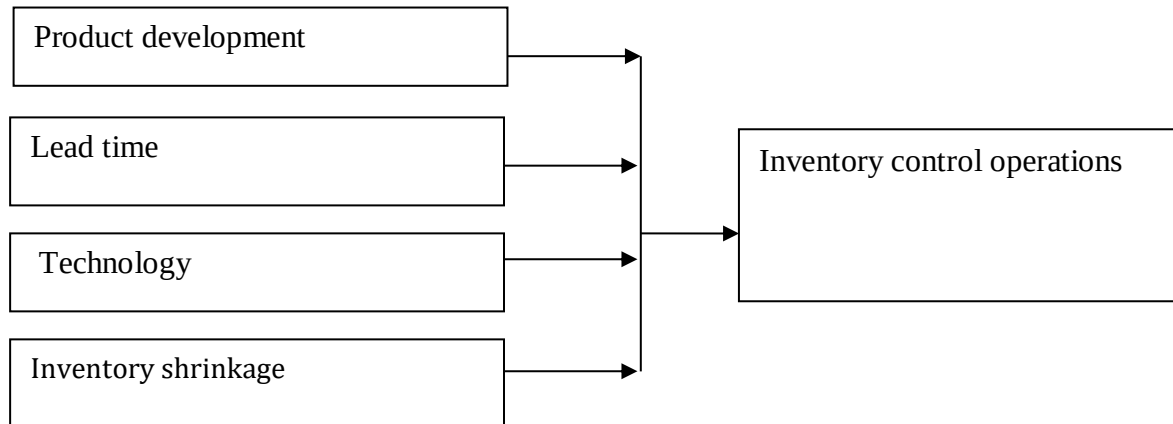
Donne (2015) previously pointed out that employee robbery and theft are one of the main drivers of retail shrinkage. If you can plug the leak internally, you can prevent the vast majority of your inventory from disappearing. This requires staff training and awareness of the collective loss causing each of your individual theft actions. Tackle. Train your employees so they don't use up or misplace inventory. An alternative way to control inventory shrinkage is to assign the inventory accuracy of each warehouse or product to an appropriate employee. Employees can also be trained to reduce inventory drain by finding customers who have shoplifter traits.

Shrinkage in any business is the measure of how much loss is due to as a result of the product disappearing from the store (Gorbett, 2009). The average shrinkage rate in a normal retail environment is between 1.5% and 2 % of total sales (Tracy, 2012). Shrinkage as a percentage of sales may be relatively small but its impact on the bottom line profit of a low-margin industry is significant, especially at a time when there is increased competition and a slowing economy (Deloitte, 2009). According to the study entitled Global Retail Theft Barometer by the Centre for Retail Research (2011) shoplifting, employee or supplier fraud, organized retail crime and administrative errors cost the retail industry \$119 billion in 2011, or 1.45% of sales. According to Centre for Retail Research (2012) in 2010, European retailers' stock loss accounted for €13.4 billion a year or €258 million per week. In Europe, 58% of all profit is lost through shrinkage (Deloitte, 2009). Zipking (2011) supported the fact that the most common type of shrinkage in retail organisations is caused either by customers or employees theft while Gorbett (2009) states that the single biggest cause of shrink is employee theft.

## **2.3 Conceptual Framework**

**Independent variables**

**dependent variable**



**Figure 2. 1 : Conceptual Framework**

## 2.4 Operationalization of variables

**Table 2. 1 : Operationalization of variables**

| <b>Variable</b>     | <b>Indicator</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Measurements</b>   |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Product development | <ul style="list-style-type: none"> <li>• Product idea generation/ innovation</li> <li>• Research and development</li> <li>• Engineering design</li> <li>• Product management</li> <li>• Product Testing Analyst</li> <li>• Product packaging</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Likert type questions |
| Lead time           | <ul style="list-style-type: none"> <li>• time for replenishment</li> <li>• Use a Product Scorecard</li> <li>• Reorder quantity</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Likert type questions |
| Technology          | <ul style="list-style-type: none"> <li>• Improve customer satisfaction</li> <li>• Reduction in time taken</li> <li>• Improved quality</li> <li>• Improve hygiene</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Likert type questions |
| inventory shrinkage | <ul style="list-style-type: none"> <li>• Fencing off and locking the warehouse</li> <li>• Preventing anyone except warehouse staff from entering the warehouse</li> <li>• Instituting bin-level tracking of inventory items</li> <li>• Assigning personal responsibility for inventory accuracy</li> <li>• Improving the accuracy of bill of materials records</li> <li>• Installing an ongoing cycle counting process</li> <li>• Tightly controlling the results of the physical count process, and how adjustments are incorporated into the inventory records</li> <li>• Counting all items when they arrive at the receiving dock</li> <li>• Counting all finished goods when they are shipped from the company</li> </ul> | Likert type questions |

## **2.5 Chapter Summary**

The chapter focused on reviewing the existing literature related to the study. The literature review was therefore focused on the introduction, the theoretical review, the empirical review and the synthesis of knowledge, the research gaps, the conceptual framework and the operationalization of the variables.

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.0 Introduction**

The section contains the operationalization of the study by fronting the design to be used, the population targeted, the instruments and how the data collection is carried out by the researcher and then the research ethics to be used.

#### **3.1 Research Design**

This refers the general design and plan to answer the study's research questions; refers to the general strategy chosen to integrate the different components of the study in a coherent and systematic way, thus ensuring an effective approach to the research problem. The specialist utilized a clear research configuration to complete the investigation. As indicated by Mugenda and Mugenda (2003), a distinct research configuration is characterized as a procedure of gathering information keeping in mind the end goal to answer questions concerning the flow status of the subject in the investigation.

According to Hair (2010), using quantitative methods of study in an empirical research ensures establishment of correlations and cause effect relationship that is important in viability of the constructs. The research design that was adopted for this study was descriptive design that determined the factors influencing inventory control operations in meat processing firms at Kenya Meat Commission. This design enabled the researcher to use quantitative research methods in data collection, analysis and interpretation.

#### **3.2 Target Population**

As indicated by Ngechu (2004), a population is categorized as a set of persons, managements, constituents, and occasions, collecting of things or family components that are being explored. Mugenda and Mugenda (2003) furthermore illustrate the population as that populace which the experts need to sum up the after effects of the finding.

The target population was drawn from the management, inventory department and the general staff of Kenya Meat Commission.

**Table 3. 1 : Target Population**

| <b>Population Category</b> | <b>Target</b> | <b>Percent (%)</b> |
|----------------------------|---------------|--------------------|
| Management                 | 30            | 16                 |
| Inventory department       | 64            | 36                 |
| General staff `            | 86            | 48                 |
| <b>Total</b>               | <b>180</b>    | <b>100</b>         |

**Source: Author 2019**

### **3.3 Sample and Sampling Technique**

A sample is a fixed portion of a statistical population whose properties are considered to gain data about the whole (Webster, 2015 According to Gay (2009) sampling is a system of selecting some of individuals for a study in any such way that the people or elements constitute a larger organization or the population from which they may be selected.

The research used stratified random sampling because it gives all individuals of the target populace a recognized risk of being decided on for inclusion inside the sample and this does not depend on preceding occasions in the selection method. In other words, the selection of people does no longer affect the hazard of anybody else in the population being selected Kumar, (2015). Statistically, so as for generalization to take place, the have a look at sampled 30% of the respondents for discount of sampling errors (Mugenda, mugat and C.k father2013).

**Table 3. 2 : Sample and Sample Technique**

| <b>Population Category</b> | <b>Target<br/>population (N)</b> | <b>Sample<br/>population (n)</b> | <b>Percentage (%)</b> |
|----------------------------|----------------------------------|----------------------------------|-----------------------|
| Management                 | 30                               | 9                                | 17                    |
| Inventory department       | 64                               | 19                               | 35                    |
| General staff `            | 86                               | 26                               | 48                    |
| <b>Total</b>               | <b>180</b>                       | <b>54</b>                        | <b>100</b>            |

### **3.4 Data collection Instruments**

The questionnaires were used to collect data from the respondents. Questionnaires are often used to get important information about the study population and are better suited for this study because the researcher can get answers instantly based on the research objectives and answer the research questions (Mugenda and Mugenda, 2003).

### **3.5 Pilot Study**

#### **3.5.1 Validity**

Validity refers back to the volume to which the studies device measures what it seems to degree according to researcher's subjective assessment (Kumar, 2009). It is the degree to which ends from the evaluation of the information collected constitute the situation below examine (Mugenda and Mugenda, 2003).

In order to test the validity of the questionnaire for use for the study, the researcher administered the questionnaire to five respondents. These respondents as well as their solutions were not a part of the real or actual study though it was the most effectively used for checking out validity functions of the research instruments. After the questions have been responded to, the researcher will request the respondents for any pointers or any necessary corrections to make sure similarly development and validity of the device.

#### **3.5.2 Reliability**

Reliability refers to the consistency or stability of the grades obtained from the tests and assessment procedures. Mugenda and Mugenda (2003) argue that reliability is a measure of the extent to which a researcher's instrument provides consistent results or data after repeated attempts. Ensuring Reliability, Charles (1995) postulates that the consistency with which questionnaires or test items are answered or the individual score remains relatively the same can be determined by the test retest method at two different points in time. In this method, the questionnaire is given to the same group every week as a pilot test and the two results are then compared. The feedback from the pretest participants is used to refine and improve the instrument.



### **3.6 Data Collection Procedure**

The data is collected through a questionnaire. A questionnaire consists of a list of questions about the research area and provides space for respondents to fill in the answers. The questionnaire uses closed and open-ended questions to collect information. Accordingly, using these two types of questions becomes both quantitative as well as quantitative data collected from the respondents. Before the actual survey begins, three research assistants are appointed to support the researcher in processing the questionnaire.

The participants are informed about the project and its objectives and then trained in the administration of the questionnaire on the topic. The questionnaires are prepared and then distributed to the respondents by hand according to the number of samples. The respondents are then given seven days to fill them out. The questionnaires are then compiled for final analysis.

### **3.7 Data Processing and Analysis**

This is the process of compiling, modeling and converting raw data with the aim of marking useful information, proposal, conclusion and decisions of the decision (Kothari, 2001). The purpose of the data analysis will prepare for coarse data in an interpretable design.

A series of Kumar criteria (2005) is proposed to select a suitable statistical technique, two of which are the adequacy of technology on the research question and the properties of the data. This is an investigation that includes the measurement or counting of attributes (ie amounts). The answers of the questionnaires are encoded in terms of the way they are related to a simple statistical package for social sciences (SPSS), use and analysis more efficient and more practical data.

Based on these descriptive statistical criteria, for example. The dimensions of the central tendency will be used in this study. The data is displayed in the frequency tables and the form graphic to summarize the answers to any question.

### **3.8 Ethical Considerations**

Rosenthal (2004) defines ethics in research as a researcher's capacity to accurately describe what occurred. It entails preserving honesty and discipline in doing and reporting scientific research, as well as taking credit for ideas and efforts.

#### **3.8.1 Confidentiality and privacy**

Participants' privacy was respected by conveying them with unique identifier codes to protect their identity and their responses. The study has indiscriminate findings, thus information were not be associated to an individual.

#### **3.8.2 Informed Consent**

Participants were knowledgeable and their permission was obtained for the purposes of this research. The informed consent contained the estimated duration of the research as well as the right of participants to refuse or withdraw at any time during the procedure.

### **3.9 Chapter Summary**

The technique utilized in the research investigation was given in the chapter. The descriptive design was chosen because of the nature of the investigation. The target population, sample size and sampling technique, research instrument, data collecting procedure, and analytic method have all been described.

## CHAPTER FOUR

### RESEARCH FINDING AND DISCUSSION

#### 4.0 Introduction

In chapter four, the data had been analyzed quantitatively. Analysis of data is a process of scrutinizing, transforming, and modeling data with the goal of emphasizing useful information, expressive observations and supporting decision making.

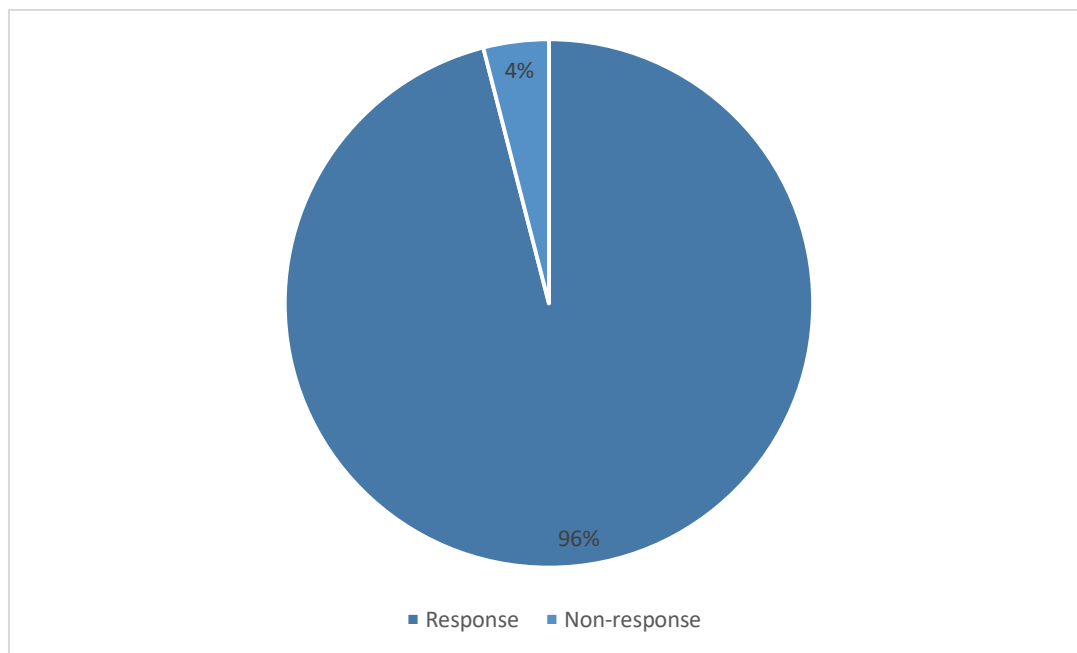
#### 4.1 Presentation of research findings

##### 4.1.1 Response rate

The researcher looked into the exact number of people who took part in the study from the total sample. The results were tabulated in the table as shown;

**Table 4. 1 : Response rate**

| <b>Category</b> | <b>Frequency</b> | <b>Percentage</b> |
|-----------------|------------------|-------------------|
| Response        | 52               | 96                |
| Non-response    | 2                | 4                 |
| <b>Total</b>    | <b>54</b>        | <b>100</b>        |



**Figure 4. 1 : Response rate**

The study indicated that those who responded to the study were 96% while those who did not were 4%. The response rate met the threshold of sufficient rate for the study since it was above 50% of the sampled respondents (Kumar, 2015).

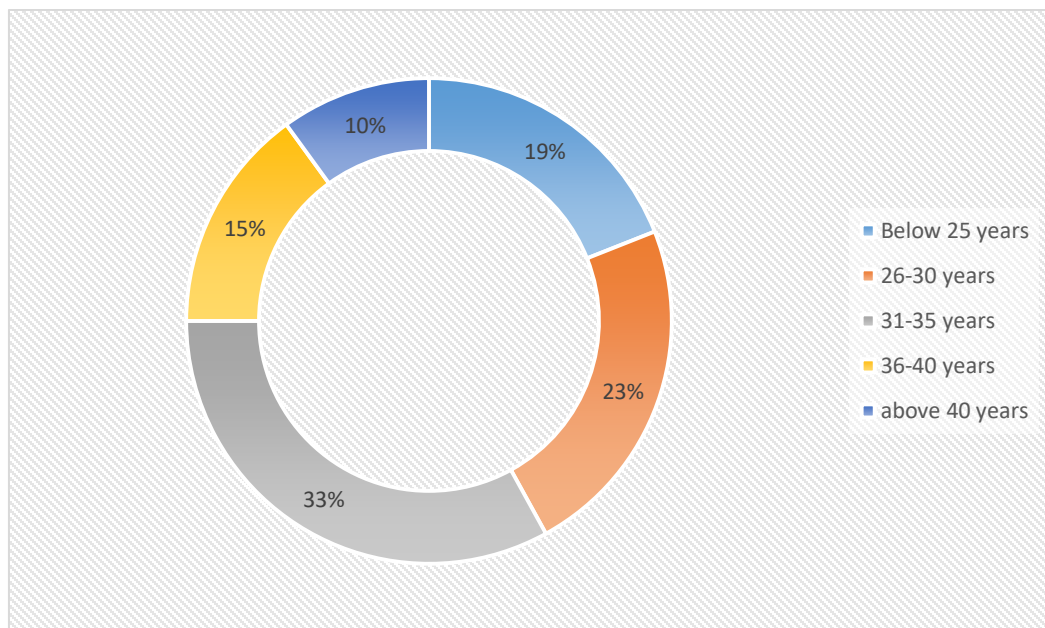
#### **4.1.2 Background information**

##### **4.1.2.1 Age of respondents**

The study aimed at establishing the age of the respondents and the results were tabulated in the table as shown;

**Table 4. 2 : Age of respondent**

| Category       | Frequency | Percentage |
|----------------|-----------|------------|
| Below 25 years | 10        | 19         |
| 26-30 years    | 12        | 23         |
| 31-35 years    | 17        | 33         |
| 36-40 years    | 8         | 15         |
| Above 40 years | 5         | 10         |
| <b>Total</b>   | <b>52</b> | <b>100</b> |



**Figure 4. 2 : Age of respondents**

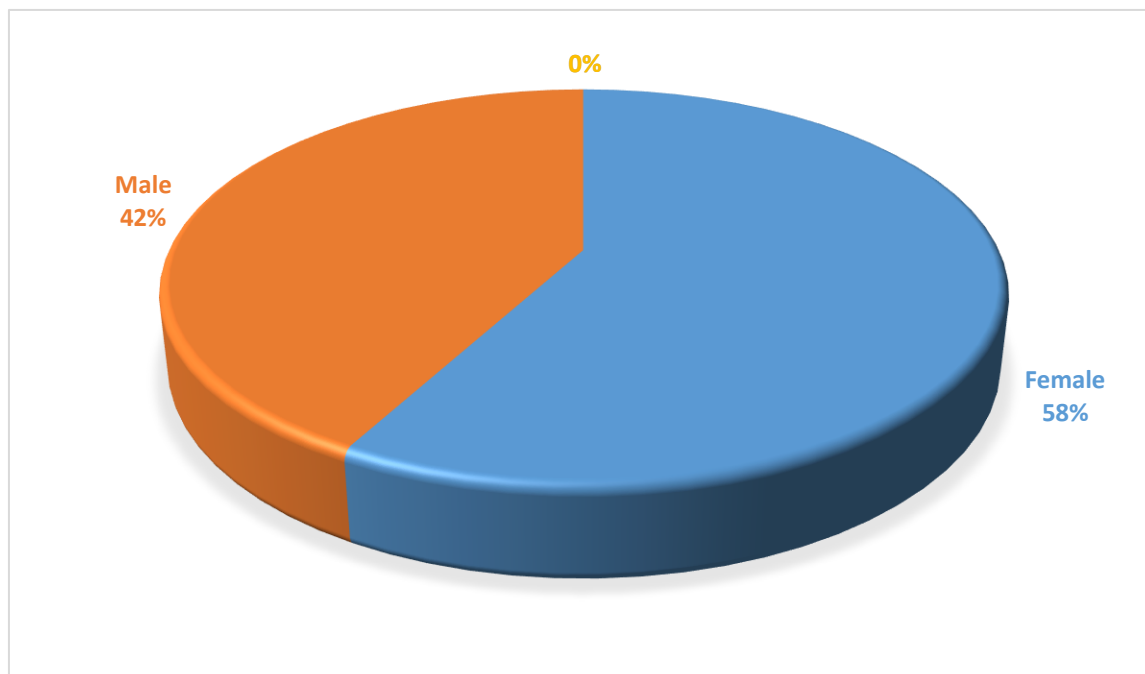
The age of respondents was established to be those below 25 years were at 19%, between 26-30 years at 23%, between 31-35 years at 33%, between 36-40 years at 15% and those above 40 years were at 10%. To ensure an all-inclusive and authentic study, the study's intended age distribution should be reflected (Rubin, 2012). This criterion was met by the research.

#### **4.1.2.2 Gender of respondents**

The study sought to determine the age of those respondents that took part in the study. The findings were presented on the table as shown;

**Table 4. 3 : Gender of respondents**

| Category     | Frequency | Percentage |
|--------------|-----------|------------|
| Female       | 30        | 58         |
| Male         | 22        | 42         |
| <b>Total</b> | <b>52</b> | <b>100</b> |



**Figure 4. 3 : Gender of respondents**

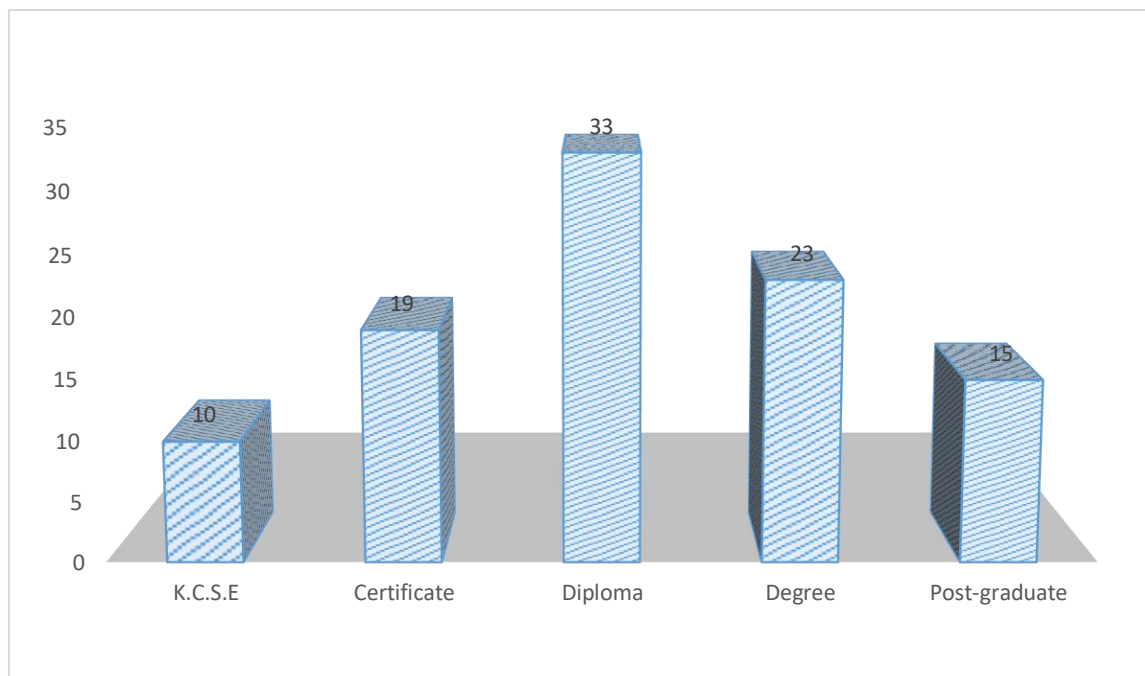
The results indicated that 58% of the respondents were female while the remaining 42% were male. The perception of both gender in the study was important and the study met the 1/3 gender rule in Kenya (Kenyan Constitution, 2010).

#### **4.1.2.3 Academic qualifications**

The academic qualifications of the respondents were sought and the results were tabulated on the table as shown;

**Table 4. 4 : Academic qualifications**

| Category      | Frequency | Percentage |
|---------------|-----------|------------|
| K.C.S.E       | 5         | 10         |
| Certificate   | 10        | 19         |
| Diploma       | 17        | 33         |
| Degree        | 12        | 23         |
| Post-graduate | 8         | 15         |
| <b>Total</b>  | <b>52</b> | <b>100</b> |



**Figure 4. 4 : Academic qualifications**

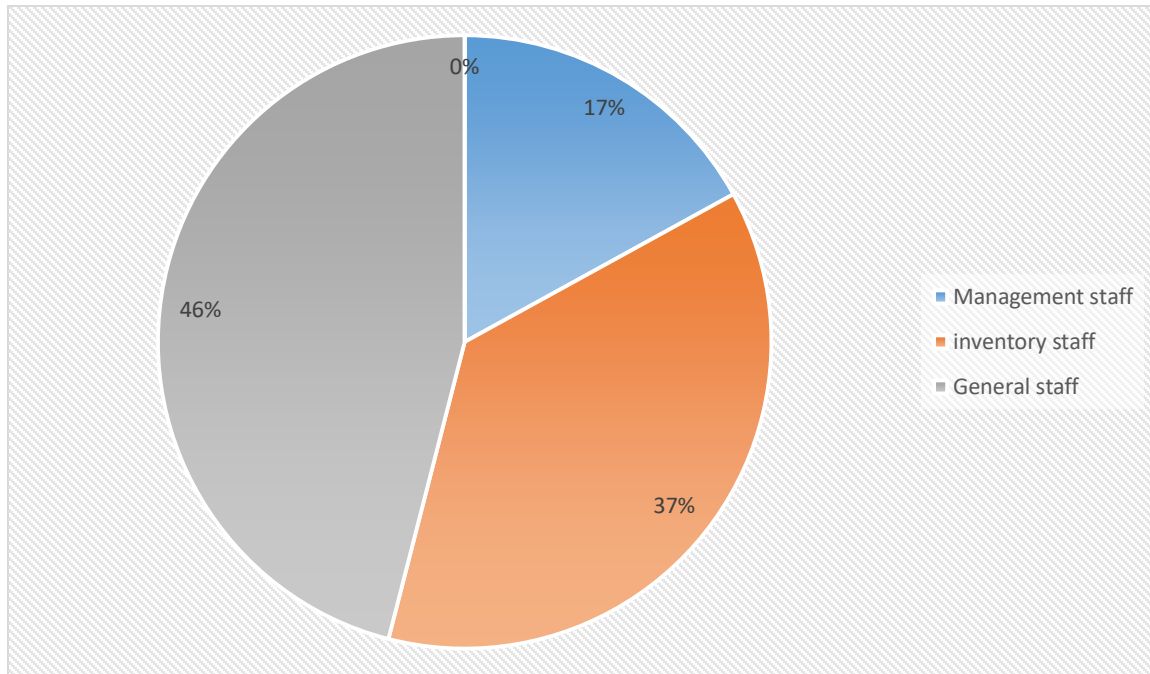
The academic qualifications of respondents was established to be that those with K.C.S.E were at 10%, certificate at 19%, diploma at 33%, degree at 23% and post-graduate at 15%. Measuring of the academic levels of respondents in a study is necessary to indicate the level of professionalism and authenticity of the data obtained from the respondents (Aaker& Day, 2015).

#### 4.1.2.4 Current position

The position that respondents hold in the organization was sought to be determined and the data presented on the table as shown;

**Table 4. 5 : Current position**

| Category         | Frequency | Percentage |
|------------------|-----------|------------|
| Management staff | 9         | 17         |
| Inventory staff  | 19        | 37         |
| General staff    | 24        | 46         |
| <b>Total</b>     | <b>52</b> | <b>100</b> |



**Figure 4. 5 : Current position**

The current position respondents held in the organization was determined to be that management staff were at 17%, inventory staff at 37% and general staff at 46%. The departmental positions were well represented in the study to meet the sought objectives of the study from the positions held. The academic qualifications of the respondents, experience and expertise in a field of interest in the study is crucial in obtaining the relevant information for the study (Parahoo, 2010).

#### **4.1.3 Product development**

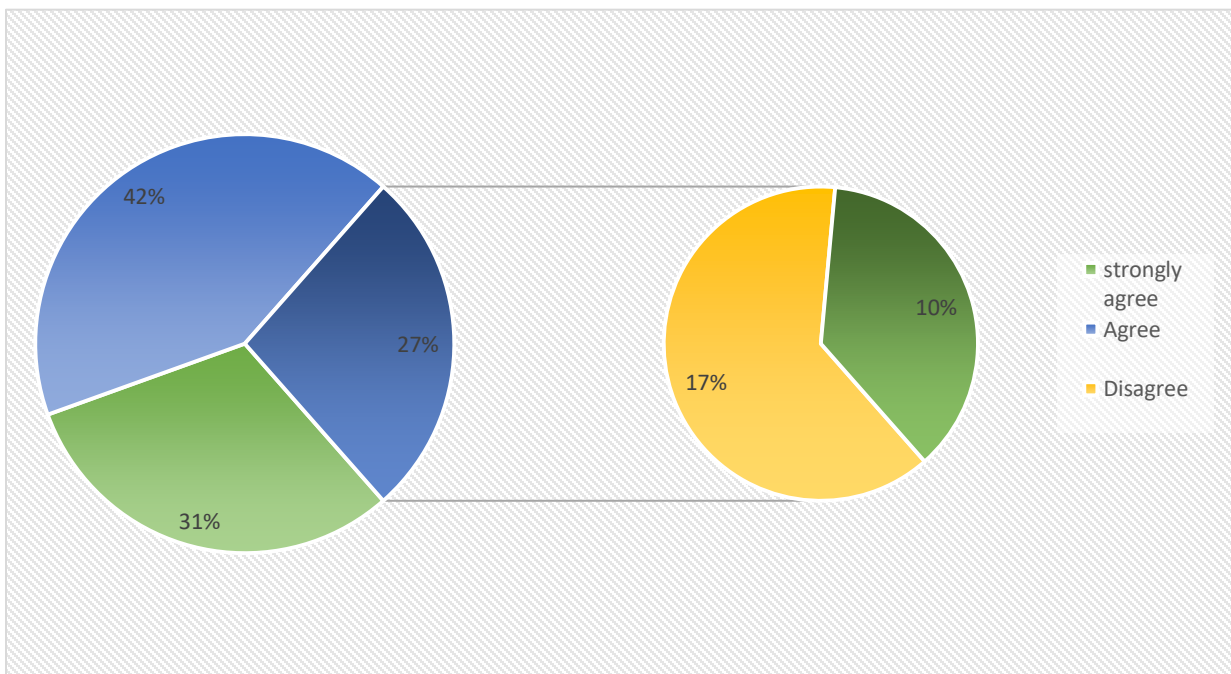
##### **4.1.3.1 Product idea generation on product development**

The researcher's goal was to determine whether Product idea generation helps in product development or not. The data obtained was tabulated on the table as shown;



**Table 4. 6 Product idea generation on product development**

| Category          | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly agree    | 16        | 31         |
| Agree             | 22        | 42         |
| Disagree          | 9         | 17         |
| Strongly disagree | 5         | 10         |
| <b>Total</b>      | <b>52</b> | <b>100</b> |



**Figure 4. 6 : Product idea generation on product development**

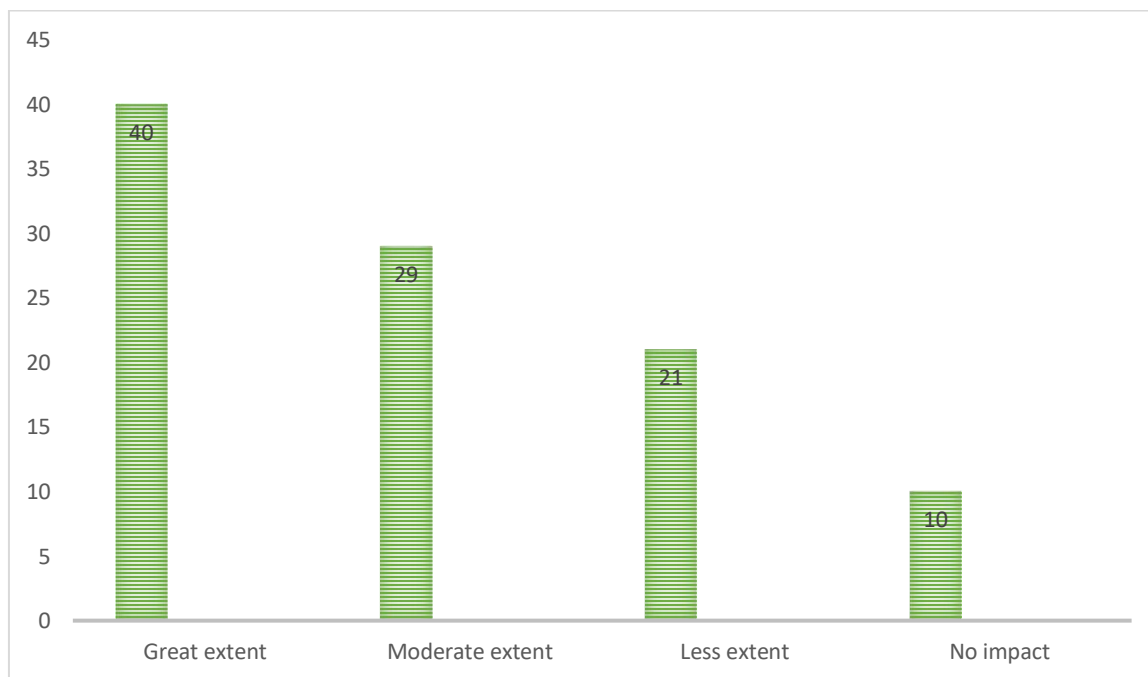
The use of idea generation in organization helps in product development according to 73% who agreed while the remaining 27% of the respondents did not agree.

#### **4.1.3.2 Research and development**

This was to determine the extent at which effective research and development helps in the development of a product in an organization. The findings are shown in the table below;

**Table 4. 7 : Research and development on product development**

| Category        | Frequency | Percentage |
|-----------------|-----------|------------|
| Great extent    | 21        | 40         |
| Moderate extent | 15        | 29         |
| Less extent     | 11        | 21         |
| No impact       | 5         | 10         |
| <b>Total</b>    | <b>52</b> | <b>100</b> |



**Figure 4. 7 : research and development on product development**

The effective research and development was noted to help in product development in an organization to a great extent according to 40%, moderate extent at 29%, less extent at 21% and no impact at 10%.

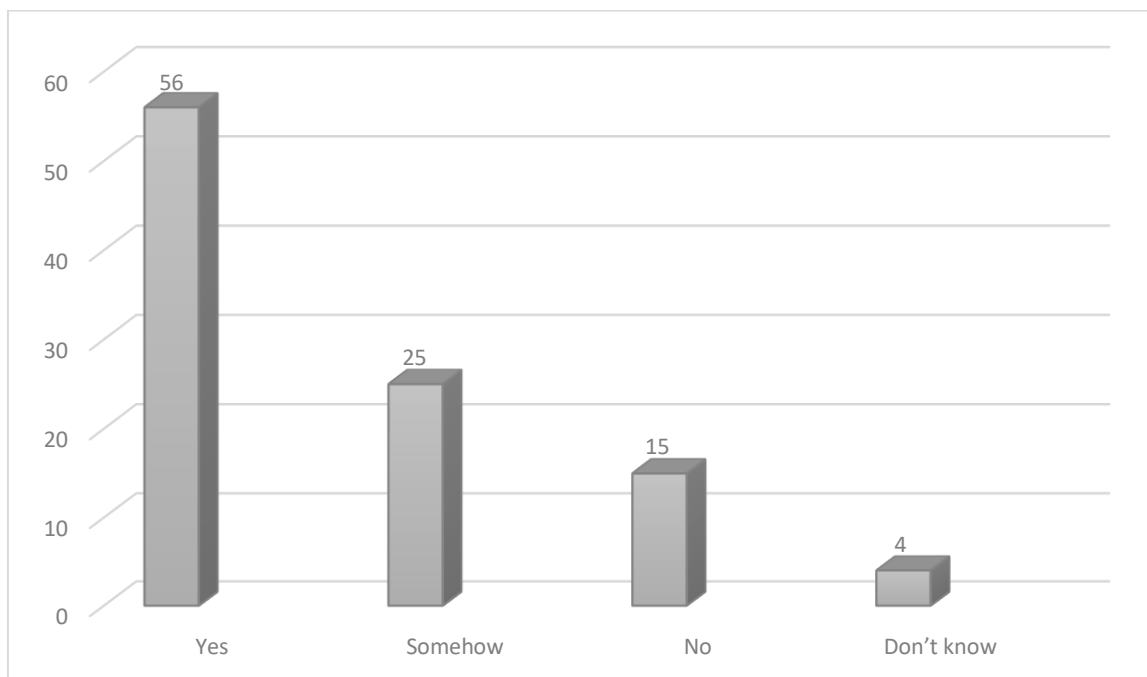
#### **4.1.4 Lead-time**

##### **4.1.4.1 Lead-time on time for replenishment**

The study sought to determine whether lead-time help in determining time for replenishment in an organization or not. The findings were presented on the table as shown;

**Table 4. 8 : Lead-time on time for replenishment**

| Category     | Frequency | Percentage |
|--------------|-----------|------------|
| Yes          | 29        | 56         |
| somehow      | 13        | 25         |
| No           | 8         | 15         |
| Don't know   | 2         | 4          |
| <b>Total</b> | <b>52</b> | <b>100</b> |



**Figure 4. 8 : Lead-time on time for replenishment**

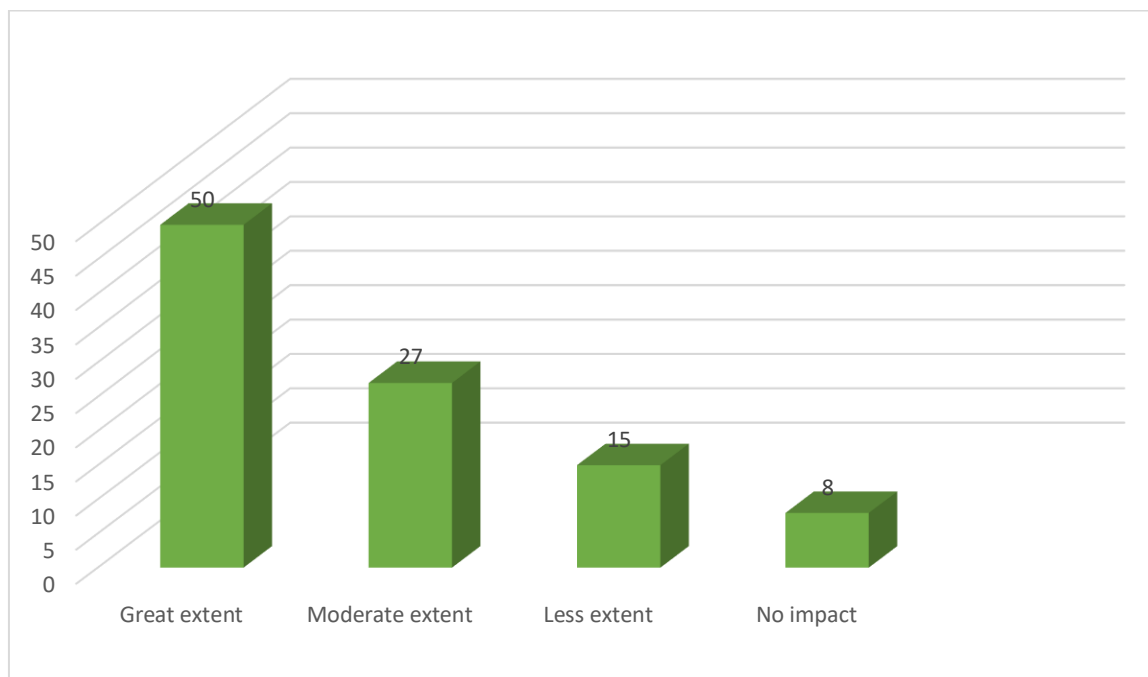
The study established that Lead-time helps in determining time for replenishment in an organization according to 56%, somehow at 25%, no at 15% and don't know at 4%.

#### **4.1.4.2 Lead-time on reorder quantity**

The extent at which Lead-time helps in effectively determining the reorder quantity process was sought and the data presented on the table as shown;

**Table 4. 9 : Lead-time on reorder quantity**

| Category        | Frequency | Percentage |
|-----------------|-----------|------------|
| Great extent    | 26        | 50         |
| Moderate extent | 14        | 27         |
| Less extent     | 8         | 15         |
| No impact       | 4         | 8          |
| <b>Total</b>    | <b>52</b> | <b>100</b> |



**Figure 4. 9 : Lead-time on reorder quantity**

The results indicated that Lead-time helps in effectively determining the reorder quantity to a great extent according to 50%, moderate extent at 27%, less extent at 15% and no impact at 8%.

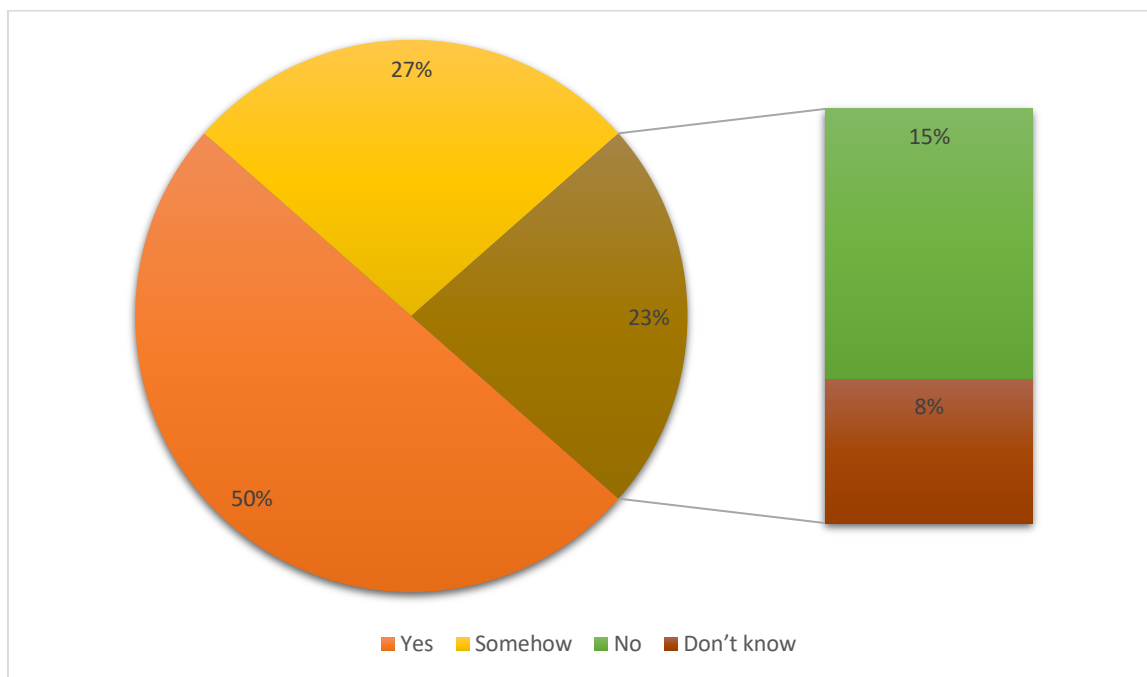
#### **4.1.5 Technology**

##### **4.1.5.1 Technology on improvement of customer satisfaction**

The study aimed at determining whether technology helps in improvement of customer satisfaction in the organization or not and the findings were tabulated on the table shown;

**Table 4. 10 : Technology on improvement of customer satisfaction**

| Category     | Frequency | Percentage |
|--------------|-----------|------------|
| Yes          | 26        | 50         |
| somehow      | 14        | 27         |
| No           | 8         | 15         |
| Don't know   | 4         | 8          |
| <b>Total</b> | <b>52</b> | <b>100</b> |



**Figure 4. 10 : Technology on improvement of customer satisfaction**

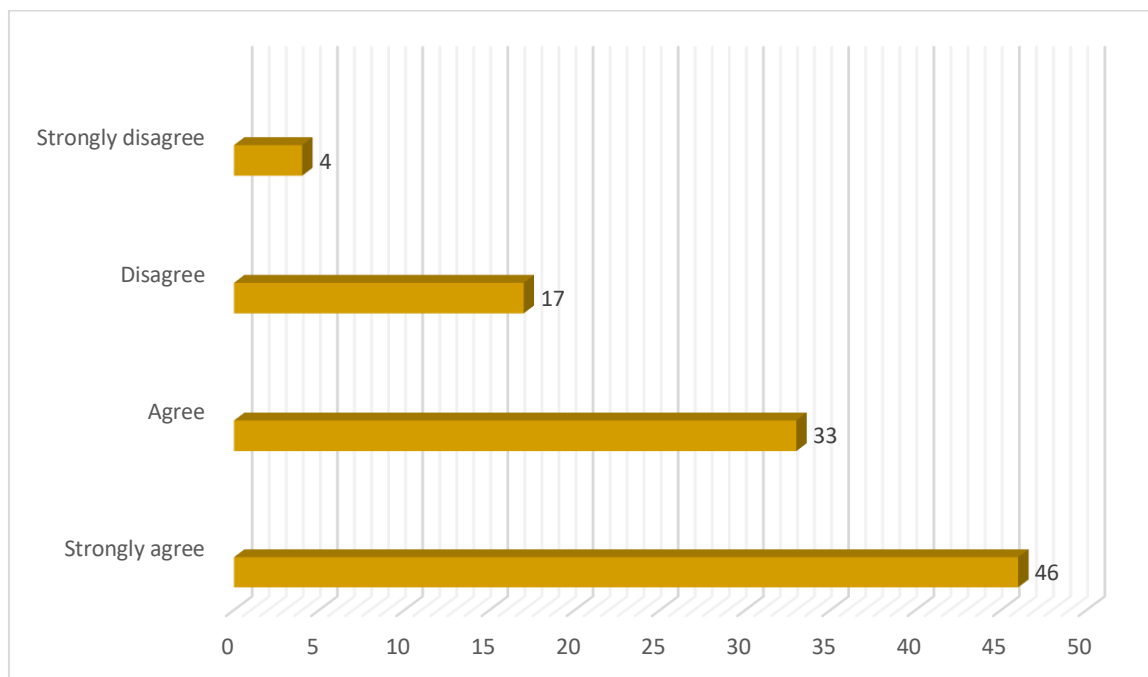
The study noted that technology helps in improvement of customer satisfaction according to 50% of the respondents, 27% for somehow, 15% for no and 8% for don't know.

#### **4.1.5.2 Technology on improvement of product quality**

This was to explore whether technology leads to improvement and modification of product quality or not and the findings were tabulated on the table as shown;

**Table 4. 11 : Technology on improvement of product quality**

| Category          | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly agree    | 24        | 46         |
| Agree             | 17        | 33         |
| Disagree          | 9         | 17         |
| Strongly disagree | 2         | 4          |
| <b>Total</b>      | <b>52</b> | <b>100</b> |



**Figure 4. 11 : Technology on improvement of product quality**

The results established 79% agreed that technology leads to improvement of product quality while 21% did not agree to this.

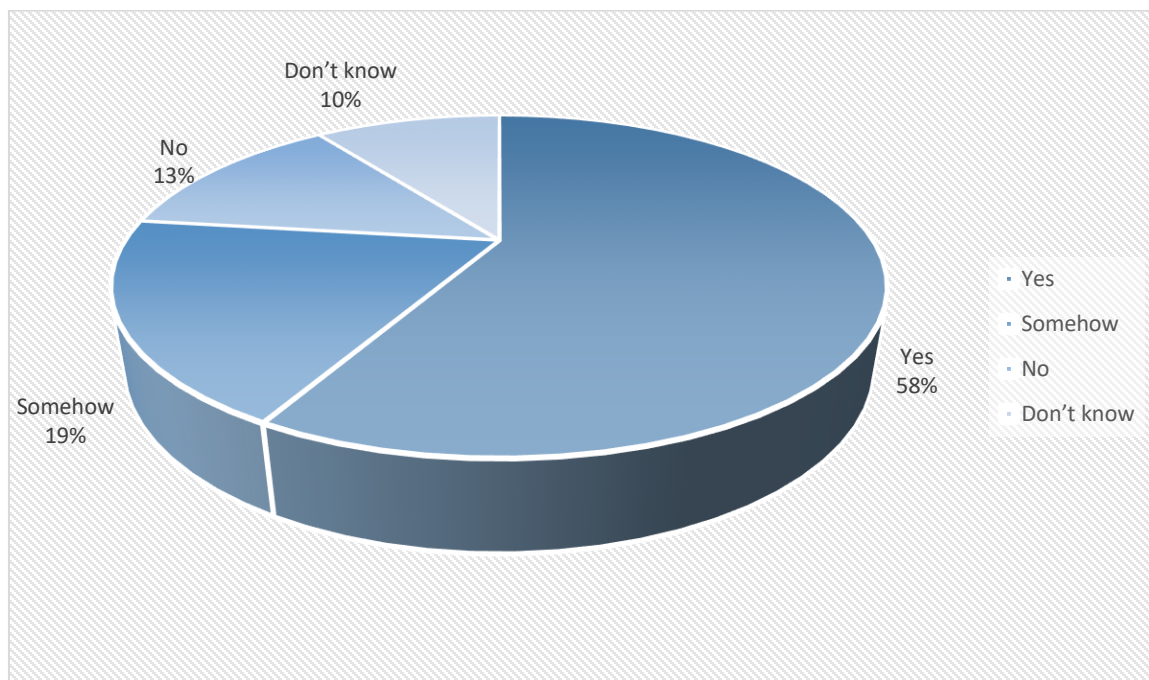
#### **4.1.6 Inventory shrinkage**

##### **4.1.6.1 Inventory shrinkage on assigning personal responsibility for inventory items**

This was to determine whether inventory shrinkage would reduce on assigning personal responsibility for inventory items or not and the findings were presented on the table as shown;

**Table 4. 12 : Inventory shrinkage on assigning personal responsibility for inventory items**

| Category     | Frequency | Percentage |
|--------------|-----------|------------|
| Yes          | 30        | 58         |
| somehow      | 10        | 19         |
| No           | 7         | 13         |
| Don't know   | 5         | 10         |
| <b>Total</b> | <b>52</b> | <b>100</b> |



**Figure 4. 12 : Inventory shrinkage on assigning personal responsibility for inventory items**

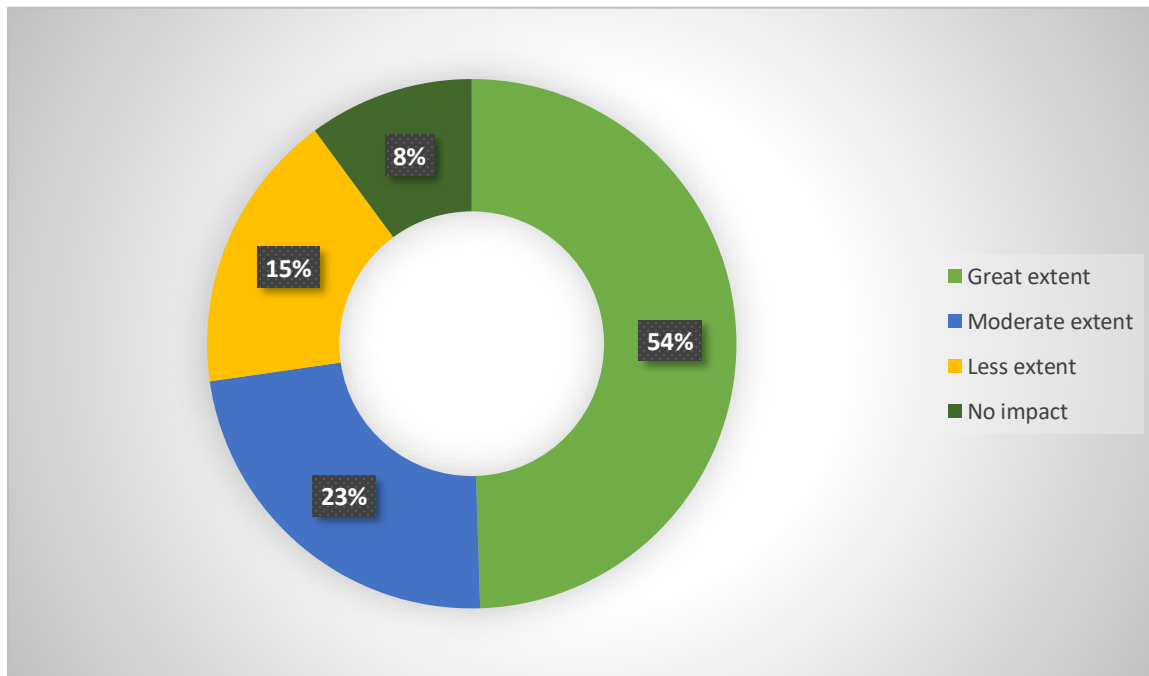
The results postulated that 58% agreed on assigning personal responsibility for inventory items to reduce inventory shrinkage to a large extent, 19% for somehow, 13% for no and 10% did not know.

#### **4.1.6.2 Inventory shrinkage on counting all items when they arrive at the receiving dock**

The researcher sought to establish the extent at which counting of all items when they arrive at the receiving dock will help in minimizing inventory shrinkage and the data was presented on the table as shown;

**Table 4. 13 : Inventory shrinkage on counting all items when they arrive at the receiving dock**

| Category        | Frequency | Percentage |
|-----------------|-----------|------------|
| Great extent    | 28        | 54         |
| Moderate extent | 12        | 23         |
| Less extent     | 8         | 15         |
| No impact       | 4         | 8          |
| <b>Total</b>    | <b>52</b> | <b>100</b> |



**Figure 4. 13 : Inventory shrinkage on counting all items when they arrive at the receiving dock**

The study noted that counting of all items when they arrive at the receiving dock helps in minimizing inventory shrinkage according to 54%, moderate extent at 23%, less extent at 15% and no impact at 8%.



## **4.2 Limitations of the study**

In quest of this study, several limitations were encountered. Some employees did not respond to all of the questionnaire's questions some consumers felt it was a waste of their valuable time, while others saw it as nagging, which reduced their desire to answer all of the questions honestly. This was resolved by developing a better strategy and concentrating all of one's efforts on the pleasant consumers.

The study was limited to Kenya Meat Commission headquarters due to the limited resources available to carry out studies in other several branches. The researcher did not have enough time to have a wider scope of study in other branches and even full day at the Kenya Meat Commission headquarters since the only time available during the study was in the afternoon which was not convenient for some respondents.

## **4.3 Chapter Summary**

The study concentrated on field findings by presenting data from each variable under multiple sub-headings in order to conduct particular explorations. The data was given in clearly labeled tables and graphs, from which an interpretation and some statements were created to clarify the findings for easy analysis in the following chapter.

## **CHAPTER FIVE**

### **SUMMARY, RECOMMENDATIONS AND CONCLUSIONS**

#### **5.0 Introduction**

This chapter presents outline of the findings, conclusions and recommendations based on the findings and suggestions for further research.

#### **5.1 Summary of Findings**

##### **5.1.1 Background information**

The study indicated that those who responded to the study were 96% while those who did not were 4%. The response rate met the threshold of sufficient rate for the study since it was above 50% of the sampled respondents (Kumar, 2015). The age of respondents was established to be those below 25 years were at 19%, between 26-30 years at 23%, between 31-35 years at 33%, between 36-40 years at 15% and those above 40 years were at 10%. To ensure an all-inclusive and genuine study, the intended age distribution for the study should be represented (Rubin, 2012). The study met this threshold. The results indicated that 58% of the respondents were female while the remaining 42% were male. The perception of both gender in the study was important and the study met the 1/3 gender rule in Kenya (Kenyan Constitution, 2010). The academic qualifications of respondents was established to be that those with K.C.S.E were at 10%, certificate at 19%, diploma at 33%, degree at 23% and post-graduate at 15%. Measuring of the academic levels of respondents in a study is necessary to indicate the level of professionalism and authenticity of the data obtained from the respondents (Aaker & Day, 2015). The current position respondents held in the organization was determined to be that management staff were at 17%, inventory staff at 37% and general staff at 46%. The departmental positions were well represented in the study to meet the sought objectives of the study from the positions held. The academic qualifications of the respondents, experience and expertise in a field of interest in the study is crucial in obtaining the relevant information for the study (Parahoo, 2010).

### **5.1.2 Product development**

The use of idea generation in organization helps in product development according to 73% who agreed while the remaining 27% of the respondents did not agree. The effective research and development was noted to help in product development in an organization to a great extent according to 40%, moderate extent at 29%, less extent at 21% and no impact at 10%.

### **5.1.3 Lead-time**

The study established that Lead-time helps in determining time for replenishment in an organization according to 56%, somehow at 25%, no at 15% and don't know at 4%. The results indicated that Lead-time helps in effectively determining the reorder quantity to a great extent according to 50%, moderate extent at 27%, less extent at 15% and no impact at 8%.

### **5.1.4 Technology**

The study noted that technology helps in improvement of customer satisfaction according to 50% of the respondents, 27% for somehow, 15% for no and 8% for don't know. The results established 79% agreed that technology leads to improvement of product quality while 21% did not agree to this

### **5.1.5 Inventory shrinkage**

The results postulated that 58% agreed on assigning personal responsibility for inventory items to reduce inventory shrinkage to a large extent, 19% for somehow, 13% for no and 10% did not know. The study noted that counting of all items when they arrive at the receiving dock helps in minimizing inventory shrinkage according to 54%, moderate extent at 23%, less extent at 15% and no impact at 8%.

## **5.2 Conclusion**

On Product development, the study concluded that the use of idea generation in organization helps in product development. The conclusion determined that effective the effective research and development was noted to help in product development in an organization to a great extent.

On Lead-time, the conclusion was lead-time helps in determining time for replenishment in an organization. It was also concluded that lead-time helps in effectively determining the reorder quantity to a great extent.

On technology, the study noted that technology helps in improvement of customer satisfaction. Also the conclusion was that technology leads to improvement of product quality.

On Inventory shrinkage, the conclusion agreed on assigning personal responsibility for inventory items to reduce inventory shrinkage to a large extent. The conclusion also noted that counting of all items when they arrive at the receiving dock helps in minimizing inventory shrinkage.

### **5.3 Recommendations**

#### **5.3.1 Product development**

In the strategic planning of an organization to enhance inventory control of an organization, Product development should be considered since it's a reliable factor on inventory control. Controlling of the inventory is determined by the effective research and development to help in product development in an organization to a great and therefore this should be considered.

#### **5.3.2 Lead-time**

The organizations carrying out inventory control policy process should consider using lead-time for proper estimation. Since lead-time determines the reorder quantity to a great extent, this should be a priority to organizations in inventory control planning.

#### **5.3.3 Technology**

Competitive advantage of an organization is very important and therefore technology processing should be well effected to achieve this. Also for to improvement of product quality, technology should be given priority effective planning and management.

#### **5.3.4 Inventory shrinkage**

Every organization looks for ways to reduce on the loss of inventory during procurement process and therefore inventory shrinkage should be embraced for effective inventory control. Inventory shrinkage management is of essence especially during the supply chain process and so organizations should effectively follow it since counting of all items when they arrive at the receiving dock helps in minimizing inventory shrinkage.

#### **5.4 Suggestions for Further Studies**

The current study was done in a Kenya meat commission headquarters; similar study can be conducted in the in other counties with many livestock while maintaining same variables. Equally, introduction of a moderating variable can be considered in future studies. The moderating variable can be on leadership and management style. Further studies can also consider evaluating risk management strategies on the financial performance of meat processing companies.

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## **APPENDIX I: LETTER OF INTRODUCTION**

I am a Management University of Africa student. I am obliged to produce a research report on as part of the coursework evaluation on: **FACTORS INFLUENCING INVENTORY CONTROL OPERATIONS IN MEAT PROCESSING FIRMS IN KENYA; A CASE STUDY OF KENYA MEAT COMMISSION.** I would be quite grateful if you could complete the Questionnaire to aid me in collecting data. Your information, along with those of others, will aid me in my research and will be used just for academic purposes; thus, do not include your name on the questionnaire.

I appreciate your consideration in advance.

Yours faithfully

Zeitun Hassan



## APPENDIX I

### Work Plan

| ACTIVITY                         | May<br>2021 | - | June<br>2021 | July<br>2021 | July<br>2021 | - | August<br>2021 | - | September<br>2021 |
|----------------------------------|-------------|---|--------------|--------------|--------------|---|----------------|---|-------------------|
| Proposal<br>writing              |             |   |              |              |              |   |                |   |                   |
| Submission<br>of the<br>proposal |             |   |              |              |              |   |                |   |                   |
| Data<br>Collection               |             |   |              |              |              |   |                |   |                   |
| Data<br>Analysis                 |             |   |              |              |              |   |                |   |                   |
| Report<br>writing                |             |   |              |              |              |   |                |   |                   |

**APPENDIX II**  
**Research Budget**

| <b>ITEMS</b>            | <b>No of UNITS</b>        | <b>COST per UNIT</b> | <b>TOTAL COST</b> |
|-------------------------|---------------------------|----------------------|-------------------|
| Fools caps              | ½ ream                    | 400                  | 200               |
| Pens                    | 10                        | 15                   | 150               |
| Pencils                 | 2                         | 10                   | 20                |
| Rubbers                 | 2                         | 20                   | 40                |
| Rulers                  | 1                         | 20                   | 20                |
| Folders                 | 1                         | 50                   | 50                |
| Flash Disks             | 1                         | 600                  | 600               |
| Proposal writing        | 50 pages                  | 5                    | 250               |
| Project writing         | 70 pages (2)              | 5                    | 700               |
| Proposal Binding        | 50 pages                  | 80                   | 80                |
| Project Binding         | 70 pages                  | 80                   | 80                |
| Questionnaire<br>Copies | 96 copies                 | 5                    | 480               |
| Miscellaneous           | 1 principal<br>researcher | 2000                 | 2000              |
| <b>TOTAL</b>            |                           |                      | <b>4670/=</b>     |

## APPENDICES

### APPENDIX III: QUESTIONNAIRE

#### SECTION A: BACKGROUND INFORMATION

(N.B Answer by Ticking where applicable)

1. Gender

Male ☐

Female ☐

2. Age bracket

18-29 years ☐

30-39 years ☐

40-49 years ☐

50 years and above ☐

3. Academic level

O level ☐

A level ☐

College ☐

Degree ☐

Masters ☐

4. Job experience

Less than 5 years ☐

5-8 years ☐

9-13 years ☐

14-18 years ☐

Above 18 years ☐

5. Position held in the company .....

## SECTION B:

### a. Product development

1. Product development do you think product have impact on inventory control operation in meat processing firm in Kenya

Yes ☐

No ☐

2. How do you rate the information technology in relation to inventory control operation in your firms?

Very high ☐

High ☐

Moderate ☐

Poor ☐

Not at all ☐

3. What stage of product development be taken more seriously in inventory control meat processing

The Idea ☐

Research ☐

Development ☐

Testing ☐

Analysis ☐

Introduction ☐

3. What areas have product development influenced in your firm?

Quantity ☐

Price ☐

Quality ☐

### **Lead time**

1. Do you think information lead time management influences inventory control operation in meat processing firms Kenya?

Yes ☐

No ☐

2. How do you rate the information lead time in relation to inventory control operation in your firms?

Very high ☐

High ☐

Moderate ☐

Poor ☐

Not at all ☐

3. Which after how long should lead time be taken in inventory control meat processing?

Daily ☐

Weekly ☐

Monthly ☐

### **Technology**

1. Do you think information technology influences inventory control operation in meat processing firms Kenya?

Yes ☐

No ☐

2. How do you rate the information technology in relation to inventory control operation in your firms?

Very high ☐

High ☐

Moderate ☐

Poor ☐

Not at all ☐

3. What areas of operation do you think requires modern information technology most?

Stock Checking ☐

Inspection ☐

Storage unit ☐

### **Inventory shrinkage**

1. In your own opinion do you think inventory shrinkage influence inventory control in your firm?

Yes ☐

No ☐

2. Do you think inventory shrinkage do happen in your firm?

Yes ☐

No ☐

3. How do you rate the inventory shrinkage in relation to inventory control in the firm?

Very great extent ☐

Great extent ☐

Moderately ☐

Low extent ☐

Not at all ☐

***Thanks a lot for your cooperation***