

**INFLUENCE OF INVENTORY MANAGEMENT ON
PROCUREMENT PERFORMANCE:
A CASE STUDY COCA-COLA KWANZA– MBEYA PLANT**

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PROCUREMENT PERFORMANCE: A CASE STUDY COCA-
COLA KWANZA– MBEYA PLANT**

By

BEATRICE G. MSHIU

**A Dissertation Submitted in Partial Fulfillment of the Requirements for Award
of the Master of Science in Procurement and Supply Chain Management MSc.
(PSCM) of Mzumbe University**

2019

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommended for acceptance by the Mzumbe University, a dissertation entitled ***Influence of inventory management on procurement performance: a case study of Coca cola Kwanza – Mbeya plant***, in partial fulfillment of the requirements for award of Master of Science in Procurement and Supply Chain Management at Mzumbe University.

Major Supervisor/Dr. Leonarda Mwagike

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Last but not least, I would also like to appreciate everyone else who was a part of this great work in one way or other. Words cannot explain how truly humbled I am for your support and devotion. May God bless you all.

DEDICATION

For my beloved Parents Mr. Gadiel Mshiu & Mrs. Evaresta, My Sister and Brothers, Magreth Anthony, Charles Mshiu and Albert Mshiu for their support towards my education

LIST OF ABBREVIATIONS

ELI	Empirical Leanness Indicator
EOQ	Economic Order Quantity
JIT	Just In Time
ROA	Return on assets
SCT	Strategic choice theory
TCA	Transaction Cost Analysis
WIP	Work In Progress

ABSTRACT

The study assessed the effectiveness of inventory management on procurement performance at Coca cola kwanza Mbeya. The objectives of the study were; to examine the effect of inventory shrinkage on procurement performance, to determine the influence of inventory investment on procurement performance, to assess the influence of order quantity on procurement performance and to determine the relationship between procurement performance and inventory shrinkage, inventory investment and economic order quantity. The study was a quantitative and qualitative research design. Random sampling and purposive sampling technique was used to select 101 respondents in this study. Data were collected from primary and secondary sources by use of structured questionnaire, interviews and documentary review. The findings revealed that there is an idea on inventory management, furthermore the study found that losses resulting from stock theft leads to increased inventory shrinkage and also losses resulting from stock damages leads to increased inventory shrinkage. Capital invested contribute greatly to inventory investment of Coca cola kwanza. It was also found that proper management of cash flow contributes greatly to inventory investment of Coca cola kwanza and that proper procurement/reorder practices contribute greatly to inventory investment of Coca cola kwanza. Shortage costs are influenced by order quantity of materials at Coca cola, ordering costs are high due to poor inventory management practices and the quantity of materials ordered has influence on the storage space of Coca cola. It is concluded that inventory shrinkage has effect on procurement performance, inventory investment has influence on procurement performance, order quantity has influence on procurement performance. It is also concluded that procurement performance has a negative relationship with inventory shrinkage, but positive relationship with inventory investment and order quantity. Owing to the findings researcher recommends the following; Firstly, it is recommended that Coca cola should maintain the way it does inventory management. Secondly, it is recommended that Coca cola kwanza should continue employing workers with better knowledge on procurement basically those working in procurement departments. Thirdly it is recommended that other organizations should emulate the example of Mbeya Coca cola kwanza in order to make better procurement in their organizations.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Inventory management plays a significant role in every company, as any ineffective inventory system leads to loss and sales of customers. An operational inventory management can generate more revenues for the business that have a direct impact on the company's procurement results. It therefore requires an effective inventory management managed by a number of staff who is specialists in this sector. According to Chan et al., (2017), bad stock management that would influence organizational efficiency is the most prevalent issue encountered by the businesses. Chan et al., (2017), also pointed out that it was discovered that insufficient abilities in inventory management prohibited manufacturing businesses from being competitive in manufacturing sectors.

For several reasons, this issue occurs. Some of them are bad documentation or storage records, underproduction, overproduction, storage condition, delay in raw material shipment and inventory discrepancy. The prevalent causes that cause business inventory records to be inaccurate are shrinking inventory, inventory transaction mistakes, and holding inventory in the incorrect location. Shrinking physical inventory implies stolen, damaged, expired, and spoiled the physical inventory. Poor documentation or storage documents can also lead to a lack of procurement, low inventory turnover.

On the other side, underproduction creates inventory out leading to unfulfilled orders or requests, product disruption for sales; bad client relationships and underused machines and machinery dissatisfy clients as a result. Write down anything you want. To paraphrase it, click the Quill It button on the right. Overproduction can result in high cost of storage, obsolescence and stock deterioration, low turnover of inventories and bound up assets. Stock-out scenario leads to loss of sales, discontent with clients, loss of goodwill and reputation, and delayed delivery of products causing manufacturing stoppage and finished products shortage. These lead to a company's bad acquisition results (Pahat et al. 2017)

Effective inventory control management in the organizations should adopt the inventories keeping or control methods and the good procurement performance that suits the best operations. The performance of the company's procurement relies on the many factors, based on sales, marketing, excellent human resources, lower cost of manufacturing, and thus inventory of achievement (Wangari, 2015).

In order to obtain excellent business output, the business must be prepared to generate the greatest profit at the lowest cost, according to (Oballah & Waiganjo, 2015). In terms of planning, the link between inventory management and procurement effectiveness will influence the effectiveness of inventory management by planning items such as the low participation of inventory suppliers in the inventory plan, especially at the design point (Early Supplier Involvement) and provider development, the establishment of maximum and minimum inventory prices and the determination of inventory prices.

Some manufacturing organizations do not follow their organization's inventory policy strictly. Therefore, organizations fail and some of them do not maintain minimum and maximum inventory because they are faced with economic problems and the product's storage costs are high. One of the aims of this study is to understand the link between the decreased inventory and procurement performance (Elsayed & Wahba, 2016).

The reduction of the inventory may sometimes affect the performance of the organization's procurement if the company discovers the loss after physical counting or storage, but on the other hand, the company may discover when the shipping department notifies the procurement department that an order cannot be fulfilled owing to absence of service, even if documents indicate that the products are not (Mukopi & Iravo, 2015).

The shrinkage of the inventory is mostly triggered by theft when it is possible that client or user departments could enter after an hour and perform components of the inventory. The shipping department of the supplier may be mistaken. Warehousing is sometimes one of the causes of the shrinking inventory; even if the company has the large room that inventory can also lose. Fragile products or materials will be broken

from time to time the shipping or stores clerk might drop them, or the forklift driver might knock over an entire case (Koumanakos, 2008).

Pillai, (2010), on the other side, describes that excessive inventories bind working capital and increase the cost of transporting it. In most organizations, as a consequence of the cash assigned to the inventory, direct materials constitute up to half of the complete price of the item, thus influencing the organization's profitability. Historically, however, according to Sander, Matthias, and Geoff (2010), organizations have overlooked potential savings from appropriate stock management, treating stock as a needed evil and not as a management-intensive asset. Many inventory systems are therefore based on arbitrary legislation.

Leeuw, Holweg, & Williams, (2011) inventory management is a key pillar in an organization and should be taken seriously. Some of the products and services required in the country may not be readily available, so it may be necessary to apply global sourcing. As a consequence, inventory management is required to ensure timely delivery and quality standards are observed to encourage the effectiveness of the procurement of the organization. Today Coca-Cola is operating in evolving setting and therefore needs to use fresh strategies and methods to solve the current competition threats based on its client base. The Company strengthens its competitive position by investing in inventory function and thus increases the organization's procurement efficiency by (Leeuw et al., 2011)

It becomes therefore absolutely imperative to efficiently handle inventories in order to prevent unnecessary costs and guarantee a high return rate. Coca-Cola requires adopting the evolving competitive trends in the industry by enhancing inventory management procedures in order to improve its competitiveness. Therefore, based on the above, this research attempted to evaluate the efficacy of Coca-Cola's stock leadership on organizational acquisition performance. Because of all this, the connection exists in the organization's inventory management and procurement performance.

1.2 Statement of the Problem

Inventory management and control problems have existed for a very long time in the procurement function. To enable effective and ongoing activities, a business should hold stocks (Mukopi & Iravo, 2015a). Inventory plays a key role in an organization's procurement function operations. Mukopi & Iravo, (2015a) stated that the operation o requires efficient stock management. Therefore, it is very essential for a company's procurement function to handle its inventory effectively and use all the methods that it sees fit for its sort of business. By doing so, they can reduce overhead costs and boost their customer satisfaction by getting products accessible when the client requires them to improve their procurement function efficiency (Mohamad, Suraidi, Rahman, & Suhaimi, 2016).

A research by Koumanakos, (2008) on the impact on business performance of inventory management showed that the greater the stock level of a business, the reduced the return rate. In this situation, there is a trade in maintaining large stocks and the rate of yields. Research by Wangari, (2015) on the impact of inventory management practices on competitiveness in organizations has shown that inventories are shrinking, inventory investment, and inventory turnover affect an organization's competitiveness. Procurement function performance in relation to an organization's inventory management can be evaluated based on how it manages its inventories.

Some businesses do not handle and regulate their inventory holding, leading in materials being stored under storage, which causes businesses to remain off manufacturing and stock out materials, leading in bad procurement function results. This consequently creates relationship problems between inventory management and the performance of the procurement function. Inventory shrinkage, low inventory investment, and low inventory turnover are some of the issues. Good stock management represents an organization's efficient and effective procurement performance. Shrinking inventory, low inventory investment and turnover indicate bad procurement function efficiency (Mukopi & Iravo, 2015b)

However, a sound inventory management decreases the shrinkage of inventory generates high investment and turnover in inventory. The raw materials are the inventories under research: cane and finished products: brews. Despite excellent inventory management policies and strategies, procurement efficiency in inventory management is still poor and inventory issues are still prevalent in manufacturing (Chan et al., 2017).

Some scientists have attempted to clarify the impact of inventory management on the competitiveness and management practices of organizations by (Elsayed & Wahba, 2016). There is little information about the inventory results of an organization's procurement function. The researcher therefore intends to bridge the gap by conducting research on evaluating the effect of inventory management on the Coca-Cola procurement function outcomes (Pahat, Che-him, & Roslan, 2017).

1.3 Research Objectives

General objective

The general objective of the study was to assess the effectiveness of inventory management on procurement performance, at Coca-Cola.

Specific Objectives

- i. To examine the effect of inventory shrinkage on Procurement performance of the Coca-Cola Kwanza.
- ii. To determine the influence of inventory investment on procurement performance of the Coca-Cola Kwanza.
- iii. To assess the influence of order quantity on procurement performance of the Coca-Cola Kwanza.
- iv. To determine the relationship between procurement performance and inventory shrinkage, inventory investment and economic order quantity

1.4 Research questions

General research question

The general research question of the study was; what is the influence of inventory management on organizational performance, at Coca-Cola Kwanza?

Specific research questions

- i. What is the effect of inventory shrinkage on the procurement performance of the Coca-Cola Kwanza?
- ii. What is the influence of inventory investment on procurement performance of the Coca-Cola Kwanza?
- iii. What are the influence of inventory turnover on performance of the Coca-Cola Kwanza?
- iv. What is the relationship between procurement performance and inventory shrinkage, inventory investment and economic order quantity?

1.5 Scope of the study

This research was carried out for all employees at Coca cola Kwanza in procurement department, logistics department, wholesale, operational division and terminal destinations. The study concentrated on the influence of inventory management on procurement performance. Procurement performance is influenced by a number of factors including proper management of inventory, stores management, and acquisition of right quantity, and right quality materials from right source at a right cost delivery at a right time. Nevertheless, the researcher focused on inventory management as a heart of procurement performance in an organization. Inventory management is determined by inventory investment, inventory shrinkage and economic order quantity. The study's objectives were; examining the effect of inventory shrinkage on Procurement performance of the Coca-Cola Kwanza, determining the influence of inventory investment on procurement performance of the Coca-Cola Kwanza, assessing the influence of order quantity on procurement performance of the Coca-Cola Kwanza and determining the relationship between procurement performance and inventory shrinkage, inventory investment and economic order quantity. The study was conducted at Coca cola Kwanza in Mbeya Plant.

1.6 Significance of the study

The findings of the study are expected to provide knowledge and skills to Coca-Cola on how to manage effectively inventory. Also the study discloses effects of poor inventory management on the performance of procurement function. The recommendations given enable Coca-Cola to take serious measures to reduce or

eliminate problems associated with inventory management. However, the study envisages also providing clear decision making in inventory management of Coca-Cola Kwanza. Finally, the research findings provide well-studied data that can be helpful to scientists in the field of inventory management for scholarly reasons. The research intends to give them helpful data in terms of activities, acquisitions and distribution.

1.7 Limitations and solution of the study

Disclosure of some of the relevant information was not easy. This resulted in a delay in accessing data as it was important to the study. But, provided that all information provided was for study reasons and not otherwise, the investigator ensured the data confidentiality respondent. Limitation of time; the study encounter with time limitation whereby at the same time researcher needed to attend official activities, collecting research information as well as analysis. Therefore, all these should be performed at the same time, hence time be constraints. Bias is another limitation of the study because some respondents fear to give full cooperation protecting their interest as well as their bosses.

1.8 Organization of the dissertation

This research includes five chapters. The first chapter deals with the overview of the study, which includes the introduction, the context of the study, the statement of the problem, the objectives and questions of the research, the significance of the study, and the organization of the study. The second chapter deals with the revision of the literature, the theoretical bases of the study, the empirical studies and the conceptual framework.

The third chapter deals with research methodology that includes introduction, research paradigm, research design and types of measures, data collection, research design, methods and approaches, types of research data, sampling techniques, reliability and validity of data, and data management and analysis. The fourth chapter is devoted to the presentation of the results and the discussion. The chapter presents the summary, conclusion and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter analyzes the literature of studies. The research is organized in the following sections: theoretical framework, empirical review and conceptual framework. The literature has been revised in relation to specific study objectives. The review was based primarily on collected reference materials such as books, published reference materials such as books, journal articles and numerous reports. The review provides an overview of the large inventory management operations previously performed and their impact on the organization's performance.

2.2 Conceptual definition

2.2.1 Inventory

Inventory is a catalog or list of goods or property features or intangible features. These refer to the goods and materials that a business holds in order to sales to the customers for the future use. These inventories include raw materials, ongoing work, spare parts and components and the finished goods (Oballah & Waiganjo, 2015).

2.2.2 Inventory Management

Inventory management relates to all operations involved in the creation and management of inventory concentrations, whether stocks are raw materials, semi-finished materials or large finished goods, therefore, adequate supplies must be accessible on a continuous basis and the form must result in a constant charge of over or below small stocks (Mohamad et al., 2016).

2.2.3 Procurement performance

Agreeing to Weel (2006), Procurement execution is considered to be the result of two components: Obtainment ampleness and acquirement proficiency. Execution gives the premise for an organization to assess how great is it progressing towards it is foreordained goals, recognizes ranges of quality and deficiency and chooses on future exercises with the objective of how to begin execution alter.

2.3 Theoretical Literature Review

2.3.1 Strategic choice theory (SCT)

Strategic decision theory appears to be the link between the organization's top management decisions and results as well as internal and external interactions of organizations. The hypothesis highlights the significance of choices to manage organisational execution (Oballah & Waiganjo, 2015).

Campling & Michelson, (1998), a strategic decision illustrating the interdependence between the organizations and the establishment activities and generally firm execution. The demonstrate point at accomplishing tall execution guidelines in arrange to extend productivity where there are a restricted asset, the hypothesis failed to allow much significance relevant components like setting, innovation and scale of operation, consideration has been given to how organizational structure assists in organizational performance.

Child, (1972) encourages any organization that has supervisors with controls and responsibilities to coordinate and make choices with regard to factors such as stock ventures and the amount of the inventory to be carried out has a important impact on the organizational results as well as the execution of the inventory. SCT argues that the right management choice depends on natural elements such as providers, acquisition and decisions of leadership made by management.

2.3.2 Theory of Economic Order Quantity (Wilson's EOQ Model)

Blackburn (2010) agreed that EOQ is one of the leading models used in many businesses to oversee stock. Fullerton (1999) developed the EOQ model and is also known as the EOQ for Wilson display, which analyzed the show in detail. The use of the demonstration appeared to increase in a few costs as other cost reduction; a demand for expenditures decreased with the inventory property, whereas the ownership cost increases and the related bend expenses stock has at least one point. It is also known as the point of minimizing adding up to inventory expense. EOQ is the minimum inventory standard.

Coleman, (2000) defines the model that is set to minimize fetched adjustments between cost-holding and reordering expenses. Ogbo, (2011) clarified the basic EOQ, presumptions that are essential for calculating EOQ as follows: the price of holding stocks is known and stable; it is a well-known one. The demand rate is known and coherent; the lead time cycle is known and constant; the price per unit is constant; the renewal is made instantly; no stock-outs are allowed to be sent to the complete group at once.

One drawback Of EOQ, it overlooks the need to have buffer stocks that are kept up to cater for varieties in the lead-time and ask to make it difficult to watch in honey. The EOQ demonstrate requires it for everything delivered in the stores, the point of arrangement should be decided which one of the main reasons for making arrangements was a successful toll.

The model assumes that all other factors are consistent indeed in spite of the fact that instabilities are common and standard all trade. For illustration instability incorporates alter in request, damage among transportation and delay in conveyance. Weakness in request will subsequently drive EOQ to be balanced to buffer against dubious commerce climate. Due to instabilities experienced in trade the environment is financially balanced arrange amount is an EOQ show that can be utilized where variance in request may be a common event.

As already famous with regard to the prohibitive suspicions of fundamental EOQ shows, it is ideal situation to fulfill all presumptions. The reality that in most circumstances instability in request appears to be countered, EOQ show should be resolved with this uncertainty.

2.3.2 Empirical Review

An inventory model used by the Economic Order Quantity method has been provided to calculate the optimum order volume Shardeo, (2015), which points out that most businesses do not use EOQ shows as bad effects result from incorrect information input. He said that EOQ is a bookkeeping equation that administers the slightest where the mixture of cost arrangement and cost of inventory is. He describes that the JIT approach would not be in conflict with the EOQ strategy. He assists in highlighting the EOQ equation which includes parameters such as annual use in the unit, arrangement of a toll and transportation of a toll. Finally, he recommends a few measures to be taken after the EOQ demonstration has been updated. This writing's disadvantage is that it does not extend the EOQ-JIT progress connection. He encourages finding a numerical demonstration to help companies choose to move from the EOQ to the JIT approach.

A study by Shardeo, (2015) discovered that most of the highlights shown by the EOQ focus on reducing inventory expenses rather than minimizing stock. It is the perfect condition in which all conditions are fulfilled economically. Superior off to select the JIT over the EOQ since it comes about in buy cost, requesting taken a tax. The limitation of this writing is that he as it were compares the cost saving and required amounts of choosing the system

Esther (2015) discovered that normal inventory management issues experienced by procurement performance are under-production, over-production, stock-out, delay in raw material shipment and inventory discrepancy. Underproduction may cause the stock out circumstance in the event that the security stocks are incapable to meet the advertise requests. Subsequently, the client fulfillment may be influenced and this leads to misfortune of deals. Waters moreover claimed that overproduction is when the generation rate is more noteworthy than advertise request and the bulk of stock is kept within the distribution center.

If the inventories are held in the distribution center, this means that there is an enormous amount of money linked to the inventory. Waters includes that overproduction will offer the high amount of wrapped up products collected in capability, while unsuccessful acquisition results in a high level of raw materials kept in the stockroom, resulting in unavoidable waste within the organization.

Fullerton & McWatters, (1999) found that organizations which outperform their partners perform an enormous standard of JIT stock improves than those who don't utilize the JIT approach. In this way, minimization of waste through a few hones executed such as defensive support programs, set-up time decrease and uniform workloads. The discoveries appear that companies were more beneficial compare to the rivals since of the utilize of JIT procedures.

Eroglu & Hofer, (2011) found out a positive link between an organization performance and inventory management. In lean production practice, stock is considered to be a sort of squander which ought to be decreased is watched to be comparable to quality stock management. This consider brought out that benefit edges are positively influenced by leanness. It moreover shown that firms that accomplish invaluable benefits from leanness are leaner compared to the industry itself. They advance found that the acquirement execution in common is non-linear and positive from the effect of stock leanness.

Cannon, (2008) found that whole organization performance ought to not be measured with the stock performance of the firm. Thus the considered look at absorption of return on resources (ROA) as a performance's estimation and a company's yearly rate alteration in stock turnover as stock administration estimation. He appeared that a terrible result on ROA was qualified due to an enhancement on stock turnover taking under consideration the impacts of time.

A clarification of the sign shown that a few stock turnover advancement associated with progressed ROA whereas other turnover enhancement related with diminished ROA, which shifted transversely from one firm to another relating to the acquirement execution and turnover advancement. Besides he amazingly looked at the turnover-ROA energetic as conceivable inconstancy source by concurring capital

concentrated. From the discoveries, it was uncovered that ROA and the factors did not make any surprising impact on the relationship between ROA and stock turnover advancement. Thus, the study built up that total organization execution isn't related with the organization stock performance.

Mattsson & Jonsson, (2013) discovered that arranging the variables is one of the fundamental elements in maintaining feasible inventory management. Arranging is articulated by Jonsson & Mattsson (2015) as the approach used to monitor and handle the inventory, such as the display request, arrange to maintain the material safety, set the reorder point and handle the inventory. Without the coordination of vendors in inventory arrangement, there will be an increase in the probability of disappointment in anticipating inventory prerequisites in future display applications.

Knudsen (1999) suggested that procurement performance begins by gaining effectiveness and practicality in the acquisition job by asking to alter from being receptive to being proactive in order to attain a component's fixed level of performance.

As indicated by Van Weele & Van Raaij, (2014) Performance attainment is regarded to result from two parts: viability attainment and productivity attainment. Execution provides an association the preface to evaluate how well it progresses towards its predetermined goals, acknowledges districts of characteristics and inadequacies and selects future exercises with the aim of starting performance improvements. This indicates that performance acquisition is not a conclusion in itself, but means management and performance of assessment and efficiency.

Oballah & Waiganjo, (2015) conducted a study on Effect of Inventory Management Practices on Organizational Performance. They found that organizational performance is positively influenced by inventory investment and inventory accounts precision while organizational performance was negatively influenced by inventory shrinkage. By so saying they concluded that the hospital should make sure that wastes caused by inventory shrinkage should be reduced. This can be made possible by making sure that inventory accounts are correctly kept. The hospital need to

manage its inventory investment by ensuring that the right quantity of inventory is kept at all times.

Lwiki, Ojera, Mugenda, & Wachira, (2013) conducted a study on Impact of Inventory Management on the Financial Performance of the firm. In such fast moving and rapid environment, inventory management plays an important role to make a control over the financial statement of the organization. Inventory involves in the whole process cycle of the organization as it starts with the shop floor to the top level management commitment.

Also Mukopi & Iravo, (2015) did a study on analysis of the Effects of Inventory Management on the Performance of the Procurement Function of Sugar Manufacturing Companies. In this study they found that there was a strong relationship between lean inventory systems, strategic supplier partnerships, information technology, legal policies and the effect of inventory management on performance of the procurement function of sugar manufacturing companies in the western sugar belt.

The study by Gitau, (2016) on the effect of inventory management practices on operational performance of warehousing firms in Mombasa county revealed that there was a significant relationship between inventory management practices and operational performance which was shown by a significance level 0.033 as expounded by the three independent variables of inventory management systems, strategic supplier partnerships and information communication technology. Researcher recommended further research on other firms that are not located in Mombasa County and are not in the Warehousing sector.

Another study was conducted by Mohamad, Suraidi, Rahman, & Suhaimi, (2016) on relationship between Inventory Management and Company Performance. His findings indicated that the company had a few inventory problems such as unorganized inventory arrangement, large amount of inventory days / no cycle counting and no accurate records balance due to unskilled workers. The study also

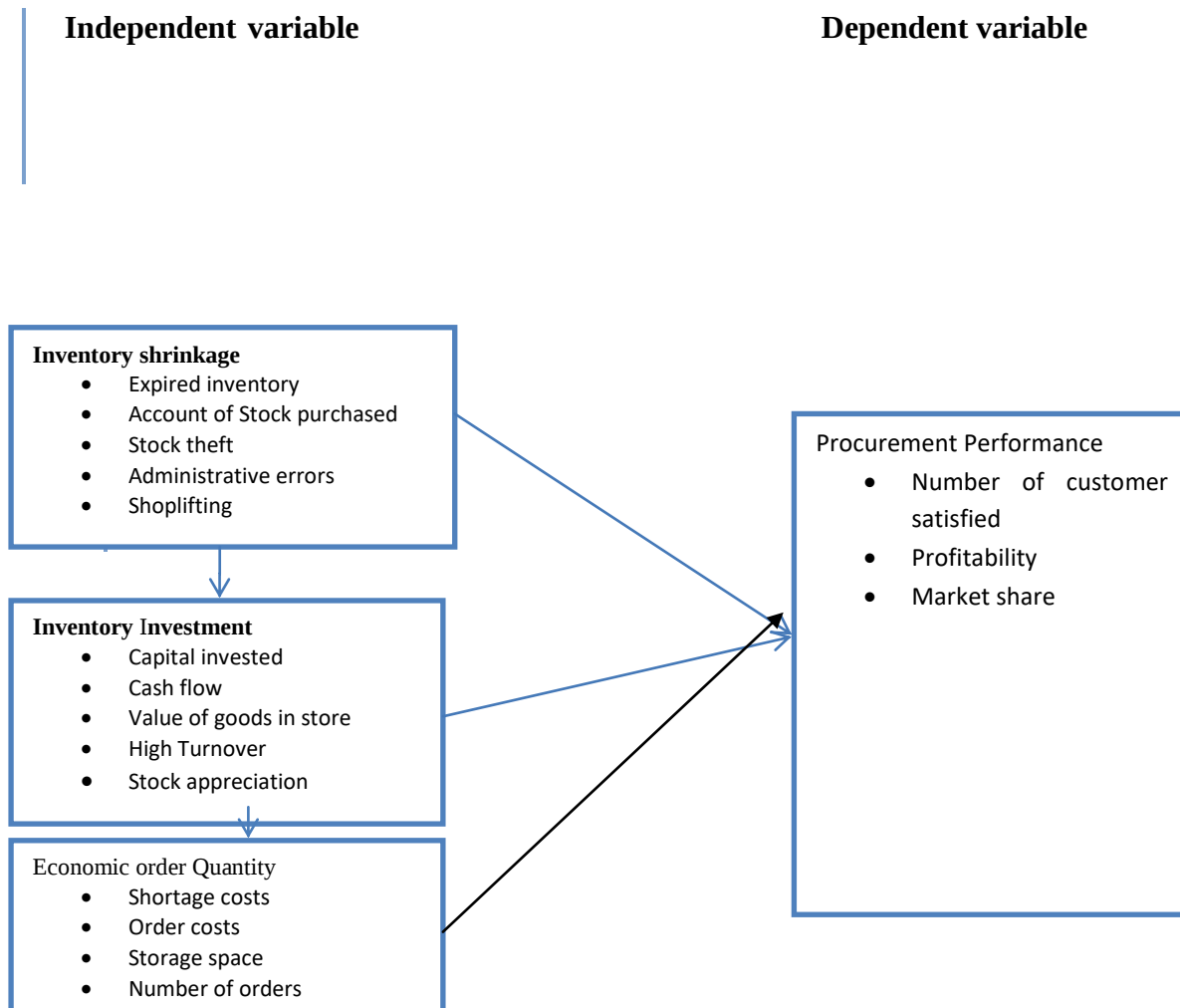
proved that there was a significant relationship between return on asset (ROA) and inventory days.

Wangari, (2015) in the study of influence of inventory management practices on organizational competitiveness found that inventory shrinkage, inventory investment and inventory turnover affects the competitiveness of Safaricom Ltd. He concluded that in order for the company to be competitive inventory management practices are very crucial. This is because, profit maximization are affected by inventory management practices, however, competitiveness of Safaricom is affected by customer satisfaction, market share growth and product quality focusing return on investment, Inventory shrinkage, inventory investment and inventory turnover. To evade holding of more than required inventory that might be a risk to the Company, correct forecast, (supply & demand) should be established. To enhance efficiency the management of Safaricom Ltd needs to streamline its inventory management system. To control different challenges in the Company, Safaricom should consider implementation of a vendor managed inventory to lower occurrences of stock-out situations, rise the levels of customer services and minimize costs due to an increase in inventory turnovers and a decrease in the levels of safety stock and greater transparency in supply chain management.

2.4 The Conceptual Framework

Figure 2.1 below shows the conceptual structure for this study. The model identifies both the autonomous variables and the dependent variables. The direction of the arrows shows how they relate to one another. The concept context describes that inventory management includes minimizing inventory shrinkage, Inventory investment and quantity utilization of the Economic Order resulting in health procurement outcomes reflected in cost reduction, customer satisfaction and high inventory turnover ratio. Further elaborations using the conceptual model framework are as follows.

Figure 2.1: Conceptual Framework



Source: Modified from Wangai (2015)

2.4.1 Inventory Shrinkage and procurement performance

Inventory shrinkage is negative effect of procurement performance resulting from poor and inaccuracy documentation and records of stores. The shrinkage of inventory is a sign of ineffective of the procurement function (Eroglu & Hofer, 2011). A good performing procurement function has accurate stores records and documentation. If the stores records are not properly administered the likelihood of inventory shrinkage is high. Eventually the stocks in hand and the book balances will not match. This does not give credit to procurement function and the organization at large as this signifies a loss to the procurement function and the company as well (Mukopi & Iravo, 2015a). Highly performing procurement function will get rid of inventory

shrinkage hence better company performance. Onekanma & Ogbo, (2014) consent that availability of the store's inventory benefits the organization because customers will be satisfied rapidly causing improvement of performance rating.

With your warehouse inventory, your organisation has the benefit of timely shipment and removal of back orders or stock-out. For a number of reasons, organizations carry inventories and carrying inventory is a needed evil. Inventories perform important tasks in the overall scheme of manufacturing and since "it is physically impossible and economically impossible for each item inventory to arrive exactly where and when it is needed," some inventory must be held at any time. (Koumanakos, 2008).

Transparency in stock administration techniques is completely critical since it kill corruption, one-sided obtainment handle, securing substandard great for the organization that verification to be greatly expensive Githui, (2012). However, keeping inventory is subject to deterioration, pilferage and obsolescence if not properly handle. This may lead to inventory shrinkage hence reduce the inventory turnover ratio and increase the costs to the company hence reducing its efficiency and performance. From these explanations we can associate inventory shrinkage with performance of the organization hence the following hypothesis can be generated.

The result of the effect of inventory shrinkage on procurement performance of works can be measured by looking the records, physical count of the inventory.

Hypotheses: Ho: Inventory shrinkage has negative effect on the performance of procurement function at Coca-Cola

Ha: Inventory shrinkage has no effect on performance of procurement function at Coca-Cola

2.4.2 Inventory Investment and procurement performance

Inventory investment can greatly affect the procurement performance of an organization if there are no inventory management policies in place. Investment in inventory depends on the capital invested, cash flow, and value of goods in store, turnover and stock appreciation (Coleman, 2000). These in turn influence the

performance of procurement function because if the company highly invests in inventory there is a likelihood of satisfying customers, motivating procurement function. On the contrary high investment in inventory may lead to high costs of the company if demands diminish. This may happen because of obsolescence and deterioration of stocks. Therefore, performance of the procurement function will be affected since its objectives of cost reduction and efficient operation will not be achieved (Coleman, 2000).

The targets of stock administration approaches are to reduce stock ventures and to maximize client fulfillment (Lwiki et al., 2013). The primary objective of stock administration is to maximize client benefit and fulfillment through keeping up right sum of stock with least possible cost. Stock costs are costs associated with the operation of a stock framework (Oballah & Waiganjo, 2015). Within the stock management choice, it embraces the norms of selecting what to arrange, has a lot to arrange, when it is necessary and how and where to store in case of constant decisions at each of these levels the other level of selection and the location goal should be supported by achieving the desired amount of customer advantage and achieving the venture inventory target (Wangari, 2015).

When organizations have no outdated and excessive stock, a substantial amount of investment can be spared. Any reduction in these figures may reduce operating costs, and the most critical fees paid owing to inventory being disposed of within the distribution center will also reduce (Van Weele & Van Raaij, 2014). The following hypothesis is provided on the basis of these explanations;

Hypotheses: Ho: There is a relationship between investment in inventory and procurement performance of Coca-Cola.

Ha: There is no relationship between investment in inventory and procurement performance of Coca-Cola.

2.4.3 Order Quantity and procurement performance

Order quantity is related to procurement performance in that if the quantity ordered is bigger than required quantity, there is a possibility of incurring high costs in terms of storage costs, obsolescence, pilferage and theft, redundant stock (Mohamad et al., 2016). Likewise, if the order quantity is smaller than the required problems associated with high ordering costs, stock out and backorders and customer dissatisfaction are likely to happen. All these do not grant effective and efficient performance of the procurement function within an organization because these have negative effect to performance and prosperity of the organization. Too much and too little stocks are symbol of poor performance of procurement function in inventory management (Coleman, 2000). Therefore, for effective performance of procurement function, the quantity order should be that satisfies both customers and organization. The quantity that meets these criteria is the so called Economical Order Quantity (EOQ) which reduces both ordering and holding costs while maintaining and maximizing customers' satisfaction (Coleman, 2000).

Coleman (2002) and Ogbo (2011) define this model as the one ordering amounts that minimize the cost equilibrium between cost-holding inventories and reordering expenses. For each item stored in the stores, the EOQ model requires the point of order and the most cost-effective quantity to order to be determined. The essence of EOQ is to minimize both ordering and carrying costs. Organizations always seek to minimize costs while maintaining the same level of customer service and satisfaction. EOQ embraces these variables through determination in advance of the economical quantity to be ordered at given point of time. Therefore, we can deduce the following hypothesis from the explanations above:

Hypotheses: Ho: The quantity of stock ordered affects the performance of the procurement function at Coca-Cola.

Ha: The quantity of stock ordered does not affect the performance of the procurement function at Coca-Cola.

2.4.4 Relationship between procurement performance and inventory shrinkage, inventory investment and economic order quantity

Procurement performance depends on numerous factors; either depends on sales, marketing, good human resource, less generation cost, tall stock turnover, clients' fulfillment (Bourne & Walker, 2005). This think about centers on one of the factors which are stock management. Stock administration may be a significant portion of an organization since mismanagement of stock undermines an organization capability such as well much stock expends physical space, makes monetary burden, and increments the plausibility of harm, deterioration and loss (Lwiki et al., 2013). To pick up great obtainment performance, the acquirement ought to be able to create the most extreme benefit at the most reduced cost.

2.4.4.1 Relationship between Procurement performance and inventory shrinkage

Procurement performance depends on number of variables; may depend on inventory management, efficient stores management system, procurement practices, timely availability of materials, purchase of right quantity materials, right selection of sourcing, right quality, proper and accurate stores records. For this research, it focuses on one of the variables which is inventory management. Inventory management is an important part of an organization because mishandling of inventory intimidates organization's sustainability such as too much inventory uses physical space, creates financial burden, and increases the possibility of damage, spoilage and loss (Mohamad et al., 2016). To achieve good procurement performance, the procurement function must be able to minimize loss of inventory resulting from inventory shrinkage.

2.4.4.2 Relationship between inventory investment and Economic Order Quantity

EOQ is the model that has been developed to find optimal inventory levels and that must be hold by firms. This also has been agreed by Blackman (2010) among authors EOQ is one of the models widely used to manage inventory in many industries. EOQ model was established by F.W.Haris in 1913 and is also known as Wilson EOQ model, who unsympathetically examined the model in details (Oballah & Waiganjo,

2015). The application of the model has shown rise in some costs as other costs decline, an example of ordering costs decline with the inventory holdings, while holding costs increase and the total inventory associated costs curvature have a minimum point (Oballah & Waiganjo, 2015). It is also known as the point where total inventory costs are reduced. EOQ is the level of inventory that decreases the total of inventory carrying costs and ordering costs (Oballah & Waiganjo, 2015). Hence efficient EOQ improves the inventory investment of an organization as inventories are invested at minimum costs.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the structure of how the study was conducted and organized. The chapter has been organized in various sections as follows section 3.1 is an introduction, section 3.2 explains the study area, section 3.3 describes the design of research, section 3.4 elucidates Sampling Techniques, while section 3.5 explains the unit of analysis, section 3.6 illustrates the data Types and source, section 3.7 explains the methods of collecting data, section 3.8 examine the data reliability and validity and section 3.9 deals with analysis of data.

3.2 Study Area

This study was conducted at Coca-Cola located in Mbeya. The reasons for selecting is Coca-Cola because this company deals with manufacturing, sales and distribution of non - alcoholic fruit, soda and water, and it is one of the most competing companies in the region. For that case it is involved in inventory management under the management of the procurement function. The selection of the area of study highly depended on the effort that Coca-Cola as Company strive to achieve its competitive goal in business relative to other company that face little competitive in a current economic situation basing on the nature of the market base.

3.3 Research Design

A cross sectional study was undertaken where both quantitative and qualitative data was collected parallel from respondents of Coca-Cola Company including at the depots sites.

3.4 Sampling Techniques

The purposive sampling and simple random sampling techniques were employed where Coca-Cola managers and employee respectively were interviewed. The reasons for choosing such techniques is because of the nature of the information which was required to answer the research questions can be easily obtained to obtained to the key informants/respondents who were selected purposively.

3.4.1 Population sample

The population sample of this study included Logistics Manager, Warehouse supervisor, Engineering stores controller, Distribution Manager, Plant Manager, Operation Managers, heads of various department and section. The research contacted other employees in the production units, purchasing units, warehouse, distribution and sales units. Logistics Manager is responsible for managing finished products. Warehouse supervisor is responsible for supervising offloading of empties and loading of full. Engineering stores controller is responsible for controlling maintenance, repair and operating supplies (MRO). Distribution Manager is responsible for managing sales of finished products to distribution centers and outlets.

3.4.2 The Samples size

The data was gathered from the 101 respondents from the plant and depot site such as Plant Manager, Operations managers, Head of the departments, Head of sections, Depot managers (distributors) and Staff. The formula used to calculate the sample size is according to (Pietkiewicz & Smith, 2014) and Smith (2003).

$$n = \frac{(Z_{\alpha/2})^2 P(1 - P)}{\lambda^2}$$

Where

n = Sample size

$Z_{\alpha/2}$ = Z – value

P = Employees of Coca cola kwanza

λ = Maximum error, buy using confidence interval of 95 % for the estimated population maximum error of 5 %

$Z_{\alpha/2} = 1.96$

$P = 8.5\% = 0.085$

$\lambda = 5\% = 0.05$

$$n = \frac{(1.96)^2 \times 0.085 \times (1 - 0.085)}{(0.05)^2}$$

$$N = 100.9$$

$$\approx 101$$

A final sample size was 101 respondents from the above calculation

Table 3.1 The Samples size

S/N	Name of sub-sector	Population	Sample size
1	Plant Manager	1	1
2	Operations Managers (Logistics Manager)	15	10
4	Heads of Sections (Supervisors, team leaders and controllers)	15	10
5	Staffs	45	40
6	Wholesalers	25	20
7	Procurement Department	25	20
	TOTAL	126	101

3.5 Unit of analysis

Unit of analysis in the research was an individual from Coca cola Kwanza who is involved in the day today's operations of the company. An individual was used as a unit of analysis because; the study dealt with influence of inventory management on procurement performance. However, each individual has an insight and attitude on the inventory management on procurement performance different from the other. Hence examining and associating scores of individuals would give information on the influence of inventory management on procurement performance at Coca cola Kwanza.

3.6 Types and source of data

Primary as well as secondary data were collected in this study. Secondary data was used triangulate primary data in order to increase reliability and validity of data.

3.6.1 Primary data

Primary data is Information collected from participants directly involving the creation of new data from current sources (Kombo and Tromp, 2006). Questionnaires and private interviews gathered primary data. Each of these tools for collecting information is explained below.

3.6.2 Secondary data

The collection of secondary data was done by reviewing various published documents such as journals, newspapers, official documents etc.

3.7 Data collection Methods

The researcher used various methods of data collection to get relevant data as per study topic. The data collection techniques used where:

3.7.1 Questionnaire

The questionnaire was chosen because of its adaptability in data compilation because it produces information that is essential to assessment software, especially when closed finished questions are used. As Pietkiewicz & Smith, (2014) noted, in line with this study, a study credits itself as the most outstanding to collect data on diverse dimness of opinions. In addition, open-ended questions allow participants to generate a free assessment of a problem over and over the analyst's various decisions. In any event, the analyst was aware of this strategy's conceivable inadequacies that integrate invalid and zero responses as well as the loss of questionnaires by some of the participants. The Questionnaire were distributed to plant managers, operation managers, head of sections, staffs, wholesalers and procurement department staff.

3.7.2 Documentary review

A documentary review was used to gather and promote secondary data and to provide proof of information gathered from a field research. Review of publications, office documents, pamphlets and other study-related publications constituted secondary data collection sources.

Table 3.2: Methods of data collection

SN	Method	Type of respondents/source of data
1.	Questionnaires	plant managers, operation managers, head of sections, staffs, wholesalers and procurement department staff
2.	Interviews	Coca-Cola managers and employee
3.	Documentary review	Books, articles, office documents, pamphlets and other study-related publications

Source: Researcher (2019)

3.8 Reliability and validity of data

In this study, reliability was enhanced by internal consistency reliability using Cronbach's Alpha. Likewise, Validity in the study was enhanced through; working with the correct target population, use of triangulation of different research approaches (Qualitative and quantitative) and tools of collecting data: (Questionnaire and Interviews). Validity relates to the capacity to measure what is intended to be measured by a scale or instrument or study instrument. It's the extent to which we want to evaluate a test (Msabila & Nalaila, 2013). Reliability and validity are two factors that each qualitative scientist must be concerned with when developing, analyzing and evaluating the study quality.

Presenting the information without misrepresenting its message, making data-sustainable statements, avoiding incorrect data reporting (technical mistakes or orthographic mistakes), ensuring that the study issues are answered, releasing study results that are neither too early nor too late (Cohen *et al.*, 2007).

A pilot research aimed at their validity and reliability for the ten randomly chosen participants screened the interview manual and questionnaire. Saunders, Lewis, & Thornhill,(2003) stipulate that there should be adequate amount of individuals for the pilot test.3.8 Performance Indicators.

3.9 Data Analysis

After collecting data from the field Coca-Cola, the data was analyzes descriptively which means analyzing through tables, figures, graphs, percentages and diagrams with regard to the information obtained from the field. Qualitative and quantitative techniques were used because they complement each other and Statistical Package for Social Science (SPSS) version 25.0 was used for data entry and analysis where applicable. Data was organized and analyzed for the purpose of answering earlier formulated research questions in relation to the research problem and linkage with research objectives.

The analysis of the data involved descriptive, statistical and qualitative analysis. The tabular form and histogram/pie chart and percentage were used. This approach was adopted in order to make the report comprehensive and understandable.

3.8.3 Multiple regression analysis

Multiple regressions were used to analyse data and determine relationships between variable.

In the above conceptual framework as stated earlier the dependent variable is the procurement performance. The independent variables are inventory shrinkage, inventory investment and economic order quantity. In order to examine the relationship between dependent variable and the independent variables regression was done

$$PP = \beta_0 + \beta_1 IS + \beta_2 II + \beta_3 EQ + \epsilon$$

The meaning of the symbols above is as follows;

PP = Procurement performance

IS = Inventory shrinkage

II = Inventory investment

EQ = Economic order quantity

The Likert scale was used in the measurement of those variables in which the range of values was set as follows; 1 = strongly agree; 2 = agree; 3 = neutral; 4 = disagree and 5 = strongly disagree. This means that procurement performance was coded with the Likert scale values ranging from 1 to 5 then respondents were to choose. In the same manner inventory shrinkage, inventory investment as well as economic order quantity were also coded with Likert scale values ranging from 1 to 5 of which respondents were to choose.

CHAPTER FOUR

PRESENTATION OF THE FINDINGS AND DISCUSSION

4.0 Introduction

This chapter presents respondents' characteristics, effect of inventory shrinkage on procurement performance of the coca cola kwanza, the influence of inventory investment on procurement performance of the coca cola kwanza as well as the impact of order quantity on procurement performance of the coca cola kwanza.

The presentation, analysis and discussion of data is structured in five (5) main sections: Section 4.1 presents and discusses on the effect of inventory shrinkage on procurement performance of the Coca cola kwanza where ten propositions are included in this section; Section 4.2 describes the influence of inventory investment on procurement performance of the Coca cola kwanza, in this section five propositions were discussed; Section 4.3 explains the influence of order quantity on procurement performance of the Coca cola kwanza, in this section four propositions were elucidated; section 4.4 Relationship between procurement performance, inventory shrinkage, inventory investment and economic order quantity. section 4.5 provides the summary of the chapter.

4.1 The effect of inventory shrinkage on procurement performance of the Coca cola kwanza

The first objective aimed at examining the effect of inventory shrinkage on procurement performance of the coca cola kwanza. To accomplish this goal, the researcher evaluated the following; first, the investigator wished to understand if respondents have an idea on inventory management. Responses were as follows; 21.8 percent strongly agreed that they have idea on inventory management, 48.5 percent agreed, 23.8 percent were neutral and 5.9 percent of the respondents disagreed (see Table 4.1). These findings show that the majority of respondents have idea on inventory management. This implies that Coca cola kwanza has a good chance having effective inventory management which will lead to good procurement performance, as awareness of employees in inventory management is a way to proper management of inventories.

Table 4.1: Idea on inventory management

Likert scale	Frequency	Percent
Strongly agree	22	21.8
Agree	49	48.5
Neutral	24	23.8
Disagree	6	5.9
Total	101	100.0

Source: Field data, 2019

Secondly Researcher wished to understand if losses caused by stocks Expiration resulted in improved declining inventory. Responses were as follows; 32.7% of participants highly agreed that losses resulting from expiration of stocks lead to increased stock decrease; 25.7 percent agreed, 38.6 percent of the respondents were neutral and 3 percent of the respondents disagreed (see Table 4.2). According to these findings most of the participants were neutral however when combining the number of people who strongly agreed and those who simply agreed we find that the large number concur the losses that result from stocks expiration leads to increased inventory shrinkage. This was supported by Gitau, (2016) who said that a greater number of inventory shrinkage is attributed by stocks deterioration, obsolete and expiration which make some stocks reduce in quantities. Hence, the study found the number of stocks expiring contributes much to the loss of stocks or inventory, hence decrease in stocks.

Table 4.2: Losses resulting from stocks expiration leads to increased inventory shrinkage

Likert Scale	Frequency	Percent
Strongly agree	33	32.7
Agree	26	25.7
Neutral	39	38.6
Disagree	3	3.0
Total	101	100.0

Source: Field data, 2019

Thirdly, the Researcher wished to understand if the coca cola kwanza experience would usually expire at the end of the year. The answers were as follows; 51.5 percent of the respondents strongly agreed that coca cola kwanza experience expired inventory at the end of the year, 23.8 percent of the respondents agreed, 7.9 percent of the respondents were neutral, 13.9 percent of the respondents disagreed and 3 percent of the respondents strongly disagreed (see Table 4.3). The majority of the respondents admit that coca cola kwanza experience expired inventory at the end of the year. This implies that Coca cola Kwanza does conduct annual stock taking which reveals the expired inventory. This is contrary to the study by (Koumanakos, 2008) who said that in order to identify stock losses resulting from expired inventories regularly stocks check should be conducted.

Table 4.3: Normally Coca cola kwanza experience expired inventory at the end of the year

Likert scale	Frequency	Percent
Strongly agree	52	51.5
Agree	24	23.8
Neutral	8	7.9
Disagree	14	13.9
Strongly disagree	3	3.0
Total	101	100.0

Source: Field data, 2019

Fourthly, researcher wanted to know whether inventory management in the company affects the performance of the procurement function. Responses were as follows; 53.5 percent of the respondents strongly agreed that inventory management in the company affect the performance of the procurement function, 36.6 percent of the respondents were agreed and 9.9 percent of the respondents were neutral (see Table 4.4). The findings show the majority admit that inventory management in the company affects the performance of the procurement function.

This was in agreement with Shardeo, (2015) who opined that the proper inventory management plays an important role to create a control on the financial performance

of the firm. Inventory contains in the entire process cycle of the organization since it commences with the shop floor to the high level management commitment. Hence the findings implies that there a great effects of management of inventories over the performance of an organization.

Table 4.4: Inventory management in your company affect the performance of the procurement function

Likert scale	Frequency	Percent
Strongly agree	54	53.5
Agree	37	36.6
Neutral	10	9.9
Total	101	100.0

Source: Field data, 2019

Fifthly researcher wanted to know whether the stock purchased are accurately checked, recorded and accounted for at Coca cola kwanza. Responses were as follows; 28.7 percent of the respondents strongly agreed that the stock purchased are accurately checked, recorded and accounted for at Coca cola kwanza, 53.5 percent agreed, 15.8 percent were neutral and 2 percent of the respondents disagreed (see Table 4.5). To the majority of the respondents agreed the stock purchased are accurately checked, recorded and accounted for at Coca cola kwanza.

Table 4.5: The stock purchased are accurately checked, recorded and accounted for at Coca cola Kwanza

Likert scale	Frequency	Percent
Strongly agree	29	28.7
Agree	54	53.5
Neutral	16	15.8
Disagree	2	2.0
Total	101	100.0

Source: Field data, 2019

The table 4.5 above implies that Coca cola Kwanza do have a proper record and account system of inventory. Effective inventory records and checks ensure elimination of stocks shrinkage and deterioration. This can be concluded that procurement function do perform its function well as the result of proper management of inventory. This was in line with the study conducted by Lwiki et al., (2013) who agreed that correct inventory checks and records minimize inventory shrinkage and deterioration.

Sixth, researcher wanted to know whether losses incurred due to stock obsolesces leads to increased inventory shrinkage. Responses were as follows; 40.6 percent of the respondents strongly agreed the losses that result from stock obsolesces leads to increased inventory shrinkage, 44.6 percent of the respondents agreed, 5.9 percent of the respondents were neutral and 8.9 percent of the respondents disagree (see Table 4.6). According to the majority of the respondents it is evidenced the losses that result from stock obsolesces. This leads to enhanced shrinking of the inventory.

Table 4.6: Losses resulting from stock obsolescence leads to increased inventory shrinkage

Likert scale	Frequency	Percent
Strongly agree	41	40.6
Agree	45	44.6
Neutral	6	5.9
Disagree	9	8.9
Total	101	100.0

Source: Field data, 2019

From the table 4.6 above it is evident that stock obsolescence can cause increased inventory shrinkage. This happens so because the number of stocks kept is reduced by the obsolete materials. Increased inventory shrinkage affects the performance of an organization. This was agreed by Oballah & Waiganjo, (2015) that organizational performance is positively influenced by inventory investment and inventory accounts precision while organizational performance was negatively influenced by inventory

shrinkage. They concluded that an organization should make sure that wastes caused by inventory shrinkage are reduced.

Seventh, Researcher wanted to understand if stock theft losses lead to enhanced inventory shrinking. Responses were as follows; 30.7 percent of respondents strongly agreed that losses resulting from stock theft leads to increased inventory shrinkage, 40.6 percent of the respondents agreed, 24.8 percent of the respondents were neutral and 4 percent of the respondents disagreed (see Table 4.7). To the majority losses resulting from stock theft obviously leads to increased inventory shrinkage.

Table 4.7: Losses resulting from stock theft leads to increased inventory shrinkage

Likert scale	Frequency	Percent
Strongly agree	31	30.7
Agree	41	40.6
Neutral	25	24.8
Disagree	4	4.0
Total	101	100.0

Source: Field data, 2019

This implies that theft of stocks can result into losses of the material/stocks hence cause inventory shrinkage. Inventory shrinkage affects the performance of the procurement function as well as the organization.

Eighth the investigator wanted to understand if bad stock records contribute to bad procurement results in coca cola kwanza. Responses were as follows; 26.7 percent of the respondents strongly agreed that poor record keeping of stocks contributes to poor performance of procurement function at Coca cola kwanza, 38.6 percent of the respondents agreed, 27.7 percent of the respondents were neutral, 4 percent disagreed and 3 percent strongly disagreed (see Table 4.8). According to most participants, bad stock record keeping leads to bad results of Coca cola kwanza's acquisition feature.

Table 4.8: Poor record keeping of stocks contributes to poor performance of procurement function at Coca cola kwanza

Likert scale	Frequency	Percent
Strongly agree	27	26.7
Agree	39	38.6
Neutral	28	27.7
Disagree	4	4.0
Strongly disagree	3	3.0
Total	101	100.0

Source: Field data, 2019

The findings from the table above indicates that poor records of inventory does not give a credit to procurement function and organization as a whole, this is because poor inventory records can results to loss of stocks, stocks shrinkage problems and poor performance of organization.

Ninth, researcher wanted to know whether high costs are incurred because of errors made in stock records at Coca cola kwanza. Responses were as follows; 31.7 percent of the respondents strongly agreed that high costs are incurred because of errors made in stock records at Coca cola kwanza, 57.4 percent of the respondents agreed, 6.9 percent of the respondents were neutral and 4 percent disagreed (see Table 4.9). To the majority it is clear that high costs are incurred because of errors made in stock records at Coca cola kwanza.

This shows that improper stocks record can make an organization incur high costs; this is not a good thing to an organization. Hence there should be a vibrant inventory record system to ensure inventory records is efficiently done to minimize the losses and costs resulting from errors in records.

Table 4.9: High costs are incurred because of errors made in stock records at Coca cola Kwanza

Likert scale	Frequency	Percent
Strongly agree	32	31.7
Agree	58	57.4
Neutral	7	6.9
Disagree	4	4.0
Total	101	100.0

Source: Field data, 2019

Tenth, researcher wanted to know whether losses incurred due to stock damage leads to a decline in inventory. Responses were as follows; 56.4 percent of the respondents strongly agreed the losses that result from stock Damage results in increased shrinking inventory, 37.6 percent of the respondents agreed and 5.9 percent of the respondents were neutral (see Table 4.10). According to these findings it has been admitted that losses resulting from stock damages leads to increased inventory shrinkage. This portrays that stock harm is not a think to be entertained in an organization. There should be a mechanism for safe custody of the inventory, receiving and issuing of stocks. This will helps to minimize losses due to damages of inventory which eventually will eliminate inventory shrinkage.

Table 4.10: Losses resulting from stock damages leads to increased inventory shrinkage

Likert scale	Frequency	Percent
Strongly agree	57	56.4
Agree	38	37.6
Neutral	6	5.9
Total	101	100.0

Source: Field Research data, 2019

The interview with plant manager to know how inventory shrinkage affects the procurement performance of the company revealed that in a number of ways such as losses resulting from stock expiration, expired inventory at the end of the year, losses resulting from stock obsolesces, losses from stock theft as well as losses resulting from stock damages. This was as quoted below;

“...actually inventory shrinkage affects the procurement performance here in a number of ways. Such ways to mention a few include losses resulting from stock expiration, expired inventory at the end of the year, losses resulting from stock obsolesces, losses from stock theft as well as losses resulting from stock damages. However, we are trying our level best to do our best in making sure that we avoid inventory shrinkage...”

The first objective aimed at examining the effect of inventory shrinkage on procurement performance of the coca cola kwanza. The critical examination found out that there is an idea on inventory management, losses resulting from stocks expiration leads to increased inventory shrinkage, Coca cola kwanza experience expired inventory at the end of the year. It was also found that inventory management in the company affects the performance of the procurement function, the stock purchased are accurately checked, recorded and accounted for at coca cola kwanza, losses resulting from stock obsolesces leads to increased inventory shrinkage.

Furthermore, the study found that losses coming about from stock theft leads to expanded stock shrinkage, destitute record keeping of stocks contributes to destitute execution of acquirement work at coca cola kwanza, tall costs are caused since of mistakes made in stock records at coca cola kwanza conjointly losses coming about from stock harms leads to expanded stock shrinkage.

These findings are similar to those by Mukopi (2015), who also found that inventory shrinkage has effect on procurement performance. A good performing procurement function has accurate stores records and documentation. If the stores records are not properly administered the likelihood of inventory shrinkage is high. Eventually the

stocks in hand and the book balances will not match. This does not give credit to procurement function and the organization at large as this signifies a loss to the procurement function and the company as well.

4.2 The influence of inventory investment on procurement performance of the Coca cola kwanza

The second objective aimed at determining the influence of inventory investment on procurement performance of the Coca cola kwanza. In order to achieve this objective researcher assessed the following; first, researcher wanted to know whether capital invested contribute greatly to inventory investment of Coca cola kwanza. Responses were as follows; 21.8 percent of the respondents strongly agreed that capital invested contribute greatly to inventory investment of Coca cola kwanza, 41.6 percent of the respondents agreed, 26.7 percent of the respondents were neutral and 9.9 percent of the respondents disagreed (see Table 4.11). To the majority of the respondent's capital invested contribute greatly to inventory investment of Coca cola kwanza. This indicates that capital invested by the Coca cola kwanza have relationship with inventory investment. Hence organization has to invest in capital in order to invest in inventory.

The findings above concurs with that of Chan et al., (2017) who opined that an organization performance is measured in terms of the amount of resources invested in the operation. This indicates that the higher the capital invested the higher the return on investment.

Table 4.11: Capital invested contribute greatly to inventory investment of Coca cola Kwanza

Likert scale	Frequency	Percent
Strongly agree	22	21.8
Agree	42	41.6
Neutral	27	26.7
Disagree	10	9.9
Total	101	100.0

Source: Field data, 2019

Secondly researcher wanted to know whether effective stores management contributes greatly to inventory investment of Coca cola kwanza. Responses were as follows; 25.7 percent of the respondents strongly agreed that effective stores management contribute greatly to inventory investment of Coca cola kwanza, 49.5 percent of the respondents agreed, and 20.8 percent of the respondents were neutral and 4 percent of the respondents disagreed (see Table 4.12). To the majority it is admitted that effective stores management contribute greatly to inventory investment of Coca cola kwanza.

This shows that stores management in an organization plays a vital role in inventory investment. Therefore Coca cola Kwanza should put good and efficient systems for stores management as it is a road to inventory performance and success.

This was supported in the study about effectiveness of inventory management in the manufacturing SMEs where it was given that efficient stores management systems contribute d to the performance of SMEs where inventories were managed in manner that gave firms a chance of competitiveness (Pahat et al., 2017).

Table 4.12: Effective stores management contribute greatly to inventory investment of Coca cola Kwanza

Likert scale	Frequency	Percent
Strongly agree	26	25.7
Agree	50	49.5
Neutral	21	20.8
Disagree	4	4.0
Total	101	100.0

Source: Field data, 2019

Thirdly, researcher wanted to know whether inventory turnover contribute greatly to inventory investment of Coca cola kwanza. Responses were as follows; 44.6 percent of the respondents strongly agreed that inventory turnover contribute greatly to inventory investment of Coca cola kwanza, 49.5 percent of the respondents agreed

and 5.9 percent of the respondents were neutral (see Table 4.13). According to the majority of the respondents' inventory turnover contribute greatly to inventory investment of Coca cola kwanza. This shows that poor inventory turnover does not enhance performance of an organization, hence in order for a company to perform well the inventory turnover should be high. Therefore Coca cola kwanza should ensure that inventory turnover is high as this yield good performance of the company.

This was supported by Mohamad et al., (2016) who said that the relationship between the inventory management and company performance was determined based on inventory turnover and return on asset (ROA) analysis. The problems that were found in the study was that there was few inventory problems such as unorganized inventory arrangement, large amount of inventory and no accurate records balance due to unskilled workers.

Table 4.13: Inventory turnover contribute greatly to inventory investment of Coca cola Kwanza

Likert scale	Frequency	Percent
Strongly agree	45	44.6
Agree	50	49.5
Neutral	6	5.9
Total	101	100.0

Source: Field data, 2019

Fourthly, researcher wanted to know whether proper management of cash flow contributes greatly to inventory investment of Coca cola kwanza. Responses were as follows; 31.7 percent of the respondents strongly agreed that proper management of cash flow contribute greatly to inventory investment of Coca cola kwanza, 51.5 percent of the respondents agreed, 11.9 percent of the respondents were neutral and 5 percent of the respondents disagreed (see Table 4.14). To the majority of the respondent's proper management of cash flow contribute greatly to inventory investment of Coca cola kwanza.

This implies that when cash are properly managed there is a greater chance of having high investment in inventory as cash is the resource required for purchase of materials and inventories. Hence Coca cola kwanza should ensure that cash is efficiently managed as it will give a room to inventory investment. Shardeo, (2015) agreed with this findings as he proclaimed that, inventory management plays an important role to make a control over the financial statement of the organization. Inventory involves in the whole process cycle of the organization as it starts with the shop floor to the top level management commitment. Indicating that altogether inventory investment are interrelated to financial performance of the organization. Likewise in Coca cola kwanza proper financial management ensures its performance in inventory investment.

Table 4.14: Proper management of cash flow contribute greatly to inventory investment of Coca cola Kwanza

Likert scale	Frequency	Percent
Strongly Agree	32	31.7
Agree	52	51.5
Neutral	12	11.9
Disagree	5	5.0
Total	101	100.0

Source: Field data, 2019

Fifth, researcher wanted to know whether proper procurement/reorder practices contribute greatly to inventory investment of Coca cola kwanza. Responses were as follows; 46.5 percent of the respondents strongly agreed that proper procurement/reorder practices contribute greatly to inventory investment of Coca cola kwanza, 40.6 percent of the respondents agreed and 12.9 percent of the respondents were neutral (see Table 4.15). To the majority of the respondents in that regard admit that proper procurement/ reorder practices contribute greatly to inventory investment of Coca cola kwanza.

This demonstrates that efficient procurement of inventory provides for inventory investment in an organization. Hence procurement of stocks should be done efficiently and with economy to enable Coca cola kwanza achieve the objective of good inventory investment. This was in line with the study by Mukopi & Iravo,(2015) who admitted that there was a highly significant relationship between lean inventory systems, strategic supplier partnerships, information technology, legal policies and the effect of inventory management on performance of the procurement function of sugar manufacturing companies in the western sugar belt in Kenya.

Table 4.15: Proper procurement/reorder practices contribute greatly to inventory investment of Coca cola kwanza

Likert scale	Frequency	Percent
Strongly Agree	47	46.5
Agree	41	40.6
Neutral	13	12.9
Total	101	100.0

Source: Field data, 2019

The interview with one operation manager in order to know stores management that they practice for effective inventory investment revealed that capital investment, effective stores management, proper management of cash flow and paper procurement practices are some of the stores management practices that they apply for effective inventory investment. This was as quoted below;

“...here in our company there are many stores management practices that we practice for effective inventory management. Some of which include capital investment, effective stores management, proper management of cash flow and paper procurement practices. These practices help us a lot in our day to day operation of the plant...”

The aim of the second objective was to determine the influence of inventory investment on procurement performance of the Coca cola kwanza. The findings revealed that capital invested contribute greatly to inventory investment of Coca cola kwanza, effective stores management contribute greatly to inventory investment of

Coca cola kwanza and inventory turnover contribute greatly to inventory investment of Coca cola kwanza. It was also found that proper management of cash flow contributes greatly to inventory investment of Coca cola kwanza and that proper procurement/reorder practices contribute greatly to inventory investment of Coca cola kwanza.

Oballah and Waiganjo (2015) had similar findings as the findings of this study. They also found that inventory investment has influence on procurement performance. Within the stock management choice, it embraces the norms of selecting what to arrange, has a lot to arrange, when it is necessary and how and where to store in case of constant decisions at each of these levels. When organizations have no outdated and excessive stock, a substantial amount of investment can be spared. Any reduction in these figures may reduce operation costs, and the most critical fees paid owing to inventory being disposed of within the distribution center will also reduce.

4.3 The influence of order quantity on procurement performance of the Coca cola kwanza

The third objective aimed at assessing the influence of order quantity on procurement performance of the Coca cola kwanza. In order to achieve this objective researcher checked the following; first, researcher wanted to know whether shortage costs are influenced by order quantity of materials at Coca cola. Responses were as follows; 47.5 percent of the respondents strongly agreed that shortage costs are influenced by order quantity of materials at Coca cola kwanza, 47.5 percent of the respondents agreed and 5 percent of the respondents were neutral (see Table 4.16). To the majority of the respondents' shortage costs are influenced by order quantity of materials at Coca cola.

This findings show that at Coca cola kwanza the stock out is caused by the amount material ordered. This means much shortage is brought about by the quantities ordered as it does not much with the number of orders received or the quantities of materials required in the production departments hence mismatch of quantity required with the amount need in the production unit or sales department.

Table 4.16: Shortage costs are influenced by order quantity of material at Coca cola

Likert scale	Frequency	Percent
Strongly agree	48	47.5
Agree	48	47.5
Neutral	5	5.0
Total	101	10.0

Source: Field data, 2019

Secondly researcher wanted to know whether ordering costs are high due to poor inventory management practices at Coca cola kwanza. Responses were as follows; 31.7 percent of the respondents strongly agreed that ordering costs are high due to poor inventory management practices at Coca cola kwanza, 40.6 percent of the respondents agreed that ordering costs are high due to poor inventory management practices at Coca cola kwanza, 25.7 percent of the respondents were neutral and 2 percent of the respondents disagreed (see Table 4.17). To the majority of the respondents ordering costs are high due to poor inventory management practices at Coca cola kwanza.

This means Coca cola kwanza has a very poor inventory management practices as this was indicated by the majority of respondents. As a result the company is experiencing high costs of ordering stocks. This is probably there are no efficient inventory management systems like use of EOQs which minimize both ordering and carrying costs. For this case the organization should consider revising its inventory management systems to ensure ordering costs are kept minimal. This statement was in agreement with Shardeo, (2015) who discovered that most of the highlights indicated by the EOQ concentrate on minimizing inventory expenses rather than decreasing stock. It is the perfect condition in which all conditions are fulfilled economically.

Table 4.17: Ordering costs are high due to poor inventory management practices at Coca cola kwanza

Likert scale	Frequency	Percent
Strongly agree	32	31.7
Agree	41	40.6
Neutral	26	25.7
Disagree	2	2.0
Total	101	100.0

Source: Field data, 2019

Thirdly, researcher wanted to know whether the quantity of materials ordered has influence on the storage space of Coca cola kwanza. Responses were as follows; 35.6 percent of the respondents strongly agreed that the quantity of materials ordered has influence on the storage space of Coca cola kwanza, 38.6 percent of the respondents agreed, 24.8 percent of the respondents were neutral and 1 percent of the respondents disagreed (see Table 4.18). To the majority of respondents, the quantity of materials ordered has influence on the storage space of Coca cola kwanza.

This shows that the quantity of ordered material can be high or lower but whichever the quantity ordered by Coca cola kwanza it will influence those costs related to holding and storage of the materials. Hence Coca cola kwanza should have a robust system of ordering materials so that the costs of storage a minimized without increasing the cost of ordering. This was in agreement with Wang, Tang, & Zhao, (2007) who indicated that the purpose of the EOQ model is to find the optimal order quantity such that the expected quantity value of the total cost is minimal. The EOQ model is used to find the optimal order quantity for maximizing the credibility of an event such that the total cost in the planning periods does not exceed a certain budget level.

Table 4.18: The quantity of materials ordered has influence on the storage space of Coca cola kwanza

Likert scale	Frequency	Percent
Strongly agree	36	35.6
Agree	39	38.6
Neutral	25	24.8
Disagree	1	1.0
Total	101	100.0

Source: Field data, 2019

Fourthly, researcher wanted to know whether order quantity influences the number of orders at Coca cola kwanza. Responses were as follows; 46.5 percent of the respondents strongly agreed that order quantity influences the number of orders at Coca cola kwanza and 53.5 percent agreed also (see Table 4.19). This shows that to the majority it is obvious that order quantity influences the number of orders at Coca cola kwanza.

This implies that the quantity of materials ordered depends on the number of orders planned to be placed in a year which follow under EOQ as a model of ordering of materials. This was propounded by Coleman, (2000) that having little or too much stocks are symptoms of poor performance of procurement function in inventory management. Therefore, for effective performance of procurement function, the quantity order should be that satisfies both customers and organization (Coleman, 2000). The quantity that meets these criteria is the so called Economical Order Quantity (EOQ) which reduces both ordering and holding costs while maintaining and maximizing customers' satisfaction (Coleman, 2000).

Table 4.19: Order quantity influences the number of orders at Coca cola kwanza

Likert scale	Frequency	Percent
Strongly agree	47	46.5
Agree	54	53.5
Total	101	100.0

Source: Field data, 2019

Fifth, researcher wanted to know whether quantity ordered has an effect on holding costs of Coca cola kwanza. Responses were as follows; 27.7 percent of the respondents strongly agreed that quantity order has an effect on holding costs of Coca cola kwanza, 58.4 percent of the respondents agreed, 8.9 percent of the respondents were neutral and 5 percent of the respondents disagreed (see Table 4.20). These findings show that quantity order has an effect on holding costs of Coca cola kwanza.

The results of the findings indicate that most of the Coca cola kwanza staff are aware that the order quantity has an effect on the costs of holding the materials. Therefore the organization should establish strong inventory management system to ensure the quantity ordered does increase the costs of carrying the inventory in stocks.

This was agreed by Moon, Giri, & Ko, (2005) in the study about Economic order quantity models for ameliorating/deteriorating items under inflation and time discounting. He found that EOQ helped to balance both the holding costs and carrying costs. Therefore Coca cola kwanza should employ EOQ as inventory management system to control both holding and ordering costs.

Table 4.20: Quantity order has an effect on holding costs of Coca cola kwanza

Likert scale	Frequency	Percent
Strongly Agree	28	27.7
Agree	59	58.4
Neutral	9	8.9
Disagree	5	5.0
Total	101	100.0

Source: Field data, 2019

The interview with one head of section on the effect of order quantity on procurement performance of the company revealed that order quantity have effect on storage space, order quantity has something to do with the number of orders but also order quantity has effect on holding costs in the company. This was as quoted below;

“...the effect of order quantity on procurement performance of our company is as follows; order quantity has effect on storage space; order quantity has something to do with the number of orders but also order quantity has effect on holding costs in the company...”

The aim of the third objective was to assess the impact of order quantity on procurement performance of the Coca cola kwanza. The findings revealed that shortage costs are influenced by order quantity of materials at Coca cola, ordering costs are high due to poor inventory management practices and the quantity of materials ordered has influence on the storage space of Coca cola. It was also found that order quantity influences the number of orders at Coca cola and that quantity order has an effect on holding costs of Coca cola.

These findings are similar to Ogbo (2011) who also found that order quantity has impact on procurement performance. The essence of economic order quantity is to minimize both ordering and carrying costs. Organizations always seek to minimize costs while maintaining the same level of customer service and satisfaction. Economic order quantity embraces these variables through determination in advance of the economical quantity to be ordered at given point of time.

4.4 Relationship between procurement performance, inventory shrinkage, inventory investment and economic order quantity

The fourth goal was to determine the connection between efficiency of procurement, shrinking inventory, investment in inventory and amount of financial order. Multiple regression analysis was used to achieve this goal. A multiple regression analysis was performed in the research to check the connection between dependent and independent variables. The research utilized the Social Sciences Statistical Package (SPSS) to code, enter, and calculate multiple regression readings for the research. Regression of procurement performance (PP) on inventory shrinkage (IS), inventory investment (II), and economic order quantity (EQ) is presented below.

4.4.1 Coefficient of Determination

Model summary table describes the overall model whether the model is successful in predicting dependent variables. It gives a value of R square, which measure of how much of the variability in the outcome is accounted for the predictors.

Table 4.21: Model summary

R	R square	Adjusted R square	Std error of the estimate	Durbin - Watson
0.792	0.693	0.641	0.423	1.654

Source: Field data, 2019

From Table 4.21, only 69.3 percent of the factors that affect procurement efficiency as depicted by the R² are explained by the three independent variables that were researched. This implies other variables that have not been researched in this research contribute 30.7 percent to the efficiency of procurement.

4.4.2 Analysis of Variance

ANOVA model is more likely to be important, showing that the mean of at least one group is distinct from the mean of another group. ANOVA is the suitable statistical method for examining the impact of an independent variable less than an interval on a variable based at the lowest interval. If the outcome of the F test is not important,

the model should be rejected and further measures should not be taken (Bryson, 2018).

Table 4.22: ANOVA

Model	Sum of squares	Degree of freedom	Mean square	F statistics ratio	Significance
Regression	33.460	3	5.946	31.454	0.000
Residual	12.234	86	0.213		
Total	39.028	89			
a. Dependent variable: Procurement performance					
b. Predictors: (Constant, IS, II, EQ)					

Source: Field data, 2019

The ANOVA test result of procurement performance is indicated on above table 4.22, it is noticed that F value 31.454 is significant at $P < 0.001$ levels. Therefore, from the result, it can be concluded that the combination of the independent variables (inventory shrinkage, inventory investment and economic order quantity) significantly predicts the dependent variable (procurement performance).

4.4.3 Regression Model

Standardized regression coefficient (Beta) is the estimated relationship intensity coefficient between an independent variable and dependent variable expressed on a standardized scale where higher absolute values demonstrate better relationships (range - 1 to 1) (Bryson, 2018).

Table 4.23: Coefficients

Model	Unstandardized coefficients		Standardized coefficients	T test	Significance
	B	Std error	Beta		
Constant	0.045	0.320		0.234	0.002
IS	-0.426	0.033	0.241	4.212	0.010
II	0.462	0.037	0.254	4.642	0.003
EQ	0.538	0.064	0.267	4.814	0.000

Source: Field data, 2019

Table 4.23 demonstrates the beta coefficients presenting the contributions of each variable to the model, whether positive or negative. The values t and p showed the dependent variable impact of the independent variables. Inventory shrinkage had a significance level of 4.212, inventory investment showed a significance level of 4.642, and economic order quantity showed a substantial level of 4.814.

Beta coefficient showed that, inventory shrinkage was negatively related to procurement performance while both inventory investment and economic order quantity were positively related to procurement performance. To determine the connection between independent variables and the dependent variable, the research performed a multiple regression analysis. Taking all variables (stock shrinkage, inventory investment and amount of financial order) continuous at zero from the regression equation developed, procurement efficiency will be 0.045.

In addition, if all other variables are held constant, a unit increase in inventory shrinkage, procurement efficiency decreases by 0.426 units. There is an increase in procurement efficiency of 0.462 units for a unit rise in inventory investment. For a unit increase in economic order quantity there is 0.538 units increase in procurement performance. These results imply that inventory shrinkage decreases procurement performance while inventory shrinkage and economic order quantity increases procurement performance.

These findings are similar to the findings by Eroglu and Hofer (2011) who also found that inventory shrinkages has a negative relationship with the procurement

performance. They added that inventory shrinkage is negative effect of procurement performance resulting from poor and inaccuracy documentation and records of stores. A good performing procurement function has accurate stores records and documentation. If the stores records are not properly administered the likelihood of inventory shrinkage is high.

The findings are also similar to Coleman (2000) who also found that inventory investment had positive relationship with procurement performance. Inventory investment can greatly affect the procurement performance of an organization if there are no inventory management policies in place. Investment in inventory depends on the capital invested, cash flow and value of goods in store, turnover and stock appreciation. All these in turn influence the performance of procurement function.

The findings of this study on the influence of order quantity to procurement performance are also similar to those by Mohamad (2016). Order quantity is related to procurement in that if the quantity ordered is bigger than the required quantity, there is a possibility of incurring high costs in terms of storage costs, obsolescence, pilferage, theft and redundant stock.

4.5 Summary of the findings

This chapter presented and discussed the findings of the three specific objectives. Statistical analysis results indicated that Beta coefficient indicated that, inventory shrinkage was negatively related to procurement performance while both inventory investment and economic order quantity were positively related to procurement performance. To determine the connection between independent variables and the dependent variable, the research did a multiple regression analysis. Taking all variables (stock shrinkage, inventory investment and amount of financial order) continuous at zero from the regression equation developed, procurement efficiency was 0.045.

In addition, if all other variables are held constant, a unit increase in inventory shrinkage, procurement efficiency decreases by 0.426 units. There is an increase in procurement efficiency of 0.462 units for a unit rise in inventory investment. For a unit increase in economic order quantity there is 0.538 units increase in procurement performance. These results imply that inventory shrinkage decreases procurement performance while inventory shrinkage and economic order quantity increases procurement performance.

The ANOVA test result of procurement performance as indicated on above table 4.22, noticed that F value 31.454 is significant at $P < 0.001$ levels. Therefore, from the result, it can be concluded that the combination of the independent variables (inventory shrinkage, inventory investment and economic order quantity) significantly predicts the dependent variable (procurement performance).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary of the findings

The objective of this research was to evaluate the efficiency of procurement efficiency inventory management at Coca cola kwanza in Mbeya. The critical review discovered that there is an idea of inventory management, losses arising from expiry of stocks lead to enhanced inventory shrinkage, Coca cola kwanza experience expired inventory at the end of the year. Inventory management in the business has also been found to affect the efficiency of the procurement function, the stock bought is correctly verified, registered and accounted for at coca cola kwanza, losses arising from stock obsolescence lead to enhanced inventory shrinking. In addition, the research discovered that stock theft losses lead to enhanced inventory shrinking; bad stock record keeping contributes to bad quality of procurement function at coca cola kwanza, elevated expenses are incurred due to stock record mistakes at coca cola kwanza and also stock damage losses lead to enhanced inventory shrinking.

The results also revealed that invested capital contributes significantly to Coca cola kwanza's stock investment, efficient stores management contributes significantly to Coca cola kwanza's stock investment, and stock turnover contributes significantly to Coca cola kwanza's stock investment. It was also discovered that adequate cash flow management contributes significantly to Coca cola kwanza's stock investment and that correct procurement / reorder procedures make a significant contribution to Coca cola kwanza's stock investment. The results indicated that Coca cola's order amount of materials influences shortage expenses, ordering expenses are high owing to bad inventory management procedures, and the amount of ordered products influences Coca cola's storage room. It was also discovered that order amount affects Coca cola's amount of orders and that quantity order affects Coc's holding expenses, The research discovered a adverse connection between shrinking inventory and quality of procurement, a favorable relationship between inventory investment and quality of procurement, and a favorable relationship between amount of financial order and quality of procurement.

5.2 Conclusion

5.2.1 Effect of inventory shrinkage on procurement performance of the Coca cola kwanza

The first objective aimed at examining the effect of inventory shrinkage on procurement performance of the coca cola kwanza. The critical examination found out that there is an idea on inventory management, losses resulting from stocks expiration leads to increased inventory shrinkage, Coca cola kwanza experience expired inventory at the end of the year. It was also found that inventory management in the company affects the performance of the procurement function, the stock purchased are accurately checked, recorded and accounted for at coca cola kwanza, losses resulting from stock obsolesces leads to increased inventory shrinkage. Furthermore the study found that losses resulting from stock theft leads to increased inventory shrinkage, poor record keeping of stocks contributes to poor performance of procurement function at coca cola kwanza, high costs are incurred because of errors made in stock records at coca cola kwanza and also losses resulting from stock damages leads to increased inventory shrinkage. Therefore inventory shrinkage has effect on procurement performance.

5.2.2 The influence of inventory investment on procurement performance of the Coca cola kwanza

The second goal was to determine the impact of inventory investment on Coca-cola kwanza's procurement results. The results revealed that invested capital contributes significantly to Coca-cola kwanza's stock investment, efficient stores management contributes significantly to Coca-cola kwanza's stock investment, and stock turnover contributes significantly to Coca-cola kwanza's stock investment. It was also found that proper management of cash flow contributes greatly to inventory investment of Coca cola kwanza and that proper procurement/reorder practices contribute greatly to inventory investment of Coca cola kwanza. Therefore, inventory investment influences procurement performance

5.2.3 The influence of order quantity on procurement performance of the Coca cola kwanza

The aim of the third objective was to assess the influence of order quantity on procurement performance of the Coca cola kwanza. The findings revealed that shortage costs are influenced by order quantity of materials at Coca cola, ordering costs are high due to poor inventory management practices and the quantity of materials ordered has influence on the storage space of Coca cola. It was also found that order quantity influences the number of orders at Coca cola and that quantity order has an effect on holding costs of Coca cola. Therefore order quantity influences procurement performance.

5.2.4 Relationship between procurement performance and inventory shrinkage, inventory investment and economic order quantity

The aim of the fourth objective was to determine the relationship between procurement performance and inventory shrinkage, inventory investment and economic order quantity. The research discovered a adverse connection between shrinking inventory and quality of procurement, a favorable relationship between inventory investment and quality of procurement, and a favorable relationship between amount of financial order and quality of procurement. Therefore, procurement performance has a negative relationship between inventory shrinkage and procurement performance, has a positive relationship with inventory investment as well as order quantity.

5.3 Recommendation

5.3.1 Inventory management

It is recommended that Coca cola should maintain the way it does inventory management. The continuous usage of the way inventory management is done at Coca cola kwanza will put Coca cola kwanza into the best way when doing its procurement activities simply because there will be better inventory. So Coca cola kwanza will be in a very good position in its procurement.

5.3.2 Employment workers with better knowledge

It is recommended that Coca cola kwanza should continue employing workers with better knowledge on procurement basically those working in procurement departments. Workers with better knowledge of procurement will enable Coca cola kwanza and other companies to reduce or eliminate losses occurring during procurement.

5.3.3 Emulation of the example of Coca cola kwanza

It is recommended that other organizations should emulate the example of Mbeya Coca cola kwanza in order to make better procurement in their organizations. The emulation of the good example of Coca cola kwanza will put them in a better position to perform better in procurement activities as per regulation in place.

5.5 Suggestions for Further Research Areas

This is a study about influence of inventory management on procurement performance at Coca cola kwanza. The study is not a final; it gives a room for further researches on inventory management. Therefore potential people wishing to study on inventory management should do the same study in manufacturing firms that are not in soft drinks or beverage industries. This is because doing in this firms will give you a chance to come up with findings which probably are different from the beverage industries.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

My name is Beatrice G. Mshiu, a student from Mzumbe University pursuing Masters of Science in Procurement and Supply Chain Management. I am currently conducting research on “An assessment of inventory management on procurement performance of the organization.

I kindly request you to devote your few minutes in respect to your busy schedule to respond on my question by filling this questionnaire as to successfully accomplishment of my study. Your honest and sincere responses are highly appreciated for academic purpose and shall be treated with maximum confidentiality. Thank you for your kindly cooperation.

Thank you in advance

SECTION A: Characteristics of Respondents

Please answer the following questions by ticking (V), choosing and filling the right answer for you about your organization

1. Characteristics of the respondent

A. What is your Age in years? (a.) 21-40, (b).41-60 (c). Above 61 ()

B. What is your Sex? (a) Male (b) Female ()

C. What is your Level of education: (a) Ordinary certificate (b) Diploma (c) Degree and above ()

D. Department you are working.....

E. Your job Title / position.....

SECTION B: Effect of inventory shrinkage on procurement performance of Coca-Cola Kwanza.

1: strongly disagree, 2: disagree, 3: Neutral, 4: agree, 5: strong agree

S/N	Attribute Tested/scale	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Do you have any idea on inventory management					
2	Do you believe that losses arising from expiry of stocks lead to increased inventory decline?					
3	Normally Coca-Cola Kwanza experience expired inventory at the end of the year					
4	Does your company's stock management influence the procurement function efficiency?					
5	The stock purchased are accurately checked, recorded and accounted for at Coca-Cola Kwanza.					
6	Do you believe that inventory losses (stock purchased not meeting planned objectives) result in enhanced inventory shrinkage?					
7	Do you believe stock theft losses lead to increased inventory shrinking?					
8	Poor record keeping of stocks					

	contributes to poor performance of procurement function at Coca-Cola Kwanza.					
9	High costs are incurred because of errors made in stock records at Coca-Cola Kwanza.					
10	Do you believe that stock damage-related losses lead to increased inventory shrinking?					

SECTION C: Influence of inventory investment on procurement performance of Coca-Cola Kwanza.

1: strongly disagree, 2: disagree, 3: Neutral, 4: agree, 5: strong agree

S/N	Attribute Tested	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Capital invested contribute greatly to inventory Investment of Coca-Cola Kwanza.					
2	Effective store management contributes significantly to Coca-Cola Kwanza's inventory investment.					
3	Inventory turnover contributes significantly to Coca-Cola Kwanza's stock investment.					
4	Proper management of cash flow contributes greatly to Inventory investment of Coca-Cola Kwanza.					
5	Proper procurement / reorder procedures make a major contribution to Coca-Cola Kwanza's Inventory Investment.					

SECTION D: Influence of order quantity on procurement performance of Coca-Cola Kwanza.

1: strongly disagree, 2: disagree, 3: Neutral, 4: agree, 5: strong agree

S/N	Attribute Tested	strongly disagree	disagree	Neutral	agree	strong agree
1	Shortage costs are influenced by order quantity of materials at Coca-Cola Kwanza.					
2	Ordering costs are high due to poor inventory management practices at Coca-Cola Kwanza.					
3	The quantity of materials ordered has an influence on the storage space of Coca-Cola Kwanza.					
4	Order quantity influences the number of orders at Coca-Cola Kwanza.					
5	Quantity order has an effect on holding costs of Coca-Cola Kwanza.					

SECTION E: Performance of the procurement function

1. Yes 2. No

S/N	Attribute Tested/scale	Yes	No
1	Does your company's stock management influence the procurement function efficiency?		
2	Do you have in your business any performance measurement processes?		
3	Do decreased inventories enhance the efficiency of your Coca-Cola Kwanza procurement feature?		
4	Does inventory management maximize customers' satisfaction at Coca-Cola Kwanza?		
5	Does inventory management motivate procurement performance at Coca-Cola Kwanza?		
6	Does inventory management ensure timely procurement and delivery of materials		

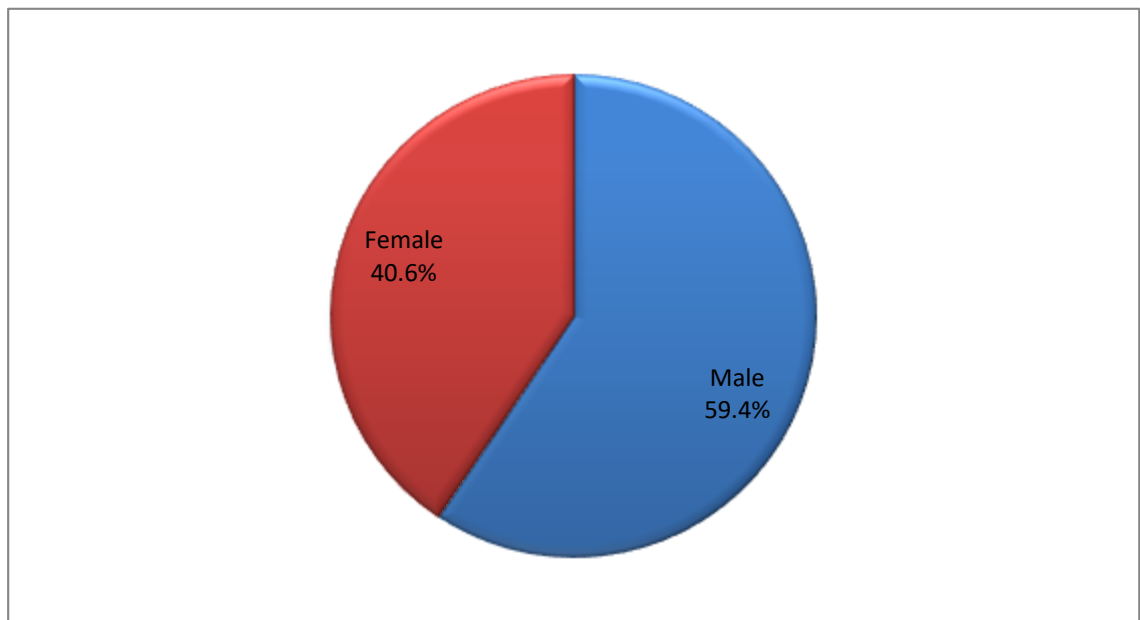
RESPONDENTS' CHARACTERISTICS

Data collected during the questionnaire as part of the subject of personal data included fundamental demographic information, age, gender, and educational level. The objective was to show the distribution of the interviewees and help the reader understand how the sample collects the relevant information in order to present the target population.

Gender of respondents

The allocation of the participants according to their agenda showed that 59.4% were male and 40.6% were female (see Figure 4.1). Based on these results, most of the participants were male. In many cases, the number of males is higher than the number of females in most people who study or work in procurement entities. Having greater numbers of males than females in that respect has just shown real sample representation.

Figure 4.1: Gender of respondents

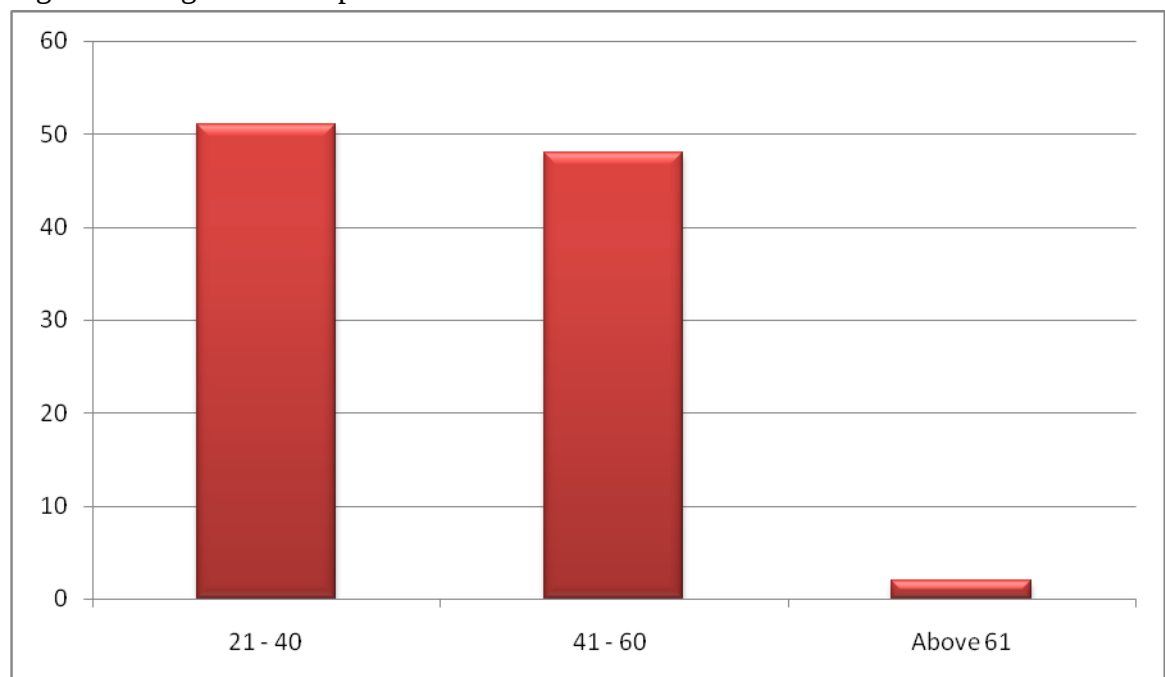


Source: Research data, 2019

Age of the respondents

The distribution of the respondents according to their age was as follows; 50.5 percent of the respondents had the age between 21 to 40 years, 47.5 percent of the respondents had the age between 41 to 60 years and 2 percent had the age above 61 years (see Figure 4.2). These findings have shown that majority of the respondents had the age between 21 to 40 years. Actually these findings have shown that data was collected from respondents who are mature and for that matter the data that was collected was valid.

Figure 4.2: Age of the respondents



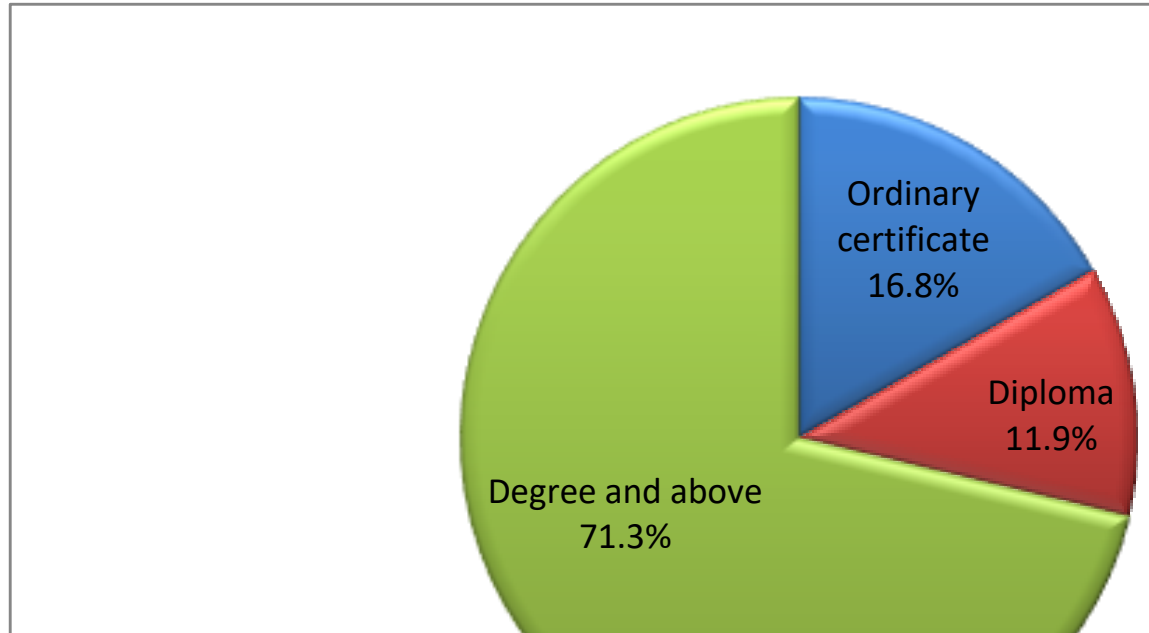
Source: Research data, 2019

Education level of respondents

The distribution of the respondents according to their education level was as follows; 16.8 percent of the respondents had ordinary certificates, 11.9 percent of the respondents had diploma and 71.3 percent of the respondents had degree and above level of education (see Figure 4.3). According to these findings the majority of the respondents had degree and above level of education. A large percent of workers at Coca cola kwanza Mbeya have higher education. In that aspect the data that was

obtained was from respondents who knows what researcher wanted and for that matter they responded positively.

Figure 4.3: Education level of respondents



Source: Research data, 2019

As stated earlier, the reason behind looking at the characteristics of the respondents was to ensure that the data which was collected was from right people as far as its validity and reliability is concerned. The findings according to the gender, age and education level of respondents have shown that the data was collected from right people. This is because the age of the respondents for the majority was found to be between 21 to 40 years and on the other hand majority of the respondents had degrees and above levels of education. So this assures us to the right data was collected.