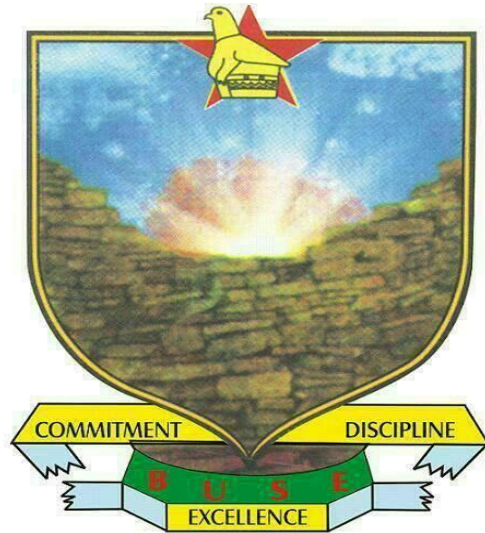


BINDURA UNIVERSITY OF SCIENCE EDUCATION



FACULTY OF COMMERCE

DEPARTMENT OF ECONOMICS

THE IMPACT OF GAAP/PASTEL INVENTORY CONTROL SYSTEM ON THE SECURITY OF MANUFACTURING COMPANY: A CASE OF NOVAFEED.

BY

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(B1851471)

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE BACHELOR OF COMMERCE HONOURS DEGREE IN PURCASING AND SUPPLY OF BINDURA UNIVERSITY OF SCINCE EDUCATION FACULTY OF COMMERCE.

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I GERALD FARAI CHIBANDA (B1851471) declares that this dissertation is a product of my own work and had not been lifted or copied from any source without acknowledgement of the sources.

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DEDICATION

First and foremost, I dedicate the completion of this effort to the Almighty God, who has enabled everything through his unending Grace. Also honored in this study are my adorable mother Mrs. Chakwenda, as well as my younger sister Laura Chibanda and my brother Hillary Chibanda. I appreciate your support in the form of moral and monetary encouragement as well as your love. Additionally, I would like to dedicate this to Denford Mupfururirwa, Donnel Musekiwa, and Ngoni Kache for their steadfast support, which was important in the success of this dissertation. I adore you all.

MAY THE LORD BLESS YOU!!!

ABSTRACT

Using the case of Novafeed this research sought to analyze the relationship between GAAP/Pastel inventory control system and their security in a manufacturing organization. The research made use of relevant literature review on the history of inventory management from the beginning, industrial era, into the future and further advancement into inventory management, this research also identified the challenges of mistakes, fraud, and theft, large monetary losses, harm to a company's reputation, or even service delivery associated with the inventory control systems .the researcher used qualitative approach and the participants were selected using the purposive sampling as they are exposed to the investigations of matter and the data was collected using questionnaires and interviews. The response rate of 84.3% was obtained from the target sample size of 27 participants. Data was presented using tables and summaries. The findings revealed that though the top management says the system is effective because they have invested money on the inventory control system that they are using now but the user of the system highlighted that they are hiccups on the system which makes it not effective enough because of stock outs, stock not tallying and ineffective stock forecast. There were noted as the drivers to the poor performance of the company and service delivery. The challenges noted was that the system is not performing well to its expected potential and it has to be given attention by looking for another inventory control system also the researcher suggested that excessive regulations, strict rules and policies should be in place and that safety stock, maximum stock levels and minimum stock levels should be developed to prevent supply shortages in order to achieve effective inventory management .the researcher recommended the company to try SAP inventory control system for the betterment, safety and secure way to monitor and track their inventory

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MAY THE LORD GOD ALMIGHTY BLESS YOU

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CHAPTER I

Introduction

1.1 INTRODUCTION

Over the decades, numerous organizations have placed a strong emphasis on inventory management. Yet, the increased challenges in today's business environment brought by technological advancements made it necessary to manage and control inventories since It was discovered that a company could run competitively by using good inventory management procedures. The focus of this project will be on security and inventory control management systems at Novafeed.

All aspects of an organization's inventory activities, including shipping, purchasing, receiving, storing goods in warehouses and stores, moving inventory around, monitoring, and placing new orders, are connected by technology-based inventory control systems such as GAAP/Pastel evolution. The fact of the matter is that an excellent inventory control system attains this as well by engaging a holistic perspectives on inventory and equipping organizations to use lean techniques to maximize efficiency and productivity along the supply network, whilst still having the right stock in the right places to satisfy consumer requirements.

1.2 BACKGROUND OF STUDY

Miller (2010) defines stock management as involving every one of the measures taken to guarantee that customers were able to acquire the requested good or service. According to Hugo (2002), some of the key duties of purchasing, supply management is managing the appropriate amount of inventory. Additionally, he adds that while inventory quantity affects an enterprise's return on investment, it also needs to be available in sufficient quantities to ensure ongoing manufacturing and distribution. According to Ramakrishna (2005), inventory used to be considered as cost center since stores focused on maintaining large inventories of goods rather than spending money and freeing up space, while the purchasing profession focused mostly on spending money

From its findings in 2012, Novafeed has had an inventory control system that is run by the central stores, which is in charge of determining the supply and demand of office supplies, maintenance

supplies, and repair supplies to all departments of the company. The purchasing department receives a purchase requisition after receiving a request of a product from the users to the stores department, a manual purchase requisition is send to procurement which was approved by the head of user department then procurement looks for three quotation, the suitable quotation will be approved that quotation is used to make an order to the supplier then the supplier will supply the goods alongside with the purchase order and his or her invoice and we receive the goods in the goods received book then into the computer, in accordance with the company's inventory policy.

The vendors receive the products by creating a goods acquired voucher based on what has been delivered after the buyers respond by creating an order. As items are received, they are properly held until users raise an issue notice to release them as necessary. When receiving and issuing stock, they value it using the weighted average cost approach, this is according to Walters (2003), entails calculating the average unit cost of all acquisitions over a period of time and applying that figure to all the stock that is still outstanding. All purchases made by the company are made via a tendering process, a meeting of the purchasing committee, or occasionally, senior management approval. Management decides when, how much, and for whom to purchase items based on cash flow and budget.

In other ways, procurement seems to be a low-status position, and the finance department makes all choices about how much inventory to keep on hand. This implies that higher levels of inventory result from the financing that is available. Though there is a necessity, there is one because of this circumstance. Economic Order Quantity, ABC analysis, Just in Time procurement, and Materials Demand Planning are examples of inventory management procedures that should be properly applied but are really not being fully utilized, resulting in excessive levels of inventory and capital ties. It is evident that slow-moving items are being refilled, and suppliers are overcharging for their goods, indicating that the system still lacks strict controls.

1.2.1 in the Beginning

In the Book of Genesis referencing from the Bible, when Adam gave names to all the animals or when Noah numbered the unclean and clean animals for the Ark, I think inventory management

was first developed. But in order to keep this short, we'll skip ahead to the next evolution of inventory management.

Business owners effectively had to list everything they sold every day before the Industrial Revolution. They had ordered more items based on their senses and scribbled notes at that point. This was a terribly ineffective and erroneous way to do business.

Merchants could not actually be held responsible for stolen goods if they did not regularly execute difficult physical counts. They had issues making sure that they had the rightful number of items when new orders came in as a result of their poor record keeping. Nevertheless, they gave it their all.

1.2.2 Ancient Techniques

Even before the industrial revolution, keeping track of things required physically counting and tallying them. As the first type of inventory management, "tally sticks" were used by people to count around 50,000 years ago. Additionally, researchers have discovered proof of the use of tokens made of clay that dates back roughly 4,000 years. The tokens included symbols which were baked into clay to symbolize items like lambs and other livestock. Stock management evolved over time into slightly more precise record-keeping systems, accounting` particularly in ancient Greek and Egyptian societies.

1.2.3 Industrial Age.

Inventory management advanced significantly with the start of the second industrial revolution. Herman Hollerith, an American inventor, invented the first automatic calculating apparatus still in use today. The tabulator and sorting device system was built expressly for punch card data entry, eliminating the need for paper and pencil and saving countless hours of labor. Numerous types of data, including inventory, might be captured using these punch cards. Later, Hollerith went on to start the business that would eventually become IBM, the manufacturer of computers.

In the 1930s, Harvard University used Hollerith's concept to develop a punch card system for corporations. In relation to the punch cards clients could fill out for catalog items, businesses could distinguish which products were being ordered and as well as record the inventory and sales data. However, Harvard's order management system was too pricey and slow to keep and copy up with the fast growing business problems.

1.2.4 In to the Future.

Since the middle of the 1970s, a bar code has served as the primary inventory control tool for many industries. The barcode was developed by Norman Woodland in the late 1940s in response to a desperate request for help from an owner of a grocery store with inventory control. One of the first organizations to use the technology was the National Association of Food Chains, which did so to speed up the checkout times.

1.2.5 Further Advancements.

(RFID) technology Radio frequency identification, which uses radio frequency waves to identify items, was then initially developed around the 1970s and was similar to barcode readers in terms of data collection. A small device that an antenna that houses a list of identification numbers is called an (RFID) tag. The data is read and saved on a computer when the (RFID) tag and microchip are run through a chip-reader.

1.2.6 Advantages of RFID.

Nowadays, RFID technology outperforms the bar code method in terms of efficiency and accuracy. For instance, in order to scan bar codes, a device must be able to transfer the bar code directly over. This typically requires users to physically position the bar code such that it is within the scanner's precise reading range. Bar codes can also tear or get dirty, which makes it challenging for the scanner to recognize the item.

UPCs gained popularity as well as computers became more effective and less expensive. Organizations began experimenting with stock management software in the middle of the 1990s, which would still capture information as goods were scanned out of and into the warehouses. In the early 2000s, the technology has developed into a complete inventory management system. Also, small, medium and big companies had now discovered the software for inventory management which was reasonable and suitable for their needs.

In an effort to address the difficulties associated with inventory control management, Novafeed chose GAAP/SAGE PASTEL evolution, one of the most popular ERP systems, in 2012. The desire to enhance and connect business processes, offer a unified platform, and increase data visibility drove the adoption (Davenport et al, 2003; Hammer, 1999).

Prior to implementing PESTEL, Novafeed used the stock card system for managing its inventory. Other departments that work closely with inventory, such the Procurement department and the retail department, used various manual systems. This was a separate system that was created only for the Logistics and Manufacturing Department. In the end, it was necessary to combine all the systems to keep track of various forms of inventories, from retables to consumables. The purpose of this research is to determine how the company's automated stock control management has improved inventory control as compared to the stock card system.

Currently, businesses are beginning to use efficient inventory control systems. According to Lysons, Ferringtons (2012), an organization's aim or goal is to guarantee that there are minimal stock outs, optimal quantities of stocks are available, and that the stock is maintained, kept in a secure location and is easily accessible to the rightful, appropriate personnel. Customers expects Novafeed, as a company in the industry, to offer the same service at a sustainable price to ensure affordability and accessibility through economies of scale. Purchasing products, services, raw materials, and replacement parts for machinery and equipment to enable effective service delivery is one of the company's essential tasks.

According to Lambart et al. (2004), organizations need to pay much greater attention to inventory management, which if neglected will result in a large amount of capital being locked up in stock. Miller (2010), on the other hand, posited that it might also result in consumer unhappiness because it doesn't match their desire. To solidify this argument, Christopher (2003) continued by stating that frequent stock shortages and stock outs of essential products or commodities that are needed for operations have caused many user departments to have a poor impression of and criticize the inventory control management system. Hence pinpointing the importance of inventory management.

Saxena (2003) claims that the management of manufacturing and distribution organizations' stores, warehouses, and inventories provides answers to issues such how to regulate inventory, how much inventory to keep on hand to meet demand from customers, and how much it costs to keep inventory. Government policies, consumer demand, and farmers' ability to buy the feed are some of the variables that affect the availability of feed.

In accordance with generally recognized accounting practices, such as releasing financial statements utilizing the First in First Out policy, the systems also made sure that accurate records

are maintained and appropriately recorded in them. Periodic and perpetual inventory control systems are used by the business to monitor and manage inventories. The policy establishes guidelines and practices for issuing, receiving of inventory. Supplies are all counted, inspected, and reported for discrepancies and issued through requisitions. Storage spaces are kept clean to prevent deterioration. All of these actions represent the company's attempts to enhance the performance that has led to its success in inventory management and control.

Creating and implementing a successful inventory control system is essential for Novafeed mission to be successful. The internal control system flaws were noticed and the company auditors were concerned there might be a danger of stock misappropriation were mentioned in their report from December 2014 report. The existence of inaccurate inventory valuation of inventory due to system flaws was also noticed. Obsolete inventory, mostly from the main stores, which was always included in every stock count but waiting to be disposed of to prevent overstating inventory, was shown to make up a portion of the inventories. In light of the purpose of this study is to examine how inventory control systems affect Novafeed performance.

The department can make better decisions if the inventory levels are always more informed on the inventory software. The technology has enhanced productivity, streamlined tasks within the business, and saved both time and money. The main goal and purpose of the inventory control system is to guarantee that there are enough supplies on hand also to handle emergency needs. Additionally, it aims to prevent money from being excessively invested in inactive inventories.

The practice of guaranteeing the security and ideal management control of stored commodities is known as inventory security. It is crucial for effective stores and warehouse management because a warehouse's productivity and safety determines how well a firm performs.

This is especially true for the food industry, where a best-before date management system should make sure that the warehouse is free of any perishable or safety-critical commodities. Yet, stock security is also crucial in other industries, such as technical wholesale. In order to ensure that the right stock is constantly available, inventory security strives to avoid inventory losses, such as those caused by improper storage, theft, or improper inbound goods inspection.

Several security experts struggle with the inventory control procedure. The causes of inventory variance will be briefly discussed in this article. Your effectiveness within your company will be much improved if you take the time to become familiar with the inventory process flow.

Products are staged in bin locations in a distribution center and are recognized as any storage type that has one or more product slots. The location of the bin receives a barcode label for product in addition, removal, inventory, and cycle counting. The simplest kind of inventory management involves receiving things, staging them in bin locations for choosing, and then shipping them out. The cycle count procedure is essential to maintain accurate inventory levels and reduce the risk of unfulfilled orders and lost sales.

Many security and loss prevention specialists are unaware that theft is not the main cause of inventory variations in warehouses. The most frequent reasons for inventory discrepancies are receiving errors. Put away errors, physical movement, miss-picks, damages /out of date; false locations and empty locations.

1.3 PROBLEM STATEMENT

GAAP/pastel evolution inventory control system have been put in place to secure inventory, monitor movement and make sure that the information in the system is tallying with the inventory in the stores/ware house. Manufacturing organizations confront serious security difficulties as a result of inventory management problems such mistakes, fraud, and theft. These problems may result in large monetary losses, harm to a company's reputation, or even service delivery. Because traditional manual inventory management methods are so prone to mistakes, managers find it challenging to efficiently track inventory levels and monitor stock movements. This raises the possibility of theft or fraud, which could endanger the company's security.

Manufacturers must use a GAAP/Pastel inventory control system to address these issues since it can simplify inventory management procedures, lower the possibility of fraud and errors, and boost overall effectiveness. Investing in a GAAP/Pastel inventory control system can help to prevent these security risks. The system can be customized to the specific needs of the business, with features such as barcode scanning, real-time tracking, and automated reporting. This makes it

easier for managers to monitor inventory levels, identify potential issues, and address problems before they escalate.

The effect of such a system on the security of industrial enterprises, however, has not received much research. The goal of the problem statement is to investigate how the GAAP/Pastel inventory control system affects the security of manufacturing companies, to identify the advantages and difficulties of implementing the system, and to offer suggestions for enhancing that security. According to the annual management report gazetted on 06 April 2021 by Novafeed for the second quarter, there have been high level of attrition, through employee's being terminated their contract's with allegations of inventory theft, audit failed to navigate the loophole then eventually recommend for strong inventory control systems. The warehouse manager exclaimed that lack of the right and compatible inventory system is increasing the chances of theft and unauthorized movement of inventory out of records. This research aims to bridge this gap by analysing inventory system and their security from a Zimbabwean perspective as to how effective are they as well as compared to develop countries, through studying Novafeed.

1.4 Research Objectives.

The study sought to achieve the following objectives:

Main Objective.

- To analyse GAAP/PASTEL inventory control system on the security of a manufacturing company Novafeed.
- **Specific Objectives.**
 1. To examine the effectiveness of inventory control systems in manufacturing companies.
 2. To investigate the impact of inventory control systems to security of inventory and its movement, within the organisation.
 3. To identify the major consequences caused by the absence of inventory control systems within a manufacturing organisation.
 4. To proffer recommendations on the best inventory management system compatible with NovaFeed.

1.5 RESEARCH QUESTIONS.

The researcher developed the following study questions in an attempt to determine the problem's real reflection.

- I. How well-functioning are the inventory management techniques employed by Nova feed?
- II. What causes Nova feed high stock levels?
- III. What are the expenses related to maintaining large inventories?
- IV. Which inventory control system is appropriate for the manufacturing company Novafeed?

1.6 SIGNIFICANCE OF THE STUDY.

1.6.1 to academics.

This research will assist other students who wish to conduct research on inventory management and control systems in the same area. This research will also help other students to navigate which inventory management control systems to implement in their respective organisations at industrial attachment level and also at engagement level so that they add value in the organization they will be rendering their labour and intellectual service.

1.6.2 to the Industry.

The research will help to shed light not only to Novafeed and Bindura University but to industry players who are under the manufacturing industry (NEC), this research will help other industry players in choosing the right inventory control systems compatible with the size of the organization and the volumes capacity. Furthermore, it will improve inventory management within the manufacturing industry in Zimbabwe as a whole.

1.6.3 to the researcher.

To fulfil the necessities for the Bachelor of Commerce Honours degree in Purchasing and Supply Management at Bindura University, the study will be helpful to the researcher. The learner will learn some analysis and research abilities thanks to the research. The researcher will also contribute to a greater understanding of the best inventory control systems used by manufacturing organizations, as well as their security against inventory movement and the counting of inventory information from the system on the ground, as well as the solutions that can be implemented to deal with such issues.

1.7 RESEARCH ASSUMPTIONS.

The following research hypotheses served as the study's foundation:

1. The respondents were helpful and provided truthful and accurate information for the study.
2. The sample size accurately reflected the entire population under examination.
3. During the study period, there were no changes to the political, economic, legal or commercial environment in general.

1.8 DELIMITATIONS.

Simon (2011) claims that delimitations are the traits that bring attention to a research field's borders. These characteristics can involve topic, duration, choice of objectives, and geography. The research was only confined to Novafeed of number 27 Kenmark Crescent, Faber Road, Bluff Hill Industrial Park, Harare as it was the most convenient organization to conduct his research. The research covered the period of the second quarter since this period is evidenced by high attrition due to terminations out of inventory theft according to the Second Quarter Management gazette of 6 April 2022.

1.9 LIMITATIONS.

According to Simon (2011), a study's limits are any potential errors or limiting factors that may be outside the control of the researcher. The researcher's duty was to see that limits were handled in a manner that did not undermine the effectiveness of the research technique. The researcher identified the following issues, which were fixed. Organizational restrictions, including employees' and managers' urgent job responsibilities - the researcher used approved break periods, like tea breaks and lunch breaks, to collect data obtained from the respondents, disrupting the organization's regular operations.

1. Financial restrictions - the researcher made sure that the information was to be collected in a short space of time in order to save money on travelling and other related costs.
2. The respondents' mistrust of the researcher and their fear of giving and sharing information. The researcher assured the respondents that every data they would submit would remain confidential and would only be utilized for academic purposes.

1.10 DEFINATION OF KEY TERMS

Inventory: All the products kept on hand for future use or consumption. Inventory is defined by Lysons (2000) as property that is to be employed in the production of goods or that is intended for sale.

Inventory management: Is defined by Hsu and Kleiner (2001) as consisting of the two key processes of controlling inventory and inventory planning.

(JIT): Just in Time is an inventory management technique known as Just in Time (JIT) involves delivering components and raw materials from a supplier or vendor just before they are needed for consumption. In order to reduce costs associated with storing inventory, it is done with the intention of maintaining little to no inventory.

Material requirement planning (MRP): is a computer inventory technique that uses a master bill of materials, factory schedule, and inventory status file to integrate scheduling and material control.

Reorder level: the threshold at which stock replenishment is required.

Lead time: is the amount of waiting time between placing an order and to that of receiving the goods.

Economic order quantity: The order amount with the lowest annual ordering and holding costs.

Service delivery: is the anticipated outcome of interactions between the shops department and various user departments even to customers.

1.11 SUMMARY.

This first chapter examined the research's history with the aim of exposing any hidden problems, the problem statement that provides justification for the research's conduct, the study's purpose, and its goals, all of which aimed to make the study's background clear. It has also highlighted the presumptions, boundaries, and restrictions before discussing the study's importance for the researcher, for the company, and to Bindura University in order to emphasize the advantages of such research to such diverse institutions. To help the reader better grasp the project's technical jargon, it continued by defining the essential terminology used in the research. Chapter II will be giving some review on the literature which is related to the study.

CHAPTER II

Literature Review

2.1 Introduction

Reviewing relevant literature from multiple published sources is the main goal of this section. A literature review looks at the body of knowledge already existing in the area being studied. Finding, reading, comprehending, and forming conclusions about published research and theory on a given issue are the steps involved in a literature review, based on Brink (1996). It is imperative to stress that this chapter will examine the inventory literature, effective management of inventory control systems, research goals of an efficient inventory control system, a justification of the justifications for retaining stocks, costs associated with retaining stocks, applicable inventory control methods, and at last strategies that can be applied to inventory reduction

2.2 Theoretical literature review

The researcher is tasked with reviewing and evaluating the work of other researchers within the theoretical framework. In order to give the research problem and research question meaning, it is necessary to recognize and define their notions. Definitions of inventory management, theories of inventory management, and inventory control measures will all be covered in the first section. This section of the literature review concentrated on describing the various inventory management and profit models, theories, and concepts, reviewing the advantages and disadvantages of these systems so that the researcher could analyze which model would be the best and most effective for NovaFeed Company to use as the basis for its inventory management system. The theories that have been chosen to represent behavior for the study's problem are examined in this part. (EOQ)Economic Order Quantity, (ABC) Activity Based Cost Analysis, and (JIT) Just in Time are some of the theories.

2.3 Definition of inventory

Inventory control, according to Hailing and Guochao (2016), is the process of limiting the materials, components held in stock within previously determined ranges or setting them in an accordance way with the rules and procedures established or adopted.

According to Lysons and Gillingham (2003), inventory is a financial term for the quantity or value of initial supplies, elements, assemblies, work-in-progress, necessities, and finished product that is kept, stored and retrieved for use when the need arises.

According to Gopalakrishnan (2005), inventory includes all items with a monetary worth. The central stores at NovaFeed carry a variety of goods, from high-priced things like engines truck accessories, feed machinery accessories and maize to low-priced items like office supplies like pins, pens, books and teas. According to Nair (2005), inventory is one of the major things for many businesses, accounting for 40–50% of total investments or 80–90% of working capital. Every firm must strike a balance between supply and demand, and Coyle (2003) emphasizes that this is a difficult task. Ideally, an organization would maintain just enough inventory to assist it meet consumer demands while avoiding having too much because doing so incurs expenses. The ultimate goal of every organization's inventory holdings, in Coyle's opinion, should be to have just enough but not too much.

2.4 Types of inventory

It's critical to recognize the various inventory classification with their categories. There are several different kinds of inventory, including pipeline, cycle stock, buffer, safety or speculative, dead and seasonal stock. In his classification of inventory, Stock and Lambert (2001) identified six basic types: cycle stock, pipeline, safety, speculative, seasonal, and dead stock. He defines cycle stock as the amount of stock needed to meet demand under given conditions that arises from the replenishment process. It happens when the company can accurately forecast demand and supply times (lead times). Cycle stock is the typical stock utilized in operations, according to Walters (2003). Inventory in a pipeline is that stock which is traveling from one place A to another place B. Although it won't be accessible for shipping or purchase until after it arrives at the destination and it may still be regarded as part of the cycle stock. According to Viale (1996), pipeline inventory is that which is transferred from one location to another. According to Walters (2003), inventory in a pipeline is that type of stock that is being currently transferred from one place A to another place B.

The inventory stored in excess of cycle stock is known as safety stock and is done so due to unknown lead times or demand. According to Walters (2003), it is a stockpile of supplies kept on hand in case of an emergency. The idea is that a part of typical stock should be put aside to provide for sudden changes in lead and demand time. Stock that is held for the purposes other than meeting demand right now is referred to as speculative stock. These are stocks that were purchased in advance of price hikes. Stocking up on inventory before a season as part of a speculative inventory known as seasonal stock. Tends to maintain a steady workforce and production runs, or in the context of agricultural products, inventories built up since a growing season limits supply all year. The collection of products in which there hasn't been no documented demand for a specific period of time is known as dead stock. They are obsolete, harmed, or unusable as a result of innovations in technology.

2.5 Other types of inventory

According to Ile (2002), inventory is divided into three categories:

- i. Inventory in form of raw materials.
- ii. Inventory in form of Work-in-progress.
- iii. Inventory in form of finished goods.

Raw materials

Inventory of raw materials consists of all goods acquired by a company for processing. For instance, all of NovaFeed turbochargers, maize, wheat bran, and break shoes are raw materials that are brought into the organizations inventory to repair the trucks and the manufacturing of feed.

Stock of Work-In-Progress

Inventories of products in process are another name for this. The plant needs to complete this level of raw material inventory before moving on to the next step of processing. These are the type materials that have only partially undergone processing for example soya cake.

Goods-Finished Inventory

This is the finished goods type inventory. The level of finished goods stock depends on coordination between the organization's production and sales departments. They may be goods in the warehouse or in stock of goods awaiting for sale for example stock feed.

2.6 Inventory management theories

This study is grounded in the concepts of theories of inventory control. It also disregards NovaFeed susceptibility to environmental influences. This section delves into the theories that have been recognized as shaping behavior for the study's problem and identifying the study's origin. These theories include inventory control in theory, practice, application control theory and stock diffusion theory. The theories were chosen because they give the business a strong foundation for controlling its inventory, including reordering, receiving, storing, and distributing goods to customers.

2.6.1 Stock diffusion theory

To ascertain the probability distributions of stock reorder time and consumption time, Braglia et al. (2013) created the initial stock diffusion theory. The significance of applying stock diffusion theory to identify and evaluate what is needed for inventory in both theory and practice was underlined by these authors. The stock diffusion theory takes three factors into account: the availability of storage space; the rate of turnover or use; and the prevention of inventory obsolescence before its end of useful life. These factors can stop shortages and unnecessary spending. Mohammed et al. (2011) also backed the stock diffusion theory, stating that it has been proven to lower inventory levels and directly affect cost reductions arising from stock and other related inventory costs as well as storage costs.

2.6.2 Application control theory

Ortega et al. (2004) proposed this idea to lessen inventory volatility, lessen demand growth, and improve ordering rules. Ramachandran and other (2008). The proactive measure of inventory forecasting has also received little attention. While Venkateswaran (2011) noted that application control theory plays a crucial role in dealing with demand uncertainties, other businesses may have concerns about inventory control in a setting with flexible demand. In the situation of unpredictable demand, the theory, for instance, can provide suggestions for reorder procedures to solve the issues of when and how many to order. Demand uncertainty is evidently subject to intervals and can lead to the large effort being put into procurement because there is no fixed time frame between demand and the quantity of reordering. Customer satisfaction in this circumstance may also call for strong managerial backing and sophisticated procurement techniques that put theory into practice, according to Minner (2010).

2.6.3 Inventory control in theory and in practice

Wei (2012) noted that theoretical inventory control can be a first step toward resolving inventory control-related technological issues. As indicated by Jonsson et al, stock counting and appraisal are best handled by comparing documented inventory stock quantities to the actual quantities on the ground (2008). As a result, active inventory management measures are prioritized over proactive inventory control. Wesley (2013) claims that inventory control, both in theory and in reality, may aid in reconciling the physical stock of an organization's inventory with its records. This can be done by employing three tools: (SKU) stock keeping units, bar codes, and manual. A (SKU) stock keeping unit is a tool that makes it possible to track down a product using its distinctive number. An electronic bar-code device tracks inventory that has been received, issued and stored, whereas a manual process allows for counting, identifying, sorting and physically locating things on the shelf while also providing the product's price. Johnson (2012) thought that by guaranteeing accurate records of the actual inventory position, balanced inventory control in theory and practice might reduce inventory fluctuations.

It can be accomplished through practical exercises when placing reorders, storing and distributing the inventory stocks as directed by the stores manual policy of the organization. In essence, implementation control theory and stock diffusion theory assist in striking a balance between inventory control in theory and practice.

Inventory control management systems

2.6.4 Periodic Inventory Control System

A recurrent inventory count at predetermined intervals is covered by the periodic inventory control system. In this method, warehouse managers manually count inventory once each month, sometimes a quarter, or even once a year. The needs and commercial operations of the company decide the exact time frame.

Positives: With smaller stocks, it's rather straightforward and manageable. Because it doesn't need any particular technology or equipment, it is simpler to teach people in.

Cons: For businesses with large stocks, the procedure takes a while. Human mistake is a significant risk factor in the manual counting procedure.

Best for Small businesses with low inventories should use the periodic system. Additionally, it functions best for companies that sell specialist products and larger-sized goods.

2.6.5 Perpetual Inventory Control System

The everlasting inventory control system ensures precise real-time inventory counts. It uses technology like scanners and RFID (Radio Frequency Identification) tags to track things. The information is then entered into a database that warehouse managers can access. Benefits: By using this approach, human counting is not necessary. It provides warehouse managers with an overview of their inventory counts throughout a predetermined time frame. As a result, decisions about sales, ordering, and inventory management are driven by data.

Cons: Upkeep costs for inventory control software can be high. Moreover, it could miss differences as a result of product theft, loss, breakage, and scanning mistakes.

Ideal for: For businesses with several locations, the perpetual system performs well. It's also excellent for companies keeping vast inventories.

Inventory or stock management can be used interchangeably, according to Hines (2004), and this is a crucial aspect of overseeing supply chain operations. According to Walters (2003), inventory management is a function that handles all stock-related decisions for an organization. Decisions are made about activities, policies and processes to make sure the proper quantity of each item is kept in stock at all times. The main obstacle that management must overcome is lowering stock holding expenses while still meeting client demand. Inventory management is keeping track of stock levels, demand, forecasting and determining how much and when to order. The basic goal of inventory management, according to Lucey (1996), is to reduce the overall cost of inventory. Inventory control is used to maintain track of inventory movement and to show how much stock is at hand any given time. This applies to each and every item utilized from the time it is ordered until it is delivered to the consumer.

To qualify as efficient, inventory management must maintain the proper quantity of goods in the appropriate quality at the appropriate times at the appropriate locations. The system itself will make sure that capital is not held back unnecessarily, allowing for smooth flow and controlling any potential issues in the supply chain. According to Lambert (2001), a company's excessive

inventory purchases may result in a higher stocking fee or cost, which can affect profitability. The stocking of products that don't sell or move rapidly can then be examined by an inventory management system in order to prevent inventory surplus. Also, according to Chari (2008), inventory is always the biggest asset on the balance sheet and must be effectively managed because of this. Inventory management is therefore essential to an organization's profitability because a significant portion of a company's costs can be ascribed to the quantities it invests in inventory and the associated holding, logistical, and administration costs. Hence, inventory management requires more than just planning and replenishing of inventory; it also necessitates managing inventory to maximize revenues and services.

2.7 Objectives of an effective inventory control system

The term "objectives" refers to the goals that an organization's management sets for itself to use as a yardstick for performance. These goals should be reasonable and doable. The goals of proper inventory management were established by Sachin and Shagufta (2009) and are stated below.

- To guarantee a steady supply of raw materials to support continued operations and output.
- Have enough raw materials on hand to cover periods of shortage and be aware of pricing fluctuations.
- Have enough finished goods on hand to ensure efficient customer service and effective sales operations.
- Reduce inventory expenditures and keep investment in inventory under control by keeping the right amount of inventory

According to Lambert (2001), inventory is a significant capital expenditure, and as a result, the goals of inventory management are to boost corporate profitability, forecast how corporate policies will affect inventory levels, and, finally, reduce the overall cost of logistical activities. According to Lucey (1992), maintaining stock levels is the overarching goal of inventory control in order to keep the sum of holding, ordering, and stock-out expenses at a minimum. This entails reducing the overall expenditures related to stock. By deciding when and how much to order, this is accomplished.

Effectiveness of all internal processes inside a company is a good way to define organizational effectiveness. Many businesses rely on financial indicators like ROI or ROA to gauge

effectiveness, even though it is well known that senior managers and accountants typically measure the outcomes of most organizational operations in monetary terms.

Yet, efficacy in this context was defined as the capacity to meet predetermined inventory levels, assessed in terms of monetary indicators like inventory turnover.

2.8 Justification for holding stock

The three primary justifications for maintaining inventory, according to Sachin and Shagufta (2009), are uncertainty, time, buffer stock and economies of scale. Everything in life has a price or a value, according to Richards (2011). Ordering, buying, and shipping inside are some requisition charges that must be paid for and that organizations must face. The majority of the time, businesses decide to maintain acceptable amounts of stock as a tactic to reduce order costs also make the most use of available storage and space. Also, there are expenses associated with holding and keeping inventory, but these expenses might be compensated by the advantages of maintaining adequate quantities of inventory. According to Lonergan A (2001), if inventory is required to be retained, reason must be clear. According to the author, there are several reasons to hold inventory, including delivery cannot be made in a way that precisely matches the rate of usage day by day. Cost savings from manufacturing in or buying in bulk large quantities more than offset the cost of stocking. Operation risk necessitates the holding of stock to protect against breakdowns or program changes. For ongoing projects when a perfectly balanced production flow is impractical, such as when furniture is disappearing or drying time is needed. For finished goods where there is a buffer stock holding option between production and the client. Hence the price of a product can fluctuates, it is preferable to purchase stock when prices are still low. Keep materials in storage, such as sugar, so they can increase in value. To draw clients to a variety of products from which they may make quick delivery decisions. Due to the buying organization's remote location from potential supply sources, lengthy wait times are unavoidable. This typically occurs in the extracting industries. In addition, Walters (2003) adds that organizations keep inventory in order to fill orders for delivery and cut down on transportation costs.

2.9 Cost associated with holding stock

Hugo (2002) makes the idealistic argument that, given the objectives of ensuring a consistent supply of materials for the progressive ongoing activities, inventory management's principal

purpose is to keep stockpiles at the lowest cost. However, it is required to compromise between a number of cost components, including supplier inventory, holding inventory, and stock out costs, when making decisions on cost management. He contends that effective stock management demands a good knowledge of every aspect of stock holding, including stock out costs, ordering costs, inventory holding costs, and set up costs.

The three major categories of expenses that together make up total inventory costs are purchasing costs, setup costs and holding costs, according to Sachin (2005)

2.9.1 Holding costs

These expenses, which come from keeping inventory, are also known as carrying costs. When there is extra inventory, the holder must be prepared to offer a location to store it when not in use. According to Gopalakrishnan (2005), keeping commodities in stock in the form of spare parts, raw materials, machinery, semi-finished goods, and finished goods incurs significant costs for the organization in terms of what are known as warehousing or storing expenses.

2.9.2 Setup costs

These are expenses related to setting up a machine to create the desired good.

Gopalakrishnan (2005) adds that due to job changes in the manufacturing shops, the organization must build up expenses for various occupations in correlation to ordering costs. It necessitates the setting up, taking down, and setting up of several jobs repeatedly, adding needless additional costs.

2.9.3 Simply put, purchasing costs are the price of the actual thing that was acquired.

Effective management and control are required because inventory frequently makes up a sizable amount of an organization's assets. High inventory levels can have two separate effects on a company's profitability. If the business takes out a loan particularly to pay for its inventories, the out-of-pocket expenses related to keeping inventory, such as taxes, insurance, storage, damage obsolescence and interest expenditure, lower net profit. Furthermore, the investment in inventories increases overall assets, slowing asset turnover. This lowers both the return on assets and the return on net value. The need for businesses to sell to consumers or generate finished goods to sell to customers is cited by Stephen (2003) as one of the reasons why inventory is one of the major assets a company owns. The possibility of supply shortages and customer complaints is eliminated, which

is one benefit of keeping excess inventory. The negative effects of keeping excess inventory must also be carefully considered by businesses. As costs associated with keeping inventory.

2.10 Inventory Control Methods

There is no one inventory control approach that is advised because each manufacturer is a unique firm with its own set of operational procedures and business processes. I have supplied the following list with brief summaries of each approach to give you an idea of some of the most popular inventory control techniques now in use. Some of these are more relevant to manufacturers than others, so I'll emphasize those.

2.10.1 Just in Time (JIT)

The JIT inventory management strategy, according to Sanchez (2012), specifies that an item will only be ordered if it is needed for manufacturing. The items may have been ordered some few days sooner, depending on the supplier's stated delivery time. "JIT helps firms save on inventory holding expenses by keeping stock levels low, and minimizes situations where deadstock remains on shelves for months at a time. Before incorporating JIT into your business operations, you must conduct in-depth research about client purchasing patterns, seasonal demand, and trustworthy suppliers and transportation networks in order to reduce risks and errors. - Trade Gecko's Inventory Management Techniques.

2.10.2 ABC Inventory Control

Hamlett et al (2010) ABC inventory control is a method of categorizing and managing inventory based on its priority level. This strategy is frequently used in retail industries, sometimes in conjunction with another method. This approach categorizes inventories into three categories based on real sales and customer demand. A-level products are typically in high demand and provide the majority of revenue. A popular approach is to include in this group the top 20% of products that account for around 80% of sales. B-level products contribute less, whereas C-level products perform poorly and contribute only little to the company's bottom line.

2.10.3 Fixed Quantity

The fixed order quantity model is another name for this inventory control strategy. According to Lambert (2001), the fixed order quantity or fixed order point model is one technique used for inventory control in uncertain circumstances. According to Lambert, the order is only made when

there is enough stock on hand to make the order economically, and it will be reordered whenever demand declines below the amount of available stock. This strategy, which is commonly adopted by retailers, guarantees the continuous replenishment of current inventory and helps to avoid ordering errors. An order for a set amount of more stock is placed when inventory reaches a certain level. Inventory management features included into an ERP system should automate this process. This model assumes that your sales and lead times will be constant, and that you'll regularly monitor your inventory. A corporation must be aware of the minimum or maximum stocking capacities of a specific items, based on sales trends and space allocation, in order to maximize the effectiveness of this strategy.

2.10.4 Minimum/Maximum (Min/Max) Stock Levels

This system establishes upper and lower inventory limitations for each product, and when inventory reaches the lower limit (min), you order the necessary quantity to achieve the upper limit (max). Although simple to use, this strategy does carry the risk of running out of stock before the next shipment arrives or, if the maximum is set too high, of having too much stock. When determining minimum and maximum inventory levels, it's beneficial to use precise sales forecasting and sales cycle identification in order to reduce these risks.

2.10.5 Order-Cycling System

This method involves taking an inventory at frequent intervals—every 30, 60, or 90 days, for instance—and placing orders to ensure that there will be sufficient supplies until the next inventory is taken. Since it takes quite a bit of time for organizations with larger inventories to adopt, this method is more probable to be effective for smaller businesses.

2.10.6 Two-Bin System

According to the investing dictionary (2013) is an inventory control method used to check the quantity of an items left behind. For little or low value items, the two-bin inventory control approach is typically employed. Products are separated into two bins using this method. Deliveries are made using the first bin, which also houses the bulk of the merchandise. When that bin is empty, orders are filled with the leftover stock from the second bin until new stock is received. This approach necessitates a precise estimation of the quantity of merchandise to keep in the second bin so you never run out and potentially miss a transaction. Rotating the stock between the

two bins is a good idea as well to avoid any deterioration. It is used to control overstocking, understocking issues and as well as keeping track of mismanagement of material, (Stevenson (2006).

2.10.7 Vendor-Managed System

Here is an example of an inventory control system used frequently in retail settings, where the supplier is in charge of keeping inventories. Every day, as merchants replace the supply of their products on grocery store shelves, a fantastic illustration of this strategy is on show. The vendor often receives shelf space from the store in exchange for a consignment fee for any goods sold there.

2.10.8 Three Bin Method

This method, which is an extension of the Two Bin System and is frequently employed in manufacturing settings, only maintains a third bin at the supplier's location. According to the terms of the agreement, the supplier will refrain from producing more goods for the maker until the reserve bin is empty. In particular, as the stock in the first bin runs out, it is replaced with stock from the second bin, which is then taken to the supplier to be replenished when it is empty. When that happens, the supplier will produce more goods to replenish the third bin's inventory.

2.10.9 Fixed Period Ordering

This strategy includes reordering goods at predetermined intervals, as the name suggests. Vendors will check their stock on-site at the retailer and resupply products based on sales during that period. This practice is frequently used in smaller retail environments, such as pharmacies or small grocery outlets.

2.10.10 Perform Periodic Audits of Existing Systems

Manufacturers should periodically audit their current systems to determine if they are performing as expected and if growth and change can be accommodated well into the future. If spreadsheets continue to be the main source of "information" in the warehouse, your business should think about adopting a different strategy. If your analysis suggests investing in a new manufacturing ERP system with integrated inventory management, be sure the suggested solution complements your business operations and supports the inventory control strategy you think most appropriate.

2.11 Inventory security techniques

Cavinato (2000) argued that finding the right balance among customer service and inventory investment is crucial when deciding on an inventory management approach. Inventory can be decreased, but earnings will suffer if customer service and sales are also decreased. Finding strategies to minimize inventories is the key objective without compromising client service. These writers recommend the following strategies as a way to cut inventory expenditures as a security measure.

2.11.1 Stock taking

Physically counting, weighing, and measuring each item in the stock constitutes stock taking. Stock taking, according to businessdictionary.com, is the process of physically confirming all of the amounts and conditions of products kept in inventory as a foundation for an accurate inventory valuation and audit. According to Coopers and Lybrand (1984), the information gathered from a physical stocktaking sheet may be used to determine the amount at which stock is indicated in the accounting records.

2.11.2 Determining re-order levels

Reorder level is defined by Nair (2005) as the availability level at which the item's recoupment should be started. According to Owler and Brown (1993), the choice to order is influenced by the reorder level, which is the threshold at which it is imperative to start looking for new supplies resources for materials. This point will be higher than the minimum stock level so as to cover such emergencies as abnormal usage of material and unexpected delays in delivery of supplies. Reorder level is described by Businessdictionary.com as the minimal quantity of an item that a company has in stock, which, when stock falls below that quantity, prompts rapid attention for replenishment.

According to Homgren (1991), the inventory quantity level that initiates a new order is the reorder point. The amount of time that will pass between making an order and receiving the stock, however, must be known in order to determine the reorder point. This era of time is referred to as termed the lead period. When the gap and the rate of demand are known with confidence, an accurate choice may be made about when to place a new order. But, in the actual world, both will change at random, thus the order must be placed so as to leave buffer or safety stock, if demand and lead-time follow the average pattern.

Improved communication within the supply chain

A supply chain, according to Lonergan (2001), is made up of all the exact steps necessary to get a particular product from its raw materials to the consumer's hands. Improvements made to supply chain connectivity will guarantee that safety stock is removed without client service being affected. Purchasing can employ a variety of methods, including electronic commerce, which involves the sharing of information electronically, to promote improved communication along the supply chain. Locating supplier staff at various stages of your supply chain is another strategy purchasing may use to promote communication. Lambert (2001), states that the major purpose of inventory management is to create an optimum balance between inventory carrying costs and customer service.

2.11.3 Reduced supplier lead time

Lead time is the period of time between placing an order and receiving the product. According to Lambert (2001), lead time is the interval between the day an order is released and the day the items are received in the stockroom. Lead times, in the opinion of Cavinato (2000), directly affect the less backup stock is kept, the less inventory is carried, and the shorter the lead time is must be transported. The main difficulty in purchasing is collaborating with suppliers to try to cut down on idle time. The buyer nevertheless can conduct the following activities. This entails tracking supplier lead times, inbound transportation times, transport times to customers, manufacturing lead times, and the duration of each supply chain stage and Cycles for distributing goods. Identifying the goods and suppliers with the longest lead times, starting with them, and negotiating for shorter lead times. To dispute supplier lead times, the buyer needs to be in a stronger position.

2.11.4 Standardization

To achieve the highest level of order and uniformity in a discipline or field of study, standardization refers to the design and application of guidelines, norms, and standards for frequent or repeated use. It should fall under their purview. Purchasing to lower the quantity of things by working with suppliers. By using standard parts and consolidating similar part numbers, the number of parts can be decreased. Forecasting can be more accurate with fewer products in larger numbers. Standardization also assists the buyer in reducing expenses, which is the fundamental goal of purchasing.

2.11.5 Reduce surplus or obsolete inventory

Possessing surplus or outdated inventory might be costly to the company. It is possible to remove excess or outdated inventory without endangering client service. Riding the warehouse of outdated goods is a good strategy, and strong operating policies will produce good financial results, claims Sachin (2009). To analyze and get rid of excess materials, the committee for purchasing should include active members. There are several ways to get rid of excess or obsolete inventory, including using it where it is needed within your company, negotiating to have it returned to the supplier, selling the inventory to other businesses who might need it, promoting and selling at a discount to customers, donating the inventory to a local charity that also helps the organization's reputation, and as a last resort, scrapping the parts.

2.11.6 Supplier quality

Fit for purpose is a measure of quality. Poor supplier quality will increase expenses across the board, including extra inventory costs as well as rejection, rework, warranty, inspection, and unnecessary expediting fees. Choosing suppliers of outstanding quality presents the biggest problem for purchasing because it has a significant impact on the firm. The process by which suppliers are screened or encouraged to obtain ISO certification, as well as the supplier quality audit process, should involve buyers. Buyers have a responsibility to start a corrective action plan and make sure it is carried out when suppliers have quality issues. It is also possible to lower the quantity of safety stock by raising the caliber of suppliers to improve on time delivery

The act of receiving the consignment is called delivery. To make up for suppliers who can't deliver items on schedule, that's one of the key reasons why safety inventory is kept on hand.

Talking to suppliers and letting them know how you rank their delivery performance are actions that a buyer can do. Questions like the projected wait time and how it is computed, as well as the shipment date and receipt date, need to be made clear. Delivery should be one of the primary metrics in your supplier rating program and the foundation for honoring outstanding performance from suppliers that met their deadlines. Providing annual recognition to suppliers who perform at a high level might inspire additional vendors, expanding your network of vendors.

2.11.7 Setting up a supplier managed inventory program

A vendor controlled inventory program, according to Sachin (2009), comprises the product buyer giving particular information to a supplier of a particular product, after which the supplier will be entirely in charge of maintaining and managing an agreed-upon material at the buyers' consumption store.

Due to current technological developments, suppliers and the purchasing department must work closely together. Purchasing is one division that has the opportunity to collaborate with significant suppliers to develop a program to control and maintain inventory for you with the aim of reducing overall inventory rather than merely moving inventory to the supplier. Vendor-managed inventory involves the supplier managing the stock on the client's behalf. Because the supplier will be in control thanks to the use of electronic device interchange (EDI), it has become simple

2.11.8 Revise order cycle

Fewer inventories result from smaller and less frequent order quantities. The issue that will be brought up is whether there is enough room to accommodate the increased number of switchovers needed by the more frequent cycles. If the capacity loss can be compensated for by running low demand sections less frequently, buyers should be permitted to do so. According to Sachin (2009), figuring out order frequencies is one of the most important supply chain variables because it has a significant impact on almost all of its components. Before implementing the strategy, it is more important than ever to have a complete grasp of the costs and capabilities of the supply chain.

2.11.9 Inventory centralization

Having one central location where all the activity is carried out, as opposed to having spread warehouses, is what centralization means. According to Sachin (2009), safety stock will be the main factor for scattered warehouses to need greater inventory overall than centralized facilities. The quantity of safety stock grows along with the number of facilities. If centralization is necessary, then a decrease in order quantities is also conceivable. Customers may be able to minimize the overall order quantity by placing more frequent orders for a single focal location.

2.12 Importance of inventory control management

One of the biggest and most tangible expenditures made by every manufacturer or store is inventory. Effective inventory management techniques can not only increase profits but also

determine whether a company is able to make it through the day or not (Peterson and Silver, 1998; Zipkin, 2000). The goal of inventory is to maintain stock at the lowest possible cost while setting goals to guarantee continuous supplies for ongoing operations. Miller (2010) claims that inventory control is the process that manages an item's availability to customers. To meet the needs of the marketing, it coordinates the functions of manufacturing, distribution, and purchasing. Inventory management should be efficiently handled through efficient inventory management procedures because it is essential to the financial performance of organizations. Inventory control is viewed as a managerial activity that includes requirement analysis, forecasting, goal-setting, and directive issuance. According to Leeuw et al. (2011), inventory is a key problem in operations management (OM) and a considerable expense in the supply chain. According to the idea of inventory management, the minimum inventory levels should be determined in light of external factors such as batch sizes, product diversity, supply and demand uncertainties, and lead times for supply and delivery.

A firm must make plans for the upkeep of precise stock levels before it even has consumers. Additionally, it must maintain a method for raising those levels as needed by the business, which necessitates the adoption of efficient inventory management practices (Shah 2009). So, without these controls in place to monitor stock levels, it will be fairly simple to allow stock levels to drop to unsafe levels, which may prohibit the company from satisfying consumer demands and damage the company's goodwill (Kant et al 1995). Given the foregoing, good inventory management aids an organization in keeping accurate records of how much money is spent on stock and how much inventory is actually on hand, try to keep the cost of the inventory under control from both the standpoint of the overall cost of the items as well as the tax burden brought on by the stock's cumulative worth. An organization can keep track of time and learn how long a supplier needs to complete an order and carry out delivery when inventory management is done well.

Moreover, inventory management is essential to an organization's expansion and survival because ineffective inventory management will cause a reduction in the company's market share and profitability. According to Coyle et al. (2003), "inventory has taken on an enhanced relevance as an asset on the balance sheet of enterprises due to the policy of many organizations to limit their investments in fixed assets."

2.13 Reason for keeping stock

According to Schroeder (2000), storing inventories might be done for transactional, preventative, or speculative reasons. According to Lyson (1996), inventory serves as protection against unanticipated developments, delays, and other disruptions that can hinder ongoing operations. This is by separating each separate element of the whole activities, inventories ensure a seamless flow of business operations in organizations. These inventories increase providers' ability to organize, create, and fulfill orders for a particular product (Dobler and Burt 1996). The capacity to maintain inventory services at an agreed-upon service level in a predictable manner with acceptable risk and expense is made possible by the flexibility of the inventory service.

Customers can evaluate and test this feature. Throughout the supply chain, it is crucial to manage inventories to provide a high level of customer service. But, maintaining an asset is quite expensive. Three categories raw material inventory, work-in-progress inventory and finished goods inventory reflect the degree of inventory availability to customers (Lieberman et al 2002). Inventory, according to Benton (2010), can also be employed as a buffer against inflation and price hikes. Salesmen frequently phone buying agents before a price rise takes effect.

This offers the buyer the ability to buy materials that are more than what they now need for a lower price than they would pay if they waited until the price increase takes place. Similar to the aforementioned authors, Christopher (2010) also emphasizes three reasons for maintaining inventory. First off, because of the time delays inherent in the supply chain from manufacturer to user at every level, a company needs to have a certain amount of stock on available to act as a buffer versus stock outs.

The second reason is that the accessibility of inventories acts as a buffer against changes in supply, demand, as well as commodity mobility. The last justification for keeping inventory is using economy of scale, which typically results in lower costs for shipping, stock purchasing, and storage.

Moreover, Bloomberg, Leemay, and Hanna (2002) clarified that a shop remains in operation when he has the item the client wants in stock. If not, the store will need to place a backorder for the item. Instead of waiting so that the original customer can meet demand later, the customer may decide to do so if they can obtain the items from another source (through back-order). So, if products are not in stock, in some cases a sale is lost forever. To encourage the best purchasing and uniformity of operations in the receiving, storage and issuing of stores within Company,

Novafeed has implemented an inventory management policy. The policy has a huge impact since it supports maintaining accurate stock levels and records. This aids in meeting the requirements of the entire organization.

2.14 Empirical evidence

A review of the empirical literature includes several publications that aim to inform readers about studies that have been conducted elsewhere with the goal of illuminating and defending the need for such studies on inventories and inventory management systems.

2.14.1 Nicholas Ewiene Addy (2012): Improving stores, warehouse and inventory control

This thesis work was done to assess Ghana Rubber Estates Limited's present finished-goods and fertilizer warehouse management processes, as well as the fertilizer inventory management (GREL). The goal was to identify areas for improvement, identify strategies to enhance warehouse and inventory management, and come up with solutions to increase operating efficiency and transport safety. In order to provide improvement ideas for GREL, theoretical discussion was combined with present operations in this work. Some of these areas were internal transportation, warehouse management, inventory management, transport safety and operational efficiency. At the conclusion of the project, recommendations for enhancing the management of both warehouses and the inventory of fertilizer were made. Their recommendations included changing the fertilizer warehouse's storage arrangements and the completed goods warehouse's floor delineation by marking or striping. Reducing inventory levels was suggested as a way to improve the management of the fertilizer inventory. The economic order quantity (EOQ) policy was to be used after first negotiating for a reduced lead time.

The study's findings support the notion that inventory control systems improve organizational performance in mining enterprises in both direct and indirect ways. Also, it can be deduced that the inventory control systems employed in this study have a favorable impact on the efficiency of purchasing in mining enterprises. Moreover, inventory control systems aid mining enterprises in Zimbabwe in increasing their profitability, output, and cost effectiveness. For effective inventory control procedures, it is advised that mining companies in Zimbabwe implement contemporary inventory control systems like (ERP) Enterprise Resource Planning, Continuous Review System (CRS), (PRS) Periodic Review System, (DRP) Distribution Requirement Planning, (JIT) Just in Time, and the (EOQ) Economic Order Quantity. These inventory management systems permit for

effective inventory control procedures, by successfully controlling the lead time, these inventory control systems help mining businesses maintain appropriate inventory levels.

2.15 Justification of the study

Despite numerous investigations that have been conducted by numerous scholars worldwide, the author is adamant that the study is of essential importance. One may anticipate that managers looking to obtain a competitive advantage through inventory control would turn to the seemingly endless stream of research linked to inventory theory as a valuable resource. Because the majority of earlier studies were conducted in nations with economies that differed from Zimbabwe's and because some inventory management strategies used in other nations differ from those used in Zimbabwean manufacturing enterprises, it may be said that there is a knowledge gap in this area. Thus, research must be done in order to match Zimbabwe's economic activity structures with the inventory management practices now used by manufacturing enterprises. The study aims to fill in the gaps left by the paucity of comprehensive studies on the variables impacting efficient inventory control in the feed manufacturing industry. As a result, research is required to connect Zimbabwe's economic activity structures with the inventory management strategies already utilized by manufacturing businesses. The study seeks to fill gaps created by a lack of comprehensive studies on the variables influencing efficient inventory control in the feed manufacturing business.

2.16 CONCEPTUAL FRAMEWORK

Table 2.16 conceptual frame work



Source: Primary data

In order to clearly illustrate the relationship between GAAP/Pastel inventory control management and their security. The researcher developed his own framework in an attempt to clearly explain and clarify how these challenges drives the organization to a poor performance. The framework explains the influence of stock not tallying, mistakes, theft, fraud and errors. The variables explained below shows the relationship between inventory control and the security they offer.

2.17 Summary.

Given the contradictory findings of the theoretical and empirical literature addressed in this chapter, more research is needed to determine the precise effect of inventory control systems on business profit as well as security matters.

CHAPTER III

RESEARCH METHODOLOGY

3.1 RESEARCH METHODOLOGY

In the words of Rajasekar, Philominathan, and Chinnathambi (2013), research methodology is an organized way of problem-solving. It outlines the steps necessary to carry out a research. They went on to note that the idea necessitates taking into account how data will be obtained for research. The idea is essential since it aids in developing a plan or timetable for the research. Both of primary data that has been directly obtained and secondary data which has been retrieved from secondary sources including company stores and warehouse records may be used in the study approach. The main thrust of this chapter is to show how inventory control systems in manufacturing organizations and their security in keeping stock and stock movement information air tight and tallying: The case of NovaFeed.

The real data sources, the research process, and other investigation analytical frameworks are also attempted to be described in this chapter.

3.2 Research approach

A method of qualitative study was used by the researcher. The aim of qualitative study technique, as defined by given (2008), is to identify the human factors that are related to specific events and themes in terms of how individuals interact with the world around them. As stated by Denzin and Lincoln (2005), citing Borgan and Taylor (1987), qualitative research is focused on examining the entire issue, and the researcher usually gets exposed to a lot of material. Typically, case reports are utilized to gather this information. The researcher was compelled to adopt this strategy as a result of making use of the Nova feed as a case study because it addressed concerns about the topic under investigation and because it provides rich, detailed, and valid process data derived from the participants' perspectives rather than the investigators'.

3.3 Research design

The procedures employed to conduct an inquiry make up the bulk of a research design. Rajasekar, Philominathan, and Chinnathambi (2013; 22) state that a study design "demonstrates the different methods that a scholar will use in exploring the problem." The framework for the whole process of research is therefore created. In other words, this is a method that aims to direct the steps of data gathering, interpretation, and analysis during the research process and illustrates the way the research's conclusions were arrived at. According to Mcleod (2008), the researcher used a case study, which is an in-depth examination of numerous phenomena that may concern a single person, an organization, or a community

He added that information is obtained from various contexts using a variety of research methods, including surveys and interviews. This design was chosen by the researcher because it allowed for close contact with the chosen population and a direct examination of the phenomena under investigation. Mcleod (2008) goes on to say that case studies give a researcher the opportunity to connect directly with the participants and conduct an in-depth investigation of the subject under study. In order to determine the optimum inventory system in terms of inventory security, the investigator used Nova feed as a case study.

3.4 Sampling

Sampling, according to Somekh and Lewin (2005), is the process of identifying and selecting individuals from a substantial population into which they belong in order to be included in data collection

3.5 Sampling Method

Purposeful non-probability sampling was employed in this investigation because it is simpler, less expensive, and faster than probability sampling to choose the units that would be included in the sample. According to Haijimia (2014), the technique of purposeful non-probability sampling entails the researcher selecting persons with knowledge, skills, and experience pertinent to the subject or issue under investigation and using them as the sample group. According to Kumar (2011), non-probability sampling does not randomly select individuals; rather, only those individuals who are competent and knowledgeable about a certain problem are chosen. In this regard, not all employees were aware of the organization's security protocols and inventory control systems. The knowledge and information is restricted only to the warehouse team which include

the Warehouse Manager, Warehouse Supervisor, Stores managers and stores assistants. The researcher used purposive sampling because, it enabled a better cross section of information obtained from knowledgeable individuals, other than collecting information from everyone else even those without information and expertise pertaining Inventory control systems.

3.6 Sampling Frame

Turner (2003) defined a sample frame as the entire population from whom participants in the study would be drawn. The sample frame's objective is to give the researcher the ability to pinpoint individuals from the group of people that will be taken or used for the study. The sample frame for the research was HOD's of departments and other employees to see if they have the knowledgeable about inventory control systems and their security at the head office of Nova feed Pvt Ltd in Harare. The respondents that the researcher used are the stores personnel, mechanics, human resources, engineers, accounts/finance, security, operations managers, drivers, production, warehouse, hatchery, general hands, poultry field officers, and logistics.

3.7 Target Sample size

The total number of people who participate in the anticipated population under research is referred to as the sample size. The sample size must be compelling, according to the Bio-Online Dictionary (2015), in order to demonstrate how the research's conclusions relate to the general population. A sample size is, to put it simply, the total number of people who participated from the complete sample who could receive research tools. For validity and reliability to be guaranteed, the sample size must be sufficient.

Table 3.7.1 shows the population that was targeted for the research.

Category/Designation	Total Population	Target population
stores personnel	3	2
mechanics	10	2
human resources	1	1
engineers	2	1

accounts/finance	9	3
security	3	1
operations managers	5	2
drivers	10	3
production	15	3
ware house	5	2
hatchery	16	2
general hands	35	5
logistics	12	3
poultry field officers	4	2
Total	130	32

Source: Primary data

3.8 SOURCES OF DATA

Either primary or secondary sources of data were used in the data collecting.

3.8.1 Primary data

Primary data, according to Kumar (2011), are facts that are taken directly from sources. Primary sources provide first-hand testimony that the topic under study is real or legitimate. Information is gathered from eyewitnesses who witnessed the incidents under investigation. Faume (2013) asserts that primary data consists of information acquired from witnesses who were present and government records. Semi-structured questionnaires and interviews were also employed by the researcher. Primary data is a crucial source of information, according to Faume (2013). First-hand information from the field is trustworthy, real, and reliable since it allows the researcher to gather data from the original contexts and sources.

Particularly with primary data, the researcher has more control over the information gathering process because just the information that is required will be collected. The ability to get

information directly from participants is another advantage of using primary data over secondary data, which limits engagement with participants since the material is already public. Examples of research instruments that can be used to gather information directly from participants include questionnaires and interviews.

3.8.2 Secondary data

Law Teacher (2013) defined Secondary data as information which was initially gathered but can be found in other sources. Simple to reach via alternate sources. The data is more readily available and easier to obtain than the main data that must be gathered. Because secondary data may be used more quickly than primary data, the researcher picked it. Aside from working for the organization for 8 years, the researcher also gathered current information from often updated sources like newspapers, e-journals, journals and books. Of the secondary sources the researcher utilized to get secondary data was the NovaFeed weekly managerial brief.

3.9 RESEARCH INSTRUMENTS

Research instruments, such as observations, surveys and interviews, are defined by Annum (2015) as data gathering tools created and utilized by researchers. According to Annum (2015), it is the duty of the researcher to choose study instruments that are useful and consistent with the issues they are attempting to address. For this study, the researcher used semi-structured questionnaires and semi-structured interviews. In order to equalize out flaws and avoid biases that can arise when utilizing just one tool, it is imperative to use two.

1. Semi-structured Interviews

A spoken information exchange among the investigator and the responder or participants is known as an interview. According to Annum (2015), interviews involve interaction in which the researcher asks participants questions and waits for their responses. It is the researcher's responsibility to find the participants who have the necessary information and may even ask follow-up questions to get further information. The researcher used semi-structured interviews because, in accordance with Cohen and Crabtree (2006), they allow the researcher to leave her/his knowledge of the area of research open to revision by participants and also allow the researcher to elicit additional information from the participants or respondents.

The warehouse manager, supervisor, stores managers, and stores assistants were all questioned by the researcher because they are the key players in the organization's inventory management process, and information from them is crucial to the study's objectives. Interviews allow for probing, which enables the researcher to obtain better-explained responses than when utilizing questionnaires, allowing for a deeper understanding of the information.

2. Semi-structured Questionnaire

Questionnaires, according to Annum (2015), are a common data collection technique used in case studies. He continued by describing questionnaires, which well-planned sheets with questions are created especially to gather information from study participants. The questions are carefully crafted to shed more light on the subject being studied and the identified problem. The study sample is used to choose the respondents, and the data gathered from their responses is used in the study. The researcher employed semi-structured questionnaires. According to Oppenheim (1992), the researcher chose this instrument because it allowed for simultaneous collection of data from a larger group of participants, saving time and effort.

Additionally, individuals can express their opinions in confidential responses to questions that are semi-structured without being concerned about retaliation. They are also made to be simple and quick for responders to finish, saving time. In addition, some were given to Warehouse/ stores superiors to save time for interviews, and some were given to Warehouse/ stores assistants to get their opinions about the movement of inventory and how information is forwarded to them for action.

3.10 Ethical consideration

Various ethical factors were taken into account by the researcher before beginning the study. Beneficence, respect for people and justice are the three fundamental ethical concepts that The Belmont Report (1974) identifies as being pertinent to research including human subjects.

1. The researcher gave the participants the reassurance that their privacy would be respected and that the findings would only be used for educational purposes.
2. The subject matter and design of the study were explained to the respondents, and the researcher allowed them opportunity to ask any questions they deemed necessary.

3. Nova feed, which was used as the research's case investigation, was contacted in advance for permission by the researcher.

4. The participant's informed consent was obtained prior to data collection.

3.11 SUMMARY

The methods the researcher employed to collect information that addressed the research questions are summarized in this chapter. The main topics discussed in this chapter include study design, research sample, instruments for study, data validity and dependability, data gathering techniques, and presentation. The following chapter, which covers data presentation, analysis, and interpretation, is built on the collected data.

CHAPTER IV

PRESENTATION, ANALYSIS & INTERPRETATION

4.1 Introduction

This chapter summarizes and examines the findings from the questionnaires used in this study. The questionnaire was the primary data collection tool, and it was distributed to store personnel, mechanics, human resources, engineers, accounts/finance, security, operations managers, drivers, production, warehouse, hatchery, general hands, poultry field officers, and logistics. The descriptive statistics were presented in the form of frequencies pie charts, tables, graphs and percentages in the results. Correlations and hypothesis testing were among the inferential techniques used. To clarify, the graphs and figures in this chapter were derived from Microsoft Excel. This chapter's data was derived from research questions, as well as secondary and primary sources. The researcher is confident that this data will answer the research questions while also offering additional information on the issue on which future studies could be built. Doust (1996) demonstrated that data is useless unless it is processed and turned into valuable knowledge.

Table 4.1 response table

Category/Designation	Distributed	returned	Response rate%
stores personnel	2	2	100
mechanics	2	2	100
human resources	1	1	100
Engineers	1	1	100
accounts/finance	3	2	66.6
Security	1	1	100

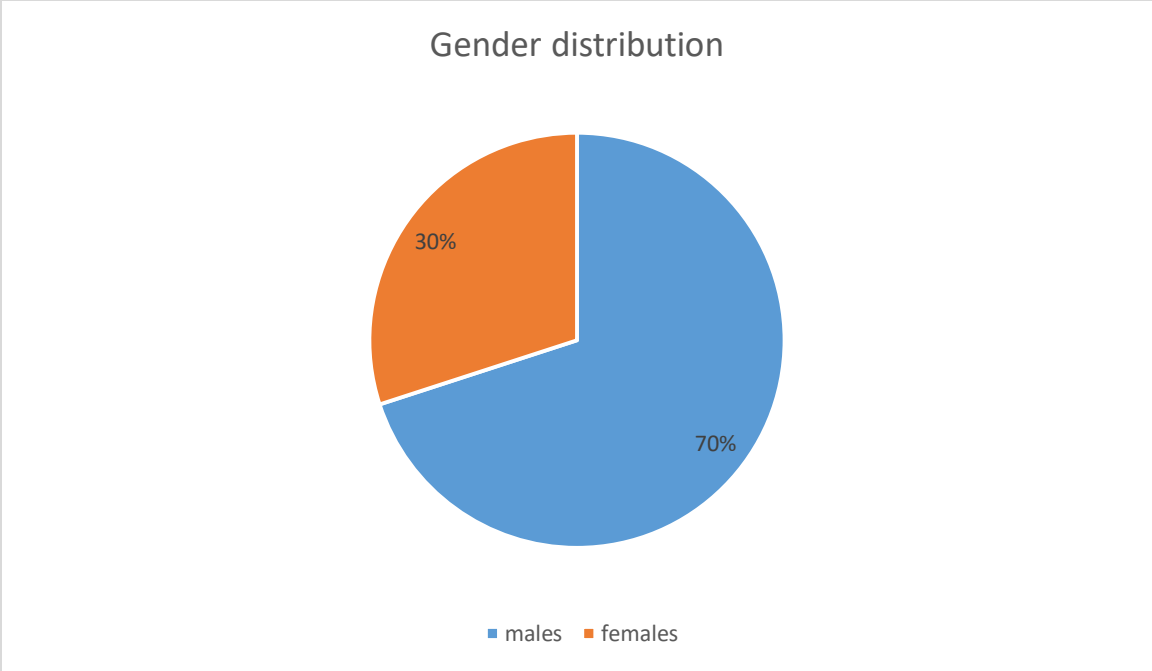
operations managers	2	2	100
Drivers	3	2	66.6
production	3	3	100
ware house	2	2	100
Hatchery	2	2	100
general hands	5	3	60
Logistics	3	2	66.6
poultry field officers	2	2	100
Total	32	27	84.3

Source: Primary data

The data from the table shows that 27 of the 32 questionnaires that were given out to department heads and staff who were directly impacted by inventory management operations were returned, which represents an overall response rate of 84.3%. Nonverbal indicators were observed during the interview process, and interviews were also completed effectively with an answer rate of 100%. Singh (2006) found that a response with a rate of three-fifths is considered neutral, whereas one-fifth indicates that the respondent is not in a good mood. This survey's response rate of 84.3% is regarded as favorable because it represents over four fifths.

4.2 Gender distribution results

4.2 Table: Gender distribution results



Source: Primary data

According to Figure 19 men and 8 women, or 70% and 30%, respectively, of the total answer were male. This is due to the fact that many men hold positions that call for the utilization of their muscles or physic yet were not included in the study's sample.

4.3 Age distribution of the participants

4.3 Table: Age distribution of the participants

age	Below 30	31-40	41-50	51-60	Above 60	Total
frequency	13	6	5	2	1	27
%	48	22	19	7	4	100

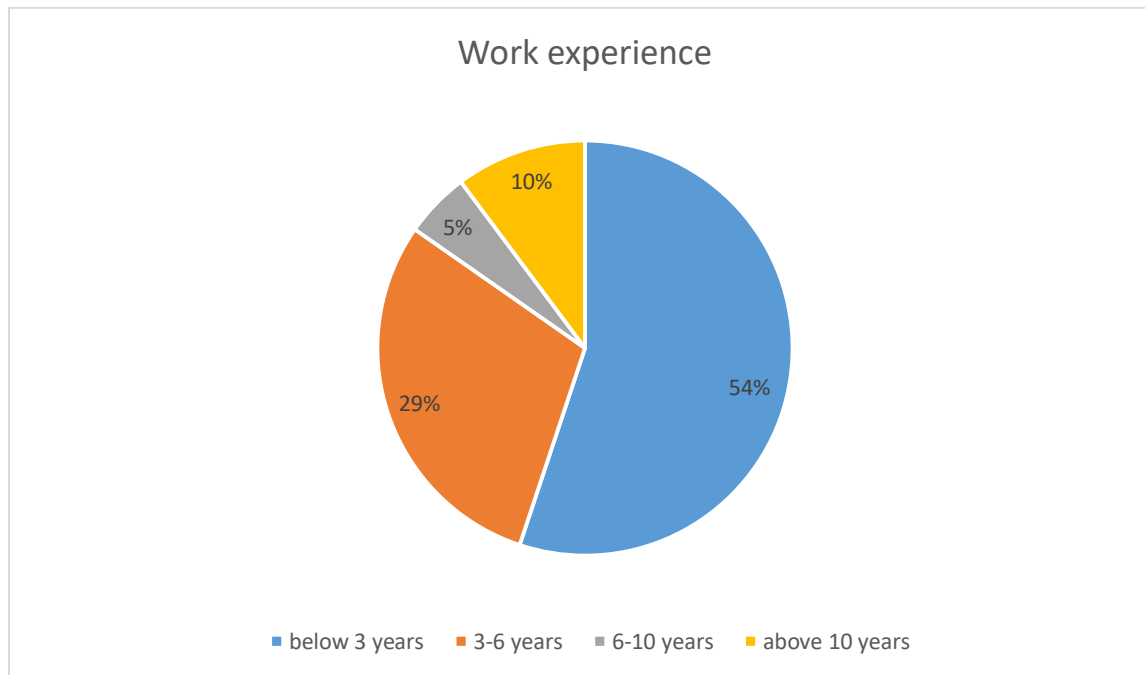
Source: primary data

According to Figure Participants' modal age range is between 30 and under. The vast majority of those surveyed were, thus, in their mid- to late-twenties, as shown by this. This age distribution demonstrates the manufacturing sector's high rate of workforce turnover.

4.4 Work experience of respondents

The researcher will be able to determine the knowledge and expertise he expects to receive from the respondents by looking at the respondents' length of service with the company. According to the presumption, a respondent's experience increases with age.

4.4 Table: Work experience

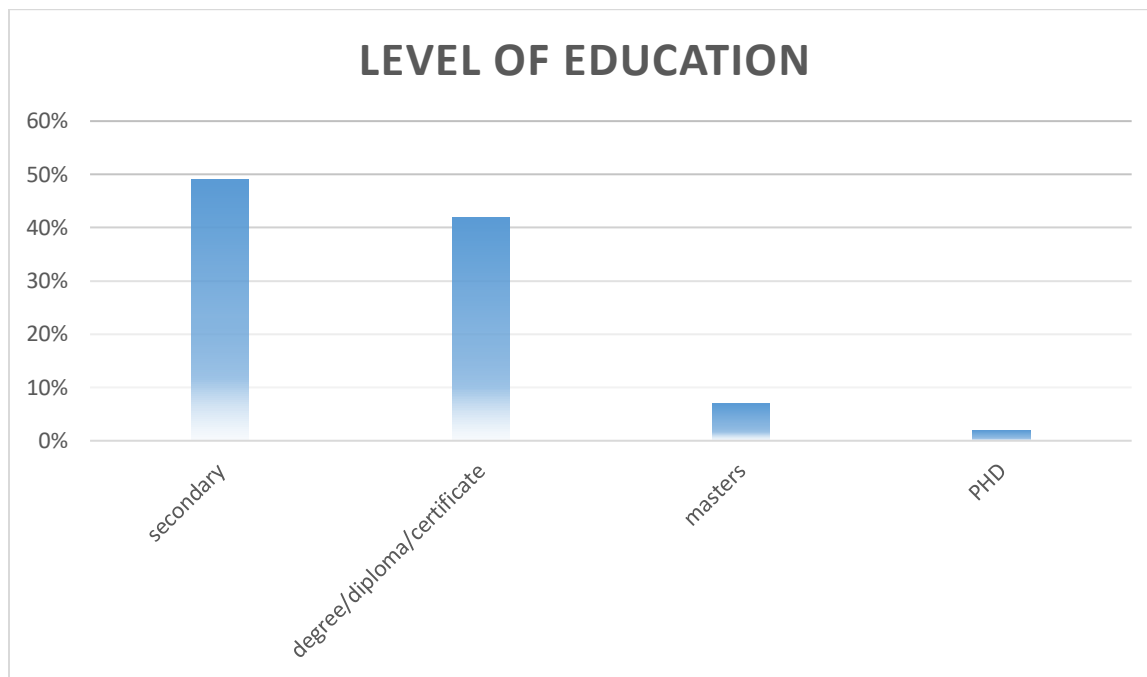


Source: primary data

The respondents were divided into groups based on how long they had served the company for in their respective departments. The group for those who worked for more than 6–10 years had the least representation, while a group for those employed for less than 3 years had the highest number of participants. The results show that the majority of the employees have little to no work experience, which has an impact on the effectiveness of inventory management and the delivery of services. This was in line with Jessop and Morrison's (1994) recommendation that the organization hire experienced staff with the goal to have proper control over inventory.

4.5 Level of education.

4.5 Table: Level of education.



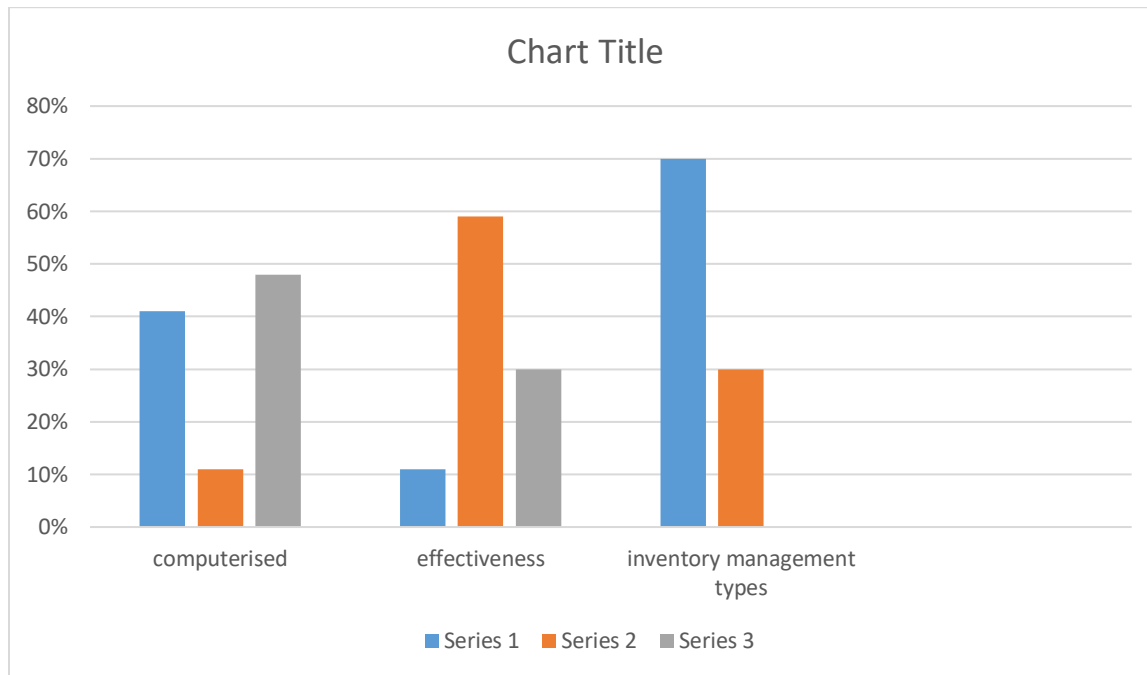
Source: Primary Data

According to the findings, 42% of respondents have a diploma or a degree, 7% have a master's degree, 49% have a secondary qualification, and 2% have a PhD. Some NovaFeed managerial professionals have been found to be uneducated at the Masters and PHD levels.

This may have an impact on inventory management because professionalism is regarded as particularly important for efficient inventory management, a view mirrored by reports from previous studies (Barker 1989). Inventory management may be ineffective if workers participating in inventory control are not skilled and competent (Bailey and Farmer 1982). Furthermore, this might lead to poor service delivery due to unskilled workers and bad decision making.

4.6 Types of inventory management system

4.6 Table: Types of inventory management system



Source: Primary Data

4.6.1 System effectiveness

From a total of the 27 participants, 11% said they agreed that the system appeared to be working effectively for the organization because as top management, had invested money in it. However, 59% of the majority said there were noticeable hiccups that prevented the system from being at all effective, and 48% said they had no idea how it operated because they didn't work with it. One reason for conducting this research is the rise and fall in inventory levels that do not correspond to the physical count.

This is also reinforced by the results of the interviews, which showed that the majority of respondents were unhappy with the manner in which the system was functioning. 59% acknowledged that the system wasn't the greatest one could utilize and was therefore useless. The major goal of an efficient system, according to Lucey T. (1992), should be to keep precise records of inventory levels while minimizing expenditures to ensure excellent client service.

4.6.2 Types of inventory management system

The large majority 70% of those surveyed said that NovaFeed Ltd uses the PASTEL and GAAP systems. As shown on the table, 30% of the participants weren't mentioning any system. According to the interviews, the utilization of the inventory control system varies by department and is dependent on how user-friendly it is for that department.

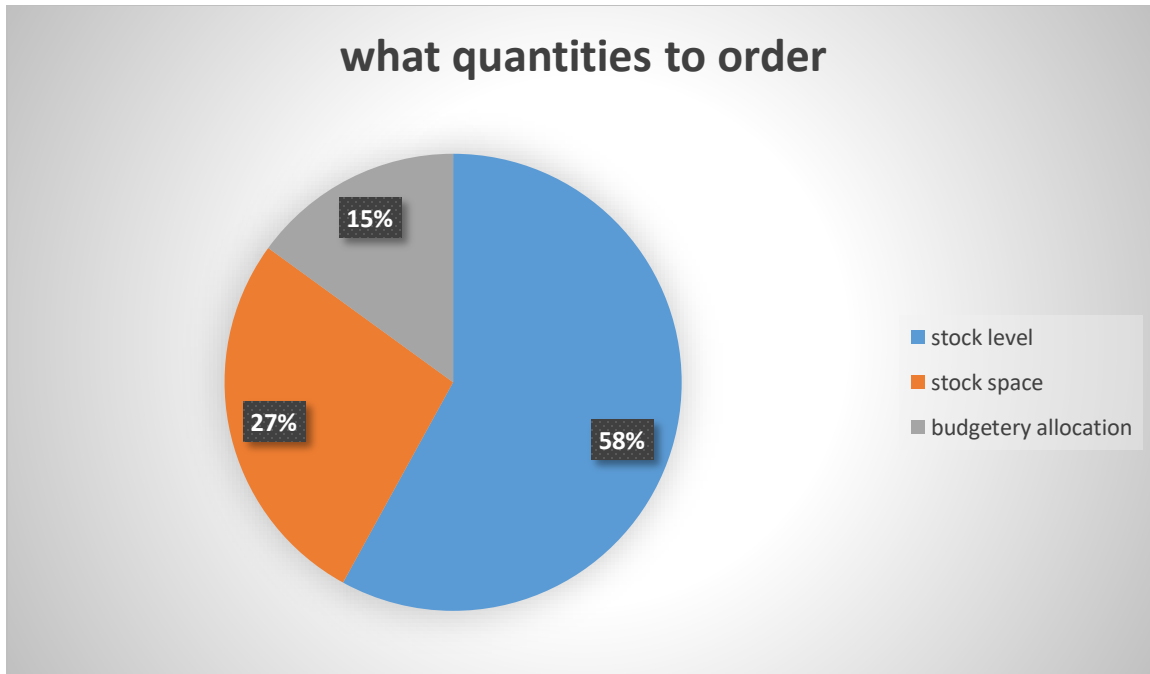
4.6.3 Computerization

Most respondents said the system is computerized. They stated that the inventory management system uses both a manual inventory capture process and a digital system. 11% of the 27 participants agreed that the computerized system is working well and meeting the company's targeted criteria. Users, who make up 59% of the system, revealed that there are apparent glitches, which prevent the system from performing to the top management's expectations in 30% of cases. The interviews reveal that even though the Pastel evolution and GAAP computerized system uses a manual way to collect data, there are still apparent flaws in it.

According to an empirical study on the Microsoft Visual Basic 2010 and SQL software programs used by Ghana University, computerization improves inventory control and management, which improves operational effectiveness. In order to ensure efficient inventory management, the investigation on the sugar refineries in Kenya advocated implementation of cutting-edge technologies and enhanced supplier partnerships. Technology, according to Udo J (1993), is a crucial organizational asset that can aid a business in realizing significant competitive advantages in the sector of inventory management.

4.7 What quantities to order

4.7 Table: what quantities to order

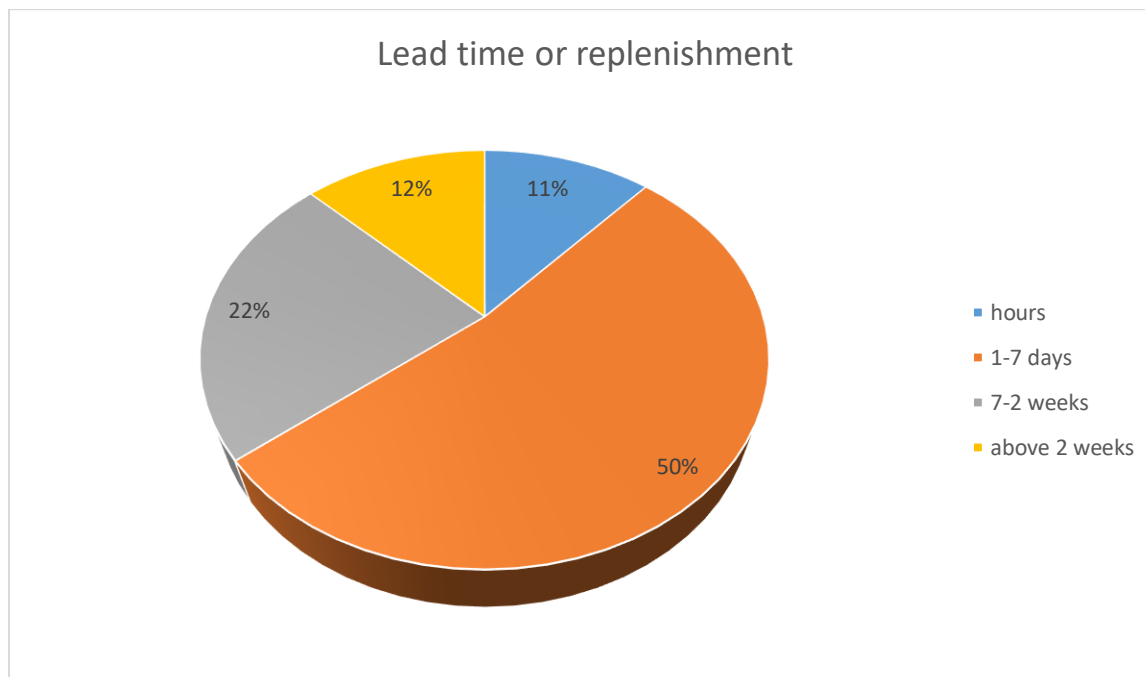


Source: Primary Data

It was found that 15% of respondents indicated that the quantity of goods to be ordered is determined by the budget allocation because of special requirements like the fact that they are exporting and the amount they require. Due to their heavy usage, 58% of respondents also indicated that the level of stock to order is decided by the amount of stock in the warehousing and shops, while 27% say that it is determined by the amount of space for storage in the warehouses, containers, and stores. According to Keth et al. (1994), the main goal of inventory management is to advise managers on how much to order in order to minimize stock outs.

4.8 Lead time or replenishment

4.8 Table: Lead time or replenishment



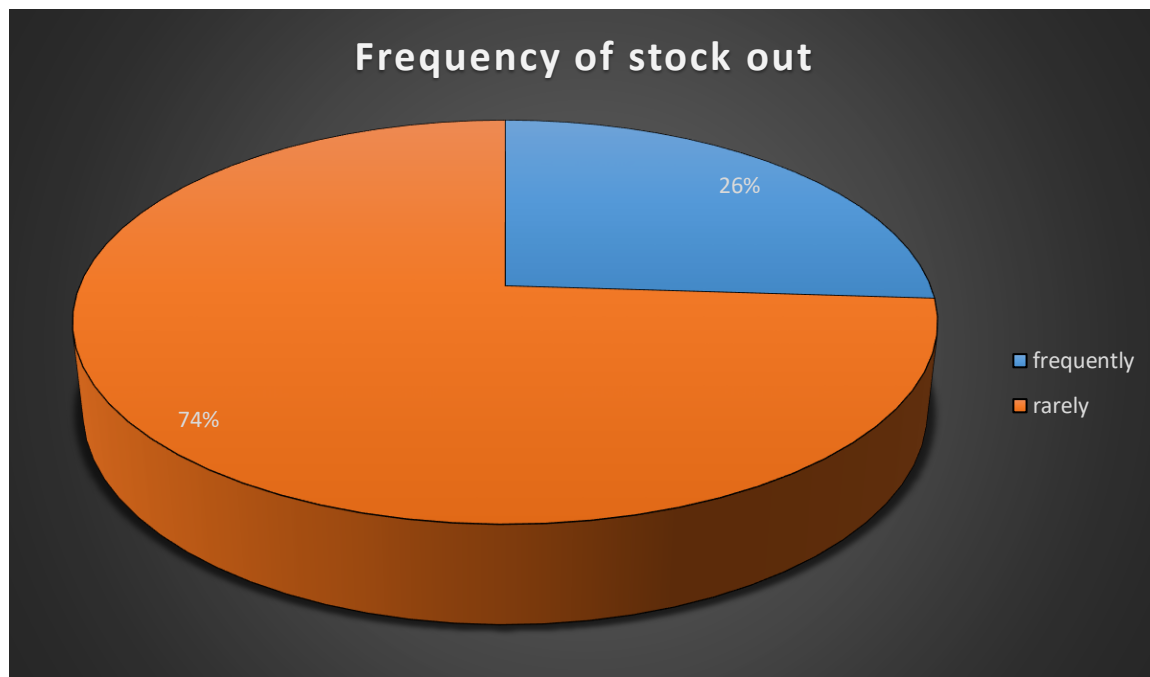
Source: Primary Data

According to 50% of the respondents, the typical turnaround time for obtaining and delivering stock out items is 1 to 7 days. 12% of respondents said the lead time is longer than 2 weeks because they are imported or semi-finished, 22% said it is 7–2 weeks because of supplier delivery delays, financial difficulties, and logistical problems, and 11% said the lead time can be as short as a few hours depending on the urgency. According to the results of the interviews, the necessity of the product, its marketability, and the supplier's readiness to work with the organization under the organization's budgetary constraints all influence how often stock needs to be replenished.

Additionally, they disclosed that due to the nature of the commodity—products like water chemicals are typically imported, thus it takes a minimum of three months to be delivered—lead times might be lengthy. Additionally, for effective inventory management, Harrington et al. (1990) suggested setting up corporate-wide training on the significance of data accuracy and developing a management strategy based on sensible replenishment procedures.

4.9 Frequency of stock out.

4.9 Table: Frequency of stock out.



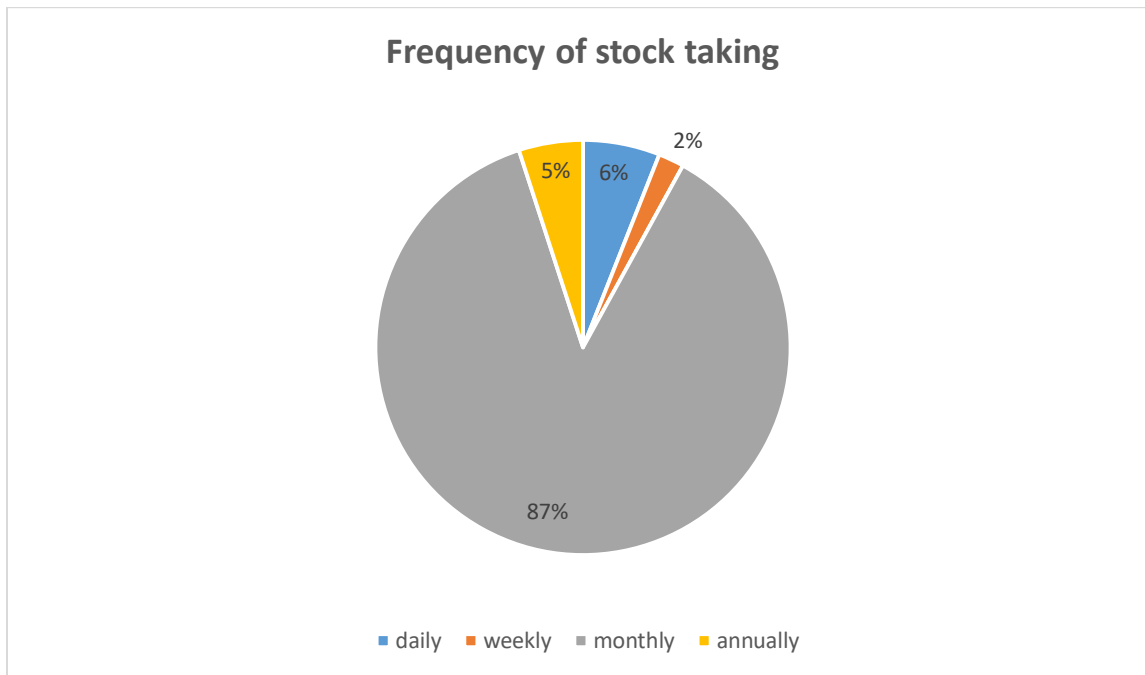
Source: Primary Data

The occurrence rate of stock outs is shown above. According to the results, 74% of participants acknowledged that they frequently had stock outs, while 26% said they did it infrequently. According to interviews, they underline that inadequate stock forecasting, late supplier payments, and suppliers fulfilling only a portion of orders were the main causes of stock outs. In his study, Ng'ang'a (2013), advocated avoiding excessive bureaucracy so that appropriate funding could be distributed promptly and that current inventory control techniques and procedures should be reviewed and revised to prevent stock outs.

Telgen and Sitar (2001) emphasized that a company's ability to compete is assured once it has attained customer satisfaction. Because stores and warehouse can't meet other departments in this situation and are frequently low on stock, the organizations other departments may receive subpar service.

4.10 Frequency of stock taking.

4.10 Table: Frequency of stock taking.



Source: Primary Data

Demonstrates that (87%) participants were in departments that undertook stock taking more frequently—monthly—because of how difficult it would be to conduct daily stock checks, compared to 2% of workers in departments who conducted spot checks weekly. A daily stock check is done on 6% of the retail department's inventory, while a yearly check is done on 5% of it, just like everyone else at month's end. This supports the conclusions of Jessop and Morrison (1994). In order to match the physical and record balances for efficient functioning and to harmonize the discrepancies to reflect the actual position in the warehouse, Jessop and Morrison (2008) state that regular stock taking is required to check on surplus, obsolete, and obsolescence stock.

4.11 Inventory management challenges being experienced at Nova Feed Animal Feed Pvt Ltd.

4.11 Table: the table below shows the challenges which were indicated by respondent.

--

Challenge

Stock out

Ineffective stock forecasting

Resistance to adapt to new systems

Wrong identification

Multiple locations

Many code per product

Variance computer vs physical

Deliveries being delivered in halves

Emergency orders are expensive

Duplication of receipts

Double capturing of invoices

Orders being intercepted before reaching stores

Source: Primary Data

Stock shortages, duplicate invoice recording, and conflicts between computer and physical records are some of Novafeed's top issues, according to the respondents in the table. According to the results of the interviews, the quality of the products available on the market is another factor contributing to inventory management issues. According to Scott (2007), addressing inventory management difficulties with modern technology has drastically enhanced both service delivery as well as inventory management.

4.12 A question on what is the most common control method?

The majority of interview respondents indicated they were unsure of the technique used but painted a picture of how well the existing system is working. This demonstrates that inventories was not strictly under control. Temeng (2010) notes that historically, the majority of firms have overlooked the possible cost savings from inventory management, viewing it as a necessary evil rather than an asset that has to be well-managed. Due to their pessimistic outlook, management ends up not building an effective inventory control management system.

4.12.1 A question concerning the system's effectiveness

The majority of respondents emphasized that even if the system in question is the best right now because of difficulties like the institution's current financial situation, the system is not entirely functional. Coyle (2003) emphasizes that while demand and supply must be balanced, effective inventory control is the most important aspect for any organization's success.

4.12.2 A question on what obstacles does the current inventory control system face?

The responders pointed out that while there are many things to love about the system, it will never be completely effective. The biggest issues were that it doesn't set stock reorder maximum levels, which can lead to under-stocking or shortages of certain commodities. An efficient inventory control system, in accordance with Chase and Aquilo (1995), should contain a set of policies and procedures that monitor inventory levels, determine the levels to be maintained, replenished, and how big the orders should be. This is deemed to be deficient in Nova Feeds current system.

4.12.3 A question on how can inventory optimization be accomplished in the best possible way?

According to the respondents, for the organization to operate efficiently, inventory management would be the greatest option because it would help to preserve harmony between the company's financial situation and the quantity of stock maintained. Utilizing the Economic Order Quantity model, which author Dave (2000) describes as essentially a financial formula which determines the point at which the sum of order costs and carrying expenses for inventory is the least, in order to produce the most cost-effective quantity to order, can help prevent such a scenario.

4.13 Suggestions to improve the effectiveness of inventory management on service delivery.

4.12 Table: these were the suggestions to improve the effectiveness of inventory management on service delivery by the respondents.

Suggestions
Interdepartmental coordination
Utilization of technology (ITC)
Identification of stock items/putting codes

Use of stock cards and updating them
Use of approved job cards, requisition books with HODs signature
Regular monitoring stock levels
Monitoring lead time of purchased items
Do a follow up of purchase requisition and proof of payment
Spot checks within departments
Use of access control systems/locking system
Restricting ware house and stores access
Only authorized personnel to have access
All goods with high value to be put in lockable units

Source: Primary Data

According to Han's (2005) research, good inventory management, distribution, and allocation are crucial elements to take into account and implement for the purpose to streamline procedures and coordinate activities across the supply chain. Additionally, Routroy (2005) suggested using cutting-edge technology to shorten product life cycles and boost demand unpredictability. Last but not least, Sunil (1998) advised that carefully thought out and integrated strategies in global logistics, inventory management, and purchasing can offer essential tools for managing environmental uncertainty in activities where success depends upon configuration, control, and coordination. He further emphasized that these tactics should contribute to advances in the firm's competitive position, product quality, and value.

4.14 Summary

This chapter attempted to explain and evaluate information obtained from surveys and interviews that will serve as the foundation for the next chapter's review of the results, recommendations, and conclusions. The findings were displayed under headings pertaining to the research questions. Pie charts, graphs, and descriptive statistics were used to show the data.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The assessment of the study of inventory control systems in a manufacturing firm and their security as far as inventory management are covered in this chapter's summary, conclusion, and suggestions from Novafeed. Harare. The primary research conclusions from the data evaluation and interpretation of the study findings are also presented in this chapter, along with suggestions for

the results. The conclusion outlined the key findings while the summary of findings highlighted the study's essential elements. The research was finished with the presentation of the recommendations.

5.2 SUMMARY

The purpose of the research was to evaluate the effectiveness of inventory control systems on security as far as inventory control is concerned at Novafeed. Research objectives and questions were formulated in line with the research topic. The study was aimed at discussing Novafeed inventory control system and to establish their effectiveness and security as far as inventory control is concerned. The study sought to enlighten company management and employees on the importance of instituting proper inventory control system and security.

The study relied on both secondary and primary information that was gathered through surveys and interviews. A face-to-face conversation with the managers took place during the depth interview while judgmental selection was used for the survey. All persons directly involved with and impacted by the inventory control systems made up the population. 27 people from various Novafeed departments made up the sample. Due to Novafeed's privacy and confidentiality policy, getting some of the necessary information was difficult throughout study execution. Table, chart, graph, and descriptive material were used to evaluate and explain the data.

5.3 Summary of findings

To go through Novafeed's inventory control systems.

According to the research's findings, Novafeed employs two different types of inventory control systems to manage the quantities of its inventory both on hand and in orders. GAAP and PASTEL were two of the inventory management systems. The stores department had a lot of work to do in order to store, count, and identify the materials that require replenishment in order to cause a request.

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To evaluate the performance of Novafeed's inventory management systems with regard to security and inventory control. The study pointed out that the nature and kind of the products being studied

affects how successful inventory control systems are at lowering inventory costs. Another finding from this research is that there is ineffective inventory management, which negatively impacts supply due to stock outs, lead times, and ineffective stock forecasting. The major reasons of stock outs are poor lead times, late supplier payments, and suppliers who deliver partial orders. If the lead time is too long, there is a considerable likelihood that an organization may run out of stock before the fresh consignment arrives. The minimum and maximum stock levels are not precisely measured, which is another issue that needs to be looked at again to prevent stock outs in the future.

5.4 RECOMMENDATIONS.

Stemming from the research findings, the author proposes some recommendations for inventory control systems and their security as far as inventory control is concerned, specifically for Novafeed the following are the recommended:

- 1) The company should adopt a more strategic approach to managing stocks in order to avoid incurring any needless costs, particularly when filling urgent requests while attempting to maintain their business.
- 2) To choose the best inventory control system to utilize in order to reduce inventory stock out for a certain product, the company should start inventory planning activities like forecasting.
3. The buyer must be allowed to decide on their own over the entire procurement process based on their expertise in the industry.

- 1) Communication, the inventory management of the organization must be a comprehensive system. All the departments must take part in the success of the inventory control. End users must give adequate information regarding their need to the stores department in time. The Stores department needs to provide information on the update of stock levels to each department on time.
- 2) 1) The organization has to adopt cutting-edge technology, including ICT, to make item coding and identification easier.
- 3) 2) Interdepartmental collaboration needs to be developed at Novafeed Company. This is a crucial element for the business; it aids not only in effective inventory management but also in the accomplishment of organizational objectives and improved service delivery.

- 4) 3) The company should decide on a maximum as well as a minimum stock level before deciding how much inventory has to be replenished. In order to avoid stock shortages and minimize operational disturbance, safety stock should also be established.
- 5) 1) Before making any entries to the stock cards or ledgers, receiving or dispatching should be completed. This compares the consignment's accuracy to the data on the waybill. In any dispatching, receiving, or data entry ledger, overwriting and cancellations should be avoided. To prevent cheating, each number on the paper should be valid
- 6) Appropriate labeling in stores and warehouses provides information to enable effective control of materials inside the stores and warehouses.
- 7) Watch and evaluate Look to your inventory monitoring procedures for some alleviation on a regular basis. Finding the source of theft is considerably simpler if you are aware of the inventory you have and what you should have at any one time. Both internally and publicly, put an emphasis on security systems and procedures.
- 8) Increasing security measures.
- 9) Limit access to the warehouse and stores.
- 10) Use of approved job cards, requisition books with HODs signature.
- 11) Use of stock cards and updating them.
- 12) Use of waybills.

5.5 Area of further study

The study makes a research proposal for additional studies to assess the effectiveness of collaboration among departments to inventory management, the contribution of record management to proper inventory management, and the significance of inventory management practices on performance firms.

5.6 Summary

This chapter concentrated on the overall research summary. It provided an overview of chapters I, II, III, IV, and V. Additionally, inferences were drawn from the research results noted in chapter IV. The chapter also offered suggestions for additional research. The study found that, in order to

analyze inventory control systems in industrial organizations and ensure their security with regard to inventory control, there is still much to be done.

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APPENDIX A

Bindura University of Science Education

Department of Economics

P Bag 1020

Bindura

April 2023

To whom it may concern

Dear Sir/Madam

RE: RESEARCH PROJECT ASSISTANCE

My name is Chibanda Gerald Farai a student from Bindura University of Science Education. Currently I'm working on my research project which is a basic requirement for Bachelors of Commerce Honors Degree in Purchasing and Supply Management titled **“The impact of GAAP/pastel inventory control system on the security of manufacturing company. A case of NOVAFEED.”**

You are kindly being asked to fill in the questionnaire as truthfully as you can. The information that will be provided by this questionnaire will be treated with confidentiality and results used to make recommendations which will help Novafeed and other organizations in the same institution. Your co-operation is greatly appreciated.

Yours faithfully

Chibanda Gerald Farai

Appendix B

Questionnaire for Accounting Procurement Stores Staff and other employees

I am a student at Bindura University of Science and Education currently studying a Bachelor of Commerce Honors Degree in Purchasing and Supply. In partial fulfilment of the degree Programme I am supposed to conduct a research on the topic **“The impact of GAAP/pastel inventory control system on the security of manufacturing company. A case of NOVAFEED.”**

I would like to assure respondents that any information given will be treated with confidentiality and will be used for academic purpose only.

Your co-operation on this matter will be greatly appreciated.

DEMOGRAPHIC DATA

Instructions

- (a) Please **tick** or **fill** where it is necessary.
- (b) The questionnaire shall be collected from you after completion by the student.

1. Department _____

2. Position Held _____

3. Age/ Years

Below 30 31-40 41-50 51-60

Over 60

4. Sex

Female

Male

5. Educational Qualifications

Secondary

Degree/Diploma

Master's Degree

PHD

6. Length of Service (Years)

Below 3 3 to below 6 6 to below 10 Over
10

1. Any 5 Inventory control management systems that you know?
2. Amongst the 5 which one have you used, and for how long
3. Which one amongst the 5 would you recommend for Novafeed?
4. Are inventory control systems being effectively applied in your company?
5. Do you have the knowledge on how the inventory management system operates at Novafeed?
6. What is the importance of having an inventory control system in the warehouse?
7. What do you think are the disadvantages of not engaging inventory control systems in the warehouse?
8. How often do you conduct your stock audit, and can you concur the helpfulness of the system?
9. What are the inventory management challenges being experienced by Nova feed Animal Feed Pvt ltd.?
10. What are suggestions to improve the effectiveness of inventory management?
11. System is computerized
12. How familiar are you with new inventory technology?
13. What is the system used for purchasing?
14. Is the purchasing system electronically linked to the inventory, and supplier systems?
15. Do you practice vendor managed inventory – where the vendor is responsible for monitoring the inventory levels?
16. Has an authorization matrix been established to determine the level of management authorization that is required to place the order?

17. Who approves the requisitions?
18. What to order?
19. When to order?
20. How much to order?
21. Where to stock it?
22. How are inventory needs communicated to the procurement department?
23. How is the procurement department notified when inventory levels sink below threshold levels?
24. Have threshold levels been established?
25. How is the demand for inventory communicated to vendors?
26. How are inventory needs communicated to suppliers? (E-procurement, fax, phone, EDI, mail, system-automated)
27. What is the process followed to place orders with vendors?
28. What documentation and approvals are required?
29. Are there system or process controls in place that would prevent the placement of an unauthorized purchase order?
30. Which department is responsible for monitoring material lead times?
31. Who is responsible for stocking received items?
32. Where are the received items sent?
33. Describe the receiving processes and location.
34. What is the process followed to ensure that all items ordered are properly received?
35. Is this process automated or manual?
36. How are raw materials checked for quality?
37. What is the process to return the materials to the vendor in cases where the quality standards are not met?
38. How is the return of materials communicated to accounting?
39. How are raw material, work-in-progress (WIP) and finished goods stored and monitored?
40. How are location numbers assigned?
41. Outline of location number definitions?
42. What systems are used for monitoring the distribution of inventory?

43. Does the system interface with all of the plants or do the plants manually submit inventory updates to accounting or stock controllers?
44. What are the procedures followed to verify current inventory levels and managing inventory needed for upcoming work orders?
45. How do you identify and dispose obsolete, damaged inventory?
46. How do you determine appropriate reserves and safety stock levels?
47. What products are given priority or a low variance threshold?
48. Are cycle counts performed for raw materials, WIP and finished goods?
49. Are random cycle counts periodically conducted?
50. What is the process followed to perform inventory counts?
51. Who is responsible for conducting the cycle counts?
52. How are the employees trained to perform this function?
53. Have policies/procedures/instructions for cycle counts been established and documented?
54. Who performs the validation of the counts? Any approvals required?
55. What is the variance threshold above which items must be researched?
56. Are the causes of the discrepancies tracked and evaluated?
57. What is the single greatest cause of inventory errors? (Clerical error, equipment failure?)
58. Who is responsible for making adjustments to the system for discrepancies noted during the cycle count process?
59. Is an annual physical inventory performed?
60. What controls are in place to limit access to the stores, warehouse and inventory supplies?
61. How often are access levels reviewed?
62. Have safety procedures for the warehouse been documented and communicated to employees?
63. How is the stores or warehouse organized?
64. Is damaged, obsolete, scrap and consigned inventory segregated to prevent confusion during the cycle counts?
65. How are movements of inventory monitored to ensure that it is properly safeguarded? What documentation is required?
66. Are there instances when inventory would be transferred among inventory locations?
67. How is the inventory accounted for?

68. Approximately how many days/months' worth of inventory is stored within current stores or warehouses?
69. Any changes in the aging over the last few months?
70. How do you determine which inventory is obsolete? What is the process for determining excess and obsolete inventory? Have policies been established?
71. What procedures are performed for the scrapping of obsolete inventory? Is this done in a timely manner? Does the scrapping of materials require authorization?
72. Do you receive any payment for scrapped goods? How is this recorded within the financials?
73. How are inventory requests from the manufacturing floor transacted?
74. When materials are needed, what triggers the picking process – system generated pick list?
75. How are items moved from the warehouse to the production floor?
76. Are you familiar with cycle counting? Why would you use it?
77. How do you ensure accuracy in documenting inventory?
78. How Accurate are Your Inventory Records?
79. How Completely Does Your Company Meet Customer Demand?
80. What is the locational impact of inventory? How does it differ for transit inventories and safety stocks?
81. What is the difference between the FIFO inventory method and the LIFO inventory method?
82. How does a just-in-time inventory system benefit a firm? What conditions are needed for its successful use?
83. The firm's relation with the supplier is the most critical factor to the success of a just-in-time inventory system. ii. A just-in-time inventor
84. Why is it advantageous to have a high inventory?
85. How are merchandise inventory costs determined under a periodic inventory system?
86. Why is it important for the financial manager to understand the inventory control techniques used by production/operations managers? How does controlling inventory impact a firm's profitability?
87. Is there anything you would improve about how we manage inventory?
88. What is your method for managing inventory errors?

89. What's your method for improving inventory documentation accuracy?
90. When is the best time to take a physical inventory?
91. Do You Know When Should A Physical Inventory Be Taken?
92. When Should Reorders Be Placed?
93. 23. Explain Why Is Procurement Considered Such An Important Part Of Inventory Control?
94. 24. Tell Me What Are The Important Considerations In Inventory Control?
95. 33. Explain Me What Should Be Recorded In A Physical Count Of Inventory?
96. How are inventory counts managed? Can they be assigned to a warehouse representative and easily split into cycle counts?
97. Are variance reports shown to managers only?
98. Is there the ability to request a recount for certain product lines?
99. Do inventory counts automatically sync with core inventory levels and accounting?
100. Can you obtain an inventory audit history from the system?

Appendix C

Bindura University of Science Education

Department of Economics

P Bag 1020

Bindura

V02

Sally Mugabe Street

Glendale

Dear Sir/Madam

RE: Request for authorization to carry out research within the province

I'm pursuing a bachelor's degree in purchasing and supply management at Bindura University of Science and Education. I'm asking for permission and authorization to carry out my research on **“The impact of GAAP/pastel inventory control system on the security of manufacturing company. A case of NOVAFEED.”** Inside a private institutions in your organization.

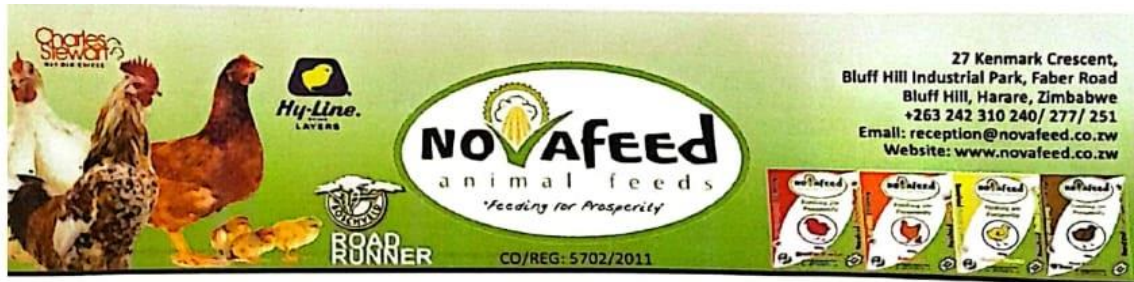
Any information provided or acquired will be kept private between the student and the examiner and will only be used for academic purposes

Your permission will be greatly appreciated.

Yours faithfully

Chibanda Gerald Farai **(B1851471)**

Appendix D



05 April 2023

Dear Mr. Chibanda G F

RE: APPLICATION TO CONDUCT AN ACADEMIC RESEARCH

The above matter refers to,

Your permission to conduct your research exercise at Nova feed animals feeds Pvt ltd has been granted with the hope that the findings and outcome of the research will contribute meaningful to the stores and procurement system not only at the institution but the whole private sector.

Yours faithfully

Denford Mupfururirwa

THE STORES MANAGER

+263 773 019 272 stores@novafeed.co.zw



The impact of GAAP/pastel inventory control system on the security of manufacturing company. A case of NOVAFEED

By
gerald farai chibanda

Submission date: 09-Jun-2023 01:51PM (UTC+0300)

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