

**INFLUENCE OF STORES' MANAGEMENT PRACTICES ON SERVICE DELIVERY
IN ELWAK SUB-COUNTY REFERAL HOSPITAL, MANDERA COUNTY**

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DECLARATION AND APPROVAL

Declaration by Candidate

This research project is my original work and it has not been presented to any other university or institution of higher learning for examination or for any other award.

Signature ...  Date29/06/2024.....

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Approval by Supervisor

I certify that the candidate conducted this research project under my guidance as a university supervisor.


Signature..... Date.....29/06/2024.....

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DEDICATION

This work is dedicated to my wife and both my parents: My wife, Hafsa Mohamed, my father, Abdullah Adan and my mother, Makkai Mohamed who have tirelessly supported me in all aspects of my life. May the Allah-Our lord bless you abundantly and grant you paradise, In sha Allah.



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ABSTRACT

Poor store management has major costs to any organization. Poor store management contribute to shortages of important items without the knowledge of the stores personnel's, items taking long time to be located causing user departments to start complaining to the procurement department, while pilferages and theft of important items together with poor health records management have greatly hindered service delivery in public hospitals. This study sought to investigate the determinants of proper stores management in enhancing service delivery in public hospitals. It is based on Elwak Sub County Referral Hospital. The study aims to achieve three objectives namely; to find out the effects of inventory control in enhancing service delivery in public hospitals, to examine the importance of automating stores and health records in enhancing service delivery in public hospitals, to investigate the effects of safety of storage facilities in enhancing service delivery in public hospitals. To achieve the objectives, the study adopted a descriptive research design where the research was carried out among various employees in Elwak County Referral Hospital. The sample of the study constituted 30 employees that is drawn from a population of 100 employees by use of stratified random sampling method. A self-administered questionnaire was used to collect data from the employees. Data analysis was conducted by use of descriptive statistics i.e., Frequency counts and percentages with the help of Microsoft Excel package and presented using tables to describe distributions and pie-charts and graphs to show differences in frequencies. The study reported that good inventory control ensures that the required level of inventory is maintained which ensure continuous supply of items to user departments with minimal instances of shortages which automatically determines the replenishment of individual items (Drugs, equipment and other medical facilities), helps procurement department to make purchases decision of required items as well as providing necessary information that will assist in stock taking and stock checking thus definitely enhancing service delivery in hospitals, automating stores and health records will assist generally to keep the database of drugs in stores, drugs turn-overs, drugs receipts and recipient, patient's medical history as well as providing accurate and easy retrieval of necessary medical information of in-patient and out-Patient for the purposes of medical review in case the patient seeks medical attention again thus reducing drugs theft and that safety of storage facilities is very important in enhancing service delivery in public hospitals as pilferages, theft or destructions of items leads to stoppage of service delivery in the hospitals. The study intends to recommend the public hospital to adopt modern inventory control techniques, implementation of computerized stock updating and review of store safety policies.

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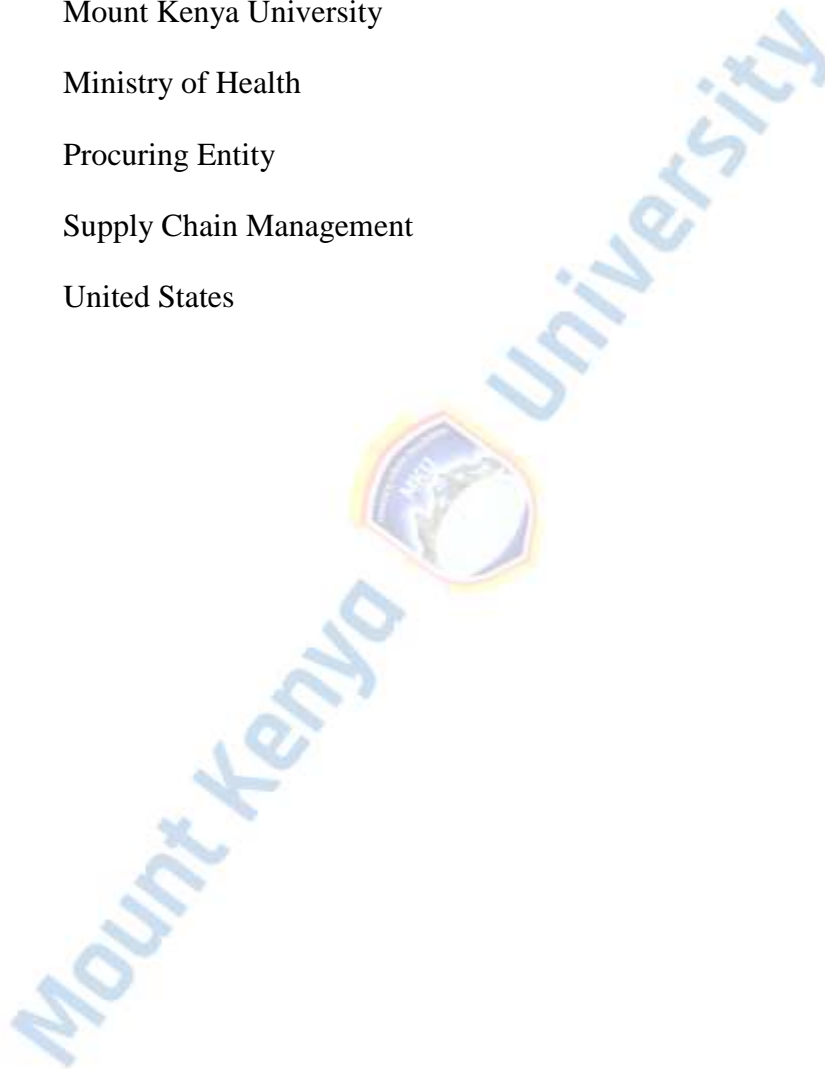
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LIST OF ABBREVIATIONS

EOQ:	Economic Order Quantity
ESCRH:	Elwak Sub County Referral hospital
KNH:	Kenyatta National Hospital
MKU:	Mount Kenya University
MoH:	Ministry of Health
PE:	Procuring Entity
SCM:	Supply Chain Management
US:	United States



CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter presents the introduction, the background to the study, statement of the problem, research objectives, and research questions, significance of the study, the limitations of the research process and the scope of the study. The chapter ends with the operational definition of terms.

1.1 Background of the Study

The supply function is the most critical one among the current stores management for the generation of huge number of goods and services is also being done by them. The best approach to the efficient stores management implies defining and using the mechanics of planning, organizing, and controlling the stock or supplies and delivering them to the customers on time. Main operations within warehouses management comprise receiving of goods from suppliers or internal users, conducting controls to ensure the specifications have been met, recording the goods through manual or computerized systems and securing the stocks against loss from theft, pilferage or misplacement and maintaining the stock to avoid spoilage by factors such as fire, water, or adverse weather conditions. Indeed, stock control is as important as the other functions since it determines the range, stock and Issuance of commodities as well as regular stock check which verifies the actual physical quantities on hand against the records.

When it comes to the stores management, getting rid of the useless clutter through either scrapping, donating it, recycling it or selling is a very important task. Without fail, following sanitary and safety regulations concerning stores and the staff is equally significant. Shops are considered to be critical to general operations, giving them direct access to users' departments in

their daily functions. They are the backbone organizational structure of these vital departments in that they ensure the system is well-managed. Moreover, stores are often equated with monetary value, as significant financial resources are invested in maintaining and managing inventory.

The history of store management, inventory management and supply chain management originated in the United States around during World War I. There was little knowledge among the people about the importance of the store, inventory, supply and control chain until this stage. The theory in stores management rose up and was published by Harvard University in a research paper. In contrast to those of production and marketing, warehouses and inventory management as a discipline were more steps in evolution. However, some aspects of inventory management were performed by various professionals at different levels within the organizations. The formal recognition of such a field of study is not as recent. The importance of the principle in improving business performance, and functionality especially in the US procurement system, is undoubtedly due to the concept.

Automation of stores and hospital records is key in providing quality service across all business organizations, which include both manufacturing and service organizations. Such documents that are used in incoming and outgoing freight operations to multiple departments are crucial assets that should be adequately protected from unauthorized access and use. Integrating these packages do not only the security of these records but also enable them to be successfully integrated in the procurement cycle as well as be part of the overall records management program of a Procuring Entity. Safety of storage facilities ensure there is maximum protection of goods stored from theft and pilferages and personnel working in the stores. The safety of stores means that user departments are going to receive the exact good they ordered without any subtractions. If user's department receive goods less of what they ordered they are likely to

complain to procurement department seeking an explanation of the deviation hence safety of storage facilities contribute to enhancing service delivery in both manufacturing and service industry.

In Kenya, especially in the public hospitals, the efficient management of stores is as crucial to the organization just like it is paramount in other health organizations. The management of the stores directly affects get quality services to clients. In this specific case, the Auditor-General's Performance Audit Report of Specialized Healthcare Delivery at Kenyatta National Hospital (KNH) cited the absence of key medication required by units like the Critical Care Unit, surgical theaters, and resuscitation and burns units as one of the problems to be solved. Medical experts note that stock-outs are a combination of poor practices within the procurement and selling units, which are suppliers' inefficiency to provide for the purchase orders, caused by the patients' delay in paying for their medical treatments.

Together with this, evidence from documents like The Kenya Health Sector Integrity Study Report 2011 shows that physicians and patients across the country are facing acute lack of medicine and medical supplies and this is making a lot of them suffer. This only goes on to show that automation of stores and health records can be the vital element in lowering down the barriers and, later on, improving the healthcare service delivery. The blame was on how store management was being carried out. The patients accused nurses and other medical personnel in collaboration with store personnel's of hoarding the drugs and secretly supplying them to private pharmacies.

1.1.1 Profile of Elwak Sub County Referral hospital (ESCRH)

ESCRH is a district hospital owned by the Government of Kenya under the ministry of health (MoH). It is in Mandera Central Sub-County and is the Second biggest hospital in Mandera

County after Mandera Referral Hospital. It is in the heart of Elwak town and serves as one of the referral hospitals for the population of Mandera County. It started as a small hospital back in colonial times where it used to offer only outpatient services. Currently the hospital has so much grown offering both outpatient and inpatient services and many more services.

The hospital has developed its infrastructure and as results it has opened many services for the benefit of the community around. It offers services which includes; Antiretroviral Therapy services, outpatient services, Curative In-patient Services, Family Planning services, HIV Counseling and Testing, Immunization etc. The hospital has more than 147 beds.

The hospital has a vibrant procurement and store departments charged with the responsibility of acquiring and managing inventory to be used in daily operations of the hospital. In ESCRH, store management plays an important role in enhancing service delivery as proper inventory control is mandatory as delays, shortages or even improper disposal can lead to dire consequences to the operations of the organization and to the surrounding community at large. Other areas in the hospital store that has effects in enhancing service delivery are Automating of store and health records as well as safety of storage facilities.

1.2 Statement of the Problem

Store management is a major function in an organization and proper stores management is key in enhancing service delivery in any service delivery organization. In fact, the performance of any store department is measured by how well it manages its inventory. This means that inventory must be made available when requested and in the right form. Before inventory is requested it must be planned and must be issued in the right quality.

However, in a hospital set up store management is complex more than anyone would think. For instance, a patient may require administration of a certain important drug which may take some

time before being availed to the patient. This means that if the drug is not used at the right time, the patient is at risk of dying. Therefore, inventory control in a hospital set up is crucial. Stock levels should be noted periodically and communicated to the procurement department for facilitating ordering. Items should be inspected before being allowed in the store as there is a greater risk if the hospital inventory are of substandard quality. If this happens, they are not going to serve the required purpose, and this may be very dangerous to the patients. Hospital supplies must be made available when required and not later and this calls for an effective stock control measure. Automating health and store records is also an important concern in store management and its contribution in enhancing service delivery in the hospital cannot be underestimated; it improved Quality and Consistency in health care services. Automation tools are not subject to human error or fatigue, so they can help to provide a consistent basis of prudent health care services. A Texas hospital study found that greater automation in the areas of medical records, order entry, procuring of drugs, receipts and recipients of drugs records and decision support by keeping updated store database appeared to result in a reduction in theft of drugs, health workforce absentees, deaths, complications and cost in the hospital.

Safety of storage facilities also plays an important role in enhancing service delivery in public hospitals. Safety measures ensure both the stock and personnel working in the stores are protected from injuries, sabotage, theft and adverse weather conditions.

However, at ESCRH, several problems have been experienced in the storehouse of the hospital. Some important items experience shortages without the knowledge of the store's personnel. Sometimes items take a long time to be located causing the user department to start complaining to the procurement department. A number of pilferages of drugs and theft of important items especially the anti-biotic drugs vindicate have been reported in the hospital. Some staff even

engaged in ferries and sell essential drugs to private facilities leaving the hospital to suffer an acute shortage of drugs and stand still of its chartered delivery services. In addition, some important store documents find themselves missing due to poor store recording keeping. All these problems affect service delivery in public hospitals in many ways.

1.3 Purpose of the Study

The purpose of the study is to investigate the determinants of proper stores management in enhancing service delivery in public hospitals.

1.4 Objectives of the Study

The research is guided by the following three specific objectives namely;

- i. To find out the effects of inventory control in enhancing service delivery in public hospitals.
- ii. To examine the importance of automating stores and health records in enhancing service delivery in public hospitals.
- iii. To investigate the effects of safety of storage facilities in enhancing service delivery in public hospitals

1.5 Research Questions

The study is guided by the following research questions namely;

- i. What are the effects of inventory control in enhancing service delivery in public hospitals?
- ii. What is the importance of automating stores and health records in enhancing service delivery in public hospitals?
- iii. How does safety of storage facilities affect service delivery in public hospitals?

1.6 Significance of the Study

This study may be of help to ESCRH in formulating policies that will ensure proper stores management that may contribute to enhancing service delivery in the hospital. The study may also be useful to other public hospitals or any other similar service provision organizations. The process will also give an insight and in-depth knowledge to the researcher in the field of study. The study may also provide information to other researchers on what determines having an effective and efficient stores management and lay foundation for further research on the same topic.

1.7 Limitations of the Study

The researcher's effort to carry out the research as exhaustively as possible was limited by the ability and willingness of the subjects to respond to the questionnaire because some respondents are patient who unable to provide vital information due to their illness whereas the staff and even some patients tend to withhold some necessary information for confidentiality and fear of being victimized in the events that the laid down procedure are found to be outrightly violated. This was solved by the researcher sourcing the information from the outpatients and the attendees of in-patient if they are not to provide needed information and assuring the respondents that the information given was confidential and only for academic purpose.

1.8 Scope of the Study

The study was confined within Elwak Sub County Referral hospital. It focused on twelve departments in the hospital which are: hospital administration, revenue, procurement and stores, human resource, Catering, pharmacy, records, clinical and nursing, laboratory, dental, and Nutritional departments. The research further covered three independent variables namely; inventory control, automation of store, health records and safety of storage facilities and how

they contribute to enhancing service delivery in public hospitals. The study was conducted between April and May 2024.



1.9 Operation Definition Of Terms

Procuring Entity: refers to an organization involved in purchasing or acquisition of goods, services or works

Public Hospitals: Hospitals owned and operated by the government.

Stores management: This involves physical control of materials, preservation of stores, minimization of obsolescence and damage through timely disposal and efficient handling, maintenance of stores records, proper location and stocking.

Inventory control: The process of making sure that the correct level of stock is maintained, so that the demand can be met while on the other hand keeping the costs of holding stock to a minimum

Stock checking: stock checking is usually conducted to verify quantities of individual items or a particular range of items when; inaccuracies have resulted in shortages, items are issued in standard quantities and actual usage is not known, when batches of items are frequently removed from stock for processing and losses may occur in the process, finished goods are being “phased-out” and it is vital to balance existing stocks of parts and materials and for any other reason management have reason to doubt stock records.

Stock taking: Involves physical counting of stock in store where organizations are required, by law, to prepare year-end accounts in which an accurate evaluation of stock is a most important component art.

Supply Chain Management: Refers to the oversight of materials, information, and finances as they move in a process from supplier to manufacturer to wholesaler to retailer to consumer. Supply chain management involves coordinating and integrating these flows both within and among companies.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter focuses on review of theoretical literature, critical review and gaps to be filled, the summary and finally the conceptual framework which the research was founded.

2.1 Concept of Patient's Health Records

The patient's medical record forms the essential data for the hospital system integration. While that is true, it is also vital to note that not all hospitals utilize medical records and rather they use administrative or hospitality systems. Although particular numbers may go in different directions professional practice shows that in most cases the administrative functions profit the most from information systems in the hospitals. Administrative systems are made up of inventory management, payments and receivables, financial services and accounting. In such cases, the conversion of handwritten records into digital formats will allow for the smooth processing of the hospital bills. In like manner, hospitals use information systems to control drug stocks which are usually recorded in patients' medical records. The incorporation of medical and administrative systems results in effective management of patient care and hospital operations, thus optimizing outcome and service delivery.

This results in excessive work that not only consumes valuable working time and human resources but also leads the process to delays, errors, and failures. Such problems can have serious consequences, like the cases of inaccurate scheduling for exams, incorrect forwarding of requirements or billing errors, such as item disallowances, billing delays, or even missing charges for procedures and exams. Electronic records, if appropriately combined with other systems, could to a great extent solve these issues. Electronic records minimize the risk of errors

and inefficiencies that are usually associated with the traditional manual methods of record keeping. Moreover, they empower health practitioners with the ability to retrieve information rapidly which is essential in statistical surveys, procedure analysis, prevention programs, and hospital infection control. Electronic record integration with other systems improves the healthcare system's general efficiency and effectiveness.

But on the other side, more effectiveness in administrative procedures and hospital methods can be a problem. The use of Hospital Information Systems (HIS) can lead to a number of potential issues, including the need for physicians to change the way they record observations. Physicians traditionally have kept their records in an organized and defined manner. Nevertheless, the adoption of HIS requires the transforming of the traditional approaches. Although some authors believe that medical information standardization and structuring are necessary for data quality (e.g., Setz and D'innocenzo, 2009; Hoff, 2009; Wakamiya and Yamauchi, 2009; Chaudhry et al., 2006; Shekelle, Morton, and Keeler, 2006) Indeed, this uniformity may be constraining in terms of the types and formats of medical information that can be inserted into the system (e.g., Warwick, 2009; Dawidowski et al ., 2007; Stead, 2007; Walsh, 2004; Stumpf and Freitas, 1997).

Adler-Milstein (2009) stated that the fact that IT in healthcare – like improved efficiency or quality of treatment – can be achieved only if hospitals and clinics are ready to undergo their organizational structure changes. This procedure must entail more individual autonomy and better training programs. The approach is parallel to that explained by Goldzweig (2008) who identified factors that influence the effectiveness of implementation of HIS, such as the context of the implementation, clinical problems, and patient population.

Within electronic medical records, a system of electronic prescription is also possible. As Balfour et al. (2009) indicate, electronic prescriptions enhance patient care because the need for

deciphering illegible handwritten prescriptions is eliminated, the risk of dosage mistakes is minimized and the communication with hospital pharmacies is expedited. In addition, the showcasing of obtainable drugs leans to the prescription of generic medications, consequently retrieving the cost for the patients (Balfour III et al., 2009). Bridging with clinical decision support systems can result in reduced prescribed dosages (Shekelle, Morton, and Keeler, 2006) and enable fast renewal of prescriptions and dosage changes (Weingart et al., 2009).

Although there are a number of advantages to the process of electronic prescriptions which were seen in recent studies, there were also several problems identified in those studies. During their work the physicians did not always compare the prescription with the one they received before its transmission (Hellström et al., 2009) and also, they often did not read prescriptions carefully as an interaction with other medicines was also possible (Weingart et al., 2009).

Another broad positive consequence offered by the HIS and the electronic records system in particular is the medical and nursing audits of the documented facts provided to health insurance agencies. This analysis represented one of the most important managers tools by the carriers to better the way they spent the costs of hospital care (Ribeiro et al., 2008; FARIAS and Melamed, 2003). Hence the auditor develops the focus on business cost controllership as well as tries to evaluate the unjustified expenses of hospitals. In this way, there will be a reduction of errors since for instance, it is possible to write rules for performance of activities and also to investigate inputs, consumptions and medical- hospital costs for the patients (Scarparo and Ferraz, 2008).

This action then puts pressure on the health insurance company that it ultimately shifts to the insured who considers it among the aspects to look at the plan while making the decision. Besides medical care, arrangement of the operator, personnel, communication and sake, the price

is one of the seven factors, which was analyzed by Milan and Trez (2005), that played the role in the insurance member' satisfaction.

2.2 Empirical Literature

The study reviewed literature related to the research objectives as follows.

2.2.1 Inventory Control

The inventory management incorporates proper stock levels that can satisfy the demand while at the same time reducing the holding costs. Managers typically focus on three types of inventories: raw materials, works in process or semi-finished goods, and finished goods. Well-controlled stockpiles are capable of releasing bound capital, improving production supervision, and keeping things away from becoming obsolete, deteriorated or stolen. The main goals of inventory control consist of managing stock volumes at reasonable levels but not too high or too low in value, size, color, style or price line in accordance with sales or demand trends, locating high-performing items, maximizing the stock turnover, minimizing expenses and markdowns, and keeping up the image of a business offering fresh merchandise in the desired sizes and color options. Different strategies are possible in the management of inventory, depending on the type of and size of the operation, and the variety of items. The kind of system that is chosen will be influenced by the kind of business that is being operated and the amount of merchandise.

Daniel (2011) asserts that stock control is a fundamental policy procedure utilized in material management. This encompasses internal checks such as continuous, periodical, spot checks, or any other management-established controls aimed at ensuring effective and efficient material management procedures. Moreover, Daniel, (2011) outlines two primary approaches underlying the various systems for controlling stock, whether manual or automatic. The recording method involves updating inventory levels either when materials reach a predetermined level or

periodically at regular intervals. On the other hand, the action level method focuses on controlling stock by setting specific levels for each commodity in the stock system. With this method, commodities are ordered based on predetermined levels, allowing for orders to be placed for individual items as needed.

As much as the production levels are determined by a well-functioning business, material levels are also as important as the production levels. It is also easy to see that a careless choice about the material level can cause delay in production because of shortage of the necessary components. Tighter controls of supplies and also the keeping of perfect records can reduce the costs of supply management while making sure an uninterrupted constant work process.

Weele (2000), stated that physical stocktaking is done not only to correct the accuracy of records that support the balance sheet, but also to verify the items in the physical stock through physical verification. This process can also put the spotlight on shortcomings and be instrumental in highlighting discrepancies such as fraud, theft or loss that might be present in the stock custody and control system. Storekeeping methods along with material control regulations can be assessed through the identification of surpluses and deficiencies that may occur during stocktaking.

Inventory control plays a pivotal role in enhancing service delivery in Japan, renowned for its efficiency and precision-oriented culture. Through meticulous management of inventory levels, Japanese businesses ensure seamless operations and optimal customer satisfaction (Atnafu & Balda, 2018). At the heart of Japanese inventory control lies the principle of just-in-time (JIT) inventory management, pioneered by companies like Toyota. This methodology emphasizes minimizing inventory levels to reduce waste and improve responsiveness to customer demand.

By closely monitoring stock levels and replenishing supplies only as needed, companies streamline their operations and minimize the risk of overstocking or stockouts.

One significant effect of inventory control in Japan is the enhancement of service delivery through increased agility. With lean inventory practices in place, businesses can swiftly adapt to fluctuations in demand, ensuring that products are readily available when customers need them (Randhawa & Ahuja, 2017). This agility enables companies to respond promptly to customer orders, reducing lead times and enhancing overall service delivery. Furthermore, efficient inventory control fosters cost savings by minimizing storage costs and obsolescence risks associated with excess inventory. Japanese businesses prioritize efficiency in their supply chains, leveraging advanced forecasting techniques and collaborative relationships with suppliers to maintain optimal inventory levels. By reducing inventory holding costs, companies can allocate resources more effectively, investing in initiatives that further improve service quality and customer satisfaction.

Moreover, effective inventory control in Japan is closely linked to quality management principles, ensuring that products meet rigorous standards before reaching customers. By maintaining tight control over inventory, businesses can uphold stringent quality control measures, mitigating the risk of defects or recalls that could compromise service delivery and damage reputation (Foster & Gardner, 2022).

In essence, the effects of inventory control in Japan extend beyond operational efficiency to encompass enhanced service delivery and customer satisfaction. Through JIT inventory management and a commitment to quality, Japanese businesses set a benchmark for excellence in service provision, embodying the nation's ethos of precision, reliability, and continuous improvement.

Inventory control plays a vital role in enhancing service delivery in South Africa, contributing to improved efficiency, customer satisfaction, and cost-effectiveness across various industries. By implementing effective inventory management practices, businesses in South Africa can address logistical challenges, reduce waste, and meet the diverse needs of their customers. One significant effect of inventory control in South Africa is the optimization of supply chain processes, leading to streamlined operations and enhanced service delivery (Modisakeng, Matlala, Godman & Meyer, 2020). Through efficient inventory management systems, businesses can accurately track stock levels, anticipate demand fluctuations, and ensure timely replenishment of goods. This proactive approach minimizes the risk of stockouts and delays, enabling companies to fulfill orders promptly and meet customer expectations. Additionally, effective inventory control fosters cost savings by reducing holding costs associated with excess inventory and minimizing the risk of inventory obsolescence. In a country where logistics costs can be significant, optimizing inventory levels helps businesses reduce storage expenses and improve cash flow management (Bganya, 2022). By freeing up capital tied up in excess inventory, companies can invest resources in other areas of their operations, such as improving service quality or expanding their product offerings.

Moreover, inventory control plays a crucial role in mitigating the impact of supply chain disruptions, which are common in South Africa due to factors such as transportation constraints and political instability. By maintaining lean inventory levels and establishing robust contingency plans, businesses can minimize the disruption caused by unforeseen events, ensuring continuity in service delivery even during challenging times (Ermes, Henderson, Staude & Niemann, 2022). Furthermore, effective inventory management supports customer satisfaction by ensuring product availability and minimizing lead times. In a competitive market landscape,

businesses that can reliably meet customer demand gain a competitive edge and build loyalty among their clientele. By optimizing inventory levels and implementing efficient distribution channels, companies can provide a seamless and responsive service experience, fostering long-term relationships with their customers.

Inventory control in Kenya significantly enhances service delivery by streamlining supply chain processes, reducing costs, and meeting customer demands effectively. Through accurate monitoring and management of inventory levels, businesses can anticipate fluctuations in demand and ensure timely replenishment of goods, thus minimizing the risk of stockouts and delays (Shajema, 2018). This proactive approach not only improves operational efficiency but also boosts customer satisfaction by ensuring that products are readily available when needed. Additionally, effective inventory control helps businesses minimize holding costs associated with excess inventory, allowing them to allocate resources more efficiently and invest in initiatives that further enhance service quality and customer experience. By maintaining lean inventory levels and implementing robust contingency plans, companies can mitigate supply chain risks and disruptions, ensuring continuity in service delivery even in challenging circumstances (Muhalia, Ngugi & Moronge, 2021).

Furthermore, optimized inventory management supports customer satisfaction by ensuring product availability and minimizing lead times, thereby fostering loyalty and competitiveness in the market. Businesses that can reliably meet customer demand gain a distinct advantage and build strong relationships with their clientele (Rajab, Ngugi & Kiarie, 2021). Through the implementation of efficient distribution channels and continuous improvement in inventory management practices, companies in Kenya can provide a seamless and responsive service experience, ultimately driving long-term growth and success. Overall, the effects of inventory

control extend beyond mere operational efficiency, encompassing cost savings, risk mitigation, and enhanced customer satisfaction, thereby contributing to the overall improvement of business performance in Kenya's dynamic marketplace.

2.2.2 Automating of Store and Health Records

Saleemi (1991) points out that storing and health records needs to be automated to facilitate customer service satisfaction, determine the exact item replenishment needs, make sure the material availability matches the repair or project demands, analyze the inventory levels and manage the excess inventory. Saleemi (1991) emphasizes keeping stock records, which is an integral part of maintaining daily records for all incoming items in the store as well as outgoing items. Thus, both receipts and issues are properly recorded as well as remaining balances for each item.

Furthermore, to Burton (1981), stock records have the most important role of crediting management with the indispensable information for accountability using the stocktaking and stock audits. According to Burton, the easiest way of recording is making manual entries in the books of accounts. However, the best approach to recording is using mechanical methods, which are more efficient in cases where lots of documents are dealt with and when complexities arise. Slow speed, more errors, and misplacements or even loss caused by multi-handling are among the shortcomings of manual posting type against its computerized system. One of the most important documents in store is Store control card. Store control card is a document used to control the flow of stock in the store; whereby incoming and issued stock are recorded.

According to Hoff (2009), nutritious foods must be preserved, as automated stores and health records play a sizable role in organizational planning. Automated inventory registers provide critical data that is used in making decisions, such as which of the existing stock can be used to

fulfill certain customer requests or be employed in some projects. As the records contain details on when to reorder items, they allow for applying a complex analysis to identify inventory patterns over time which is the first step to predicting replenishment rates over time. Such strategic planning is a vital component in the development and bearing of an investor relationship, which is characteristically founded on the well-set plans.

In addition, automated stores and health records do not only speed up customers' inquiries about what's in stock but respond them promptly too. This fast reaction improves the company's brand image in the eyes of customers, and they truly appreciate it when they get fast and accurate information which encourages their happiness. Organizations will be able to carry out business operations with the help of a detailed knowledge inventory system of locations and availability; by doing so they will be able to serve more customers, turnover and optimize their inventory. On the other hand, failure to meet the expectations of customers like delayed or wrong order fulfillment may translate to customer dissatisfaction, thus loss of business to competitors. Thus, prompt response to inquiries and order fulfillment is of paramount importance for the retention of clients and increase in the revenue.

Accurate inventory tracking allows us to see the results. For example, you can call the successful tracking if you don't lose more than one item per month. If your staff of inventory department achieves this goal because they maintain accurate data, you can give them positive reinforcement and rewards. This way, morale stays up, which usually corresponds to higher output, and lesser conflicts. Furthermore, you cannot tell whether an employee needs more or less credit or whether disciplinary action is necessary without good records.

Automating the store and health records makes it possible for your staff to have more time for other work. For instance, they could evaluate new suppliers or devise efficient and easy ways of

stock rearrangement. It is not only a production improvement but also an opportunity to expand your product line and for employees to explore the other skills and talents they possess. You might find that a lower-level checker is actually quite good with data analysis.

Saleemi (1991), found that stock records are useful for a number of reasons: identifying materials and the location of each one, recording information related to stock movements such as receipts, allocations, issues and transfers, to provide a basis for replenishment of stocks, to indicate that there is stock if any items at any time without the need to count them physically, to provide a basis for stock checking or stocktaking as a basis for costing of materials or evaluation of stock.

According to Burton (1981), stores and warehousing records play a crucial role in the receipt and issuance of goods to user departments. Given their accountability, these documents require protection against unauthorized access and use. Management of stores and warehousing records should align with the procurement cycle and integrate with the records management program of the Public Entity (PE). The procurement records management officer assumes supervisory and coordinating responsibilities for stores records management. Effective management of stores records is paramount, necessitating close collaboration among officers overseeing procurement, stores, and accounts records. The head of the records management department within a PE is tasked with providing direction and leadership in managing stores records alongside other records within the entity. Several documents are utilized in the stores section, as outlined below:

S12: Issue and receipt voucher bridges the gap of receiving and issuing goods at the store. The authentic copy remains with the stores, while the reproduction is given to the person who comes to pick up the products. The triplicate is sent to the collector of goods to be acknowledged, signed to confirm receipt, and then returned to the store. The fourth copy is put together with the

payment voucher, and the fifth copy is kept in the pad. S12 serial number is mentioned on the ledger card. Receipts original and duplicates are listed in a file based on the number of series and date sequence, while a file for each financial year is maintained in the separate file. Borrowed receipt books are also arranged in a sequence of date and serial numbers through the financial year.

S11: Requisition and issue voucher is used to request and issue items from the stores. It defines the ministry or department who made the demand, names the requisitioning, issue, and receiving officers. The account to be paid is specified too. The originals are kept by stores, the duplicates by the receiver, and the triplicates in the pad. User departmental keep triplicate copies, in date and serial number sequence, which are arranged by fiscal year. Receipts and vouchers are entered in serial number and date order, serialized by financial year, with used receipt books placed systematically. These files are safely kept in locked cabinets as it is easy to retrieve them.

S5 card, also known as bin card, plays an important role in managing stocks and conducting physical stock verification in warehouses. It includes the goods received and issuance of stores section, thus it facilitates indexing, locate items and registers the movement of materials. The store's personnel have the bin cards in their files arranged according to the item code number in the date and financial year sequence. The delivery note will be enclosed when the goods are delivered to the store, including it will indicate the actual goods delivered by the supplier. Store managers are the ones who receive delivery notes for verification and to sign off either as correct or otherwise. The delivery note plays a crucial role in stock receipts.

The ledger and the stock control card which records everything supplied to the store, either from within or outside the store, are used. It is imperative for both aspects to be properly overseen to achieve a successful stores management and operation. Every transaction is recorded in red for

receipts and blue or black for issues. S11 and S13 transactions are entered in S3 card. The storekeeper uses the counter receipt voucher (GRN – Goods Receipt Notes) to receive and process all products delivered to the store, making sure the documents like the delivery notes and LPOs are satisfied. It is generally triplet.

S4: Stores ledger and stock control register serve as the register for all S3 Cards, accountable and auditable documents that must be maintained properly to prevent losses or alterations.

S12: Issue and receipt voucher is utilized for inter-entity stores transactions, such as between ministries or departments. Procuring entities requisition goods from the Ministry of Public Works (Supplies Branch) using S12.

Automating stores and health records in the USA is indispensable for elevating service delivery in both the retail and healthcare sectors. Through automation, processes are streamlined, accuracy is enhanced, and access to information is accelerated, all of which contribute to superior customer experiences and patient care (Al-Jaroodi, Mohamed & Abukhousa, 2020). In the realm of retail, automation facilitates seamless transactions, optimizes inventory management, and enables personalized marketing approaches, thereby fostering higher levels of customer satisfaction and loyalty. This automation ensures that shelves are consistently stocked with desired products, reducing instances of stockouts and maximizing sales opportunities, while also allowing retailers to analyze customer data more efficiently to tailor their offerings to consumer preferences.

In healthcare, the automation of health records serves to centralize patient information, leading to improved care coordination, reduced errors, and streamlined administrative tasks. Electronic health record systems make patient data easily accessible to healthcare providers across various departments and locations, enhancing overall patient care and safety (Henry, Pylypchuk, Searcy

& Patel, 2016). Furthermore, automation simplifies administrative processes such as appointment scheduling, billing, and insurance claims processing, allowing healthcare professionals to devote more time and attention to patient care. By embracing automation in both sectors, businesses and healthcare providers can ensure they remain competitive, deliver superior services, and make significant contributions to societal well-being through enhanced efficiency and improved outcomes.

Automating stores and health records in Ghana is of paramount importance for enhancing service delivery across various sectors, particularly in retail and healthcare. Automation brings about efficiency, accuracy, and accessibility to information, resulting in improved customer experiences and patient care. In the retail sector, automating stores facilitates smoother transactions, efficient inventory management, and personalized customer service (Gyamfi, Mensah, Oduro, Donkor & Mock, 2017). Automated checkout systems reduce waiting times for customers, enhancing their overall shopping experience. Additionally, inventory management systems with automated replenishment capabilities ensure that shelves are consistently stocked with products that customers demand, minimizing stockouts and maximizing sales opportunities. Moreover, automation enables retailers to analyze customer data more effectively, allowing them to tailor marketing strategies and product offerings to meet consumer preferences, thus improving customer satisfaction and loyalty (Essuman, Apaak, Ansah, Sambah, Ansah, Opare & Ahinkorah, 2020).

Similarly, in the healthcare sector, automation of health records revolutionizes patient care and administrative processes. Electronic health record (EHR) systems centralize patient information, making it easily accessible to healthcare providers across different departments and locations. This accessibility enhances care coordination, reduces medical errors, and improves patient

safety (Gyamfi, 2016). Furthermore, automation of administrative tasks such as appointment scheduling, billing, and insurance claims processing streamlines operations, allowing healthcare professionals to focus more on patient care. Additionally, automated reminders for appointments and medication adherence help improve patient engagement and overall health outcomes.

Automating stores and health records in Kenya is of paramount importance in enhancing service delivery across various sectors, particularly in retail and healthcare. Automation brings about efficiency, accuracy, and accessibility to information, leading to improved customer experiences and patient care (Kiptoo, 2018).

In the retail sector, automating stores facilitates smoother transactions, efficient inventory management, and personalized customer service. Automated checkout systems reduce waiting times for customers, enhancing their overall shopping experience. Inventory management systems with automated replenishment capabilities ensure that shelves are consistently stocked with products that customers demand, minimizing stockouts and maximizing sales opportunities (MASEKO, 2022). Moreover, automation enables retailers to analyze customer data more effectively, allowing them to tailor marketing strategies and product offerings to meet consumer preferences, thus improving customer satisfaction and loyalty.

Similarly, in the healthcare sector, automation of health records revolutionizes patient care and administrative processes. Electronic health record (EHR) systems centralize patient information, making it easily accessible to healthcare providers across different departments and locations. This accessibility enhances care coordination, reduces medical errors, and improves patient safety (Shehu, 2016). Furthermore, automation of administrative tasks such as appointment scheduling, billing, and insurance claims processing streamlines operations, allowing healthcare

professionals to focus more on patient care. Additionally, automated reminders for appointments and medication adherence help improve patient engagement and overall health outcomes.

2.2.3 Safety of Storage Facilities

Safety of storage facilities is an important consideration for any manufacturing or service delivery organization. He added that security of storage facilities encompasses ensuring security of the store house and stock yard, good custody of keys, limiting access to premises and marking of materials as in coding, to minimize theft, segregation of prescribed item, and safety of stores staff.

According to Waters (2003), Storehouses should be secured both inside and outside. He added internal security of stores ensures there is no pilferage of items by those working in stores while external security prevents breakage into stores and theft of items. Store guards should be placed within and outside the premises to prevent authorized entry into stores. Stores keys should be under the custody of senior store officer served with the responsibility of custody of keys. Keys should not be given to any other person without proper authorization.

Items of higher value should be segregated from other items as they are likely to attract much attention to people. They should be kept in a safe cabinet and special stores managed by senior store personnel and issues should only be authorized by the senior store personnel.

As outlined by Saleemi (1991), establishing a strong relationship with local law enforcement stands as a crucial security measure. Collaborating with local law enforcement officials enables access to valuable resources such as complimentary security surveys, wherein experts assess the vulnerabilities of a building's defences and offer recommendations. Additionally, law enforcement personnel can provide insights into reputable alarm system companies and advise on the most suitable features for individual properties. Furthermore, fostering personal

connections with law enforcement officers, particularly those responsible for patrolling the vicinity, can result in heightened attention to the security of the property and warehouse. This becomes particularly significant for facilities with minimal personnel or periods of unoccupancy. Establishing such rapport also ensures that law enforcement agencies have designated contacts in the event of emergencies, facilitating swift responses. Moreover, extending invitations to police personnel, especially those tasked with area patrols, to familiarize themselves with the building's layout proves beneficial. This proactive approach enables them to strategize and prepare for securing the premises if required, while also empowering them to identify suspicious behavior promptly. Lastly, supplying the local police department with a comprehensive list of employees authorized to access the property is imperative. This information ensures that law enforcement officials can efficiently manage access if the need arises, streamlining emergency response procedures.

The next line of defence involves securing the property comprehensively. A crucial initial step is to fortify the property's perimeter. Experts recommend installing a six-foot chain-link fence topped with barbed wire to establish robust security measures. Additionally, strategically planting hedges immediately around the building can further enhance security. These hedges should be wide rather than tall, featuring prickly leaves or growths. Not only do these hedges provide a protective barrier, but they also contribute to the aesthetic appeal of the property. It is important to note that the appearance of the property can influence criminal behavior. Maintaining a well-kept building and property creates the perception of heightened surveillance, serving as a deterrent to potential intruders. Adequate exterior lighting is equally essential. Illumination should extend up to 100 meters, and lighting fixtures should be resistant to

tampering or damage. Moreover, it's imperative to ensure that foliage does not obstruct the lighting, thereby maintaining optimal visibility around the warehouse's exterior.

According to Relph and Barrar (2003), after securing the outside perimeter, the warehouse itself, will be much easier to guard and manage. The last line of defense against any illegal intrusion is the security which is why we must implement as many precautions as necessary. Another commonly disregarded security concern is the accessibility of fire ladders or utility ladders, which criminals may exploit to gain entry, including through roofs or ventilation entrances. To tackle this risk, one should store vehicles away from building and as well eliminate keys from vehicles during non-working hours. However, robbers can also use the fire ladders to enter the location or bypass the roof and ventilation channels. To prevent unauthorized access, safety experts recommend that the ladders at least raise eight feet above the ground or securing them in enclosures if height beyond that level is not practical. Along with these steps, the owners of property are recommended to use additional security features such as bars, plastic film or grid on the windows. Such improvements do not only fortify security but also provide safety and are integral to the quality. The use of specialized security devices like bars and grilles windows additionally increases the protection level of the warehouse company premises.

Furthermore, making sure that all doors and entranceways are secured in the warehouse is of crucial significance. Installation of metal or solid wood doors with swing-free tamper-proof hinges over externally situated entrances reinforces security. Reinforcing with mesh within the glass panels for external glass doors is recommended while internal sliding doors should have a rail added on the floor plus a vertical pin assembly for improved stability. In order to increase security at doors, it is advised to make use of deadbolt locks for the purpose of stronger locking systems. In situations where padlocks are used, erasing the serial number is recommended to

prevent the copy of keys that are not authorized. Notably, an alarm system forms the last critical shield against unlawful break-insecurity specialists have been emphasizing for years how much deterrent role alarm company warning stickers can play. Furthermore, if public and private areas, as well as designated entrances and exits, are marked with well-recognized signs, it is crucial to do so. This makes it easier for employees to quickly distinguish non-authorized persons, thereby facilitating the identification process. It is indispensable to foster a clear demarcation for better overall security understanding and consciousness.

The security of the warehouses is incomplete without fire safety as the fire can do great damage to the inventory and property. Studies have shown that arson may be attempted along with robbery. This means that the security arrangements must be in place to prevent fire as well as unauthorized entry. Arson Aversion calls for avoiding keeping combustible materials near the outer fence or property border. This stops criminals from launching fires from the outside by inflaming dry or bushes. Besides, you should secure the trash cans from the wall and seal gaps under the doors to reduce the risk of spreading fire. It is imperative that emergency services are able to quickly locate buildings, which can only be achieved when the address numbers are visible from the street. Additionally, all emergency ward doors should be unlocked from the inside and should provide access at all times. Installing fire exit bars on each emergency exit provides a guarantee that doors remain unlocked as the door is designed to be accessed always during the panic, leaving no option for anyone trapped from inside the burning building. Ultimately, these measures cumulatively advance the fire safety standard and the general security system within the facility.

Paton (2002) highlights the supervisor's role in sustaining a safe working environment within the jurisdiction. They are trusted with the responsibility of providing each staff member with the

required tools, information, and instructions to have a good and safe work environment. Supervisors are instrumental in creating a culture where the issues of health and safety are brought to the fore among the people under their supervision. In addition to this, they play crucial role of ensuring adherence to safe work practices by reporting any faulty equipment immediately.

In addition to this, Lysons and Farrington (2012) emphasize on the joint responsibility of the employees in the implementation of health and safety protocols at the work place. Employees are expected to show reasonable care for the well-being of their co-workers and work with their employer in ensuring a safe and healthy work environment. This implies that employees must immediately report any safety concerns or hazards to their supervisors via the right channels. The main goal of the store is to provide a safe and healthy working environment for the staff members and the customers. The emphasis is placed on the fact that the creation of safe workplace conditions is a joint responsibility of all workers. According to Paton (2002), the reasons of accidents in a store include slippery floors due to oil or chemical spills, electrical equipment with frayed cords and improper utilization of ladders. There is a need to be more alert to these possible hazards so that the risks can be lowered and a safer working environment for everyone can be created.

Accident prevention depends on the joint effort involving staff and management to ensure safety at work. This designates close-up examinations of work sites to find out potential hazards like toppled objects that can lead to falls or trips. Finally, it involves making sure that all equipment is safe by checking its condition before each use and for the task, the appropriate tool is selected. Safety in this context is paramount, thus the workers are required to perform duties that place safety as a concern while only utilizing equipment they have been properly trained in.

It is absolutely essential that staff members know the possible risks of using certain equipment. Therefore, the equipment should not be used until safety training on its proper use is given by the department supervisor. All employees are mandated to sign the acknowledgment form which states that they have been informed about the Work Safe Practices pertaining to their section within the store. In case of defective or damaged equipment, reporting to the supervisor as soon as possible is essential to take the right measures, such as tagging the equipment that needs maintenance. It is quite important to not try to fix defects by yourself as this could undermine personal safety and everyone else safety. Moreover, safety tags must be on every equipment before they are used by any authorized person.

Lysons and Farrington (2012) emphasize the necessary involvement of the Manual Handling Code of Practice for all staff members. Involve any type of activities with the manual handling that includes exerting the force to lift, lower, push, pull, carry, or otherwise move objects, and the risk of injury may be inevitable. Since store-staff execute manual-labour jobs on a daily basis, the chance for accidents should be factored in. This means understanding how to prevent them. The employees of the store can easily avoid the chances of accidents and injuries by being cautious while manually handling the objects.

For the prevention or elimination of injuries, it would be necessary for management to recognize, examine, and control handling risks. Such risks appear not only in the way of work but also the interior structure and the design of rooms of the store. Safety audits that are done throughout the stores regularly will monitor the problems or hazards in the workplace. The safety audits are usually conducted on a weekly basis. Employees have to inform their supervisors or managers as quickly as possible in cases of any hazards or safety related problems. When hazards are identified, the supervisors are responsible for carrying out detailed inspections of all areas under

their departments as employees actively participate in identification of such hazards. The findings of these inspections are of paramount importance for a safe and compliant workplace and also they indicate the training needs which could be undertaken. Hence, this partnership prevents the working environment from deteriorating and harming the well-being of the employees.

Ensuring the safety of storage facilities in public hospitals in Brazil has significant effects on enhancing service delivery and overall healthcare outcomes. A safe storage environment for medical supplies, equipment, and pharmaceuticals is crucial for maintaining the quality and integrity of these essential resources, ultimately benefiting patients and healthcare providers alike (WHO, 2018). Firstly, the safety of storage facilities helps prevent damage, contamination, or loss of medical supplies and equipment. Proper storage conditions, including controlled temperature, humidity, and cleanliness, protect sensitive medical items from degradation or spoilage. This ensures that healthcare providers have access to high-quality supplies when needed, reducing the risk of using compromised materials in patient care. Additionally, safe storage practices contribute to cost savings by minimizing the need for replacement due to damage or expiration, allowing hospitals to allocate resources more efficiently.

Secondly, secure storage facilities play a vital role in maintaining inventory accuracy and efficiency in public hospitals. Well-organized storage systems with proper labeling and tracking mechanisms help healthcare staff easily locate and retrieve items, reducing search times and improving workflow efficiency (Dhagarra, Goswami, Sarma & Choudhury, 2019). This streamlined process enables healthcare providers to respond quickly to patient needs, resulting in faster diagnosis and treatment. Moreover, accurate inventory management reduces the likelihood

of stockouts or overstocking, ensuring that essential medical supplies are always available when needed, thus enhancing service delivery and patient care.

Furthermore, the safety of storage facilities in public hospitals directly impacts patient safety and satisfaction. By storing medications and medical devices securely, hospitals can minimize the risk of medication errors, contamination, or accidental misuse, safeguarding patient health (Barreto, Ichihara, Almeida, Barreto, Cabral, Fiaccone & Smeeth, 2019). Patients can trust that the treatments they receive are safe and effective, leading to improved satisfaction with the healthcare services provided. Moreover, efficient storage practices contribute to the overall smooth functioning of hospital operations, enhancing the reputation and credibility of public healthcare institutions in Brazil.

Ensuring the safety of storage facilities in public hospitals in Nigeria is paramount for improving service delivery and healthcare outcomes. These facilities play a critical role in preserving the quality and integrity of medical supplies, equipment, and pharmaceuticals, which are essential for patient care. Proper storage conditions, including controlled temperature, humidity, and cleanliness, help prevent damage, contamination, or loss of sensitive medical items (Oyekale, 2017). This ensures that healthcare providers have access to high-quality supplies, reducing the risk of compromised materials being used in patient care. Additionally, safe storage practices contribute to cost savings by minimizing the need for replacement due to damage or expiration, allowing hospitals to allocate resources more efficiently, ultimately benefiting both patients and healthcare providers.

Moreover, secure storage facilities contribute to maintaining inventory accuracy and efficiency in public hospitals. Well-organized storage systems with proper labeling and tracking mechanisms enable healthcare staff to easily locate and retrieve items, reducing search times and

improving workflow efficiency (Ani, 2021). This streamlined process enables healthcare providers to respond promptly to patient needs, leading to faster diagnosis and treatment. Furthermore, accurate inventory management reduces the likelihood of stockouts or overstocking, ensuring that essential medical supplies are always available when needed (Dada, Olaopa, Chukwuanukwu & Asumah, 2022). Ultimately, the safety of storage facilities directly impacts patient safety and satisfaction, as it minimizes the risk of medication errors, contamination, or accidental misuse, fostering trust and confidence in the healthcare services provided by public hospitals in Nigeria.

Ensuring the safety of storage facilities in public hospitals in Kenya is imperative for elevating service delivery and advancing healthcare outcomes. Proper storage conditions, including stringent temperature control and cleanliness measures, safeguard medical supplies and equipment against damage or contamination, ensuring that patients receive uncompromised care (Kaitany, 2022). This not only enhances patient safety but also contributes to cost savings by minimizing the need for replacements and enabling more efficient resource allocation within hospitals. Furthermore, well-organized storage systems streamline operations for healthcare staff, enabling them to locate items swiftly and thereby enhancing workflow efficiency. Such efficiency translates into faster diagnosis and treatment, ultimately improving service delivery and the overall patient experience.

Moreover, the safety of storage facilities directly influences patient satisfaction by reducing the risk of errors or misuse of medications and medical devices. Patients can trust in the reliability and efficacy of the healthcare services provided, fostering a sense of confidence and trust in the hospital's capabilities (Muke, 2019). As a result, ensuring safe storage facilities not only upholds the reputation and credibility of public healthcare institutions in Kenya but also plays a pivotal

role in optimizing resource utilization and delivering high-quality care to patients across the nation. Through these efforts, public hospitals in Kenya can effectively fulfill their mission of providing accessible, efficient, and reliable healthcare services to all citizens (Wa M'nabea, 2020).

2.3 Theoretical Literature: Economic Order Quantity Model

The paper, based on EOQ model, tried to determine the effect of inventory control on improving services by reducing stockouts and streamlining organizational processes. EOQ, a fundamental principle in inventory management, is a model that calculates the optimal order size at which the total annual costs necessary to hold and order inventory are minimized. The EOQ algorithm helps to determine the right reorder point and the quantity required to replenish inventory level at the same time preventing stock-outs. In particular, the EOQ model is a powerful tool that guides the decisions regarding the management of the stock for small business owners. It guides us to forecast the right inventory levels, the amount to order in each cycle and the rate of the reorder to minimize the total costs. By using the EOQ model, enterprises can easily measure the costs of inventory holding against the costs of ordering and so finding the optimal point to improve the inventory control and operations performance.

The EOQ model is based on some presumptions aimed at facilitating the calculation and inventory management decisions. Firstly, the idea is that a demand for a product is always constant with the merchandise being depleted at a regular pace until it gets zero. Furthermore, the model takes into account only one item as well as the whole year's demand that is distributed evenly, which leads to a rather constant demand rate. It is specified that lead time, i.e., the time between placing an order and receiving it, is a constant. As a result, every order is also received in one shipment, and there are no bulk discounts for the customers.

According to the EOQ model which involves instant restocking, the cost of inventory shortage and associated shortage costs will be zero. Therefore, inventory cost can be viewed as a tradeoff between holding cost, which consists of expenses for storage and capital tied up in inventory, and order costs, like charges for placing the orders (e.g., delivery cost). Purchasing for a small business a larger volume per order keeps its cost low, while on the other it buys on smaller quantities more frequently, which lowers order costs but increases holding costs. EOQ Model settles for the quantity that minimizes the whole of these costs thereby maintaining a balance between holding costs and ordering costs to come up with a proper decision on inventory management.

Figure 1 reveals that the total cost curve is U-shape (i.e., convex, with one minimum) and that it reaches its minimum at the quantity where carrying and ordering costs are equal. EOQ is meant to minimize both ordering and carrying costs. If this quantity is ordered total transaction cost is kept minimum.

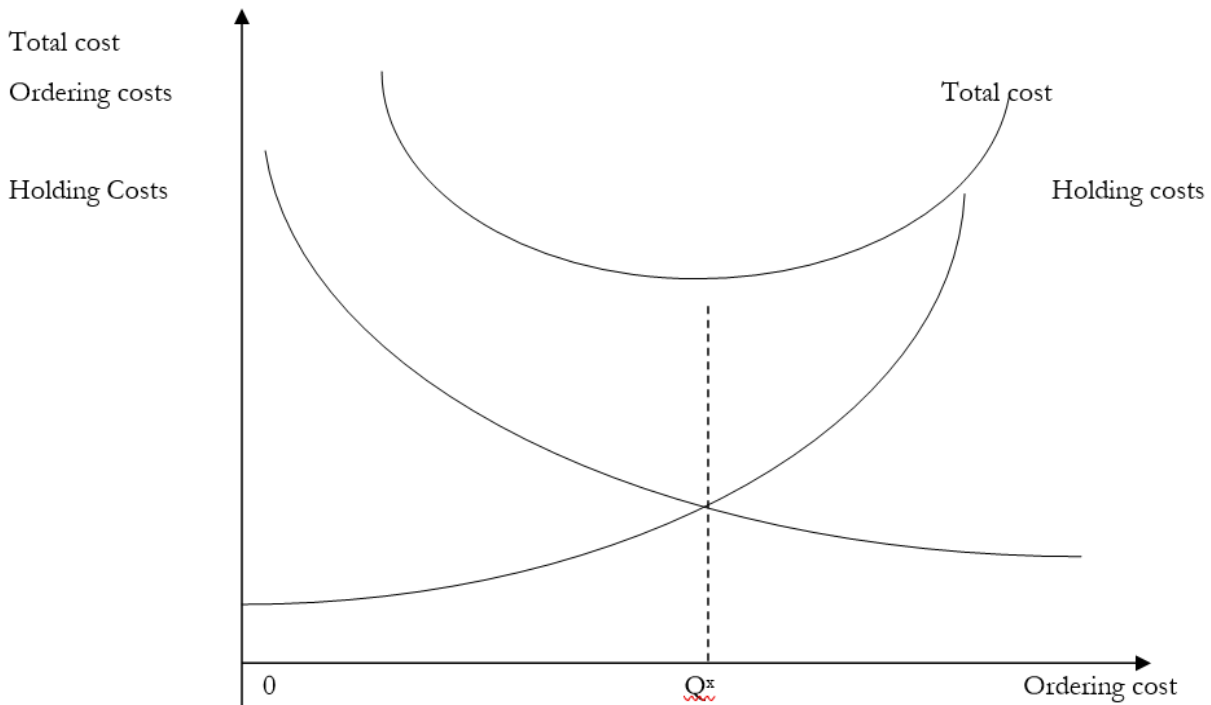


Figure 1 Total Cost Curve

Q^x represents the EOQ where the aggregate stock cost is lowest

The EOQ model is ideal for the purpose of this study as it tries to explain how stores can control stock levels by minimizing both ordering and stock holding cost. EOQ ensure just optimum stock is carried by stores with no stock outs or even overstocking and users' departments receive the best services from procurement and store departments.

2.4 Conceptual Framework

The conceptualization of the study variables was shown in Figure 2.

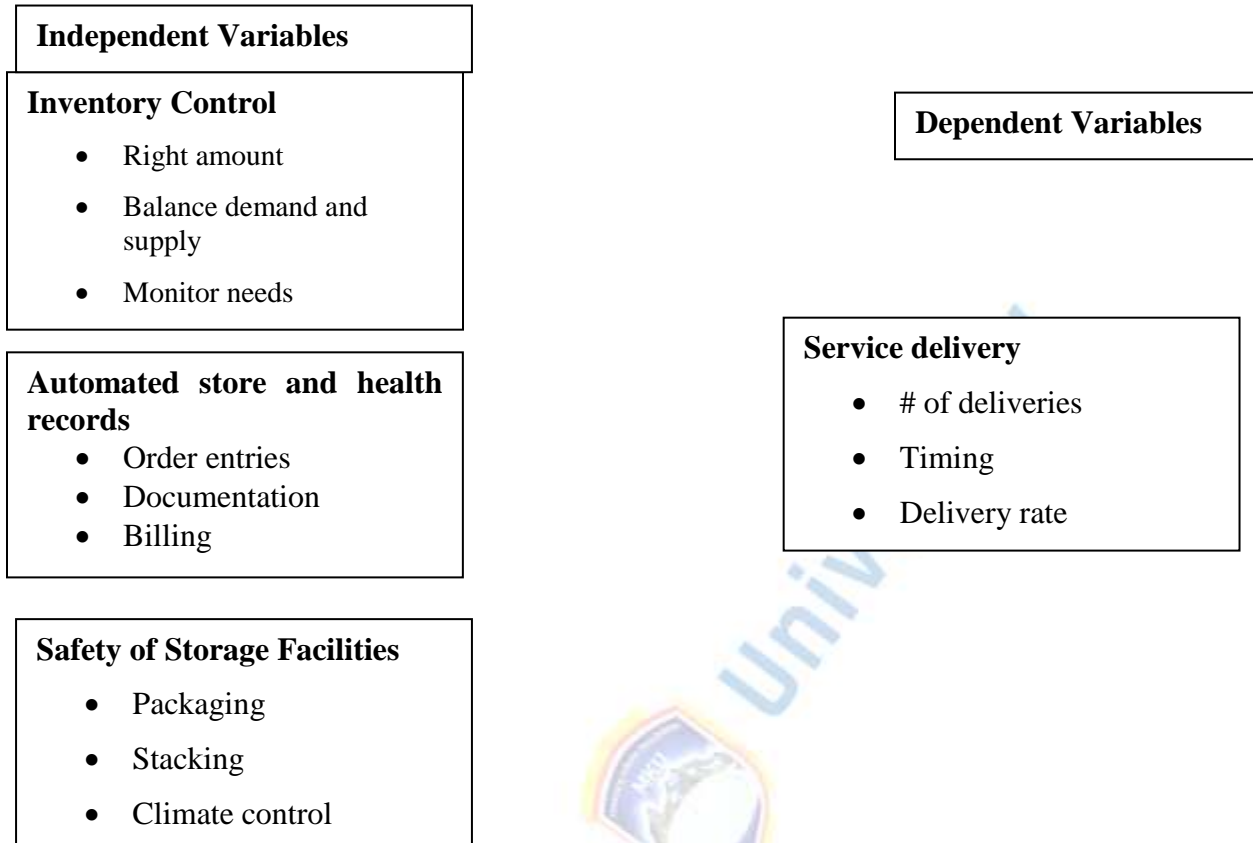


Figure 2 Conceptual Framework

Source: Researcher, 2023

Service Delivery

This is the dependent variable of the study. Service delivery is measured by the satisfactions of the user department from the goods and services procured by the procurement department and issued by stores unit. Effective store management contributes to enhancing service delivery, especially in hospitals as user departments relies so much on goods supplied by stores unit. The three variables: inventory control, store records management and safety of storage equipment affect service delivery in several ways.

Inventory Control

The process of making sure that the correct level of stock is maintained, so that the demand can be met while on the other hand keeping the costs of holding stock to a minimum. Effective stock control helps in minimizing holding costs while on the other hand maximizing customer satisfaction. Therefore, effective stock control contributes to enhancing service delivery in public hospitals.

Automating of Store and Health Records

Accurate store records help the management with planning. Stores records helps the management to know what they have received, issued and the balance of items in stores. An item procured should be recorded and its issues should be also recorded. Accurate records help decision makers in knowing exactly what a department requires within a given period of time and also act as evidence that item was issued. There ensure there is accountability in the procurement hence effective store record management is a major contributor in enhancing service delivery in public hospitals.

Safety of Storage Facilities

Safety of storage facilities ensure there is maximum protection goods stored from theft and pilferage and personnel working in the stores. The safety of stores means that user departments are going to receive the exact good they ordered without any subtractions. If a user's department receive goods less than they ordered they are likely to complain to procurement department seeking an explanation of the deviation hence safety of storage facilities contribute to enhancing service delivery in public hospitals.

2.5 Research Gaps

The EOQ model which is used in this study to explain the concept of stock control is basically based on a number of assumptions. For instance, it assumes that annual demand is constant and is evenly spread throughout the year. In the real sense, this is not always practical. There are factors within and outside the firm that affect annual demand, for example there may be an increase in the number of patients who visits hospitals in certain months of the year or there may be congestion at the port which is likely to affect lead time. Annual demand is not always constant. The model also assumes that lead time is constant. This is not always the case. Suppliers do not deliver goods as specified. Delays in delivery are obvious in practical situations. this means that in a real practical situation, the EOQ model may fail to help stores managers in controlling stock in the most effective and efficient manner.

Past literature has not accorded much interest in providing information that shows the relationship between store management and service delivery in an organization. Most studies treat the two variables separately and have not appreciated the role that store management can play in enhancing service delivery in organizations. They assume that as far as the procurement department procures goods and send them to stores, the user department will get them to ensure maximum service delivery overlooking contribution of stores management in enhancing service delivery. They overlook implications that come out of store management practices and its effect on service delivery in organizations. The most overlooked concept is the concept of store recording management and safety of storage facilities in enhancing service delivery in organizations. Many researchers have not provided enough information on the effects of the two variables in enhancing service delivery but instead handle them as only the functions of stores management. Generally, effective and efficient inventory control, efficient store and health

records management and safety of storage facilities will contribute in enhancing service delivery in public hospitals. This study sought to bridge this gap.

2.6 Summary of Literature

Store management practices are very important to any manufacturing or service delivery organization whether private or public. Efficient store management practices should create value for the organization while at the same time assisting in minimizing costs in an organization.

Inventory control is an important element in stores management. Inventory control entails the strategic management of stock levels to ensure that demand is met while simultaneously minimizing holding costs. It stands as a pivotal policy procedure within material management, encompassing various internal checks such as continuous, periodical, spot, and other forms of control established by management to uphold effective and efficient material management practices. Effective store record management is an important variable in enhancing service delivery in organizations. The automation of stores and health records holds paramount importance for organizations.

By maintaining accurate inventory records, organizations gain invaluable insights that aid in planning and decision-making processes. These records provide essential data for assessing the feasibility of accommodating client requests or specific projects based on existing inventory levels. Moreover, they offer foresight into when replenishment orders may be necessary. Additionally, the analysis of inventory records allows for the identification of trends over time, enabling organizations to anticipate potential shortages and proactively address them. Another important factor covered by the literature review is safety of storage facilities. Safety of storage facilities ensure that the goods and workers are protected from pilferage, theft, injuries and an

unfavorable working environment. User departments should receive the items in the form they specified and there should be no variations in either quality or quantity.



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The methodology chapter provides a comprehensive overview of how the study was conducted. It elucidates the chosen research design, the target population, the sampling methodology, research instruments employed, and delineates the data collection and analysis procedures.

3.2 Study Design

In this study, a descriptive research design was selected as the most suitable approach. This design was deemed appropriate for the research objectives, which aimed to gather data to address inquiries concerning the current status of the subjects under investigation. Descriptive research is recommended for its capability to systematically describe, record, analyze, and report on existing conditions. Specifically, it enables researchers to document the effects of stores management on enhancing service delivery in public hospitals. The descriptive design facilitated the collection of information regarding the impact of stores management on service delivery by selecting a representative sample from the target population. Its primary objective is to observe, describe, and document various aspects of a situation as they naturally occur. Unlike other research designs, descriptive research does not focus on individual characteristics but rather provides insights into the characteristics of the population as a whole. This characteristic made it the preferred choice for this study, allowing for a holistic understanding of the research phenomenon.

3.3 Target Population

Target population is the collection of elements that possess the information sought by the researcher. The Target population consisted of 100 employees from various departments in Elwak Su County Referral Hospital. Data was needed to verify whether inventory control, automating of store and health records record and safety of storage facilities contribute in enhancing service delivery in public hospitals. Table 3.1 shows the population distribution as per each department presented.

Table 1 Population Distribution

DEPARTMENT	POPULATION NUMBER	POPULATION PERCENTAGE
Hospital administration	7	7%
Revenue	8	8%
Procurement & stores	7	7%
Human Resource	5	5%
Transport	6	6%
Catering	10	10%
Pharmacy	7	7%
Records	10	10%
Nursing & Clinical	25	25%
Laboratory	7	7%
Dental	4	4%
Nutritional	4	4%
TOTAL	100	100%

3.4 Sample Design

The sampling technique is a statistical procedure employed to select a group of population units from a larger population for a thorough analysis. Most importantly in this study, sampling plan was made for random and unbiased selection of information. This was realized with the application of stratified random sampling technique, which is characterized by stratification of the population into parts that are similar and distinct, known as strata. Stratifying the population by homogeneity provided the researcher with adequate subject samples within each stratum. Stratified random sampling not only ensures essentially equal inclusion of population groups in the sample but also maintain proportional sector-by-sector representation. This method distinguishes each segment of the population through the criteria.

3.5 Sample Size

This sample size was 30% equivalent to the target population's size; hence, a total number of 30 respondents took part in the survey. The rationale for this choice is that in such a case, a report of a descriptive study would be enough. The researcher taking a holistic perspective was intended to avoid the mentioned issues, which should be done without risking the scientific fairness of matters.

Table 2 Sample Size Distribution

DEPARTMENT	Population SAMPLE SIZE	Percentage
Hospital administration	2	6.67%
Revenue	2	6.67%
Procurement & stores	2	6.67%
Human Resource	2	6.67%
Transport	2	3.33%
Catering	3	6.67%
Pharmacy	2	6.67%
Records	3	6.67%
Nursing & Clinical	8	16.67%
Laboratory	2	6.67%
Dental	1	3.33%
Nutritional	1	3.33%
TOTAL	30	100%

3.6 Data Collection Instruments

The primary data collection method employed by the researcher involved the use of closed-ended questionnaires. These questionnaires were meticulously designed to align with the research objectives. Opting for close-ended questions was a deliberate choice due to its convenience in swiftly gathering responses from participants within a constrained timeframe. This format facilitated obtaining firsthand insights into the work situation while also affording respondents a degree of anonymity, thereby potentially boosting response rates.

3.7 Data Analysis

Data analysis was done using descriptive statistics i.e., Frequency counts and percentages by use of Microsoft Excel and presented using tables to describe distributions and differences in frequencies. Additionally, the researcher utilized graphs and pie charts to visually present the collected data. The rationale behind this approach was rooted in the belief that presenting data in frequency or percentage tables offers a straightforward method for summarizing information pertaining to a single variable. The researcher aimed to enhance the clarity and accessibility of the data analysis process by employing these graphical representations.

3.8 Ethical Considerations

Ethics were considered to guarantee the examination doesn't trouble, attack protection, hurt or outrage the study participants in any capacity. Appropriately, the exploration looked for documentations affirmed by the University and consent for participation were looked for from the respondents by accentuating that the activity is strictly academic. To guarantee privacy, the researcher ensured that no identity is labelled on any research instrument. Moreover, their responses were collected on a voluntary basis only.

Plus, records of meetings were made with no translation that could cause predisposition and all carefully recorded information and notes were safely kept guaranteeing privacy. Similarly, information stored electronically was secured by code exclusively known by the researcher while non-electronic data has been kept in a secure place within the researchers for a minimum of two years to ensure respondents' confidentiality

CHAPTER FOUR

FINDINGS AND INTERPRETATION

4.1 Introduction

This chapter includes the data analysis phase, which stems from the responses collected through questionnaires. The results are depicted through various visual aids such as tables, graphs, and pie charts. The study's findings are systematically arranged in accordance with the specific objectives outlined.

4.2 Response Rate and Demographics of Respondents

Table 3 Response Rate per Department

DEPARTMENT	Population SAMPLE SIZE	Response	Percentage
Hospital administration	2	2	6.67%
Revenue	2	2	6.67%
Procurement & stores	2	2	6.67%
Human Resource	2	2	6.67%
Transport	2	1	3.33%
Catering	3	2	6.67%
Pharmacy	2	2	6.67%
Records	3	2	6.67%
Nursing & Clinical	8	5	16.67%
Laboratory	2	2	6.67%
Dental	1	1	3.33%
Nutritional	1	1	3.33%
TOTAL	30	24	80.02%

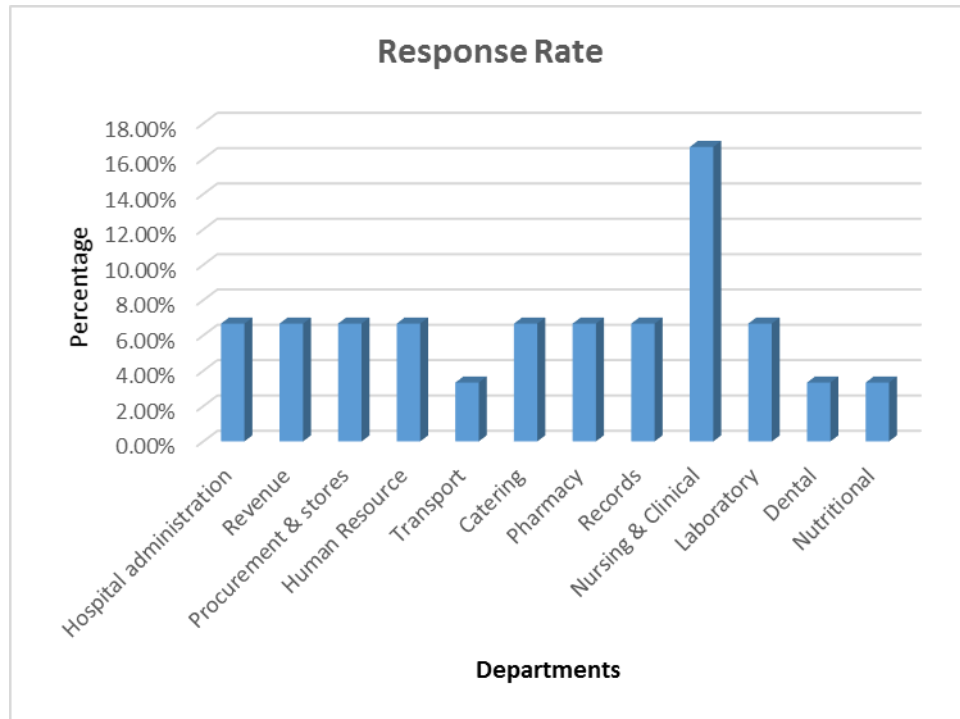


Figure 3 Response Rate per Department

Out of 30 questionnaires given to respondents, 24 were returned for analysis. This shows an 80.02% response rate which is a good response rate which one can depend on to make conclusion and recommendation.

Table 4 Response Rate per Gender of Respondents

Gender	Frequency	Percentage
Male	12	50%
Female	12	50%
Total	24	100%

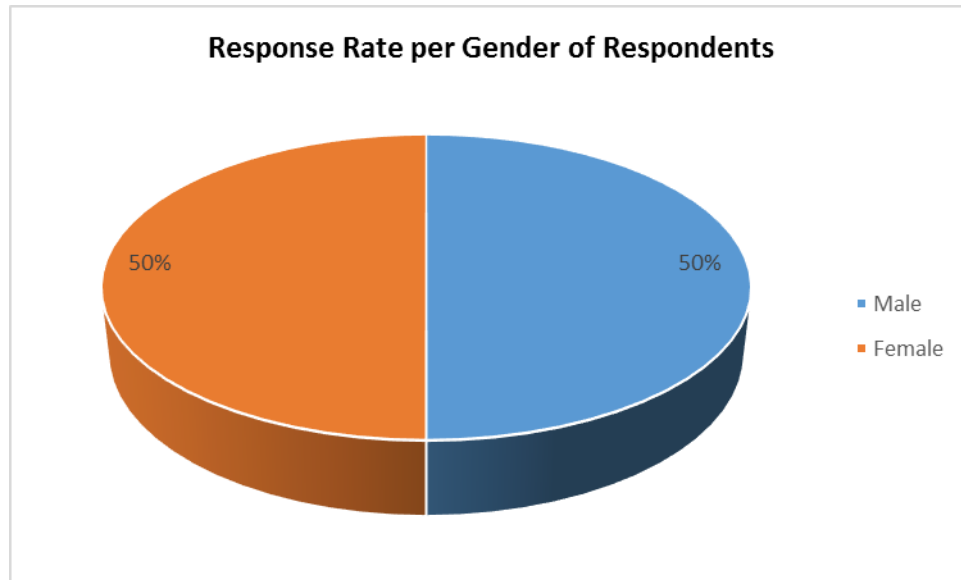


Figure 4 Gender of Respondents

50% of respondents were male, the other half were females. This indicates that there was no gender bias in the study.

Table 5 Response Rate per Age of Respondents

Age	Frequency	Percentage
Below 25	2	8%
26-35	7	29%
36-45	9	38%
Above 45	6	25%
Total	24	100%

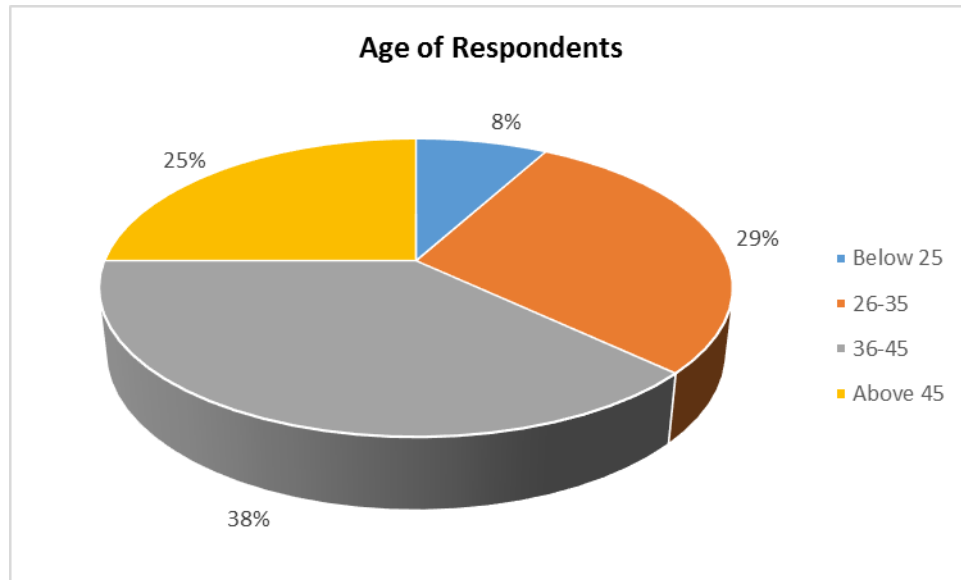


Figure 5 Age of Respondents

8% of respondents are below 25 years, 29% are between 26-35 years, 38% are 36-45 years while, respondents above 45 years old are 25%. This implies that most respondents were mature enough to answer questions in the questionnaire.

Table 6 Response Rate per Period of Service of Respondents

Years	Frequency	Percentage
Below 1	2	8.3%
1-3	3	12.5%
3-5	5	20.8%
5-7	8	33.3%
Above 7	6	25%
Total	24	100%

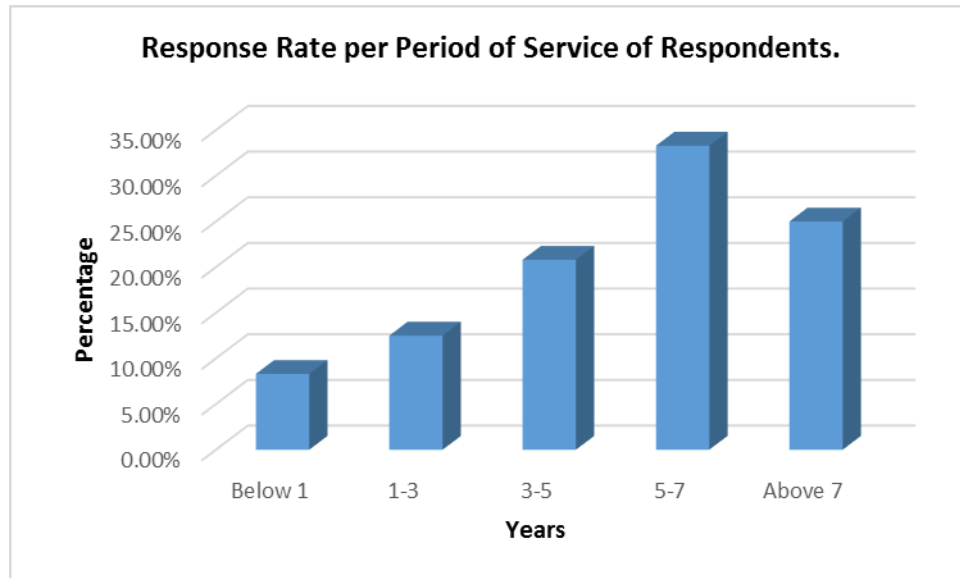


Figure 6 Period of Service of Respondents

8.3% of respondents have been in the organization for less than one year, 12.5% between 1-3 years, 20.8% between 3-5 years, and 33.3% between 5-7 years while 25% have been working in the hospital for a period of 7 years or above. This implies that respondents had experience with the study.

Table 7 Response Rate per Level of Education of Respondents

	Frequency	Percentage
Certificate	3	12.5%
Diploma	11	45.8%
Degree	7	29.2%
Post graduate	2	12.5%
Total	23	100%

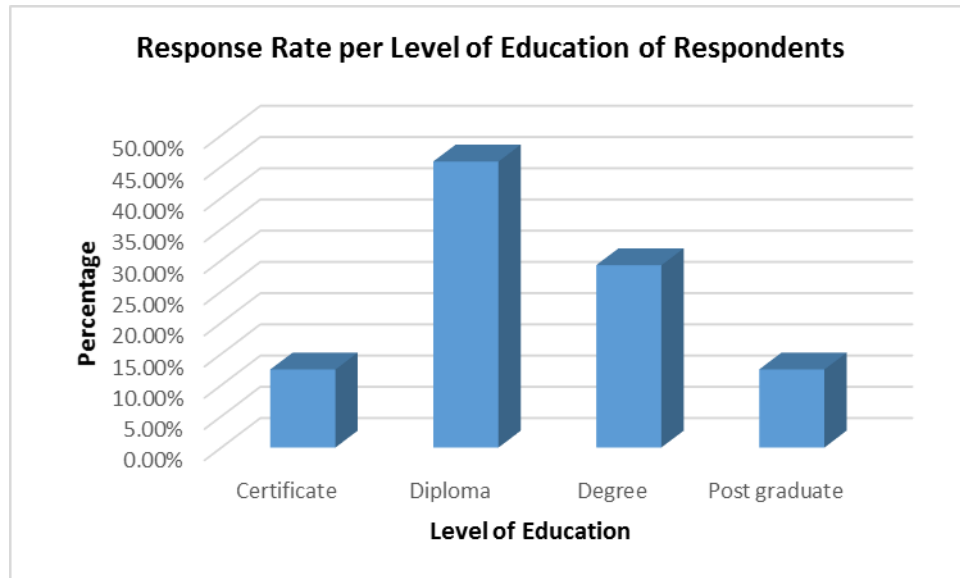


Figure 7 Level of Education

12.5% of respondents have certificates, 45.8% hold diplomas, and 29.2% hold a degree, while 12.5% are post grandaunts. This shows that the respondents were educated enough to fill in questionnaires.

4.4 Effects of Inventory Control in Enhancing Service Delivery in Public Hospitals.

Table 8 Extent to Which ESCRH Experiences under Stock Situations

Response	Frequency	Percentage
Strongly Agree	5	20.8%
Agree	17	70.8%
Neither Agree Nor Disagree	0	0
Disagree	2	8.3%
Strongly Disagree	0	0
Total	24	100%

From the pie chart, 70.80% of respondents agree that Elwak Sub County Referral Hospital experiences under stock situations, 20.80% strongly agreed while only 8.30% disagreed. This shows that the hospital experiences understock situations to a great extent.

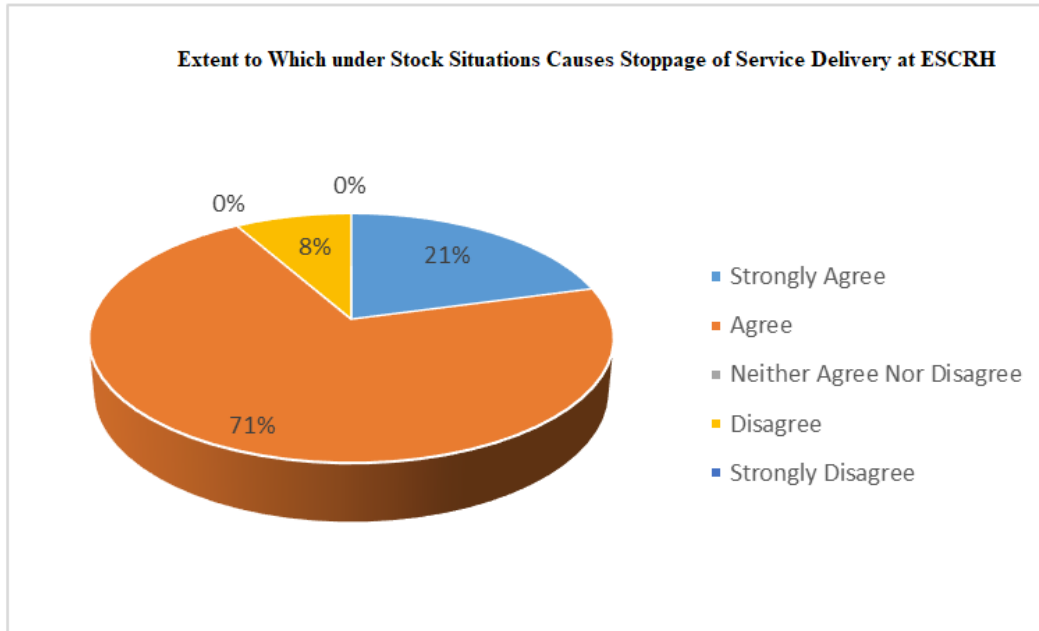


Figure 8 Extent to Which ESCRH Experiences under Stock Situations

Table 9 Extent to Which under Stock Situations Causes Stoppage of Service Delivery at ESCRH

Response	Frequency	Percentage
Strongly Agree	9	37.8%
Agree	15	62.5%
Neither Agree Nor Disagree	0	0%
Disagree	0	0%
Strongly Disagree	0	0%
Total	24	100%

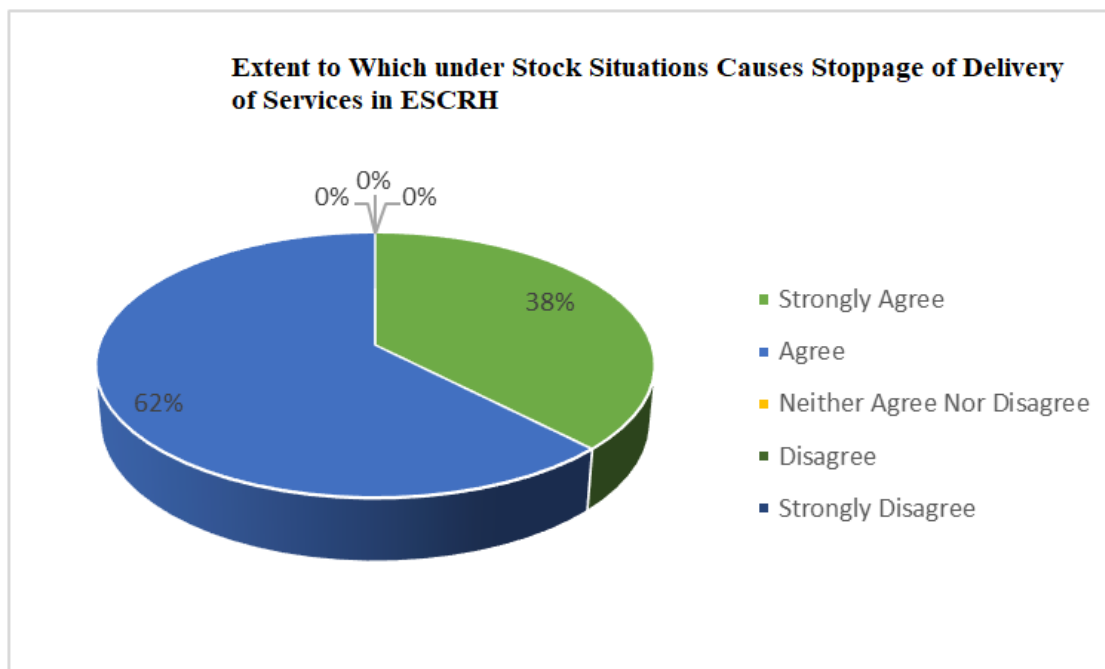


Figure 9 Extent to Which under Stock Situations Causes Stoppage of Delivery of Services in ESCRH

62.50% of the respondents agreed that under stock situations causes stoppage of services delivery at Elwak Sub County Referral Hospital while 37.80% strongly agreed. This shows that understock situations causes stoppage of delivery of services in the hospital to a very great extent.

Table 10 Extent to Which ESCRH Store Unit Inspects Items on Receipt

Response	Frequency	Percentage
Strongly Agree	11	45.8%
Agree	12	50%
Neither Agree Nor Disagree	1	4.2%
Disagree	0	0%
Strongly Disagree	0	0%
Total	24	100%

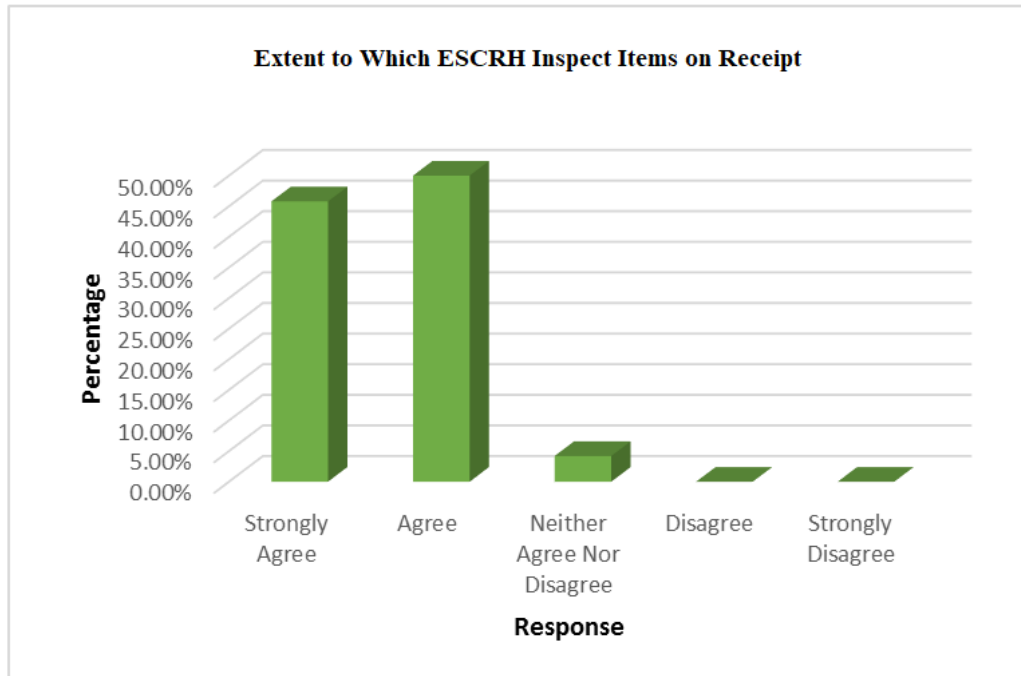


Figure 10 Extent to Which ESCRH Inspect Items on Receipt

50% of the respondents agreed that Elwak Sub County Referral Hospital store inspects items on receipt, while 45.8% strongly agreed, while 4.2% were neutral. This shows that the hospital pay much attention to the items in receipt to ensure they conform to user specifications.

4.5 Effect of Automating of store and health records in Enhancing Service Delivery in Public Hospitals

Table 11 Extent to Which Accurate Store Records Determine the Replenishment of Individual Items in ESCRH

Response	Frequency	Percentage
Strongly Agree	8	33.3%
Agree	9	37.5%
Neither Agree nor Disagree	4	16.7%
Disagree	2	8.3%
Strongly Disagree	1	4.2%
Total	24	100%

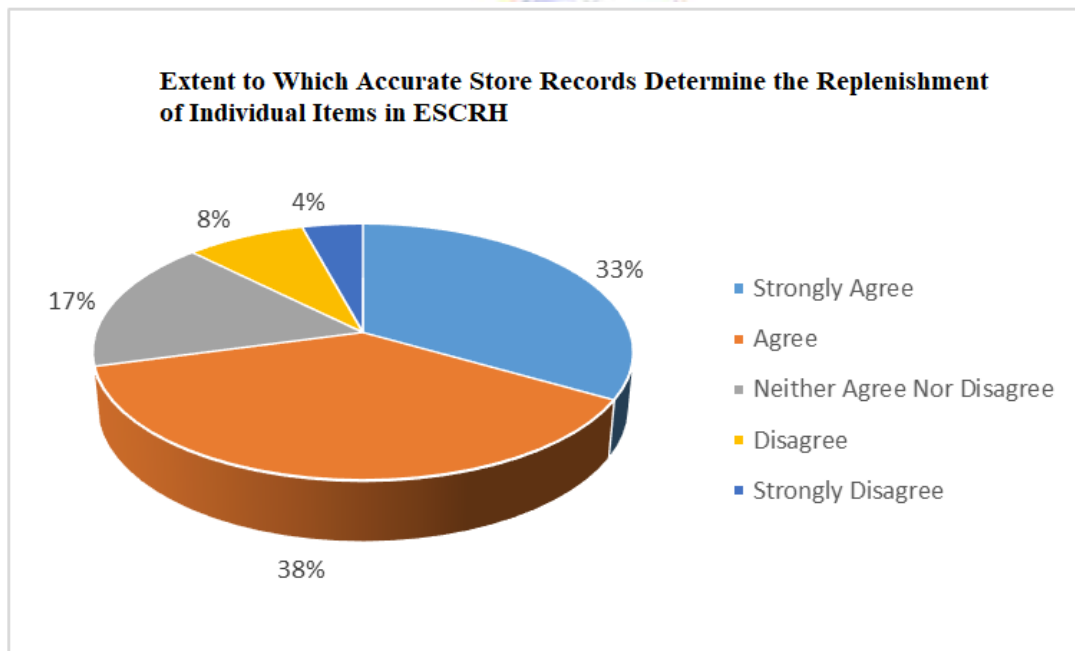


Figure 11 Extent to Which Accurate Store Records Determine the Replenishment of Individual Items in ESCRH

37.5% of respondents agreed that accurate store records are necessary to determine the replenishment of individual items, 33.3% strongly agreed, 16.7% were neutral, 8.3% disagreed while 4.2% strongly disagreed. Since the majority of respondents agreed, this means that accurate store records are necessary to determine replenishment of individual items in Elwak Sub County Referral Hospital.

Table 12 Extent to Which Accurate Store Records Aid Procurement Department in Making Purchase Decisions

Response	Frequency	Percentage
Strongly Agree	9	37.5%
Agree	12	50%
Neither Agree nor Disagree	2	8.3%
Disagree	1	4.2%
Strongly Disagree	0	0%
Total	24	100%

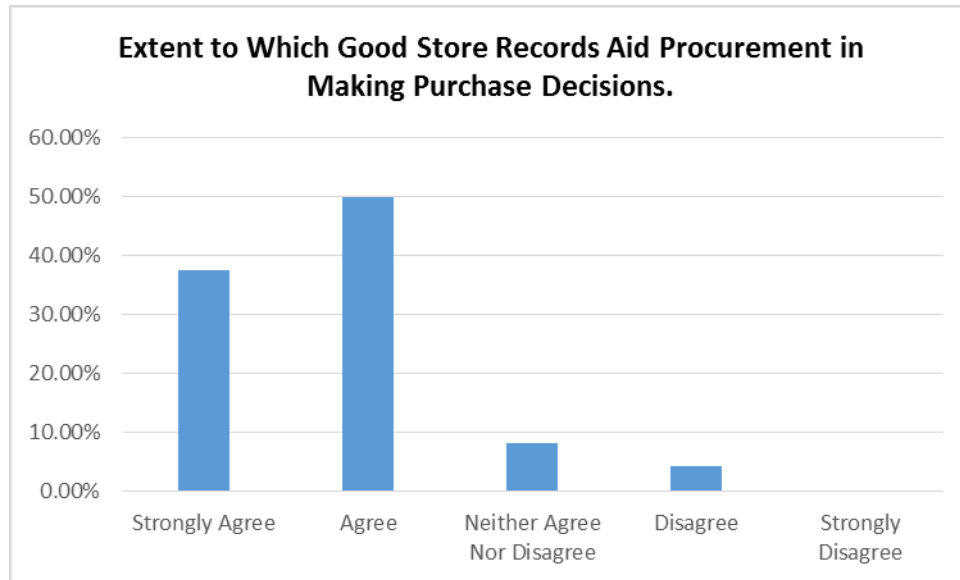


Figure 12 Extent to Which Good Store Records Aid Procurement in Making Purchase Decisions

37.5% of the respondents strongly agreed that good store records aid the procurement department in making purchase decisions, 50% agreed, 8.3% neither agreed nor disagreed while 4.2% disagreed. Since most respondents agreed, this means that good store records aid the procurement department in making purchase decisions.

Table 13 Extent to Which Store Records Help in Tracking of Inventory in ESCRH

Response	Frequency	Percentage
Strongly Agree	8	33.3%
Agree	13	54.2%
Neither Agree Nor Disagree	2	8.3%
Disagree	1	4.2%
Strongly Disagree	0	0%
Total	24	100%

54.2% of respondents agreed that store records help in tracking inventory in Elwak Sub County Referral hospital. 33.3% strongly agreed, 8.3% were neutral while 4.2% disagreed. Since most respondents agreed, store records help in tracking of inventory in Elwak Sub County Referral hospital.

Table 14 Extent to Which Store Records Simplifies Stock-Taking and Stock-Checking In ESCRH

Response	Frequency	Percentage
Strongly Agree	9	37.5%
Agree	14	58.3%
Neither Agree Nor Disagree	1	4.2%
Disagree	0	0%
Strongly Disagree	0	0%
Total	24	100%

58.3% of respondents agreed that store records provide necessary information that simplifies stock taking and stock checking in the hospital, 37.5 % strongly agreed, while 4.2% neither agreed nor disagreed. Since most respondents agreed, store records provide necessary information that simplifies stock taking and stock checking and thus help in showing the balances of stock to prevent stock outs.

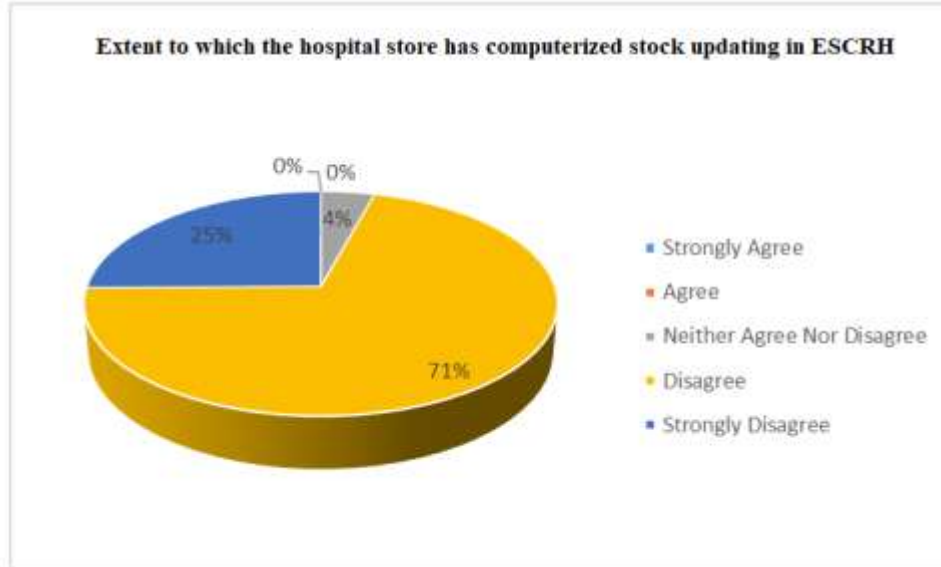


Figure 13 Extent to which the hospital store has computerized stock updating in ESCRH

70.8% of respondents disagreed that the hospital has computerized stock updating, 25% strongly disagreed while 4.2% neither agreed nor disagreed. Since no respondent agreed, the hospital has not computerized its stock updating which assist in providing real time information about stock levels.

4.6 Effect of Safety of Storage Facilities in Enhancing Service Delivery in Public Hospitals

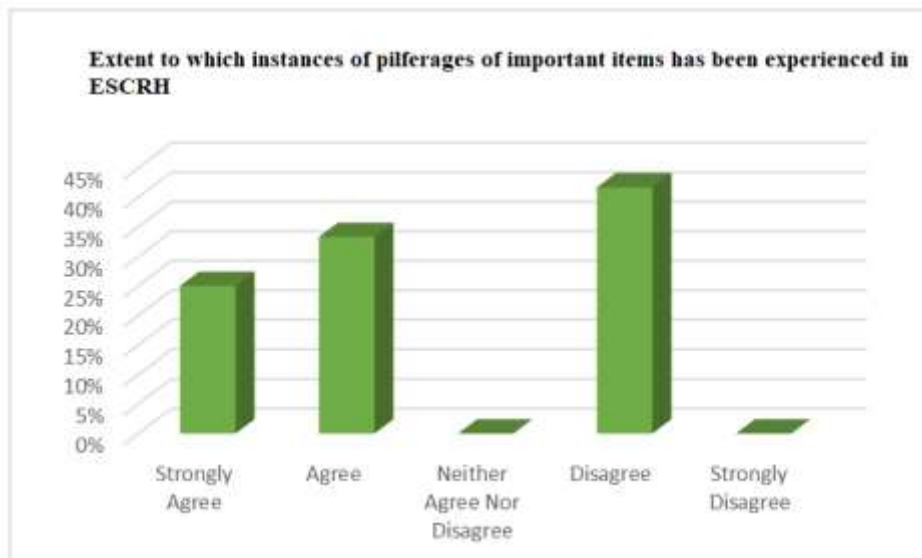


Figure 14 Extent to Which the ESCRH Stores Experiences Instances of Pilferages of Important Items

41.7% of the respondents disagreed that Elwak Sub County Referral hospital experiences instances of pilferages of important items, however 33.3% agreed while 25% strongly agreed. Since most respondents agreed, the hospital experiences instances of pilferages of important items affecting service delivery.

Table 15 Extent to Which Engagement of Store Guards Enhances Security of ESCRH Stores

Response	Frequency	Percentage
Strongly Agree	13	54.2%
Agree	10	41.7%
Neither Agree Nor Disagree	1	4.2%
Disagree	0	0%
Strongly Disagree	0	0%
Total	24	100%

54.2% of respondents strongly agreed that engagement of store guards enhances safety of hospital stores, 41.7% agreed while 4.2% neither agreed nor disagreed. Since most respondents agreed, engagement of store guards enhances safety of hospital stores.

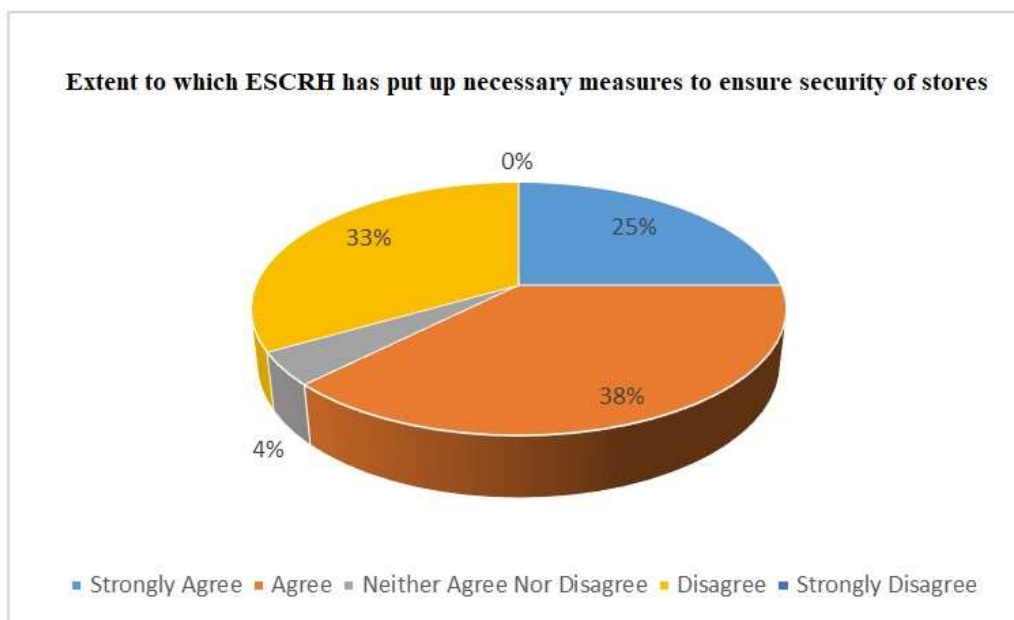


Figure 15 Extent to which ESCRH has put up necessary measures to ensure security of stores

37.5% of respondents agreed that Elwak Sub County Referral hospital has put up necessary measures to ensure security of hospital stores. 33.3% disagreed, 25% strongly agreed while 4.2% were neutral. Most respondents agreed but 33% of respondents disagreed showing that the hospital still have not engaged store guards to the maximum.

Table 16 Extent to which ESCRH has put up necessary measures to prevent and minimize fire accidents in hospital stores

Response	Frequency	Percentage
Strongly Agree	6	25%
Agree	8	33.3%
Neither Agree Nor Disagree	3	12.5%
Disagree	7	29.2%
Strongly Disagree	0	0%
Total	24	100%

33.3% of respondents agreed that Elwak Sub County Referral hospital has put up necessary measures to prevent and minimize fire accidents. 25% strongly agreed, 12.5% neither agreed nor disagreed while 29.2% disagreed. Since 29.2% of respondents disagreed, this shows that the hospital has not maximized on measures to prevent and minimize fire accidents.

4.7 Correlation Analysis

The study used the collected data to conduct a correlation analysis to determine the strength of association between the independent variables and the dependent variable. The findings were presented using Table 17.

Table 17 Correlation Analysis

		1	2	3	4	
1	Service delivery	Pearson Correlation	1			
		Sig. (2-tailed)				
		N	24			
2	Inventory control	Pearson Correlation	0.028	1		
		Sig. (2-tailed)	0.693			
		N	24	24		
3	Automating stores and health records	Pearson Correlation	.212**	0.112	1	
		Sig. (2-tailed)	0.004	0.115		
		N	24	24	24	
4	Safety of storage facilities	Pearson Correlation	.248**	0.046	0.133	1
		Sig. (2-tailed)	0	0.518	0.062	
		N	24	24	24	24

Table 17 shows that the correlation between service delivery and Automating stores and health records ($r=.212$) and Safety of storage facilities ($r=.248$) were weak positive. The statistics

indicate that the correlations were significant. This implies that a positive change in Automating stores and health records and Safety of storage facilities would significantly increase service delivery in Elwak Sub County Referral hospital. Similarly, the table shows a weak positive correlation between inventory control and service delivery ($r=0.028$). This implies that a change in inventory control would change service delivery in Elwak Sub County Referral hospital. However, the change would be insignificant.

4.8 Summary Of Data Analysis

The study had good response rate of 80% whereby 24 out of 30 respondents filled and submitted the questionnaires. 80% response rate is a good response rate which one can depend on to make conclusion and recommendation. The study was focused on three objectives where questionnaires were used to get information. The first objective was to find out the effects of inventory control in enhancing service delivery in public hospitals. Under this objective the researcher asked three questions by use of questionnaires. The first question sought to establish the extent to which respondents agree that Elwak Sub County Referral hospital experiences under stock situations where 70.80% of respondents agree that Elwak Sub County Referral hospital experiences under stock situations, 20.80% strongly agreed while only 8.30% disagreed. This shows that the hospital experiences understock situations to a great extent thus affecting service delivery. The second question sought to establish the extent to which respondents agree under stock situations causes stoppage of delivery of services in Elwak Sub County Referral hospital where 62.50% of the respondents agreed that under stock situations causes stoppage of services delivery at Elwak Sub County Referral hospital while 37.80% strongly agreed. This shows that understock situations causes stoppage of delivery of services in the hospital to a very great extent. The third question sought to establish the extent to which respondents agreed that

Elwak Sub County Referral hospital inspect items on receipt where 50% of the respondents agreed that Elwak Sub County Referral hospital store inspects items on receipt, while 45.8% strongly agreed, while 4.2% were neutral. This shows that the hospital pays much attention to the items in receipt to ensure they conform to user specifications.

The second objective of the study was to determine the effect of Automating of store and health records in enhancing service delivery in public hospitals where the researcher asked five questions. the first question sought to establish the extent to which respondents agreed that accurate store records are necessary to determine the replenishment of individual items in Elwak Sub County Referral hospital where 37.5% of respondents agreed that accurate store records are necessary to determine the replenishment of individual items, 33.3% strongly agreed, 16.7% were neutral, 8.3% disagreed while 4.2% strongly disagreed. Since the majority of respondents agreed, this means that accurate store records are necessary to determine replenishment of individual items in Elwak Sub County Referral hospital. The second question sought to establish the extent to which respondents agreed that accurate store records aid procurement in making purchase decisions where 37.5% of the respondents strongly agreed that good store records aid procurement department in making purchase decisions, 50% agreed, 8.3% neither agreed nor disagreed while 4.2% disagreed. Since most respondents agreed, this means that good store records aid the procurement department in making purchase decisions.

The third question sought to establish the extent to which respondents agreed that store records help in tracking of inventory in Elwak Sub County Referral hospital where 54.2% of respondents agreed that store records help in tracking of inventory in Elwak Sub County Referral hospital. 33.3% strongly agreed, 8.3% were neutral while 4.2% disagreed. Since most respondents agreed, store records help in tracking inventory in Elwak Sub County Referral hospital. The fourth

question sought to establish the extent to which respondents agreed that store records provide necessary information that simplifies stock-taking and stock-checking where 58.3% of respondents agreed that store records provide necessary information that simplifies stock taking and stock checking in the hospital, 37.5 % strongly agreed, while 4.2% neither agreed nor disagreed. Since most respondents agreed, store records provide necessary information that simplifies stock taking and stock checking and thus help in showing the balances of stock to prevent stock outs. Finally, the fifth questionnaire sought to establish the extent to which the respondents agreed that the hospital store has computerized stock updating which assist in providing real time information about stock levels where 70.8% of respondents disagreed that the hospital has computerized stock updating, 25% strongly disagreed while 4.2% neither agreed nor disagreed. Since no respondent agreed, the hospital has not computerized its stock updating which assist in providing real time information about stock levels.

The third objective was to investigate the effect of safety of storage facilities in enhancing service delivery in public hospitals where four questions were asked from the questionnaire. the first question sought to establish the extent to which respondents agreed that instances of pilferages of important items has been experienced in Elwak Sub County Referral hospital where 41.7% of the respondents' disagreed that Elwak Sub County Referral hospital experiences instances of pilferages of important items, however 33.3% agreed while 25% strongly agreed. Since most respondents agreed, the hospital experiences instances of pilferage of important items affecting service delivery.

The second question sought to establish the extent to which respondents agreed that engagement of store guards enhances safety of hospital stores where 54.2% of respondents strongly agreed that engagement of store guards enhances safety of hospital stores, 41.7% agreed while 4.2%

neither agreed nor disagreed. Since most respondents agreed, engagement of store guards enhances safety of hospital stores. The third question sought to establish the extent to which respondents agreed that Elwak Sub County Referral hospital has put up necessary measures to ensure security of hospital stores where 37.5% of respondents agreed that Elwak Sub County Referral hospital has put up necessary measures to ensure security of hospital stores. 33.3% disagreed, 25% strongly agreed while 4.2% were neutral. Most respondents agreed but 33% of respondents disagreed showing that the hospital still have not engaged store guards to the maximum.

The last question sought to establish the extent to which respondents agreed that Elwak Sub County Referral hospital has put up necessary measures to prevent and minimize fire accidents where 33.3% of respondents agreed that Elwak Sub County Referral hospital has put up necessary measures to prevent and minimize fire accidents. 25% strongly agreed, 12.5% neither agreed nor disagreed while 29.2% disagreed. Since 29.2% of respondents disagreed, this shows that the hospital has not maximized on measures to prevent and minimize fire accidents.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter consists of Summary of findings (According to research questions), Conclusion, recommendations and Suggestion for further study.

5.2 Summary of Findings

This study was guided by three research questions which were derived from research objectives. The research questions are; what are the effects of inventory control in enhancing service delivery in public hospitals? Does Automating of store and health records affect service delivery in public hospitals? And how does the safety of storage facilities affect service delivery in public hospitals?

5.2.1 Effects Of Inventory Control In Enhancing Service Delivery In Public Hospitals

Three questions in the questionnaire were used to determine the effects of inventory control in enhancing service delivery in public hospitals. The first question sought to find whether Elwak Sub County Referral hospital (ESCRH) experiences under stock situations where majority (70.80%) of respondents agreed, 20.80% strongly agreed while only 8.30% disagreed. This shows that instances of shortages of important items are not new to the hospital. The second question sought to find out whether under stock situations causes stoppage of service delivery in the hospital where majority (62.50%) of the respondents agreed that under stock situations causes stoppage of services delivery at Elwak Sub County Referral hospital while 37.80% strongly agreed. This shows that understock situations causes stoppage of delivery of services in the hospital to a very great extent. The third question sought to establish whether the hospital store inspects items on receipt where majority of respondents (50%) agreed that the hospital store

inspects items on receipt, 45.8% strongly agreed, while 4.2% were neutral. This shows that the hospital pays much attention to the items in receipt to ensure they conform to user specifications.

5.2.2 Effects Of Automating of store and health records in Enhancing Service Delivery In Public Hospitals

Five questions were used to determine the effects of Automating of store and health records on service delivery in public hospitals. The first question sought to establish whether accurate store records are necessary to determine the replenishment of individual items where majority of respondents (37.5%) of respondents agreed that accurate store records are necessary to determine the replenishment of individual items, 33.3% strongly agreed, 16.7% were neutral, 8.3% disagreed while 4.2% strongly disagreed. Since the majority of respondents agreed, this means that accurate store records are necessary to determine replenishment of individual items in Elwak Sub County Referral hospital. This will consequently enhance service delivery in the hospital as the possibility of unnoticed shortages is minimized.

The second question sought to establish whether accurate store records aid procurement department in making purchase decision where majority (50%) agreed, 37.5% of the respondents strongly agreed, 8.3% neither agreed nor disagreed while 4.2% disagreed. Since most respondents agreed, this means that good store records aid the procurement department in making purchase decisions. The third question sought to determine the extent to which accurate store records assist in tracking of inventory at Elwak Sub County Referral hospital where majority (54.2%) of respondents agreed that accurate store records help in tracking of inventory in Elwak Sub County Referral hospital, 33.3% strongly agreed, 8.3% were neutral while 4.2% disagreed. Since most respondents agreed, accurate store records help in tracking inventory in Elwak Sub County Referral hospital.

The fourth question sought to establish whether accurate store records help in providing necessary information that simplifies stock taking and stock checking where majority (58.3%) of respondents agreed that store records provide necessary information that simplifies stock taking and stock checking in the hospital, 37.5 % strongly agreed, while 4.2% neither agreed nor disagreed. Since most respondents agreed, store records provide necessary information that simplifies stock taking and stock checking thus help in showing the balances of stock to prevent stock outs, this contributes to enhancing service delivery in the hospital.

The fifth question sought to establish whether ESCRH store has computerized stock updating which assist in providing real time information about stock levels where majority (70.8%) of respondents disagreed that the hospital has computerized stock updating, 25% strongly disagreed while 4.2% neither agreed nor disagreed. Since all respondents disagreed, the hospital store has not computerized its stock updating which assist in providing real-time information about stock levels.

Responses from those questions shows that Automating of store and health records is important in enhancing service delivery in public hospitals as accurate store records assist in determining the replenishment of individual items, help procurement department to make purchase decisions, assist in providing necessary information that simplifies stock taking and stock checking as well as assist in tracking of inventory in the hospital.

5.2.3 Effects Of Safety Of Storage Facilities On Service Delivery In Public Hospitals

Four questions were used to determine the effects of safety of storage facilities in enhancing service delivery in public hospitals. The first question sought to establish whether instances of pilferages of important items has been experienced in Elwak Sub County Referral hospital where 41.7% of the respondents' disagreed that Elwak Sub County Referral hospital experiences

instances of pilferages of important items, however 33.3% agreed while 25% strongly agreed. Since most respondents agreed, the hospital experiences instances of pilferage of important items affecting service delivery. The second question sought to establish whether engagement of store guards enhances safety of hospital stores where majority (54.2%) of respondents strongly agreed that engagement of store guards enhances safety of hospital stores, 41.7% agreed while 4.2% neither agreed nor disagreed.

Since most respondents agreed, engagement of store guards enhances safety of hospital stores this ensures that there is no theft of items from the store which will affect service delivery in the hospital. The third question sought to establish whether Elwak Sub County Referral hospital has put up necessary measures to ensure security of hospital stores where 37.5% of respondents agreed that Elwak Sub County Referral hospital has put up necessary measures to ensure security of hospital stores. 33.3% disagreed, 25% strongly agreed while 4.2% were neutral. Most respondents agreed but 33% of respondents disagreed showing that the hospital still have not engaged store guards to the maximum. This is likely to affect service delivery negatively due to pilferage and theft of important items from the store.

The fourth question sought to establish whether Elwak Sub County Referral hospital has put up necessary measures to prevent and minimize fire accidents where 33.3% of respondents agreed that Elwak Sub County Referral hospital has put up necessary measures to prevent and minimize fire accidents. 25% strongly agreed, 12.5% neither agreed nor disagreed while 29.2% disagreed. However, since 29.2% of respondents disagreed, this shows that the hospital has not maximized on measures to prevent and minimize fire accidents and instances of fire breakout are likely which will negatively affect service delivery in the hospital.

Responses show that safety of storage facilities is very important in enhancing service delivery in public hospitals. Engagement of store guards is important in enhancing security of store ensuring there are no pilferages, theft or destructions of items affecting service delivery in the hospital while presence of fire precautions measures help to prevent instances of fire breakages in the hospital stores.

5.2 Conclusion

From the findings, effective stores management is crucial for any organization, especially in public hospitals. Store management affects service delivery to a great extent as depicted by the study.

The study found that good inventory control will ensure that the required level of inventory is maintained which ensure continuous supply of items to user departments with minimal instances of shortages which automatically affect service delivery in hospitals. In addition, inspection of items by store unit ensure that user departments are not issued with sub standards items which will affect the quality of services offered to patients.

Another important function of store management is maintenance of accurate store records. Accurate store records assist in providing accurate information which is used to determine the replenishment of individual items, help procurement department to make purchase decisions, as well as providing necessary information which assist in stock taking and stock checking. This helps in tracking of inventory to facilitate reordering to prevent out of stock situation which may negatively affect service delivery in hospitals. An important factor in store records management is the use of computerized stock updating which assist in providing real-time information that help people to determine stock levels at a click of a button.

Safety of storage facilities is an important element of stores management. Instances of pilferage of important items should be eliminated in the hospital. Store guards should be engaged to prevent breakage into the store while store safety measures should be enhanced. ESCRH has not put up enough measures to prevent occurrence fire accidents in its store. Fire breakage is likely to cause destruction of items which will affect service delivery in the hospital.

5.3 Recommendations

Given the finding of the study and the conclusion made, the researcher recommends the following; adoption of modern inventory control techniques by ESCRH, implementation of computerized stock updating and review of store safety policies.

Modern inventory control such as ABC analysis and FSN analysis are believed to maximize user departments' satisfactions by eliminating instances of shortages which may affect service delivery to a very great extent. ABC analysis is a method used to categorize existing inventory according to two primary factors: annual purchase, the items purchased annually and their current values. Three types of these items are Group A, which represents goods with not big quantity but high cost. These goods and services are critically important in the production process and without them there can be a lot of disruption which affects the production cycle. Conversely, Category B goods are at the center and represent fair types of use and quantity yet these items are not basic necessities. To sum up, being in Class C, is having a large quantity of items but being of low individual value. Even though their short-term detachment may not lead to a noticeable drop in business performance, they are an integral component of the company's physical assets.

In FSN analysis, the inventory classification of current items stock take place based on their consumption rates. Items are sorted into three categories: fast, slow and standing (non-moving). Items that require a lot of turnovers within a third of a year are classified as fast-moving ones. On the contrary, if processing times of products are slow, then their consumption rates and sales turnover for retailers are low. Next comes non-moving things, these are the things which experience neither consumption nor were utilized within the given time period. Such a differentiation aids the companies in the development of their stock movement and dynamics which, in its turn, is a basis for applying more intelligent decisions in the area of stock management and replenishment strategies. The adoption of computerized stock updating will be useful to ESCRH as it will provide real-time information about stock levels and this will alert both user departments and store to possible instances of shortages. Real-time information will further help the procurement department in placing orders at the right time.

ESCRH also needs to review its store safety policies as the existing policies have been found not to provide maximum protection for items. The hiring of more store guards should be done. Very high value and essential items should be segregated while electronic surveillance such as installation of CCTV cameras should be done.

5.4 Suggestion for further Study

This study focused only on effects of stores management in enhancing service delivery in a service industry which is public hospitals. Further studies can be conducted in other industries such as manufacturing or processing industry or even private hospitals. In addition, further study can be conducted on other variables other than effects on inventory control, automating of store

and health records and safety of storage facilities in enhancing service delivery in public hospitals.



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APPENDICES

Appendix 1: Introductory Letter

MOHAMED ABDULLAH ADAN

P.O BOX

MOUNT KENYA UNIVERSITY: KITALE VIRTUAL CAMPUS

Date.....

ELWAK SUB COUNTY REFERRAL HOSPITAL

P.O BOX

MANDERA

DEAR RESPONDENT,

RE: RESEARCH PROJECT QUESTIONNAIRE

I am Mohamed Abdullah a student pursuing Master of Science in Supplies and procurement management at Mount Kenya University in Kitale Virtual Campus. It is a requirement that I undertake a research project for the award of the master's degree. Due to this I am undertaking research on the effects of Stores Management in Enhancing Service Delivery in public hospitals. I have chosen you as my respondent and I am kindly requesting you to help me fill this questionnaire. Your response will be treated with utmost confidentiality and will not be used for any other purpose other than for this particular academic reason.

Thank you.

Yours faithfully,

Mohamed Abdullah

Appendix 2: Research Participation Consent Form

Dear respondent,

Date.....

Prior to participating in this study, you are requested to read, understand and sign up the procedure of participation.

Purpose of the Study

The purpose of the study will be to investigate the determinants of proper stores management in enhancing service delivery in public hospitals.

Voluntary participation

Your consent to participate in the study will be voluntary. There is no repercussion of any effect of your turn down to participate in the study.

Use of the collected data

The collected data will be used solely for academic purposes.

Confidentiality

The information shared in the study will be confidential and no other entity will access it.

Furthermore, no identification will be given in the tools used in the study.

Rewards

There will be no rewards for participating in the study.

Withdrawal from Participation

Any research participant is free and allowed to withdraw from participation without necessarily giving an explanation.

Attestation and declaration

I have read and understood the purpose and context of participating in the study.

I have had an opportunity to ask question related to the study and answered to satisfaction.

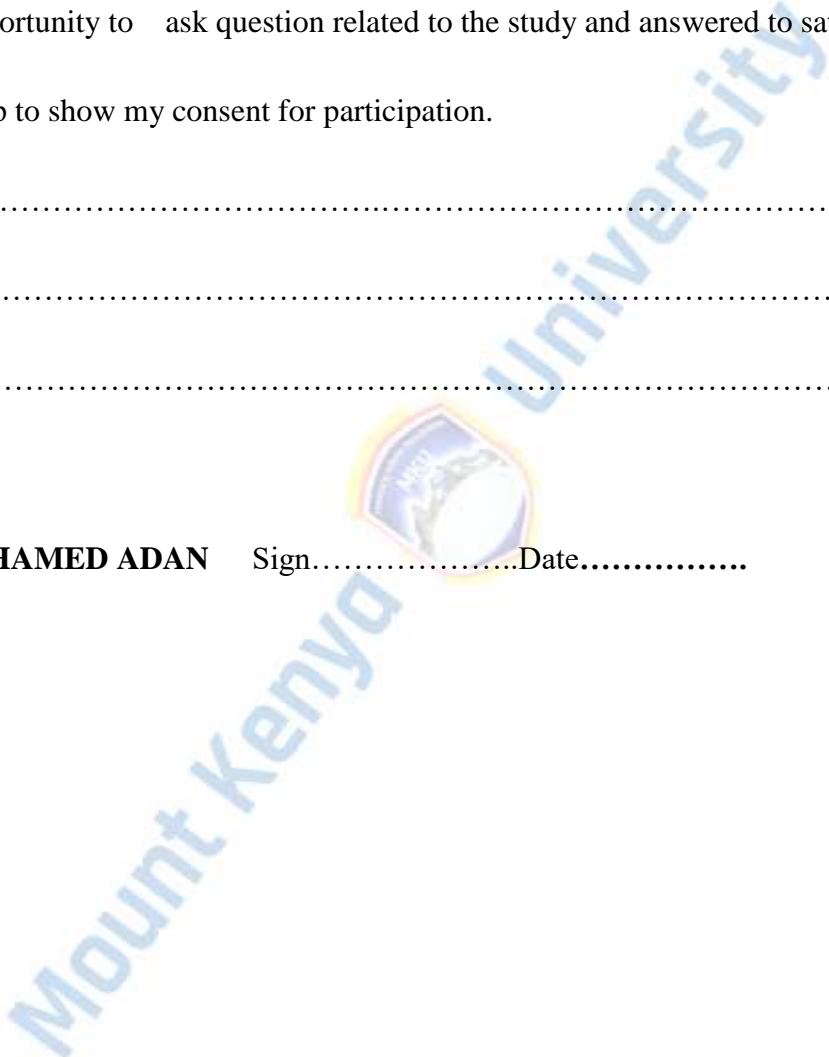
I willingly sign up to show my consent for participation.

Participant name.....

Signature.....

Date.....

Researcher: **MOHAMED ADAN** Sign.....Date.....



Appendix 3: Questionnaire

This questionnaire consists of four sections: section A, section B, section C and section D. In Section A you are required to provide your demographic information while in section B, C and D you are required to provide information on the variables highlighted under each section. The questions are simply structured, and they require you only to tick [V]. Your response will be treated with utmost confidentiality and will not be used for any other purpose other than for this particular academic reason. Kindly, try to answer all questions if possible.

SECTION A: DEMOGRAPHIC DATA

1) Kindly indicate your gender

Male [] female []

2) Kindly tick your age bracket

Below 25 []

26-35 []

36-45 []

Above 45 []

3) For how long have you been working here?

Below 1 year []

1-3years []

3-5 years []

5-7 years []

Above 7 years []

4) What is your highest level of education?

Certificate []

Diploma []

Degree []

Postgraduate []

SECTION B: INVENTORY CONTROL

5) To what extent do you agree that Elwak Sub County Referral hospital experiences under stocks situations?

Strongly Agree []

Agree []

Neither Agree nor Disagree []

Disagree []

Strongly Disagree []

6) To what extent do you agree that under stock situations causes stoppage of service delivery at Elwak Sub County Referral hospital?

Strongly Agree []

Agree []

Neither Agree nor Disagree []

Disagree []

Strongly Disagree []

7) To what extent do you agree that Elwak Sub County Referral hospital store unit inspects items on receipt?

- Strongly Agree []
Agree []
Neither Agree nor Disagree []
Disagree []
Strongly Disagree []

SECTION C: STORE RECORDS

8) To what extent do you agree that Automating of store and health records are necessary to determine the replenishment of individual items?

- Strongly Agree []
Agree []
Neither Agree nor Disagree []
Disagree []
Strongly Disagree []

9) To what extent do you agree that good store record management aid procurement department in making purchase decisions thus avoiding unnoticed shortages?

- Strongly Agree []
Agree []
Neither Agree nor Disagree []
Disagree []
Strongly Disagree []

10) To what extent do you agree that stores record help in tracking of inventory at Elwak Sub County Referral hospital?

- Strongly Agree []

Agree []
Neither Agree nor Disagree []
Disagree []
Strongly Disagree []

11) To what extent do you agree that store records provide necessary information that simplifies stock-taking and stock-checking thus help in showing the balances of stock to prevent stock outs?

Strongly Agree []
Agree []
Neither Agree nor Disagree []
Disagree []
Strongly Disagree []

12) To what extent do you agree that hospital store has computerized stock updating which assist in providing real time information about stock levels?

Strongly Agree []
Agree []
Neither Agree nor Disagree []
Disagree []
Strongly Disagree []

SECTION D: SAFETY OF STORAGE FACILITIES

13) To what extent do you agree that the hospital stores experiences instances of pilferages of important items affecting service delivery in the hospital?

Strongly Agree []
Agree []
Neither Agree nor Disagree []
Disagree []
Strongly Disagree []

14) To what extent do you agree that engagement of stores guard enhances security of hospital stores?

- Strongly Agree []
Agree []
Neither Agree nor Disagree []
Disagree []
Strongly Disagree []

15) To what extent do you agree that the hospital has put necessary measures to ensure security of hospital stores?


- Strongly Agree []
Agree []
Neither Agree nor Disagree []
Disagree []
Strongly Disagree []

16) To what extent do you agree that the hospital has put necessary measures to prevent and minimize fire accidents in hospital stores?

- Strongly Agree []
Agree []
Neither Agree nor Disagree []
Disagree []
Strongly Disagree []

THANK YOU FOR YOUR TIME

Appendix 4: ERC Clearance



Mount Kenya University

REF: MKU/ISERC/3486 Date: 28 February 2024
TO: MOHAMED ABDULLAH ADAN REG: MPSM/2020/69742

Dear Sir/Madam,

RE: DETERMINANTS OF PROPER STORES MANAGEMENT IN ENHANCING SERVICE DELIVERY IN PUBLIC HOSPITALS: A CASE OF ELWAK SUB-COUNTY REFERRAL HOSPITAL, KENYA

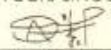
This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **2530**. The approval period is **28/02/2024 - 27/02/2025**.

This approval is subject to compliance with the following requirements;

- i. Only approved documents including informed consents, study instruments, MTA will be used
- ii. All changes including amendments, deviations and violations are submitted for review and approval by **Mount Kenya University**
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **Mount Kenya University** within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to **Mount Kenya University** within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal
- vii. Submission of an executive summary report within 90 days upon completion of the study to **Mount Kenya University**

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke> and also obtain other clearances needed.

Yours sincerely,



Dr. Alfred Owino, PhD
Chairman, Mount Kenya University ISERC

*The Chairman
Mount Kenya University
Edics Review Committee
P.O. Box 342-0100, Thika*

Main Campus, General Kago Road, P.O. Box 342-01000 Thika.
Tel: 020-2878 000, Cell: +254 709 153 000
Email: info@mku.ac.ke, Web: www.mku.ac.ke
Chartered and ISO 9001 : 2015 Certified Institution.
Unlocking Infinite Possibilities

Appendix 5: Postgraduate Introduction Letter



DIRECTORATE OF GRADUATE STUDIES

MPSM/2020/69742

29th February, 2024

*National Commission for Science Technology & Innovation (NACOSTI)
Off Waiyaki Way, Upper Kabete,
P.O Box 30623- 00100
NAIROBI, KENYA*

Dear Sir/Madam,

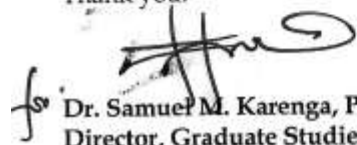
RE: MOHAMED ABDULLAH ADAN- REGISTRATION NO. MPSM/2020/69742

The purpose of this letter is to introduce the above named student who is pursuing **Master of Science in Procurement and Supplies Management** in the Department of Management in the school of **Business and Economics**

The title of the research is **“Determinants of Proper Stores Management in Enhancing Service Delivery in Public Hospitals: A Case of Elwak Sub-County Referral Hospital, Kenya”** It has been cleared by the University’s Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data between **March, 2024 and May, 2024.**


Any assistance accorded to the student will be highly appreciated.


Thank you.


Dr. Samuel M. Karenga, Ph.D
Director, Graduate Studies
Enc.

Mount Kenya University
P. O. Box 342 - 01000, THIKA
Office of the Director
Graduate Studies


Appendix 6: NACOSTI Research Permit


REPUBLIC OF KENYA


NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION

RefNo: **160792** Date of Issue: **11/March/2024**


RESEARCH LICENSE




This is to Certify that Mr. MOHAMED Abdullah ADAN of Mount Kenya University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Manderu on the topic: DETERMINANTS OF PROPER STORES MANAGEMENT IN ENHANCING SERVICE DELIVERY IN PUBLIC HOSPITALS: A CASE OF ELWAK SUB-COUNTY REFERRAL HOSPITAL, KENYA for the period ending : 11/March/2025.

License No: **NACOSTI/P/24/33754**

Applicant Identification Number **160792**


Director General
NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY &
INNOVATION

Verification QR Code



**NOTE: This is a computer generated License. To verify the authenticity of this document,
Scan the QR Code using QR scanner application.**

See overleaf for conditions

Appendix 7: Ministry of Education Research Authorization

MINISTRY OF EDUCATION

STATE DEPARTMENT OF BASIC EDUCATION

Telephone: Mandera
When replying please quote

REF: EDM/MDR/69/1/1/(15)



COUNTY DIRECTOR'S OFFICE
MANDERA COUNTY
P.O. BOX 30-70300
MANDERA

DATE: 19th March, 2024

To all Sub-County Directors of Education
MANDERA COUNTY


**RE: RESEARCH AUTHORIZATION FOR MOHAMED ABDULLAH ADAN -
IDENTIFICATION NO 160792**

Reference is made to license No. **NACOSTI/P/24/33754** dated 11th March, 2024 from the Director Generals' office National Commission for Science, Technology and Innovation on the above subject.

Mr. MOHAMED ABDULLAH ADAN has been authorized to carry out research on the topic "*Determinants of proper stores management in enhancing service delivery in public hospitals; a case of Elwak subcounty referral hospital, Kenya*". For the period ending **11th March, 2025**.

Kindly be informed accordingly.

Thank you.


ABDI S SHEIKH
COUNTY DIRECTOR OF EDUCATION
MANDERA

Cc

The Regional Director of Education
North Eastern
Garissa

Appendix 8: Map of the Study Site

