

**INFLUENCE OF PROCUREMENT MANAGEMENT PRACTICES ON
OPERATIONAL PERFORMANCE OF NAKURU LEVEL 5 REFERRAL
HOSPITALS IN NAKURU COUNTY, KENYA.**

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**RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENT FOR THE AWARD OF MASTER OF SCIENCE
PROCUREMENT AND SUPPLIES CHAIN MANAGEMENT) DEGREE OF
MASTER OF MOUNT KENYA UNIVERSITY**

JULY , 2024

DECLARATION AND APPROVAL

This project submitted is my original work , never having received a recognition award from another university.

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DEDICATION

I dedicate this research project to my husband Bill Williams and my daughters Rochelle and Nikita for their moral support.



ACKNOWLEDGEMENT

Above everything, I give thanks to the Almighty God for His boundless love, provision of safety, provision of sound health, provision of wisdom, and for giving me the gift of life. I want to thank my supervisor, Dr. Ruthwinnie Munene, for all of her help, advice, criticism, and encouragement while I was developing this project.



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ABSTRACT

Every business needs procurement management since it is an essential component of every activity the firm engages in, making it a strategic and crucial role. This study looked into how procurement management procedures affected the level 5 referral hospitals in Nakuru County, Kenya, in terms of their operational performance. The study's goals were to ascertain how procurement planning affected operational performance; investigate the impact of vendor management on performance; assess the impact of e-procurement on performance; and investigate the impact of inventory management, procurement monitoring, and evaluation on the performance of Nakuru level 5 referral hospitals in Nakuru County, Kenya. Research design for the study was descriptive. Procurement workers and upper management at Nakuru level 5 referral hospital comprised the target population. In the investigation, stratified and straightforward random sample methods were applied. A survey instrument and an interview guide were employed to gather data. Content analysis was employed for the qualitative data and descriptive statistics for the quantitative data. To demonstrate the link between variables, regression modeling was created. Tables were used to depict the data. The study indicates that there was a moderate positive and statistically significant correlation between procurement planning and operational performance in Nakuru Level 5 referral hospital in Kenya ($r = 0.556$; $p < 0.05$). The study indicates that there was a moderate positive and statistically significant correlation between vendor management and operational performance in Nakuru Level 5 referral hospital in Kenya ($r = 0.586$; $p < 0.05$). This implies that vendor management enhances performance operational performance in Nakuru Level 5 referral hospital in Kenya. E-procurement and operational effectiveness at Kenya's Nakuru Level 5 referral hospital showed a moderately positive and statistically significant association ($r = 0.592$; $p < 0.05$), according to the study. According to this, Kenya's Nakuru Level 5 referral hospital performs better operationally because to e-procurement. Procurement monitoring and evaluation and operational performance at Kenya's Nakuru Level 5 referral hospital showed a somewhat positive and statistically significant link, according to the study ($r = 0.579$; $p < 0.05$). At Kenya's Nakuru Level 5 referral hospital, inventory management and operational performance have a moderately favorable and statistically significant correlation ($r = 0.597$; $p < 0.05$), according to the study. To sum up, the operational performance of Nakuru Level 5 referral hospitals in Kenya with regard to inventory management, vendor management, e-procurement, procurement planning, monitoring, and evaluation have been evaluated. Hospitals should periodically identify and analyze patients' needs, according to the report, and have an online system in place that allows for electronic requisitions. This would guarantee a seamless progression of hospital operations, augmenting the operational efficacy of the Nakuru Level 5 referral hospital. The findings of this study recommend that more research be done to determine the difficulties with procurement management procedures at Kenya's Nakuru Level 5 Referral Hospital.

LIST OF ABBREVIATIONS AND ACRONYMS

JIT	Just in Time
KEMSA	Kenya Medical Supplies Authority
KNH	Kenyatta National Hospital
KPI	Key Performance Indicators
PD	Procurement Departments
PO	Purchase Order
RBT	Resource-Based Theory
ROI	Return on Investment
RRH	Regional Referral Hospitals
SCM	Supply Chain Management
SUM	Spend Under Management
SUM	Spend Under Management
TMT	Top Management Team

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Organizations now understand that effective supply chain management is essential to their success in the face of heightened global competition. The performance of a supply chain will be determined by how well it can set itself apart from competitors in terms of inventory control, inventory efficiency, and on-time supplier delivery, among other aspects (Satish & Vivek, 2019). Furthermore, in every business, supply chain efficiency is viewed as a critical strategy for developing these competitive attributes (Estampe et al., 2018). The benefits of supply chain performance assessment systems are outweighed by the cost of setup and upkeep. According to Rajagopal and Zailani (2019), this may be especially true for smaller firms that do not have the resources—including time, money, or expertise—to carry out the research required to enhance supply chain management and environmentally friendly purchasing practices.

Global Perspective on Procurement Management

Supply chain performance assessment systems are more expensive to set up and maintain than they are beneficial. The argument put up by Rajagopal and Zailani (2019) suggests that small firms might find it especially difficult to do the analysis required to enhance supply chain operations and adopt green buying practices, since they may lack the resources, expertise, or time to do so. Pricing and commodity prices that manufacturing firms require in the UK are determined by the efficiency of supply networks. Prices, schedule modifications, and on-time delivery are the main metrics used in the UK textile industry to assess supply chain performance.

Satish and Vivek (2019) report that suppliers and products are often selected based on environmental considerations and competitive pricing, reliability and quality coming in second. The supply chain performance of U.K. industries has included objectives pertaining to customer service, prompt delivery from suppliers, material availability, investment in inventory, and overall profitability through the utilization of an efficient sales and operations planning process (Walker, 2022).

Regional Perspective on Procurement Management

The performance of the supply chain in the region is abhorrent; most African countries are facing acute shortages of medications due to inadequate procurement practices. Supply chain performance in Sub-Saharan African enterprises has been found to be driven by a number of important factors, including information technology and transportation (REO, 2017).

Many large-scale infrastructure projects in the East African region have started as a result of the realization of the crucial functions that equipment plays in supply chain management. As per Kanyoma and Khomba (2017), Malawi's healthcare system was impeded by inadequate procurement procedures, leading to prolonged drug shortages and stock outs in public hospitals. Persistent drug shortages in public healthcare facilities are an issue in many countries striving for universal health coverage, including South Africa, claim Modisakeng et al. (2020). This is a result of the procurement process's challenges.

When there are either no deliveries at all, late deliveries, or low-quality items, Uganda's supply networks operate badly. Poor supply chain performance has a negative impact on a company's success because consumers now evaluate companies based on the performance of their chain since competition between firms

has shifted to between entire supply chains (Ntayi et al., 2019). A company's supply chain underperforms, which drives it out of the market and increases the likelihood of its failure. restricted information availability as a result of limitations on the performance of the Ugandan textile industry's supply chain and the majority of the region's industries (Okello-Obura et al., 2018).

Caritas, Julius, and Zenon (2016) discovered in Rwanda that the Bugesra District office's construction effectiveness is increased by good procurement. For industrial businesses in Sudan, buyer-supplier management, data management, and response time were critical supply chain performance indicators (Ibrahim & Hamid, 2016).

A major factor in supply chain efficiency is procurement practices, which can influence a company's performance in a favorable or unfavorable way. How successfully a company achieves its objectives is directly impacted by the procurement department's performance. Accenture (2018) reveals that achieving high performance in pharmaceutical procurement can be challenging, even in developed countries, partly due to a lack of attention from senior management. Combining tendering procedures and approaches may not necessarily lead to improved supply chain procurement performance.

The effectiveness of the procurement process is further enhanced by competitive tendering. The rising expense of healthcare, the time and money lost in getting supplies, and the inability to guarantee supply availability are all problems that public hospitals have to deal with on a daily basis. Providers of healthcare are facing immense political and social pressure as a result of these widespread problems. The degree to which the procurement procedures used by healthcare systems are efficient is evidently a major factor in these difficulties. Githinji (2018).

Local Perspective on Procurement Management

Gakinya (2018) conducted a supply chain and inventory management survey in Kenya and found that bulk orders, standardized purchasing, and inventory management are the current trends in centralizing purchases inside state entities. According to Lwiki (2018), another study of sugar manufacturing enterprises, companies have centralized their purchasing operations by using e-procurement, standardizing their purchases, and abiding by procurement laws in tandem with the installation of inventory management methods.

The impact of procurement management on corporate enterprises' performance in Kenya was studied by Makabira and Waiganjo (2019). The Kenya National Police used procurement procedures in its operations, and the use of procurement controls has been beneficial to the organization. Research on Guaranty Trust Bank was done by Karanja and Kiarie (2020) to show how procurement procedures affect the functioning of private organizations. A significant factor in organizational effectiveness, according to the study, was procurement planning.

1.1.1 Procurement Management Practices

According to Saussier and Tirole (2015), procurement procedures are a set of guidelines that specify what is and is not acceptable as well as how each task must be carried out. Procurement procedures are a part of the process; they are the guidelines for locating the best prices on goods and services that best meet the needs of the company in terms of quantity, value, timing, and location. Procurement management procedures are crucial yet costly activities for any organization, according to Feng and Shanthikumar (2017). This is so because, according to Oloo, Atambo, and Muturi (2017), businesses usually put aside a sizeable amount of their

earnings and operating budget for buying the goods and services required for the firm to run.

According to Gadde (2017), good procurement practices are the strategies that are implemented when a company makes purchases. These include developing relationships with suppliers, using technology or e-procurement appropriately, and using team-based approaches to procurement. The sorts of procurement strategies that have been highlighted include customer orientation, strategic supplier partnerships, the quantity and quality of information sharing, reverse logistics, and expertise administration (Marshall et al., 2017).

A company's efforts to support supply chain supervision, such as supplier relationship management and supplier qualification, are examples of supply chain management procedures that have been attributed to procurement practices by other experts (Odhiambo, 2019). According to Wong, Boon-Itt & Wong (2017), it clarified that in order to provide clients with satisfactory service, procedures include those utilized in demand, strategic sourcing, integration, handling, and coordination. The activities and developments that seem to directly affect the firm are used to describe procurement management practices. Establishing client ties through customer feedback and selling items directly to customers are essential for connecting to the operations of firms (Githeu, 2019).

Procurement management practices have been operationalized by several scholars. For instance, Uttam and Roos (2020) separated the techniques of procurement management into three groups: competitiveness bargained procedures, open practices, and limited practices. Operating processes, ethical procedures, supplier regulatory procedures, and tendering procedures were articulated by Onyango and Muturi (2016). Nonetheless, the European Union (EU) stipulated that member states'

procurement management procedures must incorporate both restricted and open procedures. Kuloba (2016) evaluated supplier assessment methods, material control procedures, and procurement management practices.

Mizuno (2019) brought procurement management concepts into the real world by announcing which suppliers to put out to bid, requesting and receiving bids, conducting a functional assessment, negotiating contracts and recognition, shipping, evaluations, and payments. Sigat (2020) looked at material control, tendering processes, and supplier evaluation in order to study procurement management techniques. Four procurement management practices—competitive bidding, purchasing transparency, procurement planning, and supplier qualification monitoring—were utilized as the study's parameters. It has been demonstrated that these procedures improve procurement performance.

Using an open bidding process to obtain goods, services, and labor for a company is known as competitive bidding. The public views competitive bidding in the procurement process as an open competition in which each potential bidder has an equal opportunity to submit an offer (PPADA, 2020). Therefore, when it comes to purchasing goods, services, and works, organizations—especially those in the general industry—preferred to use competitive tendering. It is equally likely that potential suppliers will use this tactic.

The principles of availability, accountability, and Public Procurement and Asset Disposal Act of 2015 established the basis for tendering. Obtaining the best value possible should always be the aim of the tendering process; this value may or may not be equivalent to the lowest cost (Lysons & Farrington, 2016). Essentially, the goal of this strategy is to ensure that the business pays the least amount overall. But since it's the primary process, tendering needs to be backed by a methodical

approach that ensures the exercise's crucial objectivity. The lowest overall total cost should be the outcome of such impartiality (Kipkorir & Chirchir, 2020).

When it comes to purchasing, transparency is defined as open, consistent, and cooperative communication between the seller and the customer. Effective communication encourages distributors to respond to customers, boosts purchasing companies' efficiency, and is essential to the development of supply chains expertise. Through the promotion of a cooperative culture, transparency benefits the purchasing organizations. The procurement process should be transparent in order to ensure that there are no unethical practices and that informed decisions are made. This requires public bodies to provide recommendations based on credible information and to ensure that needs are met.

The needs, desires, and objectives of the intended recipient community should also be taken into consideration during the procurement process. To increase the accountability and ease of use of procurement policies and procedures, transparency is required (World Bank, 2020). The public procurement system is highly dependent on information that is easily accessible and understandable regarding past purchasing trends, projected requests for services and goods, and current project and technique requests (Chesseto, Gudda & Mbuchi, 2019). Choosing suppliers strategically to align with the company's competitive goals is a key component of procurement strategy.

Strategic sourcing, according to Ayoyi and Odunga (2020), exemplifies how purchasing strategies or purchases are integrated into the overall business plan. Eltantawy, Giunipero, and Handfield (2019) list several important distinctions between traditional procurement and strategic sourcing. In contrast to strategic sourcing, which is linked and focuses on overseeing all facets of an ongoing

relationship between the buyer and the supplier, conventional purchasing is transactional. While the focus of strategic sourcing is on the total cost of ownership, conventional purchasing is primarily concerned with the purchase price. If procurement planning is properly designed, it can effectively link a company's core competencies with the abilities and capabilities of its suppliers. To reap the benefits of smart sourcing decisions, any company would

Supplier monitoring is critical to enhancing continuous supply and determining the overall performance of the supply chain with respect to cost, delivery, and quality time. Making frequent visits, grading, and appraisals of your suppliers are all part of conducting a critical analysis of them. Supplier evaluation may enhance organizational performance all the way down the supply chain by lowering operational costs, cutting down on cycle time, increasing efficiency, and enhancing customer satisfaction. The supplier is evaluated as part of the tendering process. This evaluation may take the form of a meeting, an inquiry, or a visit to the vendor's site in order to ascertain the vendor's efficacy, financial stability, operational structure, and procedures.

After being assessed for acceptability, both existing and potential vendors are either approved or denied to be listed as authorized suppliers (ASL). According to Oko and Juma (2020), this improves the effectiveness of your present suppliers and enables you to consistently verify that the approved vendors in your database are the right size and fit.

1.1.2 Nakuru Level 5 Referral Hospital

More than 6,152 facilities make up the networks that provide healthcare in Kenya. Governments own 51% of all health facilities, followed by private not-for-profit groups (typically faith-based institutions) at 14.8% and private for-profit businesses

at 34.3% (Ngugi et al., 2017). A wide range of public, corporate, nonprofit, and faith-based organizations make up Kenya's healthcare sector. Approximately 48% of the organizations are within the Ministry of Health's jurisdiction, with privately held companies accounting for 41%, religiously affiliated groups for 8%, and non-governmental organizations for 3%. The Kenyan healthcare system is divided into six levels: large private hospital (level 6), national referral hospital, sub-county hospital, level 5, county referral hospital, level 5, maternity home, nursing home, and community service (level 2).

In 1906, the Nakuru Level Five Referral Hospital was established as a military hospital and is currently a government temporary facility situated in Nakuru County. As the fourth-largest referral hospital in the country, it serves about 3.6 million people in the South and Central Rift Valley as well as other areas including Western and Central Kenya. It sees more than 1800 patients a day (Nakuru County Business Portal, 2018).

In addition to serving as the training center for Kabarak University, Egerton University, Nakuru MTC, PCEA MTC, and St. Marys MTC undergraduate medical schools, the hospital offers both undergraduate and postgraduate training programs. It is also an accredited training center for part one MCS COSECSA (College of Surgeons of East, Central, and Southern Africa) in general and orthopaedic surgery. The hospital accepts all types of surgeons, especially those who can provide a teaching package. Reconstructive surgeons, specialists in ear, nose, and throat, orthopaedic surgeons, and colorectal surgeons are among the specialties that the hospital is most interested in hiring (Alex Medical and Educational Clinic in Africa, 2018).

Nakuru Hospice is a nonprofit organization that is connected to Nakuru Rift Valley County Referral Hospital. It was founded in March 2008 with the goal of providing palliative care to patients with terminal cancer. When the hospice opened for business in June 2009, its mission was to support patients and their families dealing with neurological disorders, HIV, tuberculosis, and other life-threatening illnesses in addition to cancer. Psychological assistance, counseling, psychotherapy, chemotherapy, and radiation treatments are a few of the services provided (Ngugi, 2017).

High-quality treatment can be found in hospitals, which are the apex of the healthcare system and offer therapeutic, diagnostic, and rehabilitative services (Ministry of Health, 2019). After the new government was enacted, county administrations gained authority for the provision of healthcare services, replacing the federal government.

The procurement function is thought to be the most significant in Kenya when evaluating the efficacy of supply chains and organizations (Snider & Rendon, 2017). Procurement management solutions can help organizations cut operating expenses significantly, increase efficiency, and minimize lead times (Rankin, 2016). Public health institutions use procurement entities to acquire products and services. These entities are funded by their own resources, which come from cost-sharing funds or other types of appropriation in aid (A-in-A) that are created by the exchequer. Currently, most procurement is handled by the headquarters of the Health Ministries and the Kenya Medical Supplies Agency (KEMSA).

A vital facility that acts as a last-resort lifesaver for treating human health issues is a referral medical institution. This is more reliant on the availability of the necessary medical supplies, such as drugs, equipment, and other related goods, as well as a

sufficient number of highly qualified medical professionals. With the exception of medical staff, the department of supply chain management frequently provides for all of these requirements. This means that a hospital's or any other kind of business's supply chain system needs to be extremely effective and efficient (Chebulobi, Nyagol, Otienoh & Mukabane, 2019).

Internal and external players including producers, marketers, and suppliers are all part of the Nakuru level 5 referral hospitals' supply chain (Schneller & Smeltzer, 2013). Units for patient care, hospital storage, and patients are examples of internal components. Following its operating protocols, a hospital purchases goods and services from suppliers, stores them in warehouses, and then distributes them to each care unit. Supply chain management, therefore, refers to business operations that include a steady, uninterrupted flow of goods and services for the provision of healthcare. (Onyancha, 2015) Purchasing, distribution, and supplier management are a few examples of these kinds of tasks.

Due to a lack of reliable supply, major hospitals in Nairobi have periodically experienced medicine and medical facility shortages, which has prevented them from offering patients the best possible care. Furthermore, it is demonstrated that shortages are causing pain for people across the country. In many institutions, patients have been told to get these products from independent laboratories and pharmacies. to arrange the supply of commodities more effectively (Odero, 2016).

1.2 Statement of the Problem

It is believed that procurement is a component of management principles that emphasize the successful accomplishment of organizational objectives. In actuality, a properly designed and executed procurement process can serve as a financial tool to ensure efficient organizational performance (Keith et al., 2016). The dynamic

procurement revolution is posing challenges to many institutions, making it more difficult for them to maintain organizational efficiency (Wambui, 2018).

The administration of procurement is brittle and prone to frequent disruptions (Jeppesen, 2020). According to Jibrin, Ejura, and Augustine (2019), the main issues facing the procurement sector today are not the restrictive regulatory frameworks but rather the low standards of execution and noncompliance. The biggest obstacle to improving the performance of the procurement function, despite institutional efforts, is still procurement management (Hussein & Shale, 2019). In most cases, this issue has led to a decrease in the performance of the organization (Schiele, Horn & Vos, 2019).

Despite having enough medical supplies, Kenya has experienced a sharp decline in the supply chain performance in public health institutions over time, according to publications from NACPD, KNBS, and ICF (2016). Healthcare supplies are necessary, according to RoK (2016), to improve supply chain efficacy in public health facilities. In spite of management efforts, Kenya's public hospitals offer poor quality care, according to a 2014 WHO assessment.

Despite the availability of procurement management, a NACPD (2017) report claims that inadequate supply chain performance in Kenya leads to inadequate medical care in public hospitals. According to Choy (2012), inefficient procurement practices account for half of the expenses incurred by public hospitals. Inadequate procurement management practices are causing the supply chains of public health institutions to perform badly (Areri & Gekara, 2019). Despite the fact that a large number of hospitals have realized the significance of supply chain performance, putting into practice techniques, plans, and standard operating procedures that have been widely developed in industrial settings remains a significant problem. This has

played a major role in the current shortage of drugs and other essential supplies that hospitals require in order to effectively fulfill their core duties (Odero, 2016).

A great deal of research has been done on supply chain performance and procurement management techniques. deliver the final customer's desired commodity or service as swiftly and affordably as feasible, for example, according to Erik and Vennston's (2018) examination of procurement restrictions on supply chain performances. German manufacturing firms' supply chain performance is the main subject of Akitonye's (2018) study, which was carried out in a developed nation. Since Kenya is a developing nation and this study was carried out in a developed one, there is a contextual gap that prevents the findings from being applicable. Bartik's(2019) study centered on the effects of procurement policies on organizational performances, filling a conceptual gap left by Erik and Vennston's(2018) study, which was more concerned with procurement policies and operational chain performance.

From the foregoing, it can be seen that the research revealed conceptual and contextual gaps, which this study seeks to fill. Limited research has also been done on the effects of procurement management strategies on the organizational effectiveness of Nakuru County's referral hospitals. In order to better understand how procurement management methods, affect the operational outcomes of Nakuru Level 5 referral hospitals in Nakuru County, Kenya, this study was conducted. Since most counties have regularly complained of differing health commodity procurement and supply, which negatively affects the availability of essential medical supplies in health facilities and delays county team training, the study will also identify challenges facing the procurement processes in Nakuru level 5 referral

hospital. Because inadequate supplier management has also been voiced by suppliers, this investigation was conducted.

1.3 Purpose of the study

This study looked into how procurement management procedures affected the level 5 referral hospitals in Nakuru County, Kenya, in terms of their operational performance.

1.3.1 Specific Objectives

- i. To ascertain how procurement management techniques and procurement planning affect the operational performance of Nakuru level 5 referral hospitals in Nakuru County, Kenya.
- ii. To investigate how procurement management procedures and vendor management affect the day-to-day operations of Nakuru County's level 5 referral hospitals in Kenya.
- iii. Assessing the impact of e-procurement on the functioning of Kenya's Nakuru County's level 5 referral hospitals.
- iv. To investigate how the operational performance of Nakuru County's level 5 referral hospitals in Kenya is affected by procurement monitoring and evaluation.
- v. Assessing the effect of inventory management on the level 5 referral hospitals in Nakuru County, Kenya, and their operational performance.

1.4 Research Questions

- i. How does procurement planning influence performance Procurement Management practices on operational performance of Nakuru level 5 referral hospitals in Nakuru County, Kenya. ?

- ii. To what extent vendor management influence performance Procurement Management practices on operational performance of Nakuru level 5 referral hospitals in Nakuru County, Kenya. ?
- iii. Does e-procurement influence performance on operational performance of Nakuru level 5 referral hospitals in Nakuru County, Kenya. ?
- iv. Does procurement monitoring and evaluation influence performance on operational performance of Nakuru level 5 referral hospitals in Nakuru County, Kenya. ?
- v. To what extent inventory management influence performance on operational performance of Nakuru level 5 referral hospitals in Nakuru County, Kenya. ?

1.5 Significance of the Study

The study would provide value addition to public procurement in Kenya by way of improving performance and practices. The results of this study will be crucial for health policy makers because they would help them develop policies and strategies that will enhance the supply chain performance. They are going to be better equipped to change procurement regulations and procedures and hence enhanced supply chain performance.

This would result in better delivery of services in Kenya's public hospitals. In order to minimize a delay in delivering services, the study would as well be helpful to officers in procurement team in finding correct suppliers, optimizing inventories, contract management, and using digital procurement over traditional procurement. It will assist all hospital stakeholders in Kenya in gaining the information necessary to provide effective supply chain management. The hospital management is projected to benefit from leveraging the data acquired to improve supply chain performances

throughout the whole institutional structure of institutions.

The study's findings will increase comprehension and add to the corpus of knowledge already available about the caliber of scholarly research on procurement methods and performance in Kenya's public health sector. This study will be useful to other scholars and investigators as a source of knowledge and a guide in the future who wish to do related research. The knowledge of this study's report would assist stakeholders comprehend the significance of procurement procedures and determine how much these practices affect or influence organization performance. The conclusion provides guidance for enhancing the procurement practices and organization performance.

This study emphasized how the level 5 referral hospital in Nakuru's operational performance is impacted by procurement management. Because they provide information on procurement management best practices and their impact on hospital operation performance, the findings may prove advantageous to the management of Nakuru Level 5 Referral Hospital. Governmental entities and other stakeholders in the health sector may find the study's conclusions useful in developing best practices for procurement management that can enhance the performance of Nakuru level 5 hospitals. The study's conclusions will be applied by both the federal government and local governments to improve procurement practices and organizational effectiveness.

Since the findings would offer a foundation for substantial and quantifiable improvements in equity, access, monitoring, and cost of high-quality health services and supplies, policymakers would find the findings useful. According to the conclusions, public stewardship, accountability, and openness should be promoted by national and local governments through policy. The results would be beneficial in

producing case studies, technical papers, and monitoring reports that would inform the accomplishment of Nakuru level 5 hospitals.

1.6 The Scope of the Study

The study concentrated on determining the association between procurement management practices and operational performances in Nakuru Level 5 County's hospitals. The study focused on various departments in Nakuru level 5 hospital in Nakuru County. Systems theory, socioeconomic theory, agency theory, and stakeholders theory served as the study's pillars. The study ran from January 2024 to June 2024, a duration of eight months.

1.7 Limitations of the Study

Due to concerns about being victimized or having their personal information revealed, a few respondents declined to take part in the survey. Nonetheless, they were told that their data would be kept private and that their identities would be kept anonymous. The participant's close, impartial answers to the questions were facilitated by the researcher.

The study was subjected to variety of restrictions, such as difficulties with data collection, which included the initial lack of trust and understanding between the researcher and the participants; the employees' resistance to completing the questionnaires; the busy schedules of the personnel; and the limited support from hospital management, which might reticent to authorize at a collection. The researcher overcame the aforementioned difficulties by securing an official letter from Mount Kenya University stating that the data was to be collected for scholarly purposes. An informed consent document detailing the respondents' voluntary

participation in the research was provided.

1.8 Delimitations of the study

The operational effectiveness of Nakuru County's level 5 referral hospital was studied in relation to procurement management techniques. In order to better understand how procurement management techniques affect operational performance at Nakuru level 5 hospitals, the study concentrated on procurement planning, vendor management, e-procurement, procurement monitoring & evaluation, and inventory management. Within the confines of Nakuru County, Kenya, the study's primary objective was to evaluate the perspectives of level 5 personnel. Procurement authorities from the county government, department managers of healthcare facilities, and senior management from Nakuru level 5 referral hospital were among the responders.

1.9 Assumptions of the study

Based on the supposition that the study would be able to contact department managers and prospective respondents at Nakuru level 5 referral hospital and that the respondents would provide the necessary data in an uncoordinated manner, the research was conducted.

The study also assumed that the research was carried within the work plan and within the budget.

1.10 Operation definition of Key Terms

Electronic procurement: Using a web-based platform for vendor selection, administration, tendering, and requisition

Inventory management : The process of ordering, storing, and making sure that inventory at the Nakuru level 5 referral hospital warehouse is maintained at a reasonable cost while maintaining the required level

operations procurement management The planning and supervision of purchasing agents' purchases of supplies required for the level 5 referral hospital in Nakuru's.

Procurement monitoring and evaluation: evaluating procurement performance to see whether procurement objectives have been reached; compliance with the procurement process; identification of critical procurement cycle areas to design suitable risk and corruption prevention techniques

Procurement planning : process of selecting what to purchase, when to acquire it, and from whom.

Performance of Nakuru level 5 referral hospital: This evaluation of Nakuru Level 5 Referral Hospital's capacity to satisfy its KPIs is based on how well it adheres to the financial constraints, timeline, stakeholder satisfaction, and quality requirements.

Referral Hospitals: It is a hospital with adequate capabilities to accept patient transfers and referrals for either emergency or non-emergencycases.

Vendor Management; Ability of Nakuru level 5 referral hospital to sourcing and selection of vendors, negotiating contracts, managing relationships, evaluating performance, conduct vendor development programs efficiently and ensuring payments are made on a timely manner

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines earlier research and ideas regarding the impact of procurement management on the efficiency of an organization. The study's underlying hypotheses, the conceptual framework, and a summary of the literature review

2.1 Performance of Nakuru Level 5 Referral Hospital

As per Mahaney and Greer (2019), the process of project implementation is intricate and generally necessitates meticulous consideration of an extensive array of technical, financial, and human elements. Additionally, organizations often possess a distinct set of critical success criteria that, if managed and attended to, would raise the likelihood of a successful outcome. However, if these factors weren't taken into enough account, Kahungura (2019) points out that the organization might not succeed. Organizations these days are surrounded by a lot of uncertainty. Undertakings are vulnerable to unanticipated events, diverse external factors, ever-growing requirements, fluctuating constraints, and fluctuating resource allocations. This highlights the consequences of implementing initiatives without following the required steps to ensure their proper management.

An organization is greatly impacted by the type of organizational procurement strategy that is employed to meet organizational goals. Because of this, clients of the organization often search for the best strategy to help them achieve better project results. There are numerous organizational performance methodologies from which clients can choose. According to Klein and Chen (2017), there are terms for the organization strategy and the order, technique, and process of allocating activities in

an organization's performance. Even though many projects will unavoidably go partially over budget and behind schedule, risk management strategies can be improved to mitigate these consequences and improve organizational performance.

Taking consumer requests, legal regulations, market expectations, and business needs into account is a vital step in establishing an organization's performance process. In project scope definition, a clear project definition reduces the likelihood of modifications and setbacks. An organization's risk of experiencing a gap that could lead to expensive modifications or even collapse can be minimized by efficiently recognizing needs and establishing a budget and schedule (Fageha & Aibinu, 2019).

Alzahrani and Emsley (2018) compared the success criteria used by clients and contractors and found that clients prioritized achieving stakeholder requests more than contractors did, with contractors focusing more on project length and less on cost reduction. They also found that meeting the needs of the owners was the central requirement for all stakeholders in the company. Therefore, a deep grasp of project implementation is necessary, as different stakeholders may have varying standards for what defines a successful company. This study used the following metrics to assess the performance of the Nakuru Level 5 referral hospital: mortality rate, access levels, timely supply, budget compliance, and health training reach.

2.2 Procurement Planning and performance of Nakuru Level 5 Referral Hospital

There was a significant correlation between public procurement planning and performance, and good organization performance in Rwanda was linked to effective public procurement planning, according to a study by Kabega, Kule, and Mbera

(2016) on the effect of public procurement procedures on the performance of public procurement initiatives in Rwanda. Good procurement planning has a positive relationship with economic success, according to Wogube's (2017) research in Sironka Town, Uganda, on the relationship between procurement planning and organization performance. The current study, in contrast to Wogube (2017), addressed procurement as a scheduling tool and examined its effects on organizational performance as a whole, including but not limited to staff performance.

In the cost management process, organization planning is essential since an imprecise budget might result in subpar performance from the organization. An inaccurate budget may result in quality differences and compromises, leaving the design team, client, and end user unsatisfied in the end. Using a schedule accommodation with areas and applying historical costs without accounting for the numerous factors that affect project costs—such as the organization's size, location, price increases since the data was used, procurement strategy, overall product quality, accessibility, and locational considerations—is a common mistake made during the planning stage (WBDG, 2017).

Following the planning stage, the project cost must be realistic, reasonable, and determined by the statement of work and contractually stipulated expenses. The budget is based on best projections, historical costs, or norms from industrial engineering. The budget has to specify anticipated labor needs, how to get them, and how much management reserve is needed. Performance results criteria comprise quantitative measurements encompassing work quantity, quality, and cost (Kerzner, 2019).

The Ugandan researchers Sabiti, Basheka, and Muhumuza (2017) discuss how effective procurement planning affects organizational performance in their article, *Developing Public Procurement Performance Measuring Systems in Developing Countries: The Uganda Erfahrung*. According to the study, administrative systems are disjointed, there are too many chores to be completed, and public organizations have difficulties when the government neglects appropriate procurement planning while managing public affairs.

Procurement planning is the process of selecting the most suitable vendor to deliver a certain project in order to obtain greatest value for money, according to Ocharo (2018) in his paper on the determinants affecting organization performance: a case study of the Ministry of Energy in Kenya. Methods for procurement are an essential part of the planning process, and techniques for evaluating bids are the main processes used to choose a vendor. Planning is one of the primary decisions that clients make, according to Ocharo (2018). The client has the responsibility of choosing the best contractor to guarantee the project's successful completion. Procurement methods are the processes that the procuring entity uses to get goods, services, and works, according to Ocharo (2018).

Pilcher (2017), however, points out that procurement planning entails creating a shortlist of vendors that are thought to possess the necessary credentials to do the suggested task satisfactorily. On the other hand, a client may request that one contractor submit a tender for a certain project through negotiated or direct tendering. Because competitive methods of procurement tend to restrict bias, encourage transparency, economy, and efficiency, there is a propensity for entities to prefer utilizing them. Lynch (2019). However, a study by Masterman (2017)

indicates that non-traditional procurement systems are emerging and that most clients seem to favor them.

2.3 Vendor Management and Performance of Nakuru Level 5 Referral Hospital

Vendor management refers to the set of procedures that enable a company to control expenses, mitigate vendor-related risks, guarantee superior service delivery, and ultimately extract value from its vendors. This include determining which vendors are the most appropriate, sourcing and obtaining pricing details, assessing the caliber of work, managing relationships when dealing with multiple vendors, assessing performance by establishing standards for the organization, and making sure that payments are always made on schedule (Brown & Hyer, 2020).

Corporate supply chain leadership can only be attained through effective supplier relationship management (Harland, 1996). Specifically, to optimize value creation in procurement, it is necessary to comprehend strategic connections with critical providers. Research has indicated that a great performance is a result of these interactions being managed well (Tan, 2019). It has been demonstrated that factors like confidence and participation are important in high-value strategic engagements where specific investments are large and contractual governance is insufficient on its own. It is vital in these kinds of partnerships for both parties to acknowledge that they are benefiting from the partnership if they do.

In the Kenyan alcoholic beverage industry, Wangeci (2018) conducted a survey on supplier chain effectiveness and vendor management. The specific objectives of the study were to ascertain the extent of supply chain management (SRM) in the beverage industry, ascertain the impact of SRM on the supply chain performance of the industry in Kenya, and pinpoint the challenges associated with implementing

SRM in the industry. According to the study, in order to improve the effectiveness of their supply chain, businesses in the alcoholic beverage industry are shifting toward collaborative relationships with their suppliers.

In Kisumu County, Kenya, Tangus (2019) investigated the impact of vendor management on the performance of manufacturing firms. Her research revealed that one of the most important things in encouraging supply chain participants to become engaged is confidence. Additionally, she discovered that having confidence significantly raises the possibility of successful procurement outcomes. When transaction costs (verification, inspection, and certification of their trade partners) rise, a lack of confidence amongst supply chain partners frequently leads to inefficient and inefficient performance.

Act 663 of 2003 mandates the public procurement procedure in Ghana and stipulates that a formal procurement assessment or vendor appraisal is necessary to evaluate performance. Depending on the aims, expectations, and level of customer satisfaction, the performance of the procurement process within the public system may be a direct or indirect result of the processes (Sollish and Semanik 2017). The most important factors to take into account throughout the procurement process are determining the precise needs, figuring out how to pay for them, and reviewing the entire product. (Crowcker & Emmert, 2018).

The management of vendors involved in public sector procurement in Ghana is closely linked to the accomplishment of predetermined goals. These protocols typically offer direction on the product's duration, value, supply time, and availability rate—all of which are critical to the successful execution of purchasing operations. One of the biggest issues facing customers who want to see their

business succeed is choosing a competent and trustworthy contractor (Kumaraswamy & Anvuur, 2018).

A vendor's evaluation may take into account a wide range of factors, such as price, technical proficiency, managerial aptitude, prior experience, the reference point, quality and environmental management systems, financial stability, and coordinated skills (Lam et al., 2011; Eriksson & Laan, 2007; Malmberg, 2017). According to Koh et al. (2017), some experts have compared the procurement procedures to supply chain management practices, which are a collection of actions an organization does to support efficient supply chain management. The integration, management, and coordination of suppliers is one approach used to effectively satisfy clients (Wong et al., 2018); other approaches include involving suppliers in decision-making, promoting information sharing and the search for novel ways to integrate upstream activities, and employing tangible activities or technologies that play a significant role in a focal firm's collaboration with its suppliers and/or clients (Vaart & Donk, 2018).

Parties should carefully consider the kinds of commitments they should be ready to make during the negotiating process. Developing a mechanism for commitment that can be applied gradually is one strategy to foster trust. The competence of the negotiators to thoroughly analyze and weigh all available possibilities is essential to reaching a mutually advantageous agreement. Companies must look for the finest working relationships with suppliers for both short- and long-term operations.

2.4 E-Procurement and Performance of Nakuru Level 5 Referral Hospital

Web-based administration and business-to-business purchase and provisioning are features of electronic procurement, or e-procurement. In many countries, e-

procurement is rapidly becoming the preferred model acquisition approach for both open and private sectors. Since the advent of the internet, several businesses have started to provide creative procurement methods (Goodfred, Evans, Doumbia & Hanson, 2018). Kingori (2018) found that e-procurement, ICT proficiency, and e-procurement implementation all have a strong correlation in her study on the impact of e-procurement at the Teachers Service Commission. This demonstrates the strong correlation between the adoption of e-Procurement and the effectiveness of procurement.

According to a study by Vaidyanathan and Devaraj (2018) on e-procurement performance analysis, fulfilling orders precisely has less of an impact on satisfaction than fulfilling orders on time. Therefore, in order to prevent shortage issues, the entire system should be carefully monitored after e-procurement is used. According to Yu et al. (2018), e-procurement can help businesses if it is implemented correctly, but it can also hurt them. The six main advantages of e-procurement have been identified by Ronchi et al. (2019), who have also created a classification scheme. Financial performance and decentralization are calculated using order cost, administrative cost, lead time, opportunity cost, and opportunity cost of capital; organizational performance is evaluated using transparency, control, buying reduction, and supply-base rationalization.

The implementation of e-procurement by the health industry has numerous advantages, claims Nzuve (2019). For example, companies will be able to eliminate concerns like carrying expenses, poorly developed supplier relationships, protracted order cycle times, needless inventory, paper shuffling, challenges with data and process quality, and compound product handling operations. Eadie et al. (2017)

investigated the impact of e-tendering on organizational performance and the benefits of e-procurement for organizations.

Staff reductions are a key strategy for creating a competitive advantage through lower costs when utilizing e-procurement techniques, which give organizations a competitive edge in the marketplace, as the Eadie et al. (2017) study covered. Eadie et al. (2017) and Hawking et al. (2018) have also discussed market intelligence, and Eadie et al. (2017) has also documented procurement process communication efficiency. As much information as the research has been able to gather on e-bidding-related topics, studies regarding the openness of the tendering process have been mostly absent. Additionally, the study has effectively caught the broad scope of e-tendering while omitting to address the contemporary problem of high-income versus low-income countries.

There is a knowledge gap because no research has been done on e-tendering in Kenya. Tanner, Wolfle, Schubert, and Quade (2017) conducted a literature review on previous studies on the impact of e-invoicing on organizational performance and found that over 70% of businesses exchange invoices electronically. Another study by Geldenhuy et al. (2018) titled "The Introduced Transaction Costs Discussed on Individual Corporation Performance in Asset Transformation on Cost Economics" found that as transaction volume increases, the cost of the infrastructure decreases per transaction.

In order to add the necessary desirability for electronic invoicing through the Financial Supply Chain, corporations need to create this critical mass through a value network of alliance partners and technology solution providers. Wanjera's 2019 studies also covered this topic. Buenger et al. (2018) conducted a study on value drivers, which suggests that companies encounter various value propositions

that may undergo changes over time as a result of internal and external factors and experiences. Regarding the study that was done to determine the advantages of electronic invoicing, there is still a knowledge gap regarding the advantages of electronic invoicing in Kenya.

The research has identified resources, including papers by Porter (2021), regarding the impact of electronic payments on project performance. In the global economy, e-payments are part of the Asumba e-Future Center (2017). Additionally, research on the potential of e-payments to improve organizational effectiveness was undertaken by Salnoske (2019) and Music et al. (2020). Mentzer and John (2021) conducted a study that examined how advancements in information technology and computer networks have boosted the adoption of electronic payments and strengthened supply chain management (SCM).

2.5 Procurement Monitoring & Evaluation and Performance of Nakuru Level 5

Hospital

Brown and Hyer (2019) defined monitoring and evaluation as the tracking method during procurement management. Which is easy to what is advanced, in order to recognize modifications in the novel scheme. These scientists also stated that, in any monitoring and evaluation phase, there is a need for a team allocated to work on the project to agree on methods that are suitable to the monitoring method as one of the key performance indicators (KPIs) in the building of the project. They referred project control to choices, actions and procedures linked to differences in the execution of the project. Resources on the effect of electronic payments on project performance have been found through the research, including publications by Porter (2021).

The Asumba e-Future Center (2017) includes e-payments as a component of the global economy. Furthermore, Music et al. (2020) and Salnoske (2019) conducted study on the possibility of e-payments to enhance organizational effectiveness. An analysis of the ways that developments in computer networks and information technology have reinforced supply chain management (SCM) and increased the uptake of electronic payments was done by Mentzer and John in 2021.

In their investigation into how procurement practices affect the performance of the Kenya National Police Service in Makueni County, Makabira and Waiganjo (2019) found that procurement practices including workforce preparation, growth, monitoring, and evaluation have a significant impact on the performance of the Kenya National Police Service.

In 2019, Adu conducted a study on how the Procurement Act affected financial management in Ghana's Ashanti region. The results showed that following the Act significantly reduced government spending by reducing waste and resource leakage through auditing, budgetary control, spending monitoring, cost evaluation, and value for cash.

Supplier contractor monitoring has gradually grown in importance as a component of effective supplier relationship management, which is directly tied to securing the supply of essential commodities required for business sustainability, according to Mbalangu (2018) in his study on procurement monitoring and organization performance conducted in Uganda. In his research on how public procurement reforms affect service delivery in Uganda, Kansiime (2019) observes that an organization might have some degree of control over the deliverables and

performance standards through the monitoring of this formalized relationship. Since contracts define the conditions, terms of payment, and service standards for partnerships, suppliers, and customers, their use in business interactions has long been essential to a company's survival (Mbalangu, 2018).

According to Mbalangu (2018), contracts offer a framework for managing and reducing risk in an organization's supplier relationships. Consequently, contracts have evolved into dynamic, living documents that increasingly govern the workings of daily corporate operations. Comparing the planned study to the above study, which used mixed methodological approaches for data analysis, the latter used qualitative techniques.

In their study carried out in Ghana, Schmitz and Platts (2019) looked into the country's procurement changes. According to them, the primary goal of contracts is to guarantee that products or services are provided according to schedule, budget, and specifications. It entails creating productive working connections with your suppliers, guaranteeing efficient service delivery, optimizing financial returns, and offering stakeholders and end users consistent quality (Schmitz & Platts, 2019).

Ensuring that commitments and duties to suppliers and customers are executed and readily apparent to the appropriate personnel within the organization is the main objective of contractor monitoring in any given business (Schmitz & Platts, 2019). Contracts influence a number of business operations and are used to manage almost every aspect of the commercial relationship between buyers, sellers, and middlemen. As an illustration, the sell-side encompasses customer service, sales, marketing, finance, legal, and sales operations. While the previous study used just qualitative

methods to pretest the results, this study used both quantitative and qualitative methodological approaches in bridging the Gap.

The systematic management of contract formation, execution, compliance, and analysis is necessary for contract monitoring in order to maximize performance and minimize risk, according to Agere's (2019) study on the efficacy of contract management in Austria. Businesses are realizing how important it is to properly manage their contractors in light of the increasing complexity of conducting business in public institutions, as well as the rise in transaction volumes and value within an increasingly stringent regulatory framework (Bagaka & Kobia, 2020). It is the sample strategies that are the missing piece of the earlier study.

2.6 Inventory Management and Performance of Nakuru Level 5 Referral Hospital

According to Sandeep et al. (2017), if an organization consistently experiences stock outs, inadequate storage plans, delivers the wrong products to customers, and lacks the necessary documentation for the products it has purchased, inventory management may lead to unjustified losses. Employees are responsible for understanding and putting inventory management techniques into practice to ensure that the company gets value for its money.

The just-in-time (JIT) stock methodology, according to Macharia and Mukulu (2016), is a method in which products, components, and other materials are ordered only in the quantities required to meet immediate needs. After then, everything is meticulously scheduled so that these supplies arrive precisely when needed. As a result, there will be less waste, more efficacy, and ultimately lower lead times and inventory management costs. The authors observed that the use of the just-in-time

(JIT) stock approach facilitates the efficient achievement of organizational goals and objectives.

According to Cheruiyot's (2018) theory, businesses should adopt legal stock control techniques along with a capable and reasonable inventory information system in order to balance the costs and risks associated with stock management against the benefits of having supplies on hand for seamless operations. Reduced inventory rates are also undesirable since they impede growth, cause a loss of goodwill, and increase demand for costs.

The process of making complex decisions in inventory management involves analyzing several criteria characteristics, most of which are non-deterministic in practice. In situations of uncertainty, decisions are taken. According to Krzyzaniak and Cyplik (2017), the Economic Order Quantity (EOQ), Re-Order Point (ROP), and Re-Order Cycle (ROC) models are the most often used traditional techniques for estimating inventory levels. The goal of safety stock is to offset unforeseen fluctuations in demand, according to Grzybwska (2019). A cross-disciplinary idea is inventory management (IM) (Larson and Halldorsson, 2018).

According to Ellram and Cooper (2019), inventory management is centered on cross-functional teams that operate outside of the company. Critical components of inventory, according to Halldorsson et al. (2017), are the structure's design and administration through interorganizational linkages. Approximately 33 percent of the over \$1 trillion spent on logistics is attributable to the cost of keeping inventory, according to the 17th Annual State of Logistics Report Wilson (2016). Business logistics costs as a percentage of the US gross domestic product have increased to 9.5 percent. Therefore, procurement requires a thorough understanding of inventory

management. Programs for inventory management can increase customer satisfaction and streamline inventory commitment.

One area that logistics researchers should concentrate on, according to leading discipline visionaries, is coordination and collaboration. As a result, the inventory management literature published in logistics journals has changed recently in that direction, according to a recent analysis of the future of the field of logistics and logistics research by Davis-Sramek and Fugate (2017). Heizer and Render (2016), in their article on inventory management, reported that companies keep these supplies on hand for a variety of reasons, such as safeguarding against general shortages, possible issues with suppliers, or the possibility of impending unit price increases. The literature does, however, mostly address stock replenishment strategies. These resulting inventories usually allow businesses to provide a service at a reasonable cost without causing undue delays for the recipients.

Planning and controlling inventories therefore has a huge impact. Because the recipients pay for the upstream storage and freight in one way or another, the order placing discipline not only reduces the cost of transferring goods but also shortens the associated lead times, providing enough incentives for the parties to cooperate. It is essential to comprehend every aspect of inventory management in order to practice effective inventory management. According to Confessore, Rismondo, and Stecca (2019), companies can minimize expenditures on standing inventory, plant rental, shipping expenses, and reverse logistics while preserving or enhancing customer service standards and in-stock metrics for vital inventory by implementing lean practices across the entire inventory management cycle.

2.7 Theoretical Framework

The Stakeholders Theory, Agency Theory, Socio-economic Theory, and Systems Theory served as the foundation for this investigation.

2.7.1 Agency Theory

The theory put up by the Agency considers the evolving interests of the project's stakeholders in the procurement and evaluation processes. An agency could be used to describe the relationship between the parties. According to Tenhiälä, Rungtusanatham, and Miller (2017), an agency connection exists between two parties when they collaborate and form an association that permits one party (the principle) to assign choices and work with another (the agent) to act on its behalf. The fundamental assumptions of the Agency's theory are as follows: Agents are more risk-averse than Principals; each Party acts in its own self-interest; there are prospective objective disputes between Principals and Agents; and efficacy is the criterion. Principals and Agents also frequently resemble one another. Two potential problems in the future arising from these assumptions could be the Agency Problem and the Risk Sharing Problem in Agency Relationships (Xingxing 2017).

The notion states that one party (the principle) hired another (the agent) to carry out specific tasks on their behalf. The decision-making authority transfers the principal to the officer. Due of the differences between sellers and customers, each party will only be thinking about themselves (Xingxing 2016). The relationships between main agents have an impact on top management engagement decisions, which in turn have an impact on the relationship between vendors and organizations. A conflict of interest between officials plays a part in the way procurement operations are carried out outside of standard operating procedures, which wastes time during the

tendering process, results in the cancellation of advertised tenders, and depletes procurement resources.

By putting procedures in place to match agents' interests with values and reduce the amount of information asymmetries and opportunistic trends, the Agency's Theory Model seeks to address the reality that self-interest values and information asymmetries undermine the basis for trusting their designated agents (Keng'ara, 2018). The theory matters because it dictates how procurement managers carry out procurement procedures for Nakuru level 5.

Low levels of senior management commitment result from bad principle-agent relationships, which also have an impact on the connection between suppliers and institutions. When there is a conflict of interest among the agents, procurement procedures are not followed, which increases the budget for procurement and results in the loss of cash (Brown & Hyer, 2019). In order to ascertain the effect of Vendor Management and Procurement monitoring and evaluation on the performance of Nakuru level 5 referral hospital in Nakuru county, Kenya, the research employed this approach.

2.7.2 Linear Policy Model

The most commonly accepted theory of how policy is made was created by Grindle and Thomas (2020), and it is also referred to as the rational model. It describes the process of formulating policies as a logical, impartial, analytical, and balanced method of issue solving. According to the model, choices are made in a sequence of steps, beginning with the identification of a problem or issue and concluding with a list of actions to address or resolve it.

According to Grindle and Thomas (2020), the phases of the policy model are as follows: identifying potential courses of action to address the issue, weighing the benefits and drawbacks of each, selecting the option that best addresses the issue, putting the policy into action, and possibly assessing the results. According to this paradigm, decision-makers handle the problems logically, following each step in the process, and carefully weighing all available data. When policies don't work as planned, the fault is usually placed on management or political incompetence during the policy's implementation (Hunja, 2019). Failure to formulate and implement procurement practices effectively can be attributed to a lack of political will, inadequate management, or a lack of resources. Since the linear policy model establishes the procedure for creating and implementing policies inside an organization, the theory is pertinent to the research.

According to the model, inadequate management and a lack of resources are to blame for procurement policy implementation failures. This suggests that budgetary allocation and management support are critical to the success of policy implementation. Procurement records administration, budgetary allocation, procurement planning, management support, and the procurement procedures used all have a significant role in how procurement rules are implemented (Meredith & Mantel, 2017).

2.8 Conceptual Framework

A conceptual framework is described by Kombo and Tromp (2016) as a collection of overarching concepts and tenets drawn from pertinent disciplines of study and utilized to organize a presentation.

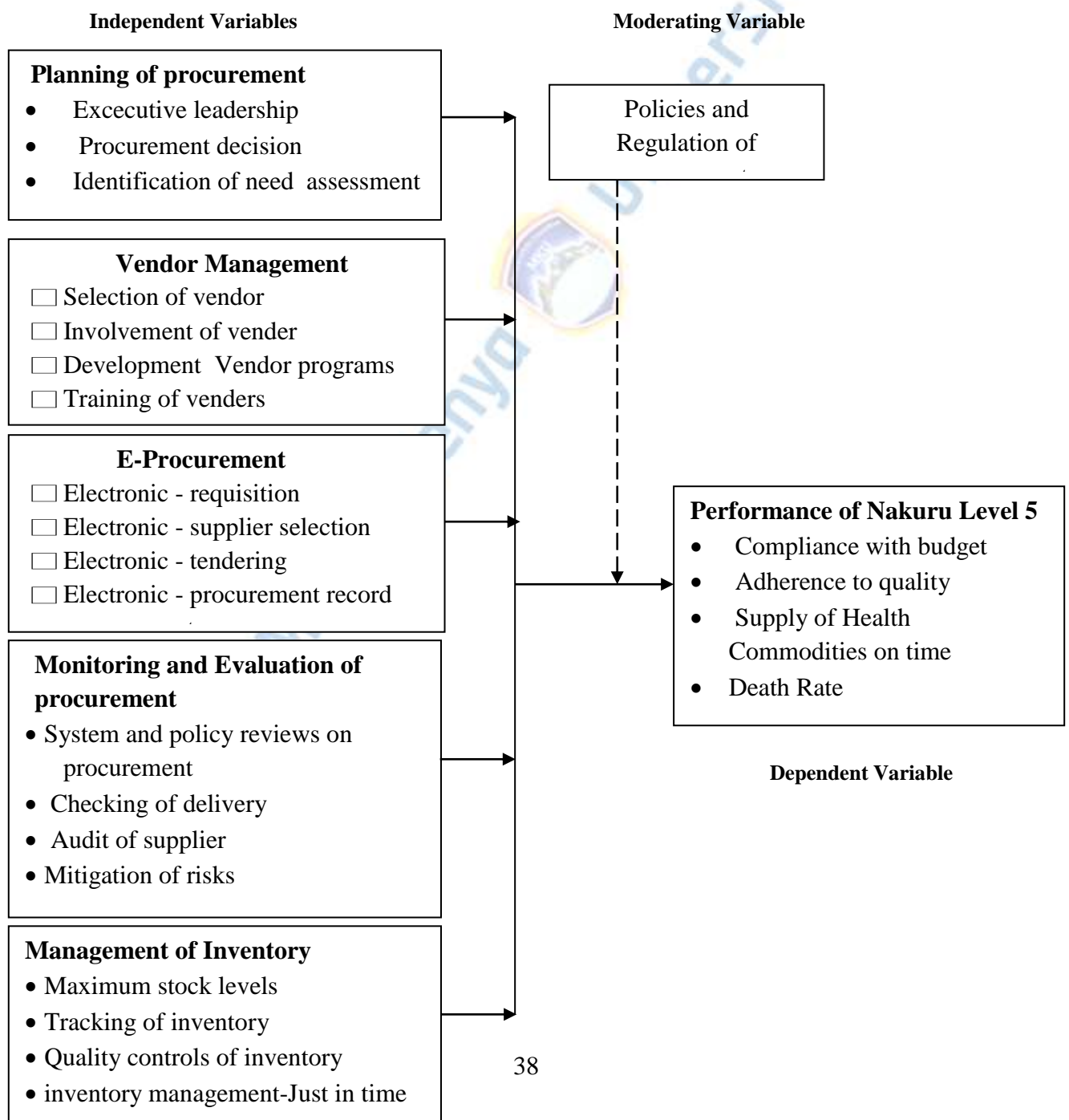


Figure 1: Conceptual Framework



In an organization, procurement planning helps managers to plan for project scope, budget, and time. It also helps them identify and assess needs. The success of an organization is significantly impacted by these factors. Vendor management include supplier selection, engagement, and development initiatives designed to foster a cooperative relationship with suppliers.

The complete procurement procedure is carried out online via e-procurement. E-requisition, tendering, selection, and payment are all included. If handled correctly, this improves prompt and affordable procurement. Processes implemented to prevent loss, such as policies, audits, and delivery tracking, are part of procurement monitoring and evaluation. The practice of inventory management is used in an organization to guarantee that working capital is properly handled and that there are no stock outs.

2.9 Recap of Literature Review

In their study on e-procurement performance analysis, Vaidyanathan and Devaraj (2018) found that satisfying orders precisely is not as important to customer satisfaction as meeting orders on time. In contrast to the present study, which concentrated on procurement management, this one focused on electronic procurement. Tangus (2015) investigated the impact of vendor management on the performance of Kisumu County manufacturing firms. This study was conducted in the manufacturing sector, as opposed to the current study, which was conducted in the health sector.

In their 2019 study, Makabira and Waiganjo examined how procurement practices affected the Kenya National Police Service's effectiveness in Makueni County.

Unlike that study, which concentrated on the Nakuru level 5 referral hospital and Nakuru county, Kenya, this one examined the Kenya National Police Service as an organization. Wangeci (2018) conducted a survey on supply chain effectiveness and vendor management in Kenya's alcoholic beverage industry. According to the study, businesses in the alcohol beverage industry are shifting to more cooperative partnerships with their suppliers in an effort to improve the effectiveness of their supply chains.

The impact of vendor management on the performance of manufacturing firms in Kisumu County, Kenya was investigated by Tangus (2018). Additionally, she discovered that the probability of successful supply chain outcomes is significantly increased when there is confidence. Kingori (2018) found a strong correlation between the degree of ICT proficiency, the level of e-procurement implementation, and the impact of e-procurement at the Teachers Service Commission from her research on the subject.

According to research by Tanner, Wolfle, Schubert, and Quade (2017), over 70% of businesses electronically exchange invoices, making e-invoicing a hot topic at the moment. Orders and invoices are the business documents that are shared electronically most frequently between partners. In their investigation of the impact of procurement procedures on the performance of the Kenya National Police Service in Makueni County, Makabira and Waiganjo (2019) found that procedures including growth, monitoring, and evaluation are examples of procurement. In a study on the Procurement Act's effects on financial management in Ghana's Ashanti region, Adu (2017) discovered that strict adherence to the Act dramatically reduced government spending.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The research technique used to ascertain the impact of procurement management procedures on the operational performance of Nakuru level 5 hospital is presented in this chapter. This section discusses data collecting and analysis, research design, sample size, target population, sampling technique, and size.

3.2 Research Design

An exploratory survey research design was used for this investigation. Researchers can draw conclusions about the causal links between the research parameters by using a logical model of evidence, as described by Nachmias and Nachmias (2018). Finding potential relationships, values, and characteristics—with a focus on frequency of occurrence—was the aim of the descriptive study approach, according to Mugenda & Mugenda (2018).

A descriptive design seeks to gather data that characterizes current phenomena by inquiring about people's attitudes, beliefs, and perceptions, as stated by Bryman and Bell (2019). Furthermore, because it explains occurrences in a well-planned manner, this method was chosen because it is more accurate and precise (Orodho, 2015).

3.3 Target Population

Hospital managers, procurement officers, accountants, and procurement staff made up the study's population unit. Thus, 357 hospital department managers,

procurement officers, accountants, and procurement workers from the Nakuru level 5 referral hospital made up the study's target population.

Table 1: Target Population

Category	Target population
Department Managers	23
Procurement Officers	33
Accountants	17
Procurement staff	284
Total	357

Source (Human resource department (2024)

3.4 Sample Size and Sampling Technique

The study used stratified random sampling where strata was divided into department managers, procurement officers, accountants, and procurement staff. Online sample size calculator (<http://www.raosoft.com/samplesize.html>) was used to arrive at the sample size. Calculation was based on the total sample size of 186 to arrive at the individual category sample size for instance department managers sample size will be $23 \times 186 / 357 = 12$ which was notably be in line with the population of the study.

Table 2: Sample Size

Category	Population	Sample Size
Managers	23	12
Procurement Officers	33	17
Accountants	17	09
Procurement staff	284	148
Total	357	186

Source: Researcher (2024)

3.5 Research Instruments

The research gathered data from primary and secondary sources. Primary data was gathered using an interview guide and a questionnaire. Through the examination and study of documents, secondary data was gathered. Nakuru level 5 updates, e-journals, and published books are some of the sources of secondary data. The responders were given questionnaires. To facilitate quantitative analysis, the questionnaire had closed-ended questions. For the sake of making the coding exercise easier, the closed questions were narrow. As a result of being challenged to use their minds and engage freely in the activity, the respondents may have felt more confident, which helped to obtain honest responses. In this study, the interview guide was used.

Department supervisors used the interview guide. Gathering the backstory of a participant's experiences is a particularly valuable application of interviews. The interviewer has the option to delve deeper into a subject. Conducting follow-up interviews with specific questionnaire respondents proved to be beneficial.

3.6 Pilot Testing of Instruments

The Naivasha district hospital, which shares features with the research area, conducted the study pilot test. The study included 19 respondents from Naivasha District Hospital, or 10% of the sample number. A study conducted in advance of the primary study is known as a pilot test. According to Orodho (2015), a pilot research is crucial for identifying any potential measurement mistakes, identifying questions that are unclear, and assessing the validity and reliability of the data that will be gathered. The pilot study's goal was to ensure completeness and consistency by identifying and addressing any errors or missing items.

3.6.1 Validity of Research Instrument

Golafshani (2019) argues that validity is more about how true the research findings are than if the study measures what it is supposed to measure. Unexpected events that occur before or during data collection, participant resistance to comply, and participant behavior changes are some of the unsystematic challenges to reliability that Golafshani (2019) mentions. The researcher completed face validity and content validity tests on the instrument to make sure the goals are well-defined and operationalize the study expectation in order to assure validity.

3.6.2 Reliability of Research Instrument

The purpose of reliability, as stated by Cooper and Schindler (2017), is to evaluate the questionnaire's internal consistency. The test scores' correlation coefficient was calculated using Cronbach's alpha coefficient. According to Mugenda & Mugenda (2018), test scores vary from 0 to 1, with a test result closer to 1 being indicative of a dependable instrument. For this analysis, all constructs with a construct composite reliability co-efficient (Cronbach alpha) of 0.7 or higher were deemed sufficient (Frankfort-Nachmias & Nachmias, 2012).

3.7 Data Collection Procedure

A questionnaire and an interview guide were used in this study to gather primary data. In order to administer the questionnaire to the respondents, it will be dropped off and collected at a later time, no later than two weeks, while the interviews will take place following prior arrangement with the department managers. According to Cooper and Schindler (2017), homogeneity is improved by using structured

questions in questionnaires and interview guides. Face-to-face interviews were used to administer the interview guide.

3.8 Data Analysis Techniques

Descriptive statistics (measures of central tendency and variation assessments) were used to examine the data in order to meet the study's objectives. Several steps were engaged in the data analysis process: Before being entered into statistical software for the social sciences (SPSS V25), the data was reviewed for mistakes and omissions. The completed questionnaires and interview guide will be modified for consistency and completeness. Descriptive statistics including frequencies and percentages, mean scores, and standard deviation were used to assess the quantitative data.

Using conceptual content analysis, the qualitative information from the open-ended questions was examined and then written up in prose. Tables were used to represent the data. Regression analysis was also employed to assess how procurement management procedures affected the Nakuru Level 5 hospital's operating performance. This was the regression model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

Where Y = Operational performance

β_0 = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 = Regression co-efficient

X_1 = planning of procurement

X_2 = management of inventory/vendor

X_3 = Electronic -procurement

X_4 = monitoring & evaluation of Procurement

X_5 = management of inventory

e = Error term

3.9 Ethical Consideration

The researcher first got an introduction letter from Mount Kenya University to identify herself to the hospital administration in order to uphold ethics during the data gathering phase. The researcher received approval from the National Council of Science, Technology, and Innovation (NACOSTI) and the Ethical Review Committee. In addition, the respondents guaranteed the privacy of the information gathered and that participation in the study would only be voluntary by providing signed informed consent. It was forbidden for the respondents to write their names on the surveys.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter is mostly concerned with data analysis, results presentation, and findings discussion. Investigating the impact of procurement management methods on the operational performance of Nakuru level 5 referral hospitals in Nakuru County, Kenya, was the primary goal of this study.

4.2 Pilot Test Results

At the Naivasha District Hospital, which shares many of the study area's features, a pilot research and test were conducted. Nineteen responders from Naivasha district hospital made up 10% of the sample size used in the study. 10% of the sample size was represented by this. The data was analyzed using SPSS software, which is a statistical package for social sciences. Cronbach Alpha was used to assess the instruments' reliability. The results were as presented in Table 3.

Table 3: Reliability Test Results

Variable	N	Cronbach's Alpha Value
Procurement planning	19	.733
Vendor management	19	.700

E-procurement	19	.715
Procurement monitoring and evaluation	19	.709
Inventory management	19	.728
Operational performance	19	.786

(Source field data,2024)

The questionnaires were coded and Cronbach's Alpha Test was then conducted. As indicated in Table 3, all six variables had Cronbach's Alpha threshold values larger than 0.7. The procurement planning pilot study yielded Cronbach Alpha values of 0.733. Management of vendors was 0.700. 0.715 for e-procurement. Monitoring and evaluation for procurement was 0.709. The operational performance of Nakuru County's level 5 referral hospitals in Kenya was .786 compared to inventory management's 0.728. The Cronbach values for each variable were more than 0.7. This suggests that the tools were trustworthy.

4.3 Response Rate

The response rate is calculated by dividing the total number of participants in the sample by the number of participants that correctly completed structured questions (Fowler, 2014). 186 questionnaires were distributed as part of the study to collect data. Nonetheless, 167 questionnaires were correctly completed and sent back. This indicated response rates that were 90% successful overall. Additionally, respondents received assurances on the privacy of the data they submitted. According to Trex (2018), for analysis, a response rate of 50% is sufficient, 60% is good, and 70% and higher is extremely good. This suggests that a response rate of 90% was ideal for data analysis.

Table 4: Response Rate

Number of respondents in the sample	returned survey forms	Rate of Response (%)
186	167	90

(Source field data,2024)

4.4 Background Information

4.4.1 Respondent Profile

The gender of the respondents who took part in the study was a goal for the researcher. The results are displayed in Table 5.

Table 5: Gender of the Respondents

Gender	Occurrence	Rate of Response (%)
Male	73	44
Female	94	56
Total	167	100

(Source field data,2024)

Based on the results, 94 (56%) and 73 (44%) percent of the responders were women. Inferred from this was that women made up the majority of responders. This indicated that the bulk of responders who were engaged in procurement were women.

4.4.2 Education Level

The investigator aimed to ascertain the respondents' educational attainment. The results are displayed in Table 6.

Table 6: Level of Education

Education level	Frequency	Percentage (%)
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Diploma	52	31
Bachelor	84	50
Masters	28	17
Phd	3	2
Total	167	100.0

(Source field data,2024)

The study findings showed that those who had attained diploma were 52(23%) and those with bachelor degree comprised of 84(50%). Those who had attained masters degree comprised the minority of 28(17 %) while those who had attained Phd Level were 3(2%). These results implied that majority of the respondents were well educated thus understanding and filling the questionnaire was done adequately.

4.4.3 Experience level in procurement

Within the Nakuru County, Kenya, level 5 referral hospitals, the researcher aimed to determine the extent of procurement experience among these facilities. As seen in Table 7, the results.

Table 7: Length of Residency in Nakuru East Constituency

years	Frequency	Percentage (%)
0-2 Years	27	16
3-5 Years	28	17
6-10 Years	35	21
11-20 years	57	34
Above 21 Years	20	12
Total	167	100.0

(Source field data,2024)

From the findings 27(16%) of the respondents had experience on procurement for a

period of 0-2 years, 28(17%) had experience of 3-5 years, 35(21 %) had 6-10 years experience. Those who had experience of between 11-20 years were 57(34%) while those who had experience above 21 years comprised of 20(12%). These revealed that majority of this respondent therefore had a wide experience in experience in procurement in Nakuru level 5 referral hospitals in Nakuru County, Kenya.

Descriptive Statistics

4.5 Procurement management practices and performance of Nakuru Level 5 Referral Hospital

The participants were asked to rate their degree of agreement with the procurement processes used by Nakuru Level 5 referral Hospital using a scale of 1 to 5, where 1 represents strong disagreement, 2 represents disagreement, 3 represents neutrality, 4 represents agreement, and 5 represents strong agreement.

4.5.1 Procurement planning and performance of Nakuru Level 5 referral Hospital

The purpose of the survey was to find out how much the respondents agreed with the procurement planning of the Kenyan Nakuru Level 5 Referral Hospital. The conclusions are shown in Table 8.

Table 8: Extent of the degree of agreement regarding the performance of Nakuru Level 5 Referral Hospital's procurement planning

	5	4	3	2	1		
	N	%	%	%	%	Mean	Std
Procurement planning							
The acquisition has a well-defined timeline, scope, quality, and quantity strategy.	167	40	31	12	10	7	4.41 .92

To make sure a project has the necessary working cash flow and stays within budget, cash forecast planning is done.	167	27	40	20	8	5	4.51	.76
Clear plans are made for delivery timetables, which are adhered to guarantee the timely delivery of medical supplies.	167	31	49	15	3	2	4.27	.90
All legal obligations and stakeholder interests are taken into consideration when making procurement decisions.	167	34	47	12	6	1	3.11	1.31

(Source field data,2024)

The following conclusions were found in the study on the impact of procurement strategy on the performance of the Level 5 referral hospital in Nakuru, Kenya. With a mean score of 4.41 and a standard deviation of 0.92, the majority of respondents (40%) highly agreed, 31% agreed, 12% were indifferent, and 10% disagreed. The 7% who strongly disagreed said that acquisition is clearly planned in terms of time, scope, quality, and quantity.

The following outcomes were found in the research on cash forecast planning, which was done to make sure the project never ran out of working cash flow and that it kept within budget. In terms of mean score and standard deviation, the respondents' scores were as follows: 40% agreed, 27% strongly agreed, 20% were neutral, 8% disagreed, and 5% severely disagreed.

The following findings were obtained from a study on the creation and observance of precise delivery schedules for the timely provision of health commodities. With a mean of 4.27 and a standard deviation of 0.90, the participants' responses were as follows: 49% agreed, 31% strongly agreed, 15% were neutral, and 3% disagreed.

The study's conclusions about procurement decisions made in accordance with all legal requirements and stakeholder interests revealed the following outcomes. The

majority of responders (47%) agreed, 34% strongly agreed, 12% were indifferent, 6% disagreed, and 1% strongly disagreed. The mean of the responses was 3.11, with a standard deviation of 1.31. These findings demonstrated that the Nakuru Level 5 Referral Hospital's performance is impacted by procurement planning in Kenya.

4.5.2 E- Procurement and performance of Nakuru Level 5 referral Hospital

The respondents' level of agreement with the performance of Kenya's Nakuru Level 5 Referral Hospital regarding e-procurement planning was to be indicated. As seen in Table 9, the results.

Table 9: Extent of the degree of consensus about performance and e-procurement of Nakuru Level 5 referral Hospital

E procurement	N	5	4	3	2	1	Mean	Std
		%	%	%	%	%		
An online system that works to enable electronic requisition	167	49	27	14	7	3	4.51	.73
Selection of suppliers is done online via a platform or technology.	167	25	35	23	12	5	4.81	.99
Online platforms and systems are used to advertise tenders.	167	33	45	17	3	1	4.42	.70
E-procurement record management is implemented by Nakuru Level 5 Referral Hospital.	167	32	40	19	7	2	4.38	.81

(Source Field Data,2024)

The research findings on E-procurement on performance of Nakuru Level 5 referral Hospital, Kenya indicated the following results. There is an online system that works to facilitate electronic requisitions; the majority of respondents (49%) highly agreed, 27% agreed, 14% were neutral, 7% disagreed, and 3% strongly disagreed. The

system's mean score is 4.51, with a standard deviation of 0.73. The following conclusions were found in the research on supplier selection using an online system or platform. With a mean of 4.81 and a standard deviation of 0.99, the majority of respondents (35%) agreed, 25% strongly agreed, 23% were neutral, and 12% disagreed. The percentage of respondents who strongly disagreed was 5%.

Following were the conclusions drawn from the research on tenders promoted via online systems and platforms. The respondents' responses showed that, with a mean of 4.42 and a standard deviation of 0.70, the majority (45%) agreed, 33% strongly agreed, 17% were neutral, and 3% disagreed.

The following outcomes were found in the study conducted on the e-procurement record management project at Nakuru Level 5 Referral Hospital. With a mean of 4.38 and a standard deviation of 0.81, the majority of respondents (40%) agreed, 32% strongly agreed, 19% were indifferent, 7% disagreed, and the 2% who strongly disagreed. These findings demonstrated that the performance of Kenya's Nakuru Level 5 Referral Hospital is impacted by electronic procurement.

4.5.3 Procurement monitoring and evaluation and performance of Nakuru Level 5 referral Hospital

The respondents' level of agreement with procurement monitoring and performance evaluation of Kenya's Nakuru Level 5 Referral Hospital was to be indicated. The conclusions are shown in Table 10.

Table 10 : Extent of the level of agreement on procurement monitoring and evaluation and performance of Nakuru Level 5 referral Hospital

Procurement monitoring & evaluation	5	4	3	2	1	Mean	Std
	N	%	%	%	%		

Delivery records are thoroughly examined to make sure that the items meet quality requirements and are as specified in the local purchase order (LPO).	167	43	25	15	12	5	4.81	.87
To make sure suppliers follow the necessary guidelines and deadlines, supplier audits are conducted.	167	45	34	18	9	4	4.25	.78
In order to safeguard project materials from loss and waste, risk mitigation is done.	167	40	42	11	5	2	4.72	.86

(Source Field Data,2024)

The research findings on procurement monitoring and evaluation on performance of Nakuru Level 5 referral Hospital, Kenya indicated the following results. With a mean score of 4.81 and a standard deviation of 0.87, the majority of respondents (43%) strongly agreed, 25% agreed, 15% were neutral, and 12% disagreed. Of those who strongly disagreed, 5% did so about deliveries being properly checked to ensure they adhere to quality standards and as stated in the local purchase order (LPO).

The following findings are based on research on supplier audits, which are performed to make sure vendors respect deadlines and requirements. The majority of respondents (45%) agreed strongly, followed by 34% who agreed, 18% who were neutral, 9% who disagreed, and 4% who strongly disagreed. The mean of the responses was 4.25, and the standard deviation was 0.78. These are the outcomes of the risk mitigation study that is being conducted to guarantee that project materials are safeguarded against loss and waste.

The respondents' responses showed that, with a mean of 4.72 and a standard deviation of 0.86, the majority (42%) agreed, 40% strongly agreed, 1% were indifferent, 5% disagreed, and 2% strongly disagreed. The performance of Kenya's Nakuru Level 5 Referral Hospital is impacted by procurement monitoring and assessment, according to these findings.

4.5.4 Inventory management and performance of Nakuru Level 5 referral Hospital

Regarding inventory management and the performance of Kenya's Nakuru Level 5 Referral Hospital, the respondents were asked to rate their agreement. As seen in Table 11, the results.

Table 11: Extent of the level of agreement on Inventory management and performance of Nakuru Level 5 referral Hospital

Inventory management	5 4 3 2 1						Mean	Std
	N	%	%	%	%	%		
There is an ideal stock level for project inventory requisitions, and it is closely followed	167	44	26	15	11	4	4.65	.74
Proper tracking of inventory guarantees its safety against loss.	167	37	31	24	13	4	4.19	.69
Stores are accurately monitored to guarantee the maintenance of inventory quality.	167	41	40	16	2	1	4.24	.72
Nakuru Level 5 referral Hospital practice just in time inventory management	167	33	34	23	7	3	4.25	.84

(Source field data, 2024)

The research findings on inventory management on performance of Nakuru Level 5 referral Hospital, Kenya indicated the following results. There was a 4 percent

strong disagreement (mean of 4.65 and standard deviation of 0.74), with the majority of respondents (44%) strongly agreeing, 26% agreeing, 15% neutral, and 11% disagreeing. The project inventory requisition has an optimal stock level that is rigorously adhered to.

The outcomes of the research on inventory management that is carefully tracked to guarantee that it is protected against loss were as follows. The majority of respondents (37%) strongly agreed, followed by 31% who agreed, 24% who were neutral, and 13% who disagreed. The percentage of respondents who strongly disagreed was 4%, with a mean of 4.19 and a standard deviation of 0.69. The following findings were shown by the research on stores that are properly tracked to guarantee inventory quality is maintained. The majority of respondents (41%) highly agreed, followed by 40% who agreed, 16% who were neutral, 2% who disagreed, and 1% who severely disagreed. The mean of the responses was 4.24, with a standard deviation of 0.72.

The practice of just-in-time inventory management at Nakuru Level 5 Referral Hospital was the subject of investigation, with the following conclusions. The majority of respondents (34%) strongly agreed, followed by 33% who agreed, 23% who were neutral, 7% who disagreed, and 3% who severely disagreed. The mean of the responses was 4.25, with a standard deviation of 0.84. These findings demonstrated the impact of inventory management on the operational efficiency of Kenya's Nakuru Level 5 Referral Hospital.

4.5.5 Nakuru Level 5 Referral Hospital Operational Performance

Regarding the performance of Kenya's Nakuru Level 5 Referral Hospital, the respondents were asked to rate their agreement. As Table 12 illustrates, the results.

Table 12 : Extent of the level of agreement on operational performance of Nakuru Level 5 Referral Hospital

	N	5 %	4 %	3 %	2 %	1 %	Mean	Std
The Nakuru Level 5 Referral Hospital always complies with the allocated funds.	167	32	36	23	5	4	4.41	.78
When it comes to educating consultants and health commodities, hospital quality requirements are closely followed.	167	43	27	13	12	5	4.34	.90
Health commodities are delivered on schedule.	167	35	38	14	11	2	4.19	.69
There is a reduction in Mortality due to access of health drugs	167	32	36	23	5	4	4.14	.68
Greater availability of essential health products like ARVs and test kits	167	23	46	18	8	5	4.64	.80
Through PBB training, County Governments' ability to plan and budget for the health sector has improved.	167	38	31	21	6	4	4.51	.67
A larger budget for healthcare	167	40	37	14	7	2	4.43	.94

(Source field data,2024)

The following outcomes were found in the study on the performance of Kenya's Nakuru Level 5 Referral Hospital. With a mean score of 4.41 and a standard deviation of 0.78, the majority of respondents (36%) strongly agreed, 32% agreed, 23% were indifferent, and 5% disagreed that Nakuru Level 5 referral Hospital always complies with the budget provisions. The following findings were shown by

research on hospital quality standards, which are closely followed for supplied medical supplies and trained consultants. With a mean of 4.34 and a standard deviation of 0.90, the majority of respondents (43%) strongly agreed, followed by 27% who agreed, 13% who were neutral, and 12% who disagreed. The percentage of respondents who severely disagreed was 5%.

The following outcomes were found in the research on health commodities that are provided on schedule. With a mean of 4.19 and a standard deviation of 0.69, the responders' breakdown was as follows: 38% agreed, 35% strongly agreed, 12% disagreed, 4% were indifferent, and 1% severely disagreed. The following outcomes were suggested by the study's findings indicating a decrease in mortality is related to health medication access. A mean of 4.14 and a standard deviation of 0.68 indicate that the majority of respondents (36%) agreed, 32% strongly agreed, 23% were neutral, and 5% disagreed.

4.5.6 Department heads on Nakuru Level 5 Referral Hospital Operational Performance

The results of the study on department heads showed that the hospital makes procurement decisions based on the interests of stakeholders. It was also observed that hospitals performed assessments and identification of needs on a monthly basis. The findings showed that delivery dates for different medical supplies are meticulously designed but not followed; delivery schedules must to be available online to guarantee that timetables are met in order to remedy this situation.. This will ensure smooth flow of hospital activities enhancing operational performance of Nakuru Level 5 referral hospital.

The results of the study demonstrated that an electronic system for facilitating the requisition of necessary health commodities exists. The outcomes also demonstrated that the hospital supplied medical supplies in accordance with deadlines and quality standards. The hospital-based budgeting training was delivered by trained and competent hospital consultants. The management of Nakuru Level 5 Referral Hospital verifies that supplies meet quality standards by counterchecking the local purchase order. The level 5 referral hospital in Nakuru does not provide necessary medical supplies on schedule. Customers' complaints and failure to satisfy standards are some of the difficulties brought on by delays.

In order to guarantee that hospital supplies are safeguarded against loss, waste, and supply disruption, the hospital implemented risk mitigation procedures. The minimum reorder level mechanism is used by the hospital to guarantee ideal stock levels. Hospital departments receive trainings from the hospital to help with their annual budgeting. Teams responsible for managing hospital health received training in program-based budgeting. The hospital's budget was said to have grown.

Because they received training on program-based budgeting, hospital health management teams were better equipped to plan and budget as a result. According to the findings, mortality decreased as a result of having access to medical supplies. The findings indicated improved availability of essential health commodities such as ARVs and test kits. The Nakuru Level 5 referral hospital in Kenya performed better operationally as a result of the hospital health teams' full execution of the health requirements in each line item in the national budget.

4.6 Diagnostic Test

4.6.1 Autocorrelation Assumption Test

The results of the test of autocorrelation assumption are presented in Table 13.

Table 13 : Autocorrelation Assumption Test Results

Variable	Durbin-Watson
Planning of procurement	1.562
Management of vendor	2.115
Electronic -procurement	2.208
Monitoring & evaluation of procurement	1.219
Mnagement of inventory	1.421
Operational performance	1.461

(Source, field 2024)

Table 13 displays the results, which show that the procurement planning's Durbin-Watson statistic value was 1.562. Additionally, vendor management had a Durbin-Watson statistic value of 2.115. According to the data, the Durbin-Watson statistic values for E-procurement and procurement monitoring and assessment were 2.208 and 1.219, respectively. Inventory control at the Nakuru Level 5 Referral Hospital in Kenya was 1.421, while operational performance was 1.461. As a result of meeting the Durbin-Watson criterion of 0-4, it is implied that the study variables had independence from errors. Test statistics are reported by the Durbin-Watson test, and a score between 0 and 4 indicates no autocorrelation (0-2.5).. In conclusion, the data collection instruments were found to be valid and reliable and therefore can be used for data collection in the main study.

4.6.2 Normality Assumptions Test

To ascertain if the data is normally distributed, the study used a normality test. Table 14 displays the results of the normalcy test.

Table 14: Normality Assumption Test Results

Variable	Kolmogorov- Smirnov	Sig
Procurement planning	.374	.549
Vendor management	.323	.714
E-procurement	.223	.805
Procurement monitoring & evaluation	.219	.642
Inventory management	.302	.567
Operational performance	.340	.611

(Source, field 2024)

Given that the significance values for Kolmogorov-Smirnov were more than 0.05, Table 15's results for the normality assumption test demonstrated that the data was normally distributed. The results of the study showed that the Kolmogorov-Smirnov significance value for procurement planning was $p=.549 > 0.05$. A Kolmogorov-Smirnov significance value of $p=.714 > 0.05$ was found for vendor management. A Kolmogorov-Smirnov significance value of $p=.805 > 0.05$ was found for e-procurement. A Kolmogorov-Smirnov significance value of $p=.642 > 0.05$ was found for procurement monitoring and assessment. The significant value of Kolmogorov-Smirnov for inventory management was $p=.567 > 0.05$. The operational performance of Kenya's Nakuru Level 5 referral hospital was found to have a significant Kolmogorov-Smirnov value of $p=.611 > 0.05$. It can be inferred that the data were normally distributed since the p-values were higher than the significance level of 0.05.

4.6.3 Multicollinearity Test

Table 15 displays the study's findings.

Table 15: Multicollinearity Assumption Test Results

Variables	Tolerance	VIF
Procurement planning	.508	1.727
Vendor management	.565	1.754
Electronic procurement	.638	1.545
Procurement monitoring & evaluation	.757	1.428
Inventory management	.447	1.591
Operational performance	.547	1.575

(Source, field 2024)

From the finding the tolerance and variance inflation factor value for planning of procurement (tolerance=0.508 and VIF=1.727), management of vendor (tolerance =0.565 and VIF=1.754), Electronic procurement (tolerance=0.638 and VIF=1.545), monitoring and evaluation of procurement (tolerance=0.757 and VIF=1.428), management of inventory (tolerance=0.447 and VIF=1.591), and for operational performance in Nakuru Level 5 referral hospital, Kenya (tolerance=0.547 and VIF=1.575). The findings of the study suggest that there was no multicollinearity in the data collected because all tolerance values for the six variables under investigation were above 0.10 and all VIF values were less than 10.

4.6.4 Homoscedasticity test results

Homoscedasticity describes the homogeneity of disturbance between independent and dependent variables across the values of the independent variables. Heteroscedasticity contribute to inefficient parameter estimates and incorrect

confidence intervals. For homoscedastic data, p-value is greater than 0.05. Homoscedasticity test results are shown in Table 16.

Table 16: Homoscedasticity Test Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
	(Constant)	.039	.257		
Procurement planning	.016	.055	.047	-.117	.805
Vendor management	.053	.051	.271	1.016	.368
1 E-procurement	.034	.046	.072	.298	.832
Procurement monitoring & evaluation	.031	.063	.069	-.338	.772
Inventory management	.077	.041	.262	.302	.240

Dependent Variable: Operational performance

The results in Table 17 shows that planning of procurement , management of vendor , Electronic procurement, monitoring & evaluation of procurement and management of inventory had p-values 0.805 0.368, 0.832, .772 and 0.240 respectively. All these values are greater than 0.05, implying that the data was homoscedastic and there was no heteroscedasticity problem. The results helped the researcher to validate the appropriateness of the linear regression analysis.

4.7 Inferential Statistics

4.7.1 Correlation Analysis

4.7.1.1 Procurement planning and operational performance in Nakuru Level 5 Referral Hospital, Kenya

In Kenya's Nakuru Level 5 referral hospital, the study aimed to determine the relationship between purchase planning and operational effectiveness. Table 17 presents the results of the investigation.

Table 17: Procurement Planning and Operational Performance

		operational performance in Nakuru Level 5 referral hospital in Kenya
procurement planning	Pearson Correlation	.556**
	Sig. (2-tailed)	.000
	N	167

** . Correlation is significant at the 0.05 level (2-tailed).

Planning of procurement and operational performance at Kenya's Nakuru Level 5 referral hospital showed a moderately favorable and statistically significant association ($r = 0.556$; $p < 0.05$), as shown in Table 17. According to this, the Kenyan Nakuru Level 5 Referral Hospital's operational performance is improved by purchase planning.

4.7.1.2 Vendor management and operational performance in Nakuru Level 5 referral hospital, Kenya

The goal of the study was to determine whether operational performance and management of vendor were correlated in Kenya's Nakuru Level 5 Referral Hospital. Table 18 displays the study's conclusions.

Table 18: Management of vendor and Operational Performance

		operational performance in Nakuru Level 5 referral hospital in Kenya
vendor management	Pearson Correlation	.586**
	Sig. (2-tailed)	.000
	N	167

** . Correlation is significant at the 0.05 level (2-tailed).

Management of vendor and operational performance at Kenya's Nakuru Level 5 referral hospital showed a moderately positive and statistically significant association ($r = 0.586$; $p < 0.05$), as shown in Table 18. According to this, the Kenyan Level 5 referral hospital in Nakuru performs better operationally when vendor management is implemented.

4.7.1.3 E-procurement and operational performance in Nakuru Level 5 referral hospital, Kenya

In Kenya's Nakuru Level 5 referral hospital, the study aimed to determine whether E-procurement and operational success were correlated. The study's conclusions are displayed in Table 19.

Table 19: E-procurement and Operational Performance

		Operational performance in Nakuru Level 5 referral hospital in Kenya
E-procurement	Pearson Correlation	.592**
	Sig. (2-tailed)	.000
	N	167

**.

Correlation is significant at the 0.05 level (2-tailed). E-procurement and operational effectiveness at Kenya's Nakuru Level 5 referral hospital showed a moderately positive and statistically significant association ($r = 0.592$; $p < 0.05$), as shown in Table 19. This suggests that in Kenya's Nakuru Level 5 Referral Hospital, e-procurement improves operational effectiveness.

4.7.1.4 Procurement Monitoring and Evaluation and Operational Performance in Nakuru Level 5 Referral Hospital, Kenya

In Kenya's Nakuru Level 5 referral hospital, the study aimed to determine the relationship between procurement monitoring and assessment and operational performance. Table 20 displays the results of the investigation.

Table 20: Procurement Monitoring and Evaluation and Operational Performance

		Operational performance in Nakuru Level 5 referral hospital in Kenya
procurement monitoring and evaluation	Pearson Correlation	.579**
	Sig. (2-tailed)	.000
	N	167

**.

Correlation is significant at the 0.05 level (2-tailed). Procurement monitoring and evaluation and operational performance at Kenya's Nakuru Level 5 referral hospital showed a moderately positive and statistically significant association ($r = 0.579$; $p < 0.05$), as shown in Table 20 of the study. In the Kenyan Nakuru Level 5 referral hospital, this suggests that procurement monitoring and assessment improves operational performance.

4.7.1.5 Inventory Management and Evaluation and Operational Performance in Nakuru Level 5 Referral Hospital, Kenya

In Kenya's Nakuru Level 5 referral hospital, the study aimed to determine the relationship between inventory management and operational effectiveness. Table 21 presents the results of the investigation.

Table 21: Inventory Management and Evaluation and Operational Performance

		Operational performance in Nakuru Level 5 referral hospital in Kenya
Inventory management	Pearson Correlation	.597**
	Sig. (2-tailed)	.000
	N	167

** . Correlation is significant at the 0.05 level (2-tailed).

Inventory management and operational performance at Kenya's Nakuru Level 5 referral hospital showed a moderately favorable and statistically significant association ($r = 0.597$; $p < 0.05$), as shown in Table 21. This suggests that in Kenya's Nakuru Level 5 referral hospital, procurement monitoring and assessment improve operational performance.

4.7.2 Regression Analysis

In order to assess the combined impact of inventory management, E-procurement, vendor management, procurement planning, and monitoring and evaluation, a regression analysis was conducted in the study. Table 22 displayed the model summary.

Table 22: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig. F Change
1	.889 ^a	.790	.769	.3863	.000

The percentage of the dependent variable's variance that the independent variables can account for is expressed as the R-Squared. The study's R-squared was 0.790, indicating that while other factors account for 21% of the performance of Kenya's Nakuru Level 5 referral hospital, the five independent variables of planning of procurement, management of vendor , electronic procurement, procurement monitoring & evaluation of procurement , and management of inventory can account for 79% of operational performance.

Table 23 : ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	38.54	5	7.183	100.378	.000 ^b
1	Residual	8.444	166	.1008		
	Total	47.098	167			

a. Dependent Variable: Performance of Nakuru Level 5 referral hospital in Kenya

b. Predictors: (Constant), planning of procurement , management of vendor , Electronic procurement, monitoring & evaluation procurement and inventory management

The model's suitability for the data was assessed in this study using analysis of variance. The model is effective at predicting how the five independent variables—procurement planning, vendor management, e-procurement, procurement monitoring & evaluation, and inventory management—influence operational performance,

according to the findings, since the p-value was less than 0.05. Other factors, on the other hand, account for 21% of the performance of Kenya's Nakuru Level 5 referral hospital. Additionally, the model was able to predict how the independent factors would affect the dependent variable, as evidenced by the F-value of 100.378.

Table 24: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.066	.139		.272	.761
Procurement planning	.331	.135	.580	5.460	.112
Vendor management	.254	.125	.271	2.547	.019
Electronic procurement	.233	.121	.156	2.226	.043
Procurement monitoring & evaluation	.207	.106	.211	3.017	.017
Inventory management	.232	.187	.209	3.123	.211

The overall significant test findings for the proposed study model are displayed in Table 24. The following regression model is used to interpret the reported findings.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where Y = Operational performance

β_0 = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 = Regression co-efficient

X_1 = Procurement planning of procurement

X_2 = management of vendor

X_3 = Electronic -procurement

X_4 = Procurement monitoring & evaluation of procurement

X5 = management of inventory

e = Error term

Thus,

$$Y = 0.666 + 0.341X_1 + 0.254X_2 + 0.233X_3 + 0.207X_4 + 0.232X_5$$

The performance was 0.066 when the five independent variables were maintained constant, as indicated by the intercept (β_0). Additionally, a unit increase in procurement planning would result in a 0.331 improvement in the performance of Kenya's Nakuru Level 5 referral hospital, holding all other independent factors constant. Furthermore, a unit increase in vendor management would result in a 0.254 improvement in the performance of Kenya's Nakuru Level 5 referral hospital, assuming all other independent factors remain same.

Additionally, a 0.233 improvement in the performance of Kenya's Nakuru Level 5 referral hospital would result from an increase of one unit in E procurement, all other things being held constant. A 0.207 improvement in the performance of Kenya's Nakuru Level 5 referral hospital would result from an increase of one unit in procurement monitoring and evaluation, all other things being equal. Finally, if all other factors remain unchanged, the performance of Kenya's Nakuru Level 5 referral hospital would improve by 0.232 with each unit increase in inventory management.

The results of this study suggest that the Nakuru Level 5 referral hospital in Kenya was most affected by its procurement planning, which was followed in order by vendor management, electronic procurement, inventory management, and procurement monitoring and evaluation.



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The actual study's main findings are succinctly summarized in this chapter, which also makes inferences and addresses any implications that may arise. It concludes by offering some advice and ideas for other research topics. This research set out to find out how the procurement management methods of Nakuru County, Kenya's level 5 referral hospitals affected their day-to-day operations.

5.2 Summary of Major Findings

Finding a summary of the study's main conclusions was the goal of the investigation. Specific objectives were used to categorize the summary.

5.2.1 Procurement planning and performance of Nakuru Level 5 referral Hospital

The following remark regarding procurement planning, according to the study's analysis, had an impact on the Nakuru Level 5 referral hospital's operational performance: purchase is clearly planned in terms of time, scope, quality, and quantity. Cash forecast planning is done to make sure the project stays within budget constraints and has the necessary working cash flow. Cash forecast planning is done to make sure the project stays within budget constraints and has the necessary working cash flow.

To guarantee the timely delivery of medical supplies, delivery schedules are meticulously designed and adhered to. Decisions about procurement are made keeping in mind the interests of stakeholders and all applicable regulations. The entire analysis of the data showed that the operational performance of the Kenyan county's Nakuru Level 5 referral hospital was influenced by procurement planning.

5.2.2 E- Procurement and performance of Nakuru Level 5 referral Hospital

The operational performance of Nakuru Level 5 referral hospital was impacted by the study's findings on e-procurement statements; an online system that enables electronic requisitioning is in place. Selection of suppliers is done through an online platform or system. Tenders are publicized using an internet platform or system. The Level 5 referral hospital in Nakuru manages e-procurement records. The overall findings showed that the operational performance of the Level 5 referral hospital in Nakuru County, Kenya, was impacted by e-procurement planning.

5.2.3 Procurement monitoring and evaluation and performance of Nakuru Level 5 Referral Hospital

Deliveries are thoroughly inspected to guarantee they meet quality requirements and are as specified in the local purchase order (LPO); the results on procurement monitoring and evaluation statements have an impact on the operational performance of Nakuru Level 5 referral hospital. An audit of suppliers is conducted to make sure they follow the necessary procedures and deadlines. In order to safeguard project materials from waste and loss, risk mitigation is done. As a whole, the findings showed that the operational performance of the Kenyan county's Nakuru Level 5 referral hospital was impacted by procurement monitoring and assessment.

5.2.4 Inventory Management and Performance of Nakuru Level 5 Referral Hospital

The operational performance of Nakuru Level 5 referral hospital was impacted by the study's findings on inventory management statements. The ideal stock level for a

project inventory request is closely monitored, and inventory is adequately tracked to guarantee that it is protected from loss. To guarantee that inventory quality is maintained, stores are appropriately tracked. Just-in-time inventory management is practiced at Nakuru Level 5 referral hospital. The overall findings showed that the operational performance of the Level 5 referral hospital in Nakuru County, Kenya, was impacted by inventory management statements.

5.2.5 Nakuru Level 5 referral Hospital Operational performance

The study's conclusions demonstrated that Nakuru Level 5 Referral Hospital consistently complies with financial guidelines. Strict adherence to hospital quality standards is maintained for consultants' training and health commodity provision. Health commodities are delivered on schedule. Access to medical medications has resulted in a decrease in mortality. increased availability of essential health supplies like test kits and ARVs. The operational performance of Kenya's Nakuru Level 5 referral hospital was impacted by the County Governments' increased health budget and PBB training, which enhanced their competence for health sector planning and budgeting.

5.3 Conclusions

The study's conclusion, based on its findings, was that, in Kenya's Nakuru Level 5 referral hospital, procurement planning and operational performance had a moderately favorable and statistically significant link ($r = 0.556$; $p < 0.05$). This suggests that purchase planning improves operational effectiveness at Kenya's Nakuru Level 5 Referral Hospital.

Vendor management and operational performance at Kenya's Nakuru Level 5 referral hospital showed a somewhat positive and statistically significant link,

according to the study ($r = 0.586$; $p < 0.05$). According to this, the Kenyan Level 5 referral hospital in Nakuru performs better operationally when vendor management is implemented. E-procurement and operational effectiveness at Kenya's Nakuru Level 5 referral hospital showed a moderately positive and statistically significant association ($r = 0.592$; $p < 0.05$), according to the study. According to this, Kenya's Nakuru Level 5 referral hospital performs better operationally because to e-procurement.

Vendor management and operational performance at Kenya's Nakuru Level 5 referral hospital showed a somewhat positive and statistically significant link, according to the study ($r = 0.586$; $p < 0.05$). According to this, the Kenyan Level 5 referral hospital in Nakuru performs better operationally when vendor management is implemented. E-procurement and operational effectiveness at Kenya's Nakuru Level 5 referral hospital showed a moderately positive and statistically significant association ($r = 0.592$; $p < 0.05$), according to the study. According to this, Kenya's Nakuru Level 5 referral hospital performs better operationally because to e-procurement.

Procurement monitoring and evaluation and operational performance at Kenya's Nakuru Level 5 referral hospital showed a somewhat positive and statistically significant link, according to the study ($r = 0.579$; $p < 0.05$). This suggests that in Kenya's Nakuru Level 5 referral hospital, procurement monitoring and assessment improve operational performance. At Kenya's Nakuru Level 5 referral hospital, inventory management and operational performance have a moderately favorable and statistically significant correlation ($r = 0.597$; $p < 0.05$), according to the study.

That means that in Kenya's Nakuru Level 5 Referral Hospital, procurement monitoring and assessment improves operational performance.

To sum up, the Nakuru Level 5 referral hospital in Kenya has achieved excellent operational performance in terms of inventory management, vendor management, e-procurement, procurement planning, and monitoring and evaluation.

5.4 Recommendations

Hospitals should routinely identify and analyze patients' needs in light of the study's findings. The hospital's online delivery timetables for different medical products should be carefully planned and followed to guarantee that deadlines are met. This would guarantee a seamless progression of hospital operations, augmenting the operational efficacy of the Nakuru Level 5 referral hospital. To enable electronic requisitioning of necessary medical supplies, the hospital ought to have an operational online system.

Health supplies from the hospital should meet deadlines and quality standards. The hospital-based budgeting training was delivered by trained and competent hospital consultants. The management of Nakuru Level 5 Referral Hospital shall countercheck the local purchase order to ensure that quality standards are met. The level 5 referral hospital in Nakuru ought to provide the necessary medical supplies in the time frames specified. To safeguard hospital supplies from loss, waste, and supply disruption, the hospital should implement risk mitigation procedures. To help hospital departments with their annual budgeting, the hospital ought to provide trainings. To improve performance, hospital health management personnel at

Kenya's Nakuru Level 5 referral hospital ought to receive training in program-based budgeting.

5.5 Suggestion for further Studies

Future research is advised by this study to determine the difficulties with procurement management procedures at Kenya's Nakuru Level 5 Referral Hospital.



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APPENDICES

Appendix 1: Informed Consent Form

Dear sir/madam,

Re: Request for Your Consent to Participate in a Research

I kindly write to request for you to participation in a research project. The study title is: **Influence of Procurement Management Practices on Operational Performance of Nakuru Level 5 Referral Hospital In Nakuru County, Kenya.**

The potential risks and discomforts of the study are minimal. This is because you will only be expected to participate in the questionnaire. Before filling the questionnaire, all respondents will be reminded and requested to keep what is discussed to be confidential. There are no potential benefits for you as a person for participating in this study. I am requesting you to volunteer and share your opinions. No payments will be made for the information that you give or for the time that you will spend with us. Confidentiality of any information that you provide will be maintained. Data collected will only be used for the purpose of this study and will be destroyed when the findings are published.

PARTICIPATION IN THIS STUDY IS ENTIRELY VOLUNTARY. YOU MAY REFUSE TO FILL THE QUESTIONNAIRE AND YOU MAY WITHDRAW AT ANY STAGE IF YOU SO WISH. If you accept to participate in this study, please append your signature below: Signature of participant..... Date:

If you have any query, please contact the following: Mobile phone: +254726101498 or by email @gmail.com

Sincerely,

RESEARCHER

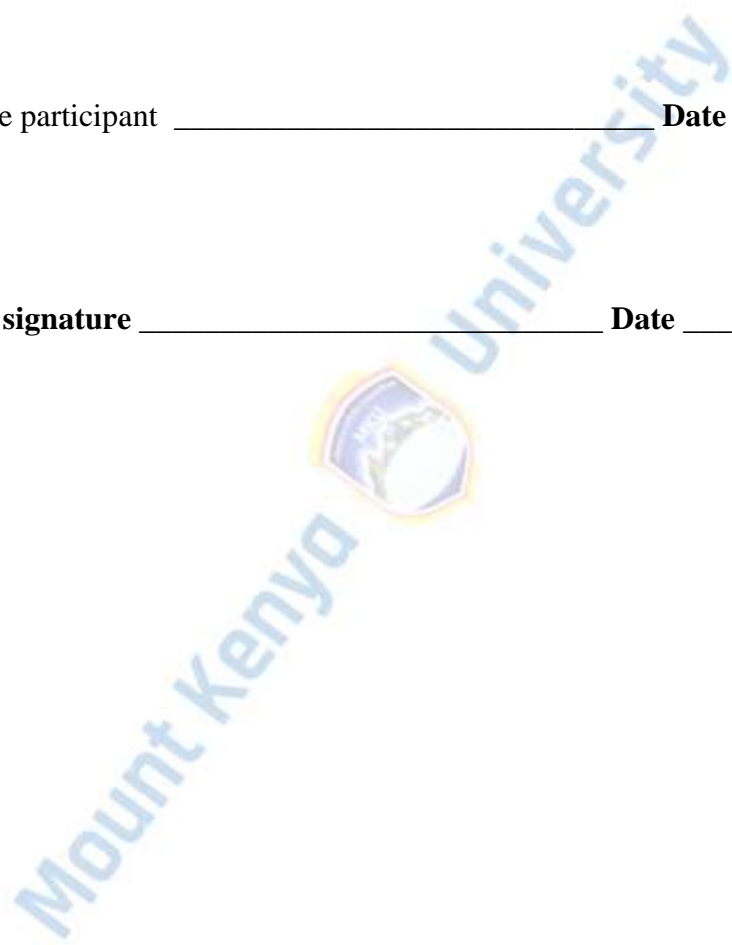
Josephine Wairimu Njiiri

CONSENT

I have carefully reviewed the provided details, comprehended the information, and had the chance to seek clarification. I acknowledge that my involvement in this study is entirely voluntary, and I retain the freedom to withdraw at any point, without the need to provide a justification and without incurring any expenses. I am aware that I will receive a copy of this consent form. With full understanding, I willingly consent to participate in this study.

Signature of the participant _____ **Date** _____

Investigator's signature _____ **Date** _____



Appendix II: Nakuru Level 5 Referral Hospital Management and Procurement Staff Questionnaire

Please check (√) the box that most closely matches you. If relevant, complete the blanks as well.

Section A Bio- Information

1. Profile of the respondent

i. Gender Male Female

ii. Education Credentials

Diploma Bachelors degree Masters PHD

ii. IExperience level

0-2 Years 3-5 Years 6-10 Years 11-20 Years
21 Years and above

Section B: Management Practices in procurement

Please rate how much you agree or disagree with the following assertions regarding how much the performance of Nakuru Level 5 referral Hospital is impacted by the procurement management methods listed below. Make use of a scale of 1 to 5, where 1 represents strongly disagree, 2 disagree, 3 neutral, 4 agree, and 5 represents strongly agree. To show what is appropriate, use (√).

Planning of procurement	1	2	3	4	5
The acquisition has a well-defined timeline, scope, quality, and quantity strategy.					
To make sure a project has the necessary working cash flow and					

stays within budget, cash forecast planning is done.					
Clear plans are made for delivery timetables, which are adhered to guarantee the timely delivery of medical supplies.					
Decisions about procurement are made in accordance with all legal requirements and the interests of stakeholders.					
management of vendor	1	2	3	4	5
Qualifications, integrity, responsibility, and prior interactions with the supplier are taken into consideration while choosing a supplier.					
In order to guarantee efficacy and efficiency in procurement, Nakuru Level 5 Referral Hospital works with important suppliers on all of its projects.					
Supplier development initiatives are in place at Nakuru Level 5 Referral Hospital to guarantee supplier loyalty.					
Essential suppliers are instructed in optimal procurement procedures by the organization.					
Electronic -procurement	1	2	3	4	5
A working online system is available to support electronic requests for proposals.					
Selection of suppliers is done online via a platform or technology.					
Online platforms and systems are used to advertise tenders.					
E-procurement record management is implemented by Nakuru Level 5 Referral Hospital.					

monitoring & evaluation of procurement	1	2	3	4	5
Systems and regulations related to procurement are routinely examined to make sure they remain current.					
Delivery records are thoroughly examined to make sure that the items meet quality requirements and are as specified in the local purchase order (LPO).					
To make sure suppliers follow the necessary guidelines and deadlines, supplier audits are conducted.					
To guarantee that project materials are safeguarded against loss and waste, risk mitigation is implemented.					
management of inventory	1	2	3	4	5
There is an ideal stock level for project inventory requisitions, and it is closely followed.					
To guarantee that inventory is protected against loss, it is adequately tracked.					
Stores are accurately monitored to guarantee the maintenance of inventory quality.					
Just-in-time inventory management is practiced at Nakuru Level 5 Referral Hospital.					

Section C: Nakuru Level 5 Operational Performance

To the degree that you agree with the following assertions about the performance of Nakuru level 5 referral hospital, please check the corresponding box.

Performance of the hospital	1	2	3	4	5
The Nakuru Level 5 Referral Hospital always complies with the allocated funds.					
When it comes to educating consultants and health commodities, hospital quality requirements are closely followed.					
Medical supplies are delivered on schedule.					
The availability of health medications has resulted in a decrease in mortality.					
Greater availability of essential health products like ARVs and test kits					
Through PBB training, County Governments' ability to plan and budget for the health sector has improved.					
A larger budget for healthcare					

Thank you

Appendix III: Interview Guide for Department heads

1. Are hospital procurement choices, in your opinion, made with stakeholders' interests in mind?
 - a) Is it routine for the hospital to identify and assess needs?
 - b) How frequently is this carried out?
 - c. Describe the significance of this on the operational performance of the hospital.
.
2. Are different health supply delivery dates properly planned and followed?
3. What steps may be taken to make this better?
4. Is there a working online system that makes it easier to electronically order the health supplies you need?
5. Does the hospital provide healthcare supplies in accordance with deadlines and quality standards?
6. Can the consultants that were hired offer hospital-based budgeting training with the necessary qualifications and competence?
7. How does the hospital administration determine if deliveries meet acceptable requirements for quality?
8. Is the level 5 referral hospital in Nakuru providing the necessary medical supplies in the time frame requested? Which difficulties arise as a result of delays?
9. What risk-reduction measures does the hospital use to guard against loss, waste, and interruption of supply of medical supplies?

10. How does the medical center guarantee ideal inventory levels?
11. Could you briefly outline the health education programs that the hospital offers? Are they completed on schedule and with relevance to help hospital departments with their annual budgets?
12. Is mortality lower as a result of having access to health care?
13. Has there been a rise or fall in the availability of essential health commodities such as ARVs and test kits?
14. Do you believe that training on program-based budgeting has improved the planning and budgeting skills of hospital health management teams?
15. Is training on program-based budgeting provided to all hospital health management teams?

Appendix IV: ERC Clearance Letter

Mount Kenya University



REF: MKU/ISERC/3716

Date: 21 May 2024

TO: JOSEPHINE WAIRIMU NJIIRI

REG: MPSM/2023/45438

Dear Sir/Madam,

RE: INFLUENCE OF PROCUREMENT MANAGEMENT PRACTICES ON OPERATIONAL PERFORMANCE OF NAKURU LEVEL FIVE REFERRAL HOSPITAL IN NAKURU COUNTY, KENYA

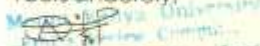
This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **2760**. The approval period is **21/05/2024 - 20/05/2025**.

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,


Chairman, Mount Kenya University ISERC

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

Main Campus, General Kago Road, P.O. Box 342-01000 Thika,
Cell: +254 709 153 000 | +254 709 153 200
Email: info@mku.ac.ke, Web: www.mku.ac.ke
Chartered and ISO 9001 : 2015 Certified Institution.
Unlocking Infinite Possibilities

Appendix V: Introductory Letter



DIRECTORATE OF GRADUATE STUDIES

MPSM/2023/45438

22nd May, 2024

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

Dear Sir/Madam,

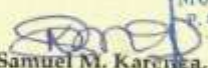
RE: JOSEPHINE WAIRIMU NJIRI- REGISTRATION NO. MPSM/2023/45438

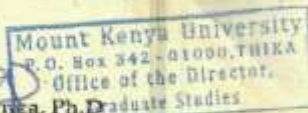
The purpose of this letter is to introduce the above named student who is pursuing **Master of Science in Procurement and Supplies Management** in the **Department of Management** in the school of **Business and Economics**.

The title of the research is **"Influence of Procurement Management Practices on Operational Performance of Nakuru Level Five Referral Hospital in Nakuru County, 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 **June, 2024 and August, 2024**.

Any assistance accorded to the student will be highly appreciated.

Thank you.


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



Main Campus, General Kago Road, P.O. Box 342-01000 Thika.
Cell: +254 709 153 000 | +254 709 153 200
Email: info@mku.ac.ke, Web: www.mku.ac.ke
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Appendix VI: NACOSTI Authorization Letter

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 892128	Date of Issue: 03/June/2024
RESEARCH LICENSE	
	
<p>This is to Certify that Miss. JOSEPHINE WAIRIMU 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 Nakuru on the topic: INFLUENCE OF PROCUREMENT MANAGEMENT PRACTICES ON OPERATIONAL PERFORMANCE OF NAKURU LEVEL FIVE REFERRAL HOSPITAL IN NAKURU COUNTY, KENYA for the period ending : 03/June/2025.</p>	
License No: NACOSTI/P/24/36337	
892128 Applicant Identification Number	 Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
	Verification QR Code 
<p>NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.</p>	
See overleaf for conditions	



