CONTRACT FRAMEWORK LEVEL OF IMPLEMENTATION AND SUPPLY CHAIN PERFORMANCE OF PUBLIC LEVEL FOUR HOSPITALS IN KENYA

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Contract Framework Level of Implementation and Supply Chain Performance of Public Level Four Hospitals in Kenya

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university

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This thesis has been submitted for examination with our approval as the University supervisors.

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DEDICATION

This research thesis is dedicated to my family and my supervisors

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ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
EMMS	Essential Medicines and Medical Supplies
ERP	Enterprise Resource Planning
KEMSA	Kenya Medical Supplies Authority
KHSSP	Kenya Health Sector Strategic Plan
KPIs	Key performance indicators
MEDS	Mission of Essential Drug Supplies
MFL	Master Facility List
MMR	Moderated Multiple Regression
MOH	Ministry of Health
NGO	Non-Governmental Organization
OLA	Operational Level Agreement
PPDA	Public Procurement and Asset Disposal Act
PPOA	Public Procurement Oversight Authority
PSA	Product and Service Agreements

RFQ	Request for Quotation
SLA	Contract Service Framework
SPSS	Statistical Package for Social Sciences
SRMF	Supplier Relationship Management Framework
USAID	United States Agency for International Development
VIF	Variance Inflation Factor

DEFINITION OF TERMS

Compliance Evaluation refers to the process of assessing whether an organization or individual has complied with applicable laws, regulations, industry standards, and internal policies. It involves measuring performance against established criteria to determine if there are any violations or areas (Muchemi & Kinyanjui, 2020).

Continuous Improvement refers to an ongoing effort to improve products, services, or processes. It involves identifying areas for improvement, making necessary changes, and evaluating the effectiveness of those changes in order to continually enhance performance and achieve better results. (Strijker, Bosworth & Bouter, 2020).

Evaluation Framework is a structured approach used to assess contracts and their performance against predefined criteria. It provides a systematic method for evaluating the efficiency, effectiveness (VanderMeer& Donselaar, 2017).

Contract Framework is a set of rules, guidelines, and provisions that dictate the terms and conditions of a contract. It is a conceptual structure that helps shape the content of a contract and provides a framework for both parties to negotiate (Abebe, 2020).

Relationship framework is a set of rules, guidelines, and procedures that govern the relationships between parties involved in a contract. It outlines the responsibilities, (Zhang & Cao, 2019).

Service Framework is a set of processes, rules, and regulations that govern the relationship between two or more suppliers in a contract. It outlines the rights and responsibilities of the

parties, the terms and conditions of the contract (Olasupo & Doyle, 2021).

Contracting delivery Terms refer to the specific conditions and terms that govern the delivery of goods or services in a contractual agreement between two parties. These terms typically (Mutangili & Cheluget, 2020).

Essential Medicines Supplies refer to the medications and health products that are deemed critical and necessary for the prevention, treatment, and management of common diseases and health conditions (World Health Organization, 2020).

Key Performance Indicators (KPIs) (KPIs) are measurable values that organizations use to track and evaluate their progress towards achieving specific objectives or goals. KPIs help businesses monitor and analyze their performance across various aspects of their operations (Bazzi & Stigler ,2021)

Procurement Legal Framework refers to a set of laws, regulations, policies, and guidelines that govern the purchase and acquisition process of goods, services, and works by public and private entities. These frameworks are designed to ensure transparency, (Gaur, Bhatia & Rai, 2020).

Public Level Four Hospitals Public refer to health facilities that are owned and operated by the government with the capability to provide specialized healthcare services. These hospitals are among the highest level of healthcare institutions in the country, offering comprehensive healthcare service (Mate & Kaluyu, 2018).

Quantity Framework	is a type of agreement that outlines the terms and conditions related to the measurement and allocation of quantities in a project or business transaction. It establishes the methodology for determining the quantities of goods or services to be provided (Dannemann & Heimeshoff, 2020).

ABSTRACT

Contract framework is an instrument by which a procuring entity commits to procuring goods and services from a vendor or service provider at the agreed unit price and quality through the issuance of purchase orders depending on the entity's needs and funding availability. The vendor or service provider, for its part, commits to supply the goods or provide the services in the quantity requested on the purchase orders. Referral services level comprises facilities that provide highly specialized services and includes all tertiary referral facilities. with the current decentralization in health service sector, the County Government have public level four hospitals in Kenya provide complex curative tertiary care. The management contract is a method which uses private sector for major government projects like Hospitals. Inadequate planning and forecasting, use of archaic procurement methods, and tendering yearly or multiple times a year contribute to high commodity costs, long lead times, stock imbalances, and, overall, commodity insecurity. Indeed, across all WHO regions, the mean availability of selected medicines is consistently lower in the public sector than in the private sector. The general objective of the study was to establish the influence of contract framework on supply chain performance of public level four hospitals in Kenya. specify objectives of the study are to establish the effect of contract relationship framework, to determine the influence contract quantity frameworks, to find out the effect of contract evaluation framework management, to establish the effect of contract service framework and to analyze the moderating effects of procurement legal framework on supply chain performance contracting of public level four hospitals in Kenya. The population for the study were 270 Public level four hospitals in Kenya. A collection of observations presenting only a portion of the population is called a sample the population of this study constituted 270 of officers in Public level four hospitals in Kenya in all the 47 counties in Kenya The sample frame was public level four hospital, with officers who are assigned responsibilities to procure, dispense drugs and handle drugs that included pharmacists and pharmacy technologist's public health officers, procurement officers, drugs store, dentists and doctors.The involvement of suppliers for innovation in Public level four hospitals in Kenya has been a reality for many years. The study concluded that Contract Service Framework for Public level four hospitals in Kenya definition of what is considered acceptable performance to determine whether performance outcomes are met. Quality control plan: a written document describing how the supplier's actual performance will be monitored and measured against the contractually established performance standards. The study recommends that Contract Quantity Frameworks framework agreements save the time and cost of a sourcing process as they avoid the need to renegotiate standard terms and conditions. For purchases over long period, such arrangements contribute to improved relationships between buyers and sellers, whereby they work together to deliver customized solutions that better meet the needs of both parties.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The study analyzed the contract framework level of implementation and supply chain performance of public level four hospitals in Kenya. Specifically, this chapter provides information on the global perspective of supply chain contract framework.

According to Gaur, Bhatia and Rai (2020) defines that a contract framework refers to a structured system or set of guidelines that outline the key elements and processes involved in creating, negotiating, implementing, and managing contracts. It provides a framework for drafting contract terms, specifying rights and obligations of the parties involved, defining dispute resolution mechanisms, and setting out procedures for contract administration and performance monitoring. A contract framework is designed to ensure consistency and clarity in the contracting process, promote compliance, minimize legal risks, and facilitate effective contract management throughout the duration of the contractual relationship. It may include templates, standard clauses, rules, and procedures that can be adapted and customized to suit specific contract requirements within an organization or industry (Kebede, 2020).

Contract framework implementation is a strategic process involving the creation, establishment, and enforcement of a set of terms and conditions between two or more parties who agree to perform a specific task. This framework outlines the rules and guidelines that each party must adhere to, facilitating the overall operations and activities of a business relationship (Heeks, 2021). The agreement is purely an instrument to facilitate the conduct of early procurement activities to avoid the bottlenecks associated with budget approval delays and mitigate the inefficient use of public funds that results from these bottlenecks (Ma & Li, 2020).

According to Ndemo and Achuora, (2020) states that Contract frameworks save the time and cost of a sourcing process as they avoid the need to renegotiate standard terms and conditions. For purchases over a long period of time, such engagements contribute

to improved relationships between buyers and sellers, whereby they work together to deliver custom-made clarifications that better meet the needs of both parties (Nikolaou & Vatalis, 2022). They support long-term relations with suppliers, thus generating a commercial environment that is more conducive to sustainable investment and employment, and cut waste in processes and physical resources. (Omariba, 2020). The underlying work expected to set up such a system is more than that for offering and granting a solitary significant contract, yet the down-stream advantages will far exceed this. Organizations with structure understandings have accomplished up to 10% year to year enhancements in the time and cost of conveyance. This is especially the situation when the utilization of such plans is joined with e buying frameworks. (Onyango & Okello, 2020).

1.1.1 Contract Framework Implementation

According to Nyokabi (2021) implementing a contract framework within the supply chain is a crucial step to ensure smooth operations, effective risk management, and strong relationships between suppliers, manufacturers, retailers, and customers. In the United States, the implementation of contract frameworks in public institutions is governed by federal, state, and local laws and regulations (Vander & VanDonselaar, 2017). Public institutions typically follow a standardized process that includes drafting requests for proposals (RFPs), evaluating bids, negotiating contracts, and administering the agreed-upon terms and conditions. Depending on the nature of the project, the procurement requirements may differ, and it is important to ensure that the process is inclusive, fair, and transparent.

According to Olasupo & Doyle (2021) for UN-funded projects, the implementation of contract frameworks follows a similar process but may have additional requirements specific to UN procurement rules and regulations. The United Nations has its own procurement policies, procedures, and guidelines, which outline the principles and rules that govern the selection and contracting of suppliers for UN-funded projects. These rules aim to ensure transparency, competition, fairness, and accountability in the procurement process (McCollum, & Theobald, 2019).

When implementing a contract framework in a public institution or for UN-funded projects, it is essential to establish clear and effective communication channels with suppliers. This enables both parties to have a shared understanding of the contractual terms, conditions, and requirements (Zhang & Cao, 2019. Furthermore, regular monitoring and evaluation of supplier performance is crucial to ensure adherence to agreed-upon standards and to identify any issues that may arise during the implementation phase. Implementation of a contract framework in a public institution or for UN-funded projects requires careful planning, adherence to relevant laws and regulations, and effective communication and monitoring. By establishing a robust framework, public institutions and suppliers can work together to ensure the successful completion of projects and the delivery of high-quality goods and services (Nyokabi, 2021).

In Zambia, seeking to avoid the long lead times accompanying with international tenders, the Ministry of Health (MOH, 2020) in began creating flexible long-standing agreements with countrywide suppliers. Currently, the MOH is engaged in single-vendors framework contracts with the producers or retailers for essential drugs from the Zambia National Essential Drug List, including antimalarial drugs, intravenous fluids, and various antibiotics for infectious diseases. These structure contracts are time-bound, with fixe volumes per product; they have a minimum period of 2 years. Orders that have been predictable are placed once a year, conforming to commercial allocation, and normally, 4 call-off orders and distributions take place per year per supplier (MOH, 2020).

The implementation of a Contract Framework in public institutions, specifically in the healthcare sector in Ghana, West Africa, involves several steps and considerations. Policy Development: where by the government institution develop a comprehensive and robust policy that outlines the guidelines and procedures for procurement of goods and services. This policy align with the overall objectives of the institution and the country's procurement laws and regulations (Olasupo & Doyle2021).

The Kenya Medical Supply Agency (KEMSA) is a parastateral organization mandated to manage the forecasting, procurement, warehousing, and distribution of essential

medicines and health commodities to the population of Kenya (Government of Kenya, 2017). The government agency creation of a contract management department within the organization has recently begun using contract framework s for the procurement of all health commodities funded by the government. These 2-year framework contracts with domestic suppliers are of indefinite quantity at fixed prices. Each quarter, the government agency issues forecasts and orders for the estimated quantities needed; payment is made on delivery (Lorenzo, 2021).

According to Mwaura, (2018) it is the role of the purchasing and supply management contract management government agency to determine the type of framework arrangement to support the organization's needs according to hospitals requirements (Kamau, 2018). The framework arrangement is put in place that is not used, and then this too will damage the buying organization's credibility (A deed is another legal device that can be used to tie the supplier into the terms and conditions offered, as it is a means of creating a contract without consideration (Kamau, 2020). Suppliers who are awarded framework arrangements are termed approved suppliers' or 'preferred suppliers' as they have been subject to a supplier appraisal process and therefore considered to offer value for money from a relatively secure source. The expression qualified list of suppliers is also used when referring to suppliers who have been awarded framework arrangements. (Ngugi & Muturi, 2020).

1.1.2 Supply Chain Performance Management

Nikolaou and Vatalis (2022) Provides that the impact of strategic sourcing practices and contract frameworks on supply chain performance depend upon how the agreement and the strategies are designed and operated. Contract framework s promote organization participation, (Ngugi, & Muturi, 2020). Good performance of Service Contract framework s and fines and flexibilities entrenched in the long-term agreement are critical to guaranteeing that there are no undesirable impacts for procurers. Contrivances to increase application of supply chain joint strategies to administrations can help improve the appropriateness of deliveries and supply security and diminish adverse impacts for SMEs (Odhiambo& Kwasira, 2019).

Regular performance evaluations should be conducted to assess the performance of suppliers. This may involve measuring key performance indicators such as timeliness of delivery, quality of goods or services, and customer satisfaction. Continuous Improvement should be based on the performance evaluations, the institution should identify areas of improvement and take necessary actions to enhance the effectiveness and efficiency of the contract framework (Nyokabi, 2021).

In the current world, supply chain management (SCM) is an important strategic factor for increasing a firm's effectiveness and for better realization of Public Hospital's al goals like as enhanced competitiveness, better customer care, and increased profitability. And to develop an efficient and effective supply chain, SCM needs to be assessed for its performance (Omariba, 2020). A purchasing and supply chain performance system represents a formal, systematic approach to monitor and evaluate performance. The measures fall into two categories: effectiveness and efficiency. Effectiveness is the extent to which by choosing a certain course of action, management can meet a previously established goal or standard and efficiency to the variance between the planned and the actual sacrifice made to realize an established goal (Hernandez, 2013). There several performance measures which include: price performance, cost-effectiveness, revenue, quality, time responsiveness, innovation, physical environment and safety, administration efficiency, internal customer satisfaction, supplier performance and strategic performance (Odhiambo& Kwasira, 2019).

1.1.3 Procurement Legal Framework

According to Onyango & Oduor (2020) incorporate legal and regulatory requirements: Ensure that the contract framework adheres to all relevant legal and regulatory requirements. This may include local, state, and national laws, industry regulations, and international treaties or agreements. Procurement Legal Framework, are regulations, and other legal requirements governing the procurement of goods, services, and construction by public and private entities? Procurement law is typically divided into two main categories: public procurement law and private procurement law. Public procurement law governs the procurement of goods, services, and

construction by public entities, such as governments, municipalities, and other public bodies. Private procurement law governs the procurement of goods, services, and construction by private entities, such as corporations, partnerships, and other private organizations (Onyango & Okello, 2020).

Public procurement law is governed by the laws of the jurisdiction in which the procurement is taking place. These laws may include statutes, regulations, and other legal requirements. Private procurement law is typically governed by the terms of the contract between the parties involved in the procurement. (Wan & Xu, 2013). Procurement law is an important area of law that is essential for ensuring that public and private entities are able to purchase goods, services, and construction in a fair and transparent manner. It is important for entities to understand the legal requirements that apply to their procurement activities in order to ensure compliance with the law (Onyango & Oduor, 2020

Mutangili, Awuor and Cheluget(2020) Elaborates that for companies to successfully operate in these markets, it is essential that they understand and comply with the product and supply-chain laws and standards that exist at the local, national, and international levels Petersen and (Minkyun , 2015). Adding to these demands is the ever-increasing list of monitored substances that requires organizations, as well as their suppliers and importers, to keep track of the substances, chemicals, and minerals used in their products, and then evaluate them against the relevant regulations. Noncompliance with these requirements can prove costly.

1.1.4 Public Level Four Hospitals in Kenya

The Ministry of Health, Kenya. (2020). Referral services level comprises facilities that provide highly specialized services and includes all tertiary referral facilities. With the current decentralization in health service sector, the national government and County Government have public level four hospitals in Kenya provide complex curative tertiary care at different segregated levels with the highest level been referral Hospitals, level five, level four, health centers and dispensaries. They also provide preventive care and participate in public health programs for the local community and the total primary health care system.

Referrals from the districts and provinces are ultimately received and managed at the public level four hospitals in Kenya. The Public level four hospitals in Kenya have a specific role in providing information on various health problems and diseases. They provide extra-mural treatment alternatives to hospitalization, such as day surgery, home care, home hospitalization and outreach services Established county Hospitals which are the referral point for the district Hospitals (McCollum, & Theobald, 2019).

Majority of Kenya's population receives health care services from the public sector. The range of services includes preventive, promotive, curative and rehabilitative. Preventive services include routine childhood immunizations and environmental activities to control mosquito breeding which in turn reduce malaria transmission. Promotive services are mostly educational services provided to the general population on healthy lifestyles and available interventions (KHF, 2017).

Public level four hospitals in Kenya the referral and teaching Hospitals in Kenya, they are centers of excellence and provide complex health care requiring more complex technology and highly skilled personnel. They have a high concentration of resources and are relatively expensive to run. They also support the training of health workers at both pre-service and in-service levels (KHF, 2018).

1.2 Statement of the Problem

The implementation of service frameworks in public level four hospitals in Kenya contract framework are often lacking. The clear definition of service requirements, performance metrics, and service level agreements is essential to ensure that suppliers understand and meet hospitals' expectations. Without a robust service framework, hospitals are facing issues like low service quality, missed deadlines, and disputes with suppliers (McCollum & Theobald, 2019). Deficiencies in contract framework implementation ultimately impact the overall supply chain performance of hospitals. Inefficient procurement processes, increased costs due to stock outs or excess inventory, delays in receiving critical supplies, and subpar service quality can all negatively affect hospitals' ability to provide timely and quality care to patients (Kemunto, 2019).

The long procuring and tendering process method by the public level four hospitals in Kenya resulted to 25% increase in operating cost of the public funded facilities, 18 % poor delivery experience of emergency medical commodities due to forecasted demand, of which, 17% late delivery, 3% not delivered 2% quantity mismatch (Ndemo & Achuora, 2020). Due to lack of essential drugs, there is insurgence in incidence of malaria experienced, estimated that more than 40% of all out-patients and 60% of cases in hospital pediatric wards are suffering from malaria. It is also estimated that malaria is responsible for almost 30% of all hospital deaths. The proportion of children who are underweight is 0.32% (Muchemi & Kinyanjui, 2020). These bureaucracies' procedure been used by the public hospitals are unsuitable for effective supply chain performance management

According to McCollum & Theobald (2019) the majority of the identified problems in the public health procurement sector that poor service delivery is found in the bid evaluation and contract stages due to lack of regulated contract framework. Strong contract framework s is not put in place to negotiate amendments to the contract in line with trusts needs and to seek continuous improvement in performance and cost efficiency (Nyokabi, 2021). Hence the study filled this gap by establishing the relationship between contract framework level of implementation and supply chain performance of public level four Hospitals in Kenya.

1.3 Study Objectives

1.3.1 General Objective of the Study

The general objective of the study was to establish the relationship between contract framework level of implementation and supply chain performance of public level four Hospitals in Kenya

1.3.2 Specific Objective of the Study

1. To establish the effect of relationship framework on supply chain performance of public level four hospitals in Kenya.

2. To determine how quantity frameworks on supply chain performance of Level four Hospitals in Kenya.
3. To find out the effect of supplier frameworks on supply chain performance of public level four hospitals in Kenya.
4. To establish the effect of service framework on supply chain performance of public level four hospitals in Kenya.
5. To analyze the moderating effects of procurement legal framework on supply chain performance of public level four hospitals in Kenya.

1.4 Research Hypotheses

H_{01}: Relationship framework has influences on supply chain performance of public level four hospitals in Kenya.

H_{02}: Supply quantity frameworks improves on supply chain performance of public level four hospitals in Kenya.

H_{03}: supplier frameworks improve on supply chain performance of public level four hospitals in Kenya.

H_{04}: Service Framework influence positively supply chain performance of public level four hospitals in Kenya

H_{05}: Procurement legal framework positively moderates the relationship between supply chain performances of public level four hospitals in Kenya.

1.5 Justification of the Study

The study shall help address the effects of unethical practices on Supply chain performance management. It will also help in the formulation of good procurement policies that will promote ethical behaviors amongst the staff. Specifically, the findings benefit.

1.5.1 Government

The study findings are expected to help various public and private -sector Hospitals and other government corporate states to developed strategic sourcing practices on framework in the supply chain performance management .The study will highlight a full description of major contract framework level of implementation practices. This makes it possible to pinpoint the crucial areas that need much attention when executing procurement activities; this is expected to make all the public level four hospitals in Kenya to develop supply chain performance based contracts guided by the set framework to provide guidelines on the effective service delivery.

1.5.2 Policy Makers

This study is significant to both the Government and private sector since it will enable it to entrench ways to employ in their quest to set up an efficient and effective procurement sourcing strategies practices to ensure Contract development, Supplier base rationalization, Buyer-supplier Relationship management, Supplier Management, Contract management in the procurement process. It informs policymakers about designing changes to streamline the acquisition of goods and services in public sector as set by the public procurement act of 2015.

1.6 Scope of the Study

The study was conducted in public level four hospitals in Kenya, The study focused contract framework level of implementation and regulated compliance on procurement management regarding the independent variable relationship framework, Quantity Frameworks, evaluation Framework, Service Framework and Procurement Legal Framework on supply chain performance. The target population for the study was in the 270 public level four hospitals in Kenya the choice for the target is that the administrative decision for the public health centers, dispensaries and clinics are made at level four Hospitals by the ministry of health administrative offices. The sample frame involved 270 officers working in the pharmacy, drugs store, dentist, doctor and the clinical officers. The study will adopt the descriptive method and questionnaires wasused for data collection from the target population. The data is important as it

enabled the researcher to gain more knowledge on the effects of contract framework level of implementation on supply chain performance of the public level four hospitals in Kenya, and came up with the recommendations that will assist the industry.

1.7 Limitations of the Study

The target group would be suspicious and decline to give essential information due to fear of using information against them. This would have made many respondents not to return their filled questionnaires affecting the accuracy of the study findings. However, the respondents were assured on confidentiality of the information they would provide. There was a letter of introduction for the study from the university to assure the respondents that the information provided would be used for academic purpose only and would thereby be treated with confidentiality. This study was undertaken in public level four hospitals where the Pharmacy technician, drugs store officers are quite busy and high levels of secrecy in handling medical information for the clients is required which would make it difficult to obtain some very important information required for the study. The respondents were given enough time to fill the questionnaires and ask for permission from the management. The study was based on the perspective of the public level four hospitals and solely looks into the internal environment

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents previous studies that have been done, and theories advanced towards strategic sourcing practices. Therefore, it has theoretical review focusing on theories that explain Contract framework level of implementation. Secondly, it has the empirical review of the studies that have been done on contract framework. A conceptual framework included summarizing the literature reviewed.

2.2 Theoretical Review

Theoretical frameworks are explanations about the phenomenon and provide the researcher with the lens to view the world. A theory is a set of statements or principles devised to explain a group of facts or phenomena especially one that has been repeatedly tested or is widely accepted and can be used to make predictions about natural phenomena (Lim, Kumar& Ali, 2022). Theories are analytical tools for understanding, explaining, and making predictions about a given subject matter formal theory is syntactic in nature and is only meaningful when given a semantic component by applying it to some content, that is, facts and relationships of the actual historical world as it is unfolding (Mariani & Wirtz, 2022).

2.2.1 Relational Contract Theory

The study was based on Relational contract theory in establishing the influence of Relationship framework on supply chain performance of public level four hospitals in Kenya. Relational contract theory states over the last 25 years, a great deal has been written about relational contracts, especially in Sociology, Law, and Economics. As there are various definitions of what a relational contract is depending on the respective discipline, it is important to clarify that the present treatise refers to the following characterization of relational contracts

Relational contract theory is a theoretical framework that focuses on the importance of trust, cooperation, and long-term relationships in contracts. It suggests that traditional, legally binding contracts may not fully capture the complexities of business relationships and fails to address the risks and uncertainties that arise in supply chain settings. (Odhiambo& Kwasira, 2019).

In the context of supply chain performance, relational contract theory argues that the establishment of strong, cooperative relationships between supply chain partners can positively influence performance outcomes. The Contract Relationship framework, which is based on relational contract theory, provides a structured approach to managing and improving relationships within supply chains (Olasupo & Doyle, 2021)

The Contract Relationship framework emphasizes the need for parties involved in a supply chain to move beyond transactional, arm's length contracts and build relationships built on trust, commitment, and mutual understanding. It recognizes that supply chain performance is influenced by factors such as information asymmetry, opportunistic behavior, and relational governance mechanisms (Machiavelli, 2022).

By adopting the Contract Relationship framework, supply chain partners c proactively addresses these challenges and enhance their overall performance. This framework emphasizes ongoing communication, collaboration, and the exchange of information to build trust and maintain long-term relationships. It also encourages the use of flexible contracts that allow for adaptation and cooperation, rather than relying solely on rigid, legally binding agreements (Howard, 2022).

2.2.2 Partner Selection Theory

The study was based on partner selection theory in establishing the influence of quantity frameworks on supply chain performance of public level four hospitals in Kenya Partner selection literature is very limited and focused on the criteria for choosing partners rather than on the process of partner selection), and then analyzes the then need to use a scenario-based approach to represent demand uncertainty and develop a stochastic programming model that selects framework suppliers to minimize expected procurement and agreement costs while meeting service requirements

associated relational contract, an ongoing relationship in which these interactions occurring (Lou & Zhang, 2022). Most articles assume a rational decision-making process based on very specific selection criteria. Existing partner selection literature assumes a straight-line start-to-finish selection process Depending on the motivation of the alliance as whole, specific partner characteristics will be more or less valuable. As an interim measure, procuring entities are required to make use of single-award (Onyango & Oduor, 2020).

Framework contracts, under which frequently bought items would be consolidated into contracts for supply at an agreed price over a defined contract term, with orders being placed at the contract price when required. Some business alliances form as a result of personal ties between key decisions makers (Mutangili, Awuor & Cheluget, 2020).

They used questionnaires to gather data from 152 respondent firms on their trading partner selection criteria. Six factors appeared to be most important including strategic commitment, trading partner flexibility, and communications (Mutangili, Awuor & Cheluget, 2020). Some articles and theories have been developed regarding partner selection in international alliances. Resource-based and public level four hospitals in Kenya al learning theory support observed partner selection among emerging and developed markets in North America and Europe (Hit& Dakin, 2000. states that Existing models of partner selection assume rational decision-making, based on a rigid set of characteristics or criteria. The criteria may change, depending on resource availability and other factors. Current work offers no sense of time.

2.2.3 The Principal-Agent Theory

The study was based on the principal-agent theory in inaugurating the influence of evaluation framework on supply chain performance of public level four hospitals in Kenya. The principal-agent philosophy as sponsored by Cohen *et al.*, (2003) enlightens that procurement administrator in public segment play an association role. But his conclusions are based on the buyer/vendor association and the need of the purchaser, as the principal, to diminish the risks posed by the agent. The author argued that procurement managers including all civil servants concerned with public procurement must play the agent role (Odhiambo & Kwasira, 2019). Within a single supplier

framework, any call-off contracts were based on the terms laid down in the contract framework. Buyers may on occasion consult the supplier asking them to supplement the tender as necessary, but this must not result in the inclusion of terms that are substantially amended from the terms laid down in the original contract framework.

According to Onyango and Okello (2020) agency theory if applied rigorously offers a versatile tool to identify Principal-agent theory refers to the understanding that in certain governance relationships, one party, the principal, will delegate work to another, the agent, who performs on behalf of the principal. This theory is often used to understand and analyze the dynamics in varied contexts, including the management of supply chains (Zhang & Cao, 2019).

The principal-agent theory guides this evaluation by recognizing possible divergences in the interest of the principal and the agent. The theory further suggests that contracts should be structured in a way that the interests of the agent align with those of the principal. In this way, appropriate incentives or consequences can be set to ensure high performance, thus positively influencing supply chain performance (Zhang & Cao, 2019).

In light of this, the principal-agent theory supports the role of a contract evaluation framework as a tool to ensure that agents act in the best interest of the principals. By leveraging this theory, organizations can institute a well-designed contract evaluation framework that ensures optimal supply chain performance. The principal-agent theory is highly instrumental in implementing an effective contract evaluation framework that would ensure robust evaluation and selection of the most suitable and reliable agents or suppliers, hence leading to enhanced supply chain performance (Zaefarian &Henneberg, 2015).

2.2.4 Social Economic Theory

The study was based on Social economic theory in establishing the influence of Service Framework on supply chain performance of public level four hospitals in Kenya. Palmer and Butt, (2005) proposed the social economic theory which integrates economic theory with psychology and sociology theories to account for social

influence on individual's decision. Schapper *et al*., (2016) identifies key components of accountability i.e. measurement of goals, justification of results and punishment for non-performance. (Muchemi & Kinyanjui, 2020). Noted each individual service should be defined there should be a description of what the service is, where it is to be provided, to whom it is to be provided and when it is required. The services of delivery of specific report, the relevant provision of the SLA should describe the report, state what it should include, state its format (Olasupo & Doyle, 2021).

According to Muchemi and Kinyanjui (2020), accountability is a key requirement of modern public procurement system since it gives access to laws, regulations, policies and practices of procurement by government agencies to the public. Lack of it is a major impediment to sustain economic growth, sources of unwholesome activities such as corruption, scandal and abuse of public resource (Olasupo & Doyle, 2021). In facilities management agreements and other agreements for the provision of services. This is primarily aimed at customers and provides effective service delivery.

According to Onyango and Oduor (2020). Report access to key procurement information in a civil society, media and other stakeholders directly affects accountability. The report noted that technology increases transparency and competence among suppliers through clear and comprehensive bidding procurements and contracts in the procurement process. (Muchemi & Kinyanjui, 2020). Establishing what constitutes 'good service' is likely to vary and, therefore, gaining agreement and commitment between the parties is essential. Commitment means a willingness to spend time on reviewing service provision with a view to improving it, being open to feedback and willing to challenge traditional or established ways of working (Olasupo & Doyle, 2021).

2.2.5 Institutional Theory

The study was based on Institutional Theory in establishing the influence of Procurement Legal Framework on supply chain performance of public level four hospitals in Kenya. The institutional theory is the traditional approach that is used to scrutinize elements of public procurement that highlight the use of guidelines, laws, and authorizations as an enforcement mechanism, with involvement as the basis for

compliance (Olasupo & Doyle, 2021). Identify three columns of organizations as compliance to guideline, normative and cultural-cognitive.

According to Kumar *et al.*, (2005) institutions are self-possessed of cultural-cognitive and regulative elements that, together with accompanying activities and resources give meaning to life. The normative pillar refers to standards (how things should be done) and morals (the preferred or desirable), social responsibility being the foundation of compliance. Verify vendor compliance during the on-boarding process by using specifications and standardized workflows. Make Public level four hospitals in Kenya communicate your government's ethics and values. The supplier needs to understand and align with them. Use supplier risk questionnaires embedded in the online approval process of the vendor self-service portal (Onyango & Oduor, 2020).

The cultural-cognitive pillar rests on collective understanding (common beliefs, signs, shared understanding). In Kenya, public procurement is guided by the PPDA Act 2005 regulations and rules which are from period oftime issued by the Public Procurement Oversight Authority only and which must be observed with to the letter by all the public units and providers of Public procurement regulations (2006) and guidelines leading procurement activities (Olasupo & Doyle, 2021). The institutional theory states that vendors should comply with public procurement regulations and guidelines to ensure competitive bidding, transparency, and professionalism in procurement process the Compliance is also about ethical values and requires a compliance supporting company culture that is also lived by the upper management (Omondi & Osano, 2020). This is prerequisite for building trusted relationships and ensuring compliance not only within your company, but also along your supply chain and with your trading partners that need to agree with your company's code of ethics, Procurement Legal Framework, procedures, and guidelines (Onyango & Oduor, 2020). Therefore this theory links the effect of supplier compliance to Performance management

2.3 Conceptual Framework

A conceptual framework is a scheme of concepts or variable which the researcher used in order to achieve set objectives (Onwuegbuzie & Leech, 2022). Basically, it is a

diagrammatic presentation of a theory. The effects of the supply chain contract framework by various factors: supply chain contract framework These factors were the study‘s independent variables and their relationship with the study‘s dependent variable which is influence of supply chain contract framework on supply chain performance of public level four hospitals in Kenya is as illustrated in. According to Strijker, Bosworth & Bouter, (2020). The Figure 2.1 below illustrates the relationship between independent and dependent variables.

Contract Framework

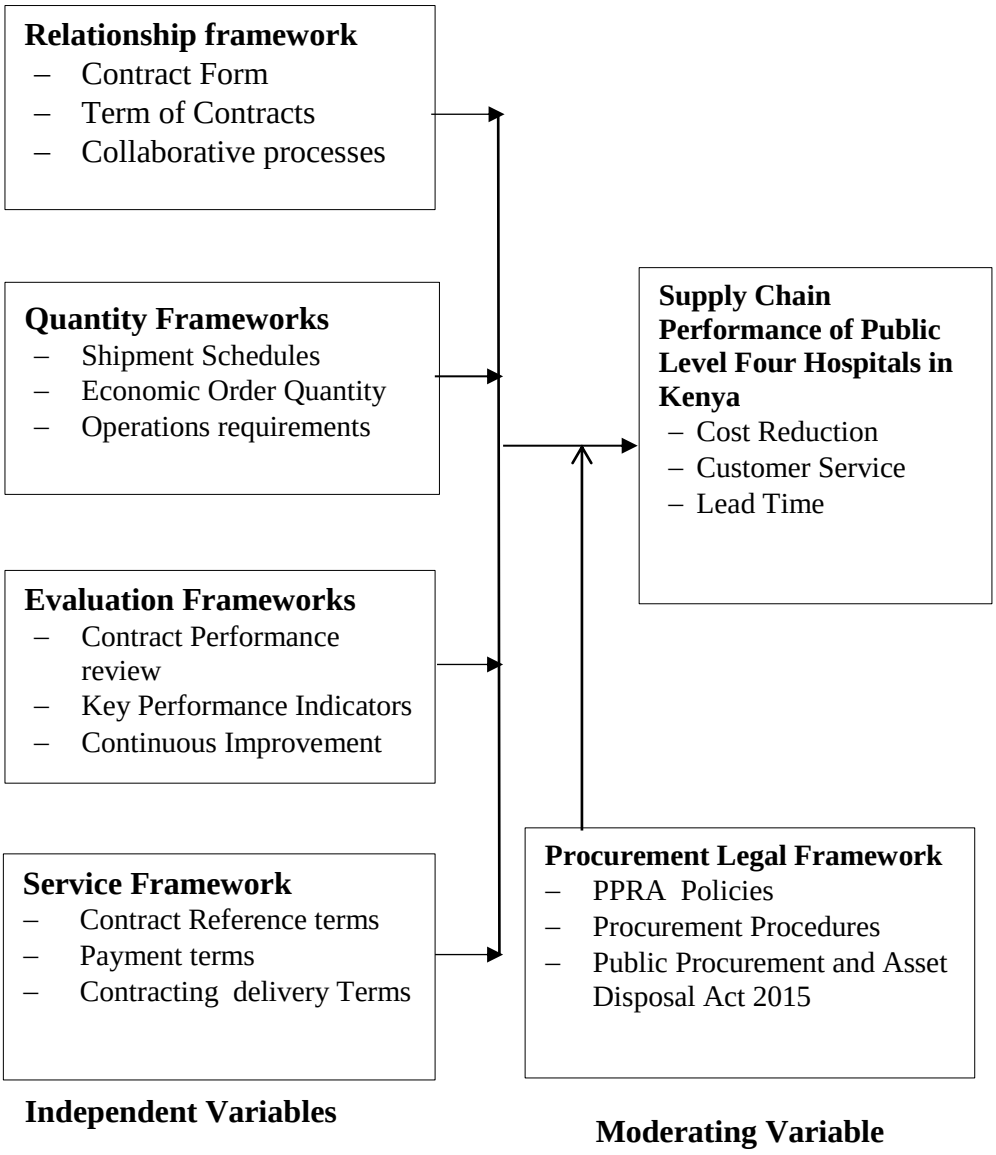

Figure 2.1: Conceptual Framework

2.3.1 Relationship Framework

According to Kebede (2020) contract relationship framework is defined as the legal obligation that results from the parties' agreement as affected by the applicable rules of the contract requirement. Contracts and purchase agreements are a fundamental element of the procurement process, which are more than just terms and conditions (Johnston & Kerwood 2014). The Contract Relationship framework ensures what the

organization is buying and also provide a framework for supplier performance by defining the customer buyer relationship (Kiplagat & David, 2015)

Martin. (2015) defines that the contract reviews are critical bases of managing supplier performance and relationships and their review are elements of performance review for any formal supplier meeting. The supplier should as well focus on the contract by judging the organization performance to the terms of the agreement provided in the contract form (Mutangili, 2019).

According to Saffu and Mamman (2010), defines that multi-sourcing agreement involves the buyer entering into agreements with different suppliers who provide a part of the overall service being outsourced. The benefits and risks of this multi-supplier model are well documented (Kiplagat & David, 2015). A properly managed multi-sourcing environment maintains an edge of competitive tension while creating a dynamic, direct relationship with suppliers who are leaders in their fields. Kebede, (2020). Adds that to truly receive the benefits of multi-sourcing, organizations must adjust their procurement practices, contract negotiation strategies and relationship management functions to suit a multi-sourced environment.

According to Zaefarian and Henneberg (2021) states that Collaborative processes with suppliers refer to the mutually beneficial ways in which businesses work together with their suppliers to achieve common goals. This involves sharing information, resources, and expertise to improve efficiency, reduce costs, and enhance quality (Zaefarian & Henneberg,2021) supplier relationship management in Businesses establish strong relationships with their suppliers based on trust, open communication, and mutual understanding. This collaborative approach helps in problem-solving, risk management, and continuous improvement.

Supply chain integration: Businesses integrate their supply chain processes with their suppliers, creating a seamless flow of materials, information, and services. This collaboration ensures timely delivery, reduced lead times, and improved overall supply chain performance (Lorenzo, 2021). A term which measures the quantity by the output of the seller or the requirements of the buyer means such actual output or requirements as may occur in good faith, except that no quantity unreasonably disproportionate to

any stated estimate or in the absence of a stated estimate to any normal or otherwise comparable prior output or requirements may be tendered or demanded (Mutangili, 2019).

2.3.2 Quantity Frameworks

According to Ma and Li (2020) defines that contract quantity frameworks refer to particular types of agreements used often in the medical industry, where a buyer agrees to contract out a specific amount or quantity of work or supplies over a set period to a contractor or supplier. These frameworks usually set out specific terms, conditions, rates, and target dates and are designed to ensure smoother and more efficient transactions, as well as better cost control and financial management (Lorenzo, 2021).

Shipment schedules refer to plans by manufacturers or distributors that outline when products will be transported or delivered to retailers or customers (Gitonga & Kihara, 2020). A shipment schedule usually includes information on order dates, shipping dates, the mode of transport, and expected delivery dates. This schedule helps businesses in planning their inventory management and ensuring that goods reach their destination on time (Minkyun Kim, 2015).

Economic Order Quantity (EOQ) is an inventory management tool used to determine the optimum purchase quantity of an item. This quantity minimizes the total costs of inventory management, including holding costs, order costs, and shortage costs. The EOQ is calculated based on the demand rate, setup, or order costs, and the storage or carrying costs of inventory Philippart, (2016). The economic order quantity (EOQ) is a formula used in inventory management to determine the optimal order quantity that minimizes total inventory costs. It takes into account several factors such as demand, ordering costs, holding costs, and lead time (Gitonga& Kihara, 2020). Supplier management involves effectively managing relationships with suppliers to ensure the timely delivery of quality goods or services at the best possible price. This includes activities such as sourcing suppliers, negotiating contracts, monitoring supplier performance, and resolving any issues that may arise. According to Ndemo and Achuora, (2020) Supplier management is essential in ensuring that the chosen suppliers can meet the business's demand and provide reliable and consistent supply.

By effectively managing suppliers, businesses can optimize their procurement processes, reduce costs, and maintain a competitive edge in the market.

Operations requirements involves the day-to-day tasks, procedures, and activities within an organization that are necessary to produce goods or provide services. It covers everything from resource allocation to workflow management, and is integral for ensuring an organization is able to meet customer demands and business goals (Lorenzo, 2021). This can also refer to specific operational metrics that a business may need to meet, such as production targets, delivery times, labor needs, or quality standards (Kebede, 2020).

2.3.3 Evaluation Framework

According to Chirchir and Onyango (2020) defines that contract evaluation frameworks as the auxiliaries that enable organizations to assess their contracts in terms of quality, efficiency, productivity, and comprehensiveness. It provides a standardized method of evaluation that ensures all aspects of the contract are analyzed and measured against set criteria. (Gitonga & Kihara, 2020). The evaluation framework typically includes multiple criteria and indicators that help measure the overall value and suitability of the contract. These criteria can vary depending on the specific industry, organization, and contract requirements. Some common factors considered in a supplier contract evaluation framework may include: Pricing and Cost for Assessing the competitiveness and reasonableness of the pricing structure, including pricing terms and payment schedules. As well Performance Metrics to Evaluating the agreed-upon performance metrics and measurements to ensure they align with business objectives and desired outcomes. (Ojiambo & Obara, 2020). Contract performance review this is a review process that assesses how well both parties are adhering to the contract agreements, ensuring that goals and deliverables are being met within the agreed time frame. It verifies if all the terms and conditions of the contract are adequately fulfilled and if there's a return on investment (Chirchir & Onyango, 2020).

According to Wisner and Tan (2010) Key Performance Indicators (KPIs) KPIs are the metrics that are used to gauge the effectiveness and success of a contract. (Lorenzo, 2021). They measure the overall health and performance of the contract. KPIs could include things such as quality of work, timeliness, cost-effectiveness, and client satisfaction among others (Gitonga & Kihara, 2020). Continuous improvement is a contract management principle where the contracting parties constantly seek to improve their performance and effectiveness in fulfilling the contract. It involves conducting regular performance reviews, feedback sessions, and making necessary modifications to the contract to enhance performance. Continuous Improvement aids in proactively identifying and correcting issues before they escalate into significant problems (Mutangili, 2019). Continuous improvement in contract management for suppliers involves ongoing efforts to enhance and optimize contract processes and outcomes. It includes evaluating and assessing existing practices, identifying areas for improvement, and implementing changes to drive efficiency, reduce risk, and improve overall contract performance. Continuously monitor contract performance metrics, such as compliance with contract terms, supplier performance, and contract deliverables. Regularly assess and address any issues or risks that may arise (Onyango& Okello, 2020).

2.3.4 Service Framework

According to Chirchir & Onyango, (2020) a contract service framework is a model or structure that outlines the terms of agreement or engagement between two parties, usually a service provider and a client. It sets out the scope of work, responsibilities, payment terms, performance expectations, and other terms of service. This framework is often used in industries such as information technology, business consulting, and outsourcing services. It is designed to ensure mutually beneficial relationships, reduce miscommunication, and protect the rights of all parties involved (Gitonga & Kihara, 2020). A contract service framework is a model or structure that outlines the terms of agreement or engagement between two parties, usually a service provider and a client. It sets out the scope of work, responsibilities, payment terms, performance expectations, and other terms of service. This framework is often used in industries such as information technology, business consulting, and outsourcing services. It is

designed to ensure mutually beneficial relationships, reduce miscommunication, and protect the rights of all parties involved (Mutangili, 2019).

Contract reference terms are specific provisions or clauses that are included in a contract to refer to other documents or agreements that are relevant to the main contract. These terms are commonly used when parties want to incorporate external documents by reference rather than including them as full provisions within the contract (Mwaura, 2018). By incorporating other documents by reference, contract reference terms save space and avoid repetition in the main agreement. This can be particularly useful when referring to complex or lengthy documents such as regulations, standards, or other legal agreements the terms include Entire Agreement This clause states that the contract, together with any referenced documents, constitutes the entire agreement between the parties. It ensures that all the terms of the agreement are contained within the contract and eliminates any prior understandings or agreements (Saffu & Mamman, 2010).

According to Gitonga & Kihara, (2020) contract payment terms are specific terms that outline how payment will be carried out in a contractual agreement. This not only covers the amount to be paid but also the method of payment, the timing of payments, any penalties for late payment, any discounts for early payment, and a host of other related details (Lorenzo, 2021)..Delivery Terms is referred to as delivery terms, they are conditions specified in a contract that detail how and when deliverables (goods or services) will be transferred from one party to the other. It may include details on transportation methods, delivery dates, and who will bear the risks and costs associated with the delivery. These terms are crucial in providing clarity, ensuring the reliable delivery of goods or services, and avoiding possible misunderstandings and disputes. (Philippart, 2016).

2.3.5 Procurement Legal Framework

According to Kemunto (2019), a procurement legal framework refers to the comprehensive set of rules, regulations and procedures that guide and regulate the overall procurement process within an organization. This includes procurement planning, selection process, contract management and disposal of assets. It serves to

ensure transparency, fairness, and efficiency in the procurement process, and to prevent corruption or fraud (Ma & Li, 2020). PPRA Policies, or Public Procurement Regulatory Authority Policies are a set of rules and guidelines issued by the regulatory authority to ensure all procurement activities are conducted in a manner that is fair, equitable, transparent, competitive and cost-effective (Mutangili, Awuor & Cheluget, 2020).

Procurement procedures in contract refer to the set of processes and guidelines that organizations follow when acquiring goods or services from external suppliers. These procedures are designed to ensure that the procurement process is fair, transparent, and in compliance with contractual obligations Identification of procurement needs: Organizations identify their procurement needs based on business requirements and specifications (Amos, 2021). Organizations evaluate potential suppliers based on criteria such as past performance, capabilities, financial stability, and compliance with legal and ethical standards. Solicitation of bids or proposals: Organizations issue requests for bids or proposals to potential suppliers, outlining the requirements, specifications, and evaluation criteria. These bids or proposals are then reviewed and compared. Evaluation and negotiation: The bids or proposals received are evaluated based on predetermined criteria and negotiations may take place with potential suppliers to establish pricing, terms, and conditions (Mutangili, 2019).

The Public Procurement and Asset Disposal Act 2015 is a specific law enacted by the government to regulate public procurement and disposal of public assets. The Act outlines comprehensive procurement procedures and standards, tendering and bidding processes, and contract enforcement measures. It aims to enhance transparency and accountability in public procurement and ensure optimal value for public expenditure (Onyango& Okello, 2020).

2.3.6 Supply Chain Performance of Public Level Four Hospitals in Kenya.

According to Katsikeas and Katsikea (2011) Supply chain performance refers to the effectiveness and efficiency of a supply chain how well it accomplishes its intended purpose. It involves the evaluation of speed, cost, quality, and flexibility within the supply chain operations, from procurement of raw materials to the delivery of the

finished product to the customer. Factors such as timely and accurate order fulfillment, inventory management, production capabilities, distribution efficiency and customer service level are considered when measuring supply chain performance (Odhiambo & Kwasira, 2019).

Supply chain performance of public level four hospitals refers to how effectively these hospitals manage their supply chain operations to achieve their goals. This involves procuring and managing necessary resources such as medications, surgical supplies, personal protective equipment, and other requisite items for routine operations and emergency situations. Which involves cost reduction efforts made to minimize the expenditures associated with purchasing, storing, distributing, and accounting for medical supplies and equipment. This includes negotiating contracts with suppliers, implementing technology to automate inventory management, and optimizing logistics. Successful cost reduction efforts can greatly enhance a hospital's financial health (Onyango & Oduor, 2020).

According to Mate and Kaluyu (2018) performance in hospital as well involves customer service ensuring that patients and other clients of the hospital always have access to the required treatments and care facilities. In supply chain terms, it may involve ensuring that essential medical supplies and pharmaceuticals are always available when needed, thus minimizing any unnecessary delays in treatment which would adversely affect patient satisfaction levels. (Mwaura, 2018). Lead time refers to the time taken from when a hospital order is placed until the goods are received. For a hospital, having short, predictable lead times for medicines and vital medical equipment have a major impact on patient care quality. If lead times are too long or unpredictable, the hospital may run out of crucial supplies, leading to possible delays or gaps in care delivery. Thus, managing and reducing lead times is crucial for an efficient healthcare supply chain system (Kamau, 2018).

2.4 Empirical Review

The empirical review gives an insight of the present situation of the cases which include their operations, strategies in various aspects such as introduction of the company, general aspects in the public level four hospitals in kenya contract

relationship framework, contract quantity frameworks, contract evaluation framework, contract service framework and procurement legal framework, other activities and problem areas of the public level four hospitals in Kenya. The empirical literature review can offer an efficient method of building a professional knowledge base, understanding performance issues, identifying potential interventions and measurement methods, providing a foundation for asking the right questions in a project, and defining common practices in public level four hospitals in Kenya ((Rey-Martí, & Botella-Carrubi, 2020). There are two types of bases for collected works that can be encompassed in a review: principal and tributary. Primary sources are direct descriptions of research studies or other events transcribed by a separable who actually conducted the research or witnessed the event. Secondary sources are papers written by an author who did not directly observe or contribute in the events designated or was not the inventor of the theories outlined.

2.4.1 Relationship Framework

Studies by Zhang and Cao, (2019) Framework contracts in green supply chain management: A review. Supply chain management: an international journal this study utilized dyadic data from manufacturing firms to examine the influence of contract relationship frameworks on procurement performance. The results showed that firms with stronger reciprocal relationships were more likely to achieve superior procurement performance. Hence, it recommends that firms should focus on developing and maintaining strong relationships with partners to achieve better procurement outcomes.

Empirical studies by Wan & Xu (2013) on contract design for supply chain collaborations under the framework contract. International journal of production economics - this review established that both contractual governance and relational governance significantly influence procurement performance in the public sector. Therefore, it proposes that public agencies should make efforts to strengthen both forms of governance to improve procurement effectiveness.

Olasupo & Doyle (2021) examining the determinants of framework contract utilization in Africa: evidence from Botswana. International journal of procurement management,

the study explored how the complexity of contracts affects procurement performance. It found that the increased complexity of contracts could lead to increased costs and weakened performance due to more potential for misunderstanding and disputes. The study with these findings concluded that companies should make efforts to simplify their contracts in terms of language and structure to improve procurement performance.

Ndemo & Achuora (2020) Influence of procurement key performance indicators on the Performance of State Agencies in Kenya. - This view reviewed 60 articles analyzing contract arrangement factors and project performance. It showed that while certain requirements and reducing complexity improve procurement performance, too many requirements actually hinder performance. The study's conclusions provide evidence for a balanced approach in dealing with procurement contracts.

Studies by Lorenzo (2021) a digital cross-border interest in the framework of public procurement legislation: the game changer. Review of European Administrative Law, this study used primary data collected from public sector buyers to examine the impact of contract management capabilities on procurement performance. The study found that contract management capabilities have a significant, positive impact on procurement performance. As such, the study concludes and recommends that public sector buyers invest in improving their contract management capabilities.

2.4.2 Quantity Frameworks

According to Ahmad and Mallick (2010) studies on delivery contract noted that the fact that in certain industries it is very costly to change the production quantity. Thus, suppliers prefer to produce the same quantity in every period. On the other hand, the buyer prefers to have flexibility to adapt to the uncertain demand and update the fixed-delivery quantity. The fixed-delivery contract offers limited flexibility because the buyer may purchase more than the fixed delivery quantity but or less.

According Hernandez, (2013) studies analyze a contract which specifies that cumulative purchases over a multi-period horizon exceed a previously and exogenously specified quantity, a form of minimum-purchase agreement. Some

flexible supply contracts with risk-sharing intent have been studied in more realistic settings. The studies found that consider forecasting and purchasing behavior when the buyer initially forecasts month-by-month demand over an entire year and then may revise each month's purchase once within specified percentage bounds.

Johnston and Kerwood (2014) study provided that a rolling-horizon flexibility contract similar to our QF structure, focusing on the retailer's ordering behavior when facing an independent and stationary market demand process. The studies identified that analyze backup agreements in which the buyer is allowed a certain backup quantity in excess of its initial forecast at no premium, but pays a penalty for any of these units not purchased. These models do not attempt to demonstrate efficiency of the contract, instead focusing on the operational implications of the specified prices and constraints for the buyer. No consideration is made for how the supplier might best support its obligations, as the upstream decision problem is rendered difficult by the statistical complexity of the demand that is transmitted through. Moreover, the information structure is kept simplified.

According to Cardenas (2017) these studies model demand and how demand information is incorporated into the planning process. In general, the installed policies rarely explicitly account for the temporal dynamics of the underlying demand. The accuracy of the forecasts may be specified as a forecast error that gets incorporated into safety stock factors for each period However, there is no consideration for how each forecast might change from one period to the next. Typically, either deterministic end demand is assumed in which case forecast updating is not an issue or the forecast is frozen over the planning horizon. Either way, the response is reactive. Finding that the stochastic, sequential, and multi-dimensional nature" of this class

Abebi (2020) the legal framework of public procurement in Africa. African journal of international and comparative law, This paper seeks insights for a setting including all of the above features: resources which require advance commitments, non-stationary demand about which information evolves over time, and the possibility of revising the commitments within bounds in reaction to information changes that Because this work evolved from collaboration with an industrial partner competing in a volatile industry,

have avoided as much as possible any dependence on specific statistical assumptions about market demand. In this context, optimal policies are unknown, so seek behavioral models that mimic rational but potentially suboptimal policymakers, In addition to specifying the buyer's behavior, we recommend how a supplier might economically deliver the promised flexibility, and characterize how the costs of both parties vary with the contract parameters.

2.4.3 Evaluation Framework

According to Coderre and Fitzpatrick (2021) an innovation procurement clinical framework: A qualitative study. Bids are evaluated on the most economically advantageous basis for entry into the framework the study further established that a number of suppliers are included in the framework to supply a variety of paper type's plain, lined, recycled, and colored over the contracting period. The studies recommended that the government goes to the supplier within the framework whose offer is the most economically advantageous based on the original award criteria, for each call-off required throughout the contracted period

According to Kraljic (2019) literature review on the terms of the agreement specify quantity, detailed technical stipulations or rate of items which are the subject of the supply framework the findings on the study found that as necessities arise, a management would contact the vendors to the framework that are in a position to supply and invite them to submit competitive tenders which would form the foundation of the mini - competition. These would be appraised on the basis of the rules and standards, more exactly formulated where necessary, as set out in the terms of the framework. The contract would be awarded to the applicant who surrender to the most economic or lowest priced tender in agreement with the rules and criteria set out.

Research done by Martin and Grbac (2013), found that Purchase orders should have a corresponding requisition or management approval of any exception. Exceptions automatic releases under authorized blanket purchase orders and agreements, and urgent hotline manual orders authorized by management. Purchase order records are periodically reviewed by management in order to correct and prevent unauthorized exceptions. The studies recommends that any deviations from a rule should is isolated,

analyzed, and corrected in a timely manner, including making sure only authorized persons engage in purchasing activities.

According to Prajogo and Olhager, (2017) studies he stated that issuing a blanket order allows a buyer not to hold more goods than required at any period, and avoids the managerial cost of dispensation numerous purchase orders, while preferring discount pricing through bulk commitments or price breaks the studies established that on the vendors side, a blanket order offer the benefit of assuring ongoing business and also help sellers better predict forthcoming cash flows and orders. A blanket order set at a fixed priced contract for a period of time. The buyer looks for the best pricing among competing seller tenders. After the best one is selected, the prices of goods are fixed, and also quantities of each product are given to the vendors to prepare stock for on requested delivery.

2.4.4 Service Framework

According Saffu and Mamman (2020) research on Contract Service Framework as part of Contractual governance, as they are written, formal agreements between the service provider and the client. By being linked to the formal contract, they often contribute to more contract detail and contract flexibility. However, Contract Service Framework is also part of relational governance. The studies found that the development and implementation of Contract Service Framework often contributes to improved relational norms. Contract Service Framework reduce misunderstandings and conflicts and can help parties gaining better insight in each other's tasks and responsibilities

According to Serra (2017) empirical reviews on measures and sources of data in Contract Service Framework measures found organization should focus on a small number of key performance indicators which will provide management with the information necessary to determine whether or not the process is performing satisfactorily and give early warning of potential problems. The studies recommend that in particular, the measures should reflect the things which matter most to the customer. Monitor items where failure could have greatest impact; – be monitored for trends, in order to allow timely corrective action be widely visible to all involved in the provision and use of the process

Studies by Dannemann and Heimeshoff, (2020). Framework contracts in supply chain management: A literature review. International Journal of Production Economics, the studies established that frequently represents a compromise between the performance the customer would ideally like to have and the performance the supplier is able to deliver today. Ultimately, a balance must be struck between the costs of providing a given level of service and the benefits to the business of that level of service. Implement and report measures production of Contract Service Framework measures is planned in the course of developing the overall process Contract Service Framework. Particular issues to consider are the frequency of reporting; – where measures of end-to-end performance require aggregation of data from several suppliers. The studies guides that the content and timing of supplier reports must be coordinated to allow the aggregated data to be reported in other cases, a measure reported by an individual supplier may directly furnish a measure required for the overall process; in these cases, the style and content of reports produced by the supplier in question should be designed so that these reports can be distributed to the customer with minimum need for annotation or amendment by the process owned

2.4.5 Procurement Legal Framework

According to Gaur, Bhatia and Rai (2020) a framework for effective supply chain contracting in the buyer–supplier relationship. International Journal of Logistics Management the findings in the studies established that selecting new suppliers must be carefully controlled. Existing suppliers should be used again where possible. Firms should have written guidelines for selecting suppliers, and the guidelines should preserve the separations of duty and include management review and approval of the commitments. The studies recommends that firms large enough to be functionally organized, the process for engaging and negotiating terms and financial commitments with suppliers should be in the hands of qualified sourcing professionals. The rigor of the selection process should be commensurate with the strategic importance of the item and the desired results.

According to Petron, (2020) studies on competitiveness and the supplier's ability to meet the requirements. The studies evaluated that Leading firms use a framework or checklist approach to assuring that all relevant aspects of the desired results are addressed there should be independent management approval for sole and single-source suppliers. Selection policies and guidelines should be communicated to all involved departments, and the selection process should be tailored to the potential impact on operations and customers in order to meet the principles of a quality business management system

According to Burt *et al., (*2019) studies on supply chain management positively impact the firm's bottom line. Studies established that because supply systems include all internal functions, plus all external suppliers involved in the identification, fulfillment, and ongoing support of needs for materials, equipment, and services. With this more expansive definition, few company functions figure so prominently in the success of a company. Without an effective supply chain, a business is at a serious disadvantage. It is this significance that has propelled aspects of supply chain management to the front of many of the hard and soft laws designed to regulate business operations. The studies concluded that the key to successful compliance for supply chain management is to ensure that there are clear roles and responsibilities defined for each step in the process. Adherence to commercial law, contract, and ethical standards of business conduct are prime concerns. Separation of duty, process rigor, and unfailing management oversight are key concepts of adequate controls

Studies by Shiati (2020) on the Primary logistics compliance concerns for supply managers. the studies found that ensuring the supply network has effective policies and procedures in place for tax and trade compliance. Export, customs, and dangerous goods controls are the primary concerns. the studies recommends that items crossing international borders must have a product classification prior to shipping, consisting of the applicable export, customs, and dangerous goods classifications. There are many regulations internationally that require some degree of notification, registration, and restriction of international shipments of certain chemicals and waste

2.5 Critique of Literature Review

The study by Gaur, Bhatia and Rai (2020) examined the use of contract frameworks in procurement explaining that adapting proper methods could lead to efficiency and satisfaction of all stakeholders. However, the study lacked a robust examination of how such efficiency would be measured hence casting doubts on the practicality of its findings.

In a similar attempt to study contract relationship frameworks, Chopra and Meindl, (2015) provided an exploration of best practices in the industry. Although it became clear that different organizations require different types of contract relationships, the study failed to provide an exhaustive list of what these different types could be.

Addressing a quite different but equally interesting aspect, Amos, (2021). focused on the contract quantity frameworks. The study indicated that these could be the key to mitigating risks associated with unpredictable market fluctuations. However, they overlooked mentioning the consequences this may have on the relationship with suppliers.

A detailed study by Ochieng and Ochieng, (2020). on contract evaluation frameworks enlightened on how evaluation is instrumental in determining the whole performance of procurement processes. Still, the study was silent on how contractual disputes, that often arise, could be incorporated into such evaluations.

Bazzi and Stigler (2021) studied how contract service frameworks have implications on procurement performance. Contributing to the pool of knowledge, the study revealed that efficient service delivery is fundamental to the overall performance in procurement. Although, it falls short by not considering that different firms have unique needs hence might require bespoke service frameworks.

In conclusion, each study has brought forth relevant models to facilitate procurement contract framework implementation and performance. However, there is a shared flaw across the studies; they tend to generalize concepts ignoring the fact that businesses

are diverse. Therefore, future researches should strive to provide customizable frameworks that consider individual business needs.

2.6 Research Gaps

The empirical literature reviewed demonstrated that, although a number of studies have been conducted on strategic sourcing practices and framework contracting in; Understanding Different Contract Framework Types: studies by Chopra and Meindl, (2020): Cardenas (2019), numerous studies focus on the impact of procurement performance under a single contract framework, such as a firm-fixed price (FFP) or time and materials (T&M). However, there is a significant research gap in literature comparing the results across different types and combinations of contract frameworks. Studies investigating the performance implications of hybrid contract frameworks could provide additional insights.

Long-Term Impact of Contract Relationships: Contracts outline the terms of business relationships. Still, there is insufficient empirical literature exploring the long-term implications of these relationships on procurement performance McCollum and Theobald, (2019). The Role of Contract Quantity in Procurement Performance: While previous studies have noted the impact of contract size on procurement outcomes, few studies have analyzed how varying quantities within the contract affect procurement performance. For example, a contract for a small quantity of high-value items might have different performance outcomes than a contract for a large quantity of low-value items.

Evaluation criteria for contract performance: the use of precise, actionable evaluation criteria is crucial for a contract's success. However, there is relatively less empirical literature discussing the most effective means of establishing and enforcing these criteria and how they directly impact procurement performance. Adebayo & Doyle, (2020), Impact of Service in Contract Frameworks: Though many studies have analyzed contracts for the procurement of goods, there is limited empirical research on the different challenges and opportunities presented by contracts for services. This research gap exists despite the crucial role that service contracts play in many industries (Amos, 2021).

Importance of contract compliance and management: there are few studies that longitudinally track the importance of stringent contract compliance rules and management in driving procurement performance outcomes. Role of Training: Limited studies assess the impact of training procurement staff on contract framework understanding and implementation and its overall impact on procurement performance. Case Studies: Despite some theoretical discussions, there are insufficient real-life case studies showcasing the impact of various contract frameworks on procurement performance. This lack of empirical research reduces the opportunity to analyze and learn from practical examples.

Modelling Contract Frameworks Akaba& Draheim, (2020) there is a significant gap in the literature on modeling different contract frameworks, predicting procurement performance based on different contract variables. This kind of research could provide new predictive or prescriptive analytics for procurement operations.

The empirical literature on Contract Service Framework focuses on several key areas. First, there are studies that examine the benefits and limitations of using contract service frameworks in various industries and sectors. These studies often explore the impact of contract service frameworks on efficiency, cost savings, quality improvement, and innovation. The study by Akaba and Draheim (2020) examined the implementation of a contract service framework in the healthcare sector. The study found that the framework led to significant cost savings and improved service quality through increased competition and accountability among service providers. Another area of research focuses on the factors that contribute to successful implementation and adoption of contract service frameworks. Studies in this area often examine the role of leadership, governance structures, stakeholder engagement, and contract design in shaping the outcomes of contract service frameworks.

For instance, a study by Muchemi and Kinyanjui, (2020) analyzed the factors influencing the successful implementation of a contract service framework in the public sector. The study identified effective leadership, clear performance measures, and robust monitoring and evaluation mechanisms as critical factors for success. Furthermore, there is research that explores the challenges and risks associated with

contract service frameworks. These studies often highlight the importance of managing potential conflicts of interest, ensuring transparency and accountability, and maintaining effective communication between service providers and clients.

2.7 Summary of Literature Reviewed

The literatures reviewed suggest that any public institution can improve in the overall performance if they plan and implement framework contracting. The top management of many public institutions focuses on the general tendering process, supplier management and administration several different contract types are shown to coordinate this supply chain and arbitrarily divide its profit: buyback contracts, revenue-sharing contracts, quantity-flexibility contracts, sales-rebate contracts and quantity-discount contracts

Partner selection in emerging and developed market contexts resource-based and public level four hospitals in Kenya al learning perspectives which found that firms to evaluate the important supplier selection factors for four case firms. The results of this study suggest that while supplier selection criteria vary with the situation, there are three critical factors across situations, quality, on-time delivery, and performance history. Thus, while a listing of important factors is useful in supplier selection, the individual weighting and relevance of these factors vary with the situation.

Supply chain integration and performance: The effects of long-term relationships, information technology, and sharing, and logistics integration. International Journal of Production Economics, it has been argued that integration facilitates anticipation of the partner's needs to better meet the partner's requirements Investments in integrated systems along the supply chain will improve processes that can help supply chain members to anticipate possible challenges. This suggestion is supported by findings from interviews, which reveal that best practices for SCRM include the development of predictive analysis systems and the enhancement of supply chain intelligence by using improved databases. Strategic Sourcing in the New Economy: Harnessing the Potential of Sourcing Business Models for Modern Procurement They support long-term relationships with suppliers, thus creating a commercial environment that is more

conducive to sustainable investment and employment, and cut waste in processes and physical resources.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter sets out various stages that were followed in completing this study. It involves a design for the collection, measurement, and analysis of data. Specifically, the following subsections are included; research design, target population, data collection instruments, data collection procedures and finally data analysis.

3.2 Research Design

Research design is defined as a plan, structure and strategy of investigation considered to obtain answers to research questions and control variance (Rey-Martí, & Botella-Carrubi 2020). The study adopted the descriptive and explanatory research design. Research design refers to all the procedures selected by a researcher for studying a particular set of questions or hypotheses, and also a framework for the collection and analysis of data that is suited to the research question. He summarizes it as a Programme to guide the researcher in collecting, analyzing and interpreting observed facts. Research design is a roadmap of how one goes about answering the research questions.

A good research design has a clearly defined purpose and has consistency between the research questions and the proposed research method. According to Creswell (2013) observes that a descriptive research design is used when data are collected to describe persons, organizations, settings or phenomena. The descriptive design also has enough provision for protection of bias and maximized reliability (Gupta & Gupta, 2022). Descriptive design was adopted for this study as it would enable the researcher to obtain a cross-referencing data, some independent confirmation of data, and arrange of options. Descriptive studies are not only restricted to facts finding, but might often results in the formulation of important principles of knowledge and solution to significant problems.

3.2.1 Research Philosophy

Onwuegbuzie and Leech (2022) a research philosophy is a belief about the way in which data about a phenomenon should be gathered, analyzed and used. The term epistemology what is known to be true, as opposed to doxology what is believed to be true , encompasses the various philosophies of research approach (Creswell, 2020). The research philosophy for this study was positivism Research philosophy relates to the foundation of knowledge upon which important assumptions and predispositions of a study are based. There are two main research philosophies, namely; positivism scientific and phenomenology interpretivist which may also be viewed in terms of two perspectives, namely quantitative and qualitative approaches Positivist philosophy premises that knowledge is based on facts and that no abstractions or subjective status of individuals is considered. Positivism thus derives a quantitative perspective which holds that there is an objective reality that can be expressed numerically, with explanatory and predictive power (Gilson, 2020). Positivists believe that reality is stable and can be observed and described from an objective (Creswell, 2020). Without interfering with the phenomena being studied. They contend that phenomena should be isolated and that observations should be repeatable.

3.3 Study Population

According to Onwuegbuzie and Leech (2022) population is a group of individuals, objects or items from which samples are taken for measurements. The population for the study were 270 Public level four hospitals in Kenya. According to Creswell, (2020) a population is a well-defined or set of people, services, elements, and events, group of things or households that are being investigated. This definition ensures that population of interest is homogeneous. A collection of observations presenting only a portion of the population is called a sample the population of this study constituted 270 of officers in public level four hospitals in Kenya in all the 47 counties in Kenya

Table 3.1: Target Population

No	County	Hospital Level	Level Four Hospital
1	Kiambu	Level Four Hospital	8
2	Murang'a	Level Four Hospital	5
3	Kirinyaga	Level Four Hospital	3
4	Nyeri	Level Four Hospital	4
5	Nyandarua	Level Four Hospital	3
6	Mombasa	Level Four Hospital	3
7	Kwale	Level Four Hospital	3
8	.Kilifi	Level Four Hospital	4
9	Tana River	Level Four Hospital	2
10	Lamu	Level Four Hospital	3
11	Taita/ Taveta	Level Four Hospital	7
12	Marsabit	Level Four Hospital	2
13	Isiolo	Level Four Hospital	3
14	Meru	Level Four Hospital	14
15	Tharaka-Nthi	Level Four Hospital	5
16	.Embu	Level Four Hospital	4
17	Kitui	Level Four Hospital	12
18	Machakos	Level Four Hospital	5
19	Makueni	Level Four Hospital	11
20	Turkana	Level Four Hospital	5
21	West Pokot	Level Four Hospital	4
22	Samburu	Level Four Hospital	4
23	Trans Nzoia	Level Four Hospital	4
24	Uasin Gishu	Level Four Hospital	2
25	Elgeyo/ Marakwet	Level Four Hospital	7
26	Nandi	Level Four Hospital	6
27	Baringo	Level Four Hospital	5
28	Laikipia	Level Four Hospital	4
29	Nakuru	Level Four Hospital	7
30	.Narok	Level Four Hospital	4
31	Kajiado	Level Four Hospital	3
32	Kericho	Level Four Hospital	6
33	Bomet	Level Four Hospital	5
34	Kakamega	Level Four Hospital	10
35	Vihiga	Level Four Hospital	2
36	Bungoma	Level Four Hospital	8
37	Busia	Level Four Hospital	7
38	Siaya	Level Four Hospital	6
39	Kisumu	Level Four Hospital	10
40	Homa Bay	Level Four Hospital	12
41	Migori	Level Four Hospital	8

No	County	Hospital Level	Level Four Hospital
42	Kisii	Level Four Hospital	11
43	Nyamira	Level Four Hospital	11
44	Garissa	Level Four Hospital	6
45	Wajir	Level Four Hospital	4
46	Mandera	Level Four Hospital	4
47	Nairobi	Level Four Hospital	4
		Total	270

Ministry Of Health facility list (2021)

3.4 Sampling Frame

According to Yin (2020) sampling is a procedure through which some elements are selected from the population to be representatives of the whole group. The unit of analysis were the public level four hospital with officers who are assigned responsibilities to procure, dispense drugs and handle drugs that included pharmacists and pharmacy technologist's public health officers, procurement officers, drugs store, dentists and doctors been the unit of observation.

3.5 Sample and Sampling Technique

The study employed a census approach to collect data from the all the 270 of officers in public level four hospitals in Kenya referral hospitals, county hospital, sub-county hospital in all the 47 counties in Kenya In a census survey, data was collected for all units in the population, if the population is small, a census may be preferable. This is because to produce estimates with small sampling error it may be necessary to sample a large fraction of the population. In such cases, for minimal additional cost, data can be available for the entire population instead of just a portion of it (Statistics Canada, 2010). The approach involved gathering information from every member of the target population. A sampling frame includes every member of the study population from which a sample is to be taken (Cooper and Schindler, 2019). This method is appropriate because it reduces on biases in research since all the respondents was given an equal chance to participate in the study (Gupta & Gupta, 2022).

3.6 Data Collection Procedure

A semi-structured questionnaire was used to collect primary data from respondents and was designed to address the various research objectives. According to Creswell, (2020).) A questionnaire is a series of questions on a topic which respondents' opinions are sought. The questionnaire employed a five-point likert scale to determine the extent to which contract framework influence supply chain performance. This allowed respondents to extensively respond to topic under study. Questionnaires are easy to analyze, can be mailed to respondents, cost effective, reduced bias because they have uniform question presentation (more objective) and most statistical analysis software can easily process them.

The questionnaire was divided into six sections; Section one dealing with the general information of the respondent; section two, three, four and five to determine the contract framework level of implementation on the supply chain performance of the Level four Hospitals in Kenya supply chain; and finally section six was on supply chain performance .The questionnaire was self-administered to all the respondents, the questionnaire was dropped personally and picked by the researcher after a week to give the respondents adequate time to respond to the questions, telephone follow ups, was further used to enhance the response rate; The questionnaire was accompanied with an introduction letter, this letter contained an adequate brief about the research under study and was signed by the research for authenticity (Creswell, 2020).

3.7 Pilot Test

According to Onwuegbuzie and Leech (2022) 10% of the sample should constitute the pilot test which should not be included in final study. Piloting of the research instrument means administering the instrument to a small representative sample identical to but not including the group one is going to survey (Johnson & Christensen,2020). This is to ensure that the questions in the instrument are stated clearly and have the same meaning to all the respondents. According to Yin (2020) the respondents on which the questionnaire was pretested, was not be part of the target population of the study. The information obtained during the pre-testing of the questionnaire was used to revise and improve on the questionnaire.

3.7.1 Reliability of Research Instruments

Reliability is the measure of the degree to which the research instrument yields the same results of data, after repeated (Johnson & Christensen, 2020). To minimize errors the study used test and retest method in order to test reliability of the research instrument. This procedure reveals the questions that are vague that can lead to respondents interpreting them differently hence adjustments accordingly. Questions that were not clear or are ambiguous was revised so as to collect the desired information.

After piloting, the internal consistence procedure was used to determine the reliability of the instruments. This was determined from scores obtained from a single test administered to a sample of subject. A score obtained in one item was correlated with scores obtained from other items in the instrument. Finally, Cronbach Alpha Reliability coefficient value was computed which yield an alpha value to determine how variables correlate among themselves. On the basis of the results of piloting process, the instruments were then retained or duly modified to meet performance standards before being used for data collection (Johnson & Christensen, 2020). An alpha coefficient of 0.75 or higher indicates that the gathered data is reliable as it has a relatively high internal consistency and can be generalized to reflect opinions of all respondents in the target population.

3.7.2 Validity of Research Instruments

According to Johnson & Christensen, (2020). suggest that the validity of the instrument is asking the right question framed from the least ambiguous way. Yin (2020) describes validity as the agreement between the researcher's conclusion and the actual reality. Content validity refers to the degree to which the content of the items reflects the content domain of interest (Creswell, 2013). The research adopted the content validity to measure the validity of the instruments to be used in this study. Context of validity coefficient index of 0.75 was used to test the validity of the questionnaire (Johnson & Christensen, 2020).

Content validity enables data being collected to be reliable in representing the specific content of a particular concept. Supervisors and the research experts in the different department of referral Hospitals was used to evaluate the applicability and appropriateness of the content, clarity and adequacy of the research instrument from a research perspective. Validity was also being checked during piloting to ensure all the items to be in the main study are functioning. Moreover, to ensure validity of the questionnaires, content validity was established from the pretest and re-test method that was done before the actual research. The pre-test retest was done in an area within the study location which is not included during the actual research undertaking (Zhang, 2022).

3.8 Data Analysis and presentation

According to Creswell, (2020) confirm that the main purpose of content analysis is to study existing information in order to determine factors that explain specific phenomenon. Both quantitative and qualitative techniques was used. The data obtained from the research instruments was analyzed by use of descriptive statistics (frequencies and percentages) as well as inferential statistics Quantitative analysis method was applied to analyze quantitative data where data scored by calculating the percentage and means.

3.8.1 Inferential Statistics

The Statistical Package for Social Sciences (SPSS) computer software version 23 was used specifically for the purpose of analyzing the quantitative data and presenting it inform of tables, pie charts and bar charts. Qualitative data analysis method was employed to analyze qualitative data gathered using open-ended questionnaires (Creswell, 2020).

Descriptive statistics includes statistical procedures that are used to describe the population of the study. The data could be collected from either a sample or a population, but the results help in organizing the data (Zhang, 2022). Descriptive statistics can only be used to describe the group that is being studied that results cannot be generalized to any larger group. Descriptive statistics was used to describe the basis

features of the data in the study. They provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data (Salkind, 2019).

The study used inferential statistics which is the process of drawing conclusions from data that are subject to random variation, for example, observational errors or sampling variation. (Creswell, 2020). States that this will help in making predictions or inferences about a population from observations and analyses of a sample. Inferential statistics is concerned with making predictions or inferences about a population from observation and analysis of a sample. That is, one can take the results of an analysis using a sample and can generalize it to the larger population that the sample represents. In order to do this, however, it is imperative that the sample is representative of the group to which it is being generalized. This was determined by testing of coefficient of regression of its significance.

A Chi-square or t-test, for example, can tell the probability that the results of the analysis on the sample are representative of the population that the sample represents. In other words, these tests of significance tell the probability that the results of the analysis could have occurred by chance when there is no relationship at all between the variables studied in the population of study. The multiple regression model was used to show the relationship between the dependent variable and the independent variables (Zhang, 2022).

3.8.2 Test of Assumptions

Giles (2017), states that Most of the parametric tests require that the assumption of normality be met. Normality means that the distribution of the test is normally distributed (or bell-shaped) with 0 mean, with 1 standard deviation and a symmetric bell-shaped curve. According to Yin (2020) to test the assumption of normality, the following measures and tests was used in the study Skewness and Kurtosis: Skewness should be within the range ±2. Kurtosis values should be within range of ±7

Ginkerand (2017) provides that Kolmogorov-Smirnov test in the case of a large sample, most researchers use K-S test to test the assumption of normality. This test

should not be significant to meet the assumption of normality. To test the assumption of homogeneity of variance, Levine's test is used. Levine's test is used to asses if the groups have equal variances. This test should not be significant to meet the assumption of equality of variances (Johnson & Christensen, 2020).

Homogeneity of variance-covariance matrices assumption was used to test multicollinearity means that the variables of interest are highly correlated and high correlations should not be present among variables of interest (Zhang, 2022). To test the assumption of multicollinearity, VIF and Condition indices was used, especially in regression analyses. A value of VIF >10 indicates multicollinearity is present and the assumption is violated (Salkind, 2019).

Homoscedasticity assumes that there is constant variance of the errors. Heteroscedasticity, which is a violation of homoscedasticity, makes it problematic to measure the true forecast errors' standard deviation, and too narrow or too wide are usually the result. A plot of residuals versus predicted values was used to check for the convergence. Neuman (2010) define autocorrelation as the association of a time series with its future and own past values. The study used Durbin Watson measure to check on the existence of autocorrelation. Durbin Watson varies between 0 and 4 such that if d=2 then there is no problem of autocorrelation, if d< 2 then there is positive/persistent autocorrelation and if d>2 then the exits a negative autocorrelation (Salkind, 2019). The multiple regression equation of the study is shown below;

$$y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where;

y= Supply Chain Performance of Public Level Four Hospitals in Kenya

α = Constant

$\beta 1 \ldots \beta 4$ = the slope representing degree of change in independent variable by one unit variable.

X_1 = Relationship framework

X_2 = Quantity Frameworks

X_3 = evaluation Framework

X_4 = Service Framework

ε=Error Term

3.8.3 Testing for the Moderating Effect of Procurement Legal Framework

The mediation model offers an explanation for how, or why, two variables are related, where an intervening or mediating variable, M, was hypothesized to be intermediate in the relation between an independent variable, X, and an outcome, in testing for the moderating effect of compliance requirements; the study adopted the Moderated Multiple Regression (MMR) analysis. MMR technique consists of two steps. In the first step, the main effects of the predictor (X) and the hypothesized moderator (Z) was estimated using regression.

$$\mathbf{Y = a + B_1X + B_2Z + e} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \mathbf{(1)}$$

Where

$$y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_1 Z + \beta_6 X_2 Z + \beta_7 X_3 Z + \beta_8 X_4 Z + \varepsilon$$

3.9 Research Ethics

This study adhered to appropriate research procedures and all sources of information was acknowledged as far as possible. Before the questionnaire been administered, consent was sought and given by the respondents. The respondents were informed of their right not to take part in the survey. Full confidentiality was maintained especially when dealing with questionnaires and the identity of the respondents was kept secret.

In this research three principles of ethics were used namely beneficence, respect for human dignity as well as justice (Denis, 2012). Following the three principles, sensitivity to the participants' emotions was observed when probing questions that could psychologically harm the participants as well as protect the participants from adverse situations. The participants were also informed that the information they provided would not be used in any way to harm the participants or exploited for commercial and selfish personal gain but only for academic purposes. Full disclosure, fair treatment and privacy was also practiced (Harvard, 2012).

Table 3.2: Operationalization of Variable

Variable	How Variable was Measured	Statistical Model	Main Tools of Analysis
To establish the effect of Contract Relationship framework supply chain performance of public level four hospitals in Kenya.	• Contract Form • Term of Contracts • Collaborative processes	$Y=\beta_0+\beta_1X_1+\varepsilon$ Where: Y= Supply chain performance β_0 = Constant β_1 = Coefficient of X_1 X_1 = Contract Relationship framework ε =Error term	Regression and Correlation Analysis; If P value is ≤0.05 research hypothesis is true
To determine the influence Contract Quantity Frameworks on supply chain performance of public level four hospitals in Kenya.	• Shipment Schedules • Economic Order Quantity • Operations requirements	$Y=\alpha+\beta_2X_2+\varepsilon$ Where: Y= Supply chain performance β_0 = constant β_2= Coefficient of X_2 X_2 = Quantity Frameworks ε =Error term	Regression and Correlation Analysis; If P value is ≤0.05 research hypothesis is true
To find out the effect of Contract evaluation Framework on supply chain performance of public level four hospitals in Kenya	• Blanket Contracting • Training Framework • Partnering agreement	$Y=\alpha+\beta_3X_3+\varepsilon$ Where: Y= Supply chain performance β_0 = constant β_3= Coefficient of X_3 X_3 = Contract evaluation Framework ε =Error term	Regression and Correlation Analysis; If P value is ≤0.05 research hypothesis is true
To establish the effect of Contract Service Framework supply chain performance of public level four hospitals in Kenya	• Contract process • Payment terms • Product warranties	$Y=\alpha+\beta_4X_4+\varepsilon$ Where: Y= Supply chain performance β_0 = constant β_4= Coefficient of X_4 X_4 = Contract Service Framework ε =Error term	Regression and Correlation Analysis; If P value is ≤0.05 research hypothesis is true
To analyse the moderating effects of Procurement Legal Framework on supply chain performance of public level four hospitals in Kenya.	• Purchase Order Compliance • ISO-Cerfication • Specification Compliance	$Y=\alpha+\beta_1X+\beta_2(X*M)+\varepsilon$ Where: Y= Supply chain performance β_0 = Constant β = Beta Coefficients of X & M X = contract Contract framework level of implémentation M = Procurement Legal Framework ε =Error term	Regression and Correlation Analysis

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATIONS

4.1 Introduction

This chapter discusses the analysis, interpretation and presentation of the findings. The main objective of this study was to determine contract framework level of implementation on supply chain performance of public level four hospitals in Kenya. Data was analyzed using descriptive techniques such as means, standard deviation and frequencies. The inferential statistics (correlation and regression analysis) was done to establish the relationship between variables. Data was presented in charts and tables for ease of analysis and interpretations of findings.

4.2 Response Rate

As indicated in Table 4.1, the findings indicated that out of the 270 respondents of the target the population, where 210 respondents responded and returned the questionnaires fully answered for analysis. This constitute to 80% of the response rate This commendable response rate was made a reality after the researcher made personal calls and visits to remind the respondent to fill-in and return the questionnaires. This was a sufficient response rate for the study (Creswell, 2020) Indicated that a response rate of 50%, 60% or 70% of the response rate is sufficient for a study.

Table 4.3: Response Rate

Category	Frequency	Percentage
Responsive Questionnaires	210	80
Non-Responsive Questionnaires	60	20
Distributed Questionnaires	270	100

4.3 Pilot Study Results

4.3.1 Reliability Test

Table 4.2 illustrates the findings of the study concerning the reliability analysis. In this study,

Reliability was ensured through pilot testing on a sample of 27 respondents. This represents 10% of the sample as recommended by (Mugenda &Mugenda, 2012). These were however not included in the study. The 27 respondents were selected from 270 Public level four hospitals in Kenya. From the findings, the overall coefficient was 0.78143 as shown in table 4.2; the coefficient was higher than 0.70 threshold, showing that the instruments were reliable, the coefficient for Contract Relationship framework was 0.78143, Cronbach alpha coefficients for Contract Quantity Frameworks was 0.75476, Cronbach alpha coefficients for Contract evaluation Framework was 0.78461, Cronbach alpha coefficients for Contract Service Framework was 0.79142 and Cronbach alpha coefficients for procurement legal framework was these were greater than 0.7 thresh hold for this study. Validity shows the degree to which a test measures what it purports to measure. The language used on the questionnaire was kept simple to avoid any ambiguity and misunderstanding. The validity of the instrument was established by expert input.

Table 4.4: Reliability and Validity Results

Variable	Cronbach	No of Item
Relationship Framework	.72499	5
Quantity Frameworks	.75476	5
Evaluation Framework	.78461	5
Service Framework	.76742	5
Procurement Legal Framework	.79142	5
Overall	.78143	

4.3.2 Validity Test

Validity is a measure of how well a test or measurement tool accurately assesses or measures what it intends to measure. In the context of the mentioned variables, a

validity test evaluated the effectiveness and appropriateness of the frameworks in assessing or measuring their respective concepts or aspects (Yin, 2020). Validity and reliability make the difference between good and bad research reports. Quality research depends on a commitment to testing and increasing the validity as well as the reliability of your research results. Face validity determined the way the instrument appears to the participant such that an instrument may appear insultingly simplistic, far too difficult, or too repetitive. Such flaws affect the respondent's willingness to complete the questionnaire. In the case of construct validity, a five-point Likert scale was used. The Likert scale is where respondents gave their opinions or views that enabled the researcher collect data that was objective. Construct validity involved generalizing from that program or measures to the concept of the program or measures (Strijker & Bouter, 2020).

4.4 Descriptive Statistics

Descriptive statistics are a set of brief descriptive coefficients that summarizes a given data set, which can either be a representation of the entire population or a sample. The measures used to describe the data set are measures of central tendency and measures of variability or dispersion.

4.4.1 Relationship Framework

Contract Form

From table 4.3 respondents indicated that Maintaining contract records in SAP, ensuring governance requirements are met at all times which was supported by mean score of 4.26 and standard deviation of 1.15 providing that 61.43% of the respondents strongly agreed and 18.57% of the respondents agreeing indicating that the participants perceive it to be moderately important. The study provided that contracts have the potential to reduce transaction costs by eliminating the need for annual tender evaluation with mean score of 4.29 and standard deviation of 0.96 indicating that 57.62% of the respondents agreed strongly and 20.00% of the respondents agreeing this inferred that organizations should focus on establishing binding agreements among the relevant parties or for the relevant scope. The findings

were in agreement with those of Onyango & Oduor, (2020) that the contract relationship framework highlights the importance of developing and maintaining strong relationships with suppliers. It emphasizes the need for clear and mutually beneficial contracts to manage the interdependencies between buyers and suppliers.

The study revealed that Aligning to standard contract terms on the length of the agreement, renewal terms, and volume and price ranges determines organization performance, aligning with standard contract terms: With a mean rating of 3.76, this task is considered moderately important. The percentages suggest a varied opinion among participants, with a relatively high percentage 42.86% indicating agreement. The higher standard deviation (1.05) reflects some disagreement among participants. The implication is that organizations need to carefully consider and negotiate standard contract terms, taking into account factors such as agreement length, renewal terms, and volume and price ranges.

The findings in the study provided that formation of Cross-functional teams during contract tendering, formation, administration and negotiation allowed contract performance which had a mean of score of 3.82 and standard deviation of 0.73 where 70.00% of the respondents were agreeing with the statement the implication is that organizations should consider the involvement of cross-functional teams for a comprehensive approach to contract tendering, formation, administration, and negotiation. Further the study provided that contract acquisition strategies within area of responsibility and communicate strategies to project clients align contract to compliance where 42.86% of the respondents agreed and 40.95% of the respondents strongly agreed, with a mean score of 4.16 and standard deviation of 0.93. From the finding this implies that it is important that partners choose to focus on relationship management by taking actions and measures required to keep the relationship highly collaborative through what might be tough times. The findings in this study are in line with those of Coderre Dalgarno and Fitzpatrick, (2021) that once the partners have agreed to the negotiation rules they will then and only then begin to negotiate actual deal specifics such as the scope, metrics, pricing approach and other key contractual terms and conditions.

Table 4.5: Relationship framework

Statement	1	2	3	4	5	Mean	Std
Maintain contract records in SAP, ensuring governance requirements are met at all times	6.19%	2.86%	10.95%	18.57%	61.43%	4.26	1.15
Negotiate the many details of a contract for each instance a product is sold or a service is used.	3.33%	0.95%	8.57%	15.24%	71.90%	4.51	0.94
Contracts have the potential to reduce transaction costs by eliminating the need for annual tender evaluation	0.95%	4.29%	17.14%	20.00%	57.62%	4.29	0.96
Binding agreement as to the relevant parties or the relevant scope.	1.90%	3.81%	5.71%	22.38%	66.19%	4.47	0.91
Align to standard contract terms on the length of the agreement, renewal terms, and volume and price ranges	5.71%	4.29%	22.86%	42.86%	24.29%	3.76	1.05
Providing mechanisms so that suppliers and buyer share system's risks and costs	1.43%	2.86%	10.48%	34.76%	50.48%	4.30	0.87
Cross-functional teams during contract tendering, formation, administration and negotiation;	0.95%	6.19%	12.86%	70.00%	10.00%	3.82	0.73
Contract acquisition strategies within area of responsibility and communicate strategies to project clients	3.33%	1.90%	10.95%	42.86%	40.95%	4.16	0.93

Collaborative processes

The finding is shown in Table 4.4, provided that working with the best in each field increase the quality of the product/service provided with a mean score of 4.10 and standard deviation of 1.10 where, 47.62% of the respondents strongly agreed and 28.10% of the respondents agreeing this suggests that organizations should prioritize collaborating with top professional's suppliers. The study indicated that Collaboration for cost reduction focuses on cutting costs for both sides beyond traditional sourcing levers where 46.19% of the respondents strongly agreed with a mean score of 3.49 and standard deviation of 0.72. from the findings this implies that organizations should explore innovative approaches to drive down costs They were findings were in agreements with those of Odhiambo & Kwasira, (2019) That Collaborative processes help optimize procurement and sourcing strategies, resulting in lower costs for both suppliers and customers. By jointly analysing and reducing non-value-added activities

The study provided that Collaboration for value to improve safety and quality of products and of supply for a new or capacity-constrained component with a mean score of 3.47 and standard deviation of 0.63 where 70.05% of the respondents strongly agreed suggesting that hospitals should work closely with suppliers to ensure the reliable and high-quality delivery of essential components. The study revealed that successfully creating transparency and trust, however, can deliver remarkable value with 11.90% of the respondents strongly agreeing and 71.90% of the respondents agreeing the statement was supported by mean score of 3.87 and standard deviation of 0.76 This highlights the need for organizations to establish mechanisms that promote transparency and trust-building within their supply chains. From the study, it was observed that a value-sharing model must detail the targets of cooperation, defining the benefits and agreeing on how to share those benefits with mean score of 4.23 and standard deviation of 0.96 with 54.29% of the respondents strongly agreeing from the finding implies that collaborative working involves parties to a project proactively coming together to resolve problems that arise during the works, with the primary focus on finding areas for compromise. The finding in the study concurred with those of Petersen & Ragatz, (2013). That Framed collaborative contract would be beneficial

for the establishment of a clear framework on which collaboration can be organized in a project.

Table 4.6: Collaborative processes

Statement	1	2	3	4	5	Mean	Std
Working with the best in each field increase the quality of the product/service provided	4.29%	5.24%	14.76%	28.10%	47.62%	4.10	1.10
Suppliers that work well under the company's culture and values and ensure the standard that is required of them	4.29%	6.19%	20.00%	70.00%	5.71%	3.49	0.72
Collaboration for cost reduction focuses on cutting costs for both sides beyond traditional sourcing levers	3.33%	2.86%	17.62%	46.19%	30.00%	3.97	0.94
Collaboration for value to improve safety and quality of products and of supply for a new	3.81%	5.24%	21.43%	70.05%	9.52%	3.47	0.63
Collaboration for innovation is the practice of working with suppliers to improve process	5.71%	4.76%	8.10%	51.90%	29.52%	3.95	1.04
Successfully creating transparency and trust, however, can deliver remarkable value.	1.90%	5.24%	9.05%	71.90%	11.90%	3.87	0.76
A value-sharing model must detail the targets of cooperation, defining the benefits and agreeing on how to share those benefits	1.43%	1.43%	23.81%	19.05%	54.29%	4.23	0.96

4.4.2 Quantity Frameworks

Shipment Schedules

The respondents were required to indicate to which Shipment Schedules affect supply chain performance of public level four hospitals in Kenya. The finding is shown in Table 4.5, provided that 49.52% of the respondents strongly agreed that validation in delivery quantity should not be greater than open quantity of schedule line on the medical commodities been delivered which was supported by a mean of 4.02 and standard deviation of 0.83 implying that specified schedules are essential for efficient and effective delivery operations. The study provided that break downing the weekly or monthly schedule lines sent in by the customer into daily requirements enabled stable deliveries where 49.05% of the respondents strongly agreed and 26.67% of the respondents agreed and been supported by a mean score of 4.14 and standard deviation of 1.04 which implied that customers should consider breaking down their schedule for better planning a .the respondents supported that the the planning delivery schedule is structured in the same way as forecast and just-in-time (JIT) delivery schedules with mean score of 4.23 and standard deviation of 0.87,where 46.19% of the respondents strongly agreed and 35.71% of the respondents agreeing .the findings concurred with the findings accorded with Muchemi & Kinyanjui (2020), shipment schedules are essential in coordinating production and inventory management, as well as meeting customer demands or project timelines.

The finding it the study established that work together in the scheduling agreement; see combining delivery schedules and setting requirements and delivery relevance with 81.43% of the respondents agreeing and likewise been supported by a mean of 3.91 and standard deviation of 0.58 from the findings it implies collaborating with suppliers and considering combined delivery schedules can enhance efficiency. From the finding 42.86% of the respondents strongly agreed that time frames for delivery indicated by bidders should be taken into account during the detailed evaluation for better delivery planning which a mean 3.93 and standard deviation of 1.16 indicates a positive perception of incorporating time frames for delivery into the evaluation process. The study revealed that to deliver the goods in accordance with the delivery

schedule should be specified in the schedule of requirements with mean score of 3.74 and standard deviation of 1.06. From the study finding this implied that delivery schedules allow you to track order line quantity when you are using multiple deliveries for a single sales order, sales quotation, or purchase order. The finding in the study concurred with those of Prajogo and Olhager, (2020) that frameworks help establish a stable and consistent supply of products or services, ensuring that both parties have a clear understanding of the expected quantities. They are used in various industries, such as manufacturing, construction, or retail.

Table 4.7: Shipment Schedules

Statement	1	2	3	4	5	Men	Std
Validation in delivery that delivery quantity should not be greater than open quantity of schedule line,	0.48%	4.76%	16.1%	49.52%	29.05%	4.02	0.83
the supplier's delivery created against the scheduling agreement	4.29%	5.24%	20.0%	62.38%	8.10%	3.65	0.87
Break down the weekly or monthly schedule lines sent in by the customer into daily requirements	2.38%	6.19%	15.7%	26.67%	49.05%	4.14	1.04
Limit the planning period of schedule lines in forecast delivery schedules	0.48%	0.95%	15.2%	30.00%	53.33%	4.35	0.80
The planning delivery schedule is structured in the same way as forecast and just-in-time (JIT) delivery schedules	1.43%	1.90%	14.7%	35.71%	46.19%	4.23	0.87
Work together in the scheduling agreement; see Combining Delivery Schedules and Setting Requirements and Delivery Relevance.	0.95%	2.86%	7.6%	81.43%	7.14%	3.91	0.58
The forecast delivery schedule as a basis for planning production and sales, and for controlling shipping.	0.95%	0.95%	4.2%	78.57%	15.24%	4.06	0.56
Schedules for delivery drivers each day or having to pull up delivery and pick-up information	0.95%	3.81%	22.3%	25.71%	47.14%	4.14	0.96
The time frames for delivery indicated by bidders will be taken into account during the evaluation,	5.71%	4.29%	23.8%	23.33%	42.86%	3.93	1.16
To deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.	5.71%	5.71%	21.4%	43.33%	23.81%	3.74	1.06

Operations Requirements

The finding is shown in Table 4.6 provides that the right product at the right time reliability delivers the correct product on time goods and services work as described with a mean score of 3.68 and standard deviation 0.62, where 80.00% of the respondents agreed with the statement this indicates high satisfaction with product reliability and timely delivery. The study further provided that the operations are compliant with relevant government licenses and approvals for plants, materials and distribution requirements of the organization which had a mean score of 3.81 and standard deviation of 1.02 with of the respondents agreeing 42.86%while 25.71% of the respondents strongly agreeing This suggests that there is room for improvement in ensuring compliance with government regulations. The study findings were in agreed with those of Mwaura, (2017) that with a well-designed shipment schedule, companies reduce inventory holding costs by ensuring that the right amount of inventory is available at the right time.

The study indicated that public hospitals cooperation with the supplier and other stakeholders enables to develop the operations requirement for economic order deliveries which had a mean score of 3.58 and standard deviation of 0.82 with 66.19% of the respondents agreeing and 2.86% of the respondents strongly agreeing this implies a positive collaborative approach that can lead to better outcomes. The Finding in this study revealed that public hospitals were requiring detailed plan for corrective actions from the supplier for operational requirement supported by a mean score of 3.58 and standard deviation of 0.82 where 66.19% of the respondents agreed. From the study finding this implies that higher level decisions are made to create a framework within the company's supply chain operation and to the best competitive advantage. The finding in the study concurred with those of Syed, (2019) Shipment schedules play a critical role in meeting customer demand and maintaining high levels of customer satisfaction by ensuring that shipments arrive on time and in the right quantity, companies can avoid delays and backorders, leading to better customer service.

Table 4.8: Operations Requirements

Statement	1	2	3	4	5	Mean	Std
The right product at the right time reliability delivers the correct product on time goods and services work as described	1.43%	6.67%	11.90%	80.00%	2.86%	3.68	0.62
The operations are compliant with relevant government licenses and approvals for plants, materials and distribution	5.71%	1.90%	23.81%	42.86%	25.71%	3.81	1.02
The suppliers and subcontractors shall allow regular formal contract reviews at a frequency agreed locally or whenever changes happen	0.95%	3.81%	10.95%	70.48%	13.81%	3.92	0.69
Cooperation with the supplier and other stakeholders to develop the operations.	4.29%	5.71%	20.95%	66.19%	2.86%	3.58	0.82
Requiring detailed plan for corrective actions from the supplier.	5.24%	1.90%	3.33%	66.67%	22.86%	4.00	0.90
Suppliers and contractors must comply with the payment terms	1.43%	1.43%	15.71%	29.05%	52.38%	4.30	0.88
Monitor the supplier performance	1.90%	2.86%	15.24%	38.10%	41.90%	4.15	0.91
Specific methods of delivery and quality assurance processes	4.29%	3.81%	22.86%	21.90%	47.14%	4.04	1.11

4.4.3 Evaluation Framework

Blanket Contracting

The finding is shown in Table 4.7 indicated that in public hospitals as needs and product or service requirements may change over the term of the agreement m the facilities need structured Contract evaluation Framework which had a mean of 4.09 and standard deviation of 1.01 with 41.90% of the respondents agreeing and 39.52% of the respondents strongly agreeing .the findings indicated that Based on the blanket order, sales orders blanket releases or 'release orders') and invoice items can be created as needed until the contract is fulfilled in the public hospitals with a mean score of 3.74 and standard deviation of 0.91 where 75.71% of the respondents agreed and 8.10% of the respondents strongly agreed .the respondents moderately indicated that in public hospitals The buyer keep quantities of goods in order that the buyer could know the status of the stock so as to requisite orders based on Blanket Contracting quantities which had a mean of 4.36 and standard deviation of 0.93 with 26.19% of the respondents agreeing and 58.57% of the respondents strongly agreeing. The studies concurred with Onyango & Oduor (2020) that organizations should establish a system for monitoring and tracking the supplier's performance on an ongoing basis, including regular reporting requirements and performance review meetings.

The study indicated that in public hospital before the buyer issuing the purchase order to supplier it must be within the stipulation of the Blanket Contracting with a mean score of 3.97 and standard deviation of 1.00 where 43.81% of the respondents agreed and 32.38% of the respondents strongly agreed to the statement. The findings further indicated that blanket contracting provided the ability to change terms to the agreement to keep up with those changes based on demand. The finding concurred with those of that Issuing a blanket order allows a customer not to hold more stock than necessary at any time, and avoids the administrative expense of processing frequent purchase orders, while favouring discount pricing through volume commitments or price breaks. The finding was not in agreement with those of that Duke, Kobuk and Nemea (2020) by including these provisions in a blanket contracting agreement, the parties ensure

that both performance expectations and metrics are clearly defined, and there is a mechanism in place to monitor and evaluate performance on an ongoing basis.

Table 4.9: Blanket Contracting

Statement	1	2	3	4	5	Mean	Std
As needs and product or service, requirements may change over the term of the agreement.	3.33%	5.71%	9.52%	41.90%	39.52%	4.09	1.01
Based on the blanket order, sales orders blanket releases or 'release orders') and invoice items can be created as needed until the contract is fulfilled	5.71%	6.67%	3.81%	75.71%	8.10%	3.74	0.91
The buyer the quantities of goods kept in order that the buyer could know the status of the stock.	0.95%	5.71%	8.57%	26.19%	58.57%	4.36	0.93
Before the buyer issuing the purchase order to supplier.	5.24%	0.95%	17.62%	43.81%	32.38%	3.97	1.00
The ability to change terms to the agreement to keep up with those changes.	2.86%	4.76%	21.90%	60.95%	9.52%	3.70	0.82

Partnering Agreement

The result shown in Table 4.8. respondents indicated that in public hospitals Tailored business relationship based on mutual trust, openness, shared risk and shared rewards that yield a competitive advantage with a mean score of 4.06 and the standard deviation is 1.01, suggesting a moderate level of variability in the responses where 58.57% of the respondents agreed and 28.57% of the respondents strongly agreed to the statement this implicated that it’s important for the agreement to provide flexibility in adapting

to changing needs and requirements.. The Partnerships based on value and respect each company has to value and respect the other with a solid, long-term relationship that implies continuous improvement which had a mean of 4.10 and standard deviation of 1.09 with 35.24% of the respondents agreeing and 44.76% of the respondents strongly agreeing to the statement, to a moderate extent. The respondents contributed that Firms involved in buyer-supplier partnerships stress continuous quality improvements which was supported by a mean score of 3.77 and standard deviation 0.91. The study findings were in line with those Ngugi and Muturi (2020) of that The Parties shall engage in continuous improvement efforts to enhance the efficiency and effectiveness of the supply chain. This may involve regular meetings, joint problem-solving sessions, and the implementation of best practices and innovative solutions.

The further indicated that public hospitals Joint cost reduction programs, on-going and open communications, and heightened customer service levels with a score of 3.80 and standard deviation of 0.78 with 58.10% of the respondents agreeing and 14.76% of the respondents strongly agreed. This implies that the supplier agreement is most beneficial to the supplier. It protects the supplier in the event that a client is unhappy with the services they provide. A clearly written agreement helps you make sure that the services and products ordered reach the client quickly without unnecessary complications. The finding concurred with those of Chopra & Meindl (2019) that The Parties shall establish key performance indicators (KPIs) to measure the performance of the supply chain partnership. These KPIs may include, but are not limited to, on-time delivery, order accuracy, inventory turnover,

Table 4.10: Partnering Agreement

Statement	1	2	3	4	5	Mean	Std
Tailored business relationship based on mutual trust, openness, shared risk and shared rewards that yield a competitive advantage,	3.33%	2.86%	6.67%	58.57%	28.57%	4.06	0.87
Partnerships based on value and respect. Each company has to value and respect the other with a solid, long-term relationship that implies continuous improvement	4.29%	6.67%	9.05%	35.24%	44.76%	4.10	1.09
Firms involved in buyer-supplier partnerships stress continuous quality improvements,	6.19%	0.95%	15.24%	64.76%	12.86%	3.77	0.91
Joint cost reduction programs, on-going and open communications, and heightened customer service levels.	0.48%	6.19%	20.48%	58.10%	14.76%	3.80	0.78

4.4.4 Service Framework

Contract Process

The respondents were required to indicate to which level Contract Service Framework effects on supply chain performance of public level four hospitals in Kenya. The finding is shown in Table 4.9. The study provided that KPIs evaluate the success of an organization or of a particular activity, products and contract in which it engages which had a mean score of 4.14 and standard deviation of 0.98, where 24.29% of the respondents agreed and 48.10% of the respondents strongly agreed to the statement

The study established that identification of potential improvements, so performance indicators are routinely associated with services level agreement which was supported by a mean score of 4.18 and standard deviation of 0.98 with 50.48% of the respondents strongly agreeing The findings suggest that KPIs play a significant role in evaluating the success of an organization or activity.The evaluated, KPIs are linked to target values, so that the value of the measure can be assessed as meeting expectations which had a mean of 3.55 and standard deviation of 0.83 with 70.00% of the respondents agreeing and 5.71% of the respondents strongly agreeing to the statement this implied that there is importance of identifying potential improvements indicates a need for continuous improvement initiatives based on performance indicators.. The study findings were in line with Mutangili & Cheluget, (2020) that purpose of the framework the purpose of this contract service framework is to outline the key principles and guidelines for measuring and improving supply chain performance within an organization.

The use of Capacity management involves planning and controlling that meets the minimum performance expectations in the SLA where 66.19% of the respondents agreeing and 24.76% of the respondents strongly agreeing with the statement which had a mean of 4.07 and standard deviation of 0.82 this implies that continuous monitoring and improvement efforts should be maintained to ensure consistent service excellence. The study provided that moderately the respondents health facilities were managing service delivery to ensure that the products are delivered as and when they are ordered with a mean score of 3.70 and standard deviation of 0.46 with 80.95% of the respondents agreeing and 3.81% of the respondents strongly agreeing to the statement .the findings indicated that the public hospitals Contract administration ensured that the day-to-day procurement activities follow the spirit and sections of the contract as stated on contract performance agreement, which had a mean of 3.99 and standard deviation of 0.95 with 35.71% of the respondents agreeing and 35.71% of the respondents strongly agreeing to the statement. This implies that ensuring that concise Contract Service Framework s (SLA) is obtained products is crucial to seamless operation and support. The finding concurred with those of Gaur, Bhatia & Rai, (2020). That A Contract Service Framework is a formal negotiated agreement which

helps to identify expectations, clarify responsibilities, and facilitate communication between two parties, typically a service provider and its customers.

Table 4.11: Contract Process

Statement	1	2	3	4	5	Mean	Std
KPIs evaluate the success of an organization or of a particular activity, products and contract in which it engages	0.95%	4.76%	21.90%	24.29%	48.10%	4.14	0.98
identification of potential improvements, so performance indicators are routinely associated with	0.95%	5.24%	19.52%	23.81%	50.48%	4.18	0.98
evaluated, KPIs are linked to target values, so that the value of the measure can be assessed as expectations	0.48%	4.29%	19.52%	70.00%	5.71%	3.55	0.83
transactions according to the level agreed on in the SLA As with capacity management,	4.76%	5.71%	23.33%	18.10%	48.10%	3.99	1.17
Capacity management involves planning and controlling that meets the minimum performance expectations in the SLA	3.81%	0.95%	4.29%	66.19%	24.76%	4.07	0.82
The specifying review and approval route depends on the type and value of the contract at issue	5.71%	1.90%	21.43%	17.62%	53.33%	4.11	1.15
Managing Service Delivery To ensure that the products are delivered as and when they are ordered.	0.95%	0.95%	16.95%	80.95%	3.81%	3.70	0.46
Contract administration to ensure that the day-to-day procurement activities follow the spirit and sections of the contract.	0.48%	7.14%	20.95%	35.71%	35.71%	3.99	0.95
On-going and regular monitoring of each vendor should be instigated and maintained.	2.38%	2.38%	16.67%	24.29%	54.29%	4.26	0.98

4.4.5 Procurement Legal Framework

Based on the findings of the study questionnaire in table 4.10 it was established that the majority of respondents 54.29% agreed that the Procurement Legal Framework has a high level of influence on procurement practices within their organization. The mean of 3.80 suggests that the respondents, on average, have a positive perception of the influence of the framework, with a relatively low standard deviation of 0.94 indicating that the responses were consistent. The majority of respondents 64.76% agreed that the PPRA policies adequately guide procurement activities in accordance with the Public Procurement and Asset Disposal Act 2015. The mean of 4.52 suggests that the respondents, on average, have a positive perception of the adequacy of the policies, with a relatively low standard deviation of 0.74 indicating that the responses were consistent.

A significant proportion of respondents 44.76% reported being familiar with the procurement procedures outlined in the Public Procurement and Asset Disposal Act 2015. The mean of 4.05 suggests that the respondents, on average, have a relatively high level of familiarity, although the standard deviation of 1.02 indicates some variability in the level of familiarity. The majority of respondents 47.62% observed positive changes in procurement practices since the implementation of the Public Procurement and Asset Disposal Act 2015. The mean of 4.17 suggests that the respondents, on average, have a positive perception of the changes, with a relatively low standard deviation of 1.09 indicating that the responses were consistent.

The biggest challenge faced in implementing the framework contract under the Procurement Legal Framework was reported to be "observing positive changes in procurement practices" 50.95%. The mean of 4.13 suggests that the respondents, on average, perceive this challenge to be significant, with a standard deviation of 1.09 indicating some variability in the perceived challenge. The effectiveness of the Procurement Legal Framework in promoting transparency and accountability in public procurement was rated positively by the majority of respondents 48.57%. The mean of 3.97 suggests that the respondents, on average, have a positive perception of the effectiveness, with a relatively low standard deviation of 0.98 indicating that the

responses were consistent. A considerable proportion of respondents 57.62% identified gaps or areas for improvement in the Procurement Legal Framework and its influence on procurement procedures. The mean of 4.08 suggests that the respondents, on average, perceive some room for improvement, with a relatively low standard deviation of 0.87 indicating that the responses were consistent.

The majority of respondents (67.62%) agreed that the PPRA policies align with the objectives and provisions of the Public Procurement and Asset Disposal Act 2015. The mean of 3.66 suggests that the respondents, on average, have a positive perception of the alignment, with a relatively low standard deviation of 0.86 indicating that the responses were consistent. Respondents had mixed opinions regarding whether the Procurement Legal Framework ensures fair competition and value for money in public procurement. The highest percentage of respondents (41.43%) agreed, but a significant proportion (36.67%) were neutral. The mean of 4.09 suggests that, on average, respondents have a positive perception, with a standard deviation of 1.00 indicating some variability in the opinions. The studies agreed with those of Chopra & Meindl (2019) the procurement legal framework promotes standardization and consistency in the procurement process.

Table 4.12: Procurement Legal Framework

Statement	1	2	3	4	5	Mean	Std
Rate the influence of the Procurement Legal Framework on procurement practices within your organization?	4.29%	4.29%	18.10%	54.29%	19.05%	3.80	0.94
PPRA policies adequately guide procurement activities in accordance with the Public Procurement and Asset Disposal Act 2015.	0.48%	1.43%	8.10%	25.24%	64.76%	4.52	0.74
How familiar are you with the procurement procedures outlined in the Public Procurement and Asset Disposal Act 2015?	3.81%	6.19%	8.10%	44.76%	37.14%	4.05	1.02
Have you observed any positive changes in procurement practices since the implementation of the Public Procurement and Asset Disposal Act 2015	6.19%	2.86%	6.19%	37.14%	47.62%	4.17	1.09
What challenges have you faced in implementing the framework contract under the Procurement Legal Framework?	4.76%	1.43%	20.95%	21.90%	50.95%	4.13	1.09
Assess the effectiveness of the Procurement Legal Framework in promoting transparency and accountability in public procurement?	4.76%	1.90%	14.76%	48.57%	30.00%	3.97	0.98
Areas for improvement that you have identified in the Procurement Legal Framework and its influence on procurement procedures?	2.38%	4.76%	5.24%	57.62%	30.00%	4.08	0.87
The PPRA policies align with the objectives and provisions of the Public Procurement	4.76%	5.24%	15.71%	67.62%	6.67%	3.66	0.86
The Procurement Legal Framework ensures fair competition and value for money in public procurement?	1.90%	7.14%	12.86%	36.67%	41.43%	4.09	1.00

4.4.6 Supply Chain Performance of Level Four Hospitals

The study sought the extent to which indicators of level of performance experienced by Public Health Institutions in Public level four hospitals in Kenya in the last five years in terms of Lead time (days), Operational costs (Kshs) and Customer service (%). The implementation of contract framework on supply chain performance of public level four hospitals in Kenya was found to contribute to Performance of Public Health Institutions in Kenya. As Lead time (days) significantly reduced as attributed by the contract framework from (9- 11 days) in year 2014 to (7-9 days) in the year 2015. in Kenyatta National Hospital Magahi District Hospital Level four Hospital - Nairobi Dagoretti sub -district hospital (Mutuini) level four hospital – Nairobi, Siaya district hospital, Yala sub-district hospital level four hospital – Siaya,Narok district hospital , Ololulung'a district hospital level four hospital –Narok Maralal district Hospital County Refferal hospital Samburu Machakos county hospital, Kangundo district hospital and Kathiani sub-district hospital level four hospital - Machakos

The lead time days further reduced to in the year 2016 and 2017 to 7-5 days and 5-2 days respectively and down to the optimal levels in 2018 of (1-2 days) from the time of ordering. This implied that the warehouse systems strategies were responsive to the management of daily warehouse significantly reducing the order cycle time and lead time. The finding agreed with those of (McCollum, & Theobald, 2019). That the order lead time measurement creates an opportunity area to improve the customer relations by increasing the level of communication with them.

The performance in Operational costs level was on downward trends as the decreased steadily from 2M operating expense in the year of 2014 reducing to 0.8 M in the year 2015 and 0.4M, 0.3M and 0.1M in the year 2016 to 2018 respectively. The performance in Marani Sub-District Hospital Level four Hospital - Kisii ,Nyamache District Hospital ,Nyacheki Sub-District Hospital Level four Hospital – Kisii Nyamira District Hospital Level four Hospital - Nyamira Hulugho Sub-District Hospital Level four Hospital - Garissa Dadaab Sub-District Hospital Level four Hospital – Garissa in Customer service level was on upward trends as the Customer service increased

steadily from 17%, to 26% to 35% then to 47% to 60% from 2014 to 2018 respectively. This was an indication that contract framework influence greatly on Operational costs (ksh) and Customer service (%) Direct central warehouse load control centers to maximize efficiency and effectiveness of contract framework and supply chain performance of Level four Hospitals

Table 4.13: Supply Chain Performance of Level Four Hospitals

Performance levels	**Period**				
Year	**2014**	**2015**	**2016**	**2017**	**2018**
Lead time(days)	11-9	9-7	7-5	5-2	2-1
Costs reduction (ksh)	2M	0.8 M	0.4M	0.3M	0.1M
Customer service (%)	17	26	35	47	60

Inventory Turnover Ratio

Table 4.5 shows the respondents response on the level to which they were in agreement with the given statements that relate to the influence Inventory Turnover Ratio on performance of public level four Hospitals in Kenya. From the findings, majority of the respondents that in comparison of on-hand inventory to order point and generation of recommended replenishment orders Inventory Turnover Ratio identified the right stock per consumption supported by a mean score of 3.89 and standard deviation of 0.89. To a moderate extent respondents indicated that replenishment frequencies play an important role in integrated inventory models to reduce the total cost of hospital supply chains and inventory holding cost supported by a mean of 4.03 and standard deviation of 1.01. The study indicated that automatic monitoring of projected spoilage to avoid placing risky orders and prompting stores to markdown stock when needed in the hospital drugs store which was supported by a mean of 3.90 and standard deviation of 0.74.

The respondents conclusively agreed that less rework on the schedule during execution as orders will now fit in the storages and delivery vehicles, and match the delivery windows which may lead to stock out which had a mean score of 3.97 and standard deviation of 0.94. From the research it was established that Inventory traceability throughout a facility - managers will always know an accurate count at every location.

With score of 3.85 mean and 0.79 standard deviation. moderately the respondents indicated that using accurate projections of future inventory and orders, exceptions such as unusually large numbers of order lines can be identified and dealt with before they become problematic and lead to shortage on critical hospital drugs which was supported by a mean of 3.92 and standard deviation of 1.02. The study findings established that Reducing costs and production and keeping it just for a niche segment of the market which may be categorized to specific hospital commodities with a score of 4.29 and standard deviation of 0.96. From the study findings this implies that Inventory turnover is important because a hospital often has a significant amount of money tied up in its inventory. The study findings concurred with those of McCollum, & Theobald, 2019). That if the items in inventory do not get sold, the company's money will not become available to pay its employees, suppliers, lenders, etc.

Table 4.14: Inventory Turnover Ratio

Statement	Min	Max	Mean	Std
Comparison of on-hand inventory to order point and generation of recommended replenishment orders	3.00	4.00	3.89	0.89
Review and calculation of order points and order quantities based on movement data and special information	2.00	5.00	3.83	0.88
Replenishment frequencies play an important role in integrated inventory models to reduce the total cost of supply chains	2.00	5.00	4.03	1.01
Automatic monitoring of projected spoilage to avoid placing risky orders and prompting stores to markdown stock when needed	3.00	5.00	3.90	0.74
Dynamic day-level safety stocks, adjusting stock levels to consumers' shopping patterns	2.00	4.00	3.73	0.79
Advanced algorithms for automatic stock replenishment, based on demand forecasting and order generation.	2.00	5.00	4.14	1.01
Less rework on the schedule during execution as orders will now fit in the storages and delivery vehicles	1.00	4.00	3.97	0.94
Inventory traceability throughout a facility - managers will always know an accurate count at every location.	3.00	5.00	3.85	0.79
Increase your replenishment rate, you can also decrease the amount of inventory at each workstation needed to keep the assembly line moving	3.00	4.00	4.11	1.00
Proactive delivery planning enables stores to synch deliveries with staff availability.	3.00	4.00	3.92	0.88
Using accurate projections of future inventory and orders, exceptions such as unusually large numbers of order lines	1.00	4.00	3.92	1.02
Time-dependent parameters allow for planning changes, such as increasing shelf space for a promotion, well ahead.	1.00	5.00	3.70	0.81
Keeping the product on the market but adding or removing features or finding new uses for it	2.00	4.00	4.11	1.02
Reducing costs and production and keeping it just for a niche segment of the market.	3.00	4.00	4.29	0.96

4.5 Qualitative Analysis

The study used Qualitative research this type of research method focuses on understanding phenomena from the participants' perspectives and aims to provide a detailed and in-depth understanding of the topic under investigation. Qualitative research analysis allows for a comprehensive exploration of the research topic,

providing rich and contextualized data that lead to a deeper understanding of the phenomena being studied (Salkind, 2019). It enabled researchers to capture the complexities and nuances of human experiences, thoughts, and behaviors, and generate valuable insights for theory development, policy recommendations, or practical applications (Trochim, 2019).

The study used Qualitative research analysis to explain findings on They should be clear and transparent, and cover as many relevant and foreseeable elements as possible, including rights and procedures of terminations. The respondents in the study expressed the importance of clear and transparent regulations, which should encompass a wide range of relevant and foreseeable elements. These elements should include rights and procedures related to termination, indicating that the respondents emphasized the need for comprehensive guidelines and policies in this regard. The study agreed with Kamau (2020) that Dispute Resolution: If a dispute arises regarding contract termination, the contract may require the parties to engage in alternative dispute resolution methods, such as mediation or arbitration.

The respondents were requested to provide information delivered quantity in scheduling agreement should be in line with demand forecasted or the current need the qualitative research analysis involved gathering data through interviews and surveys with the respondents. The findings revealed that there is a strong belief among the respondents that the delivered quantity in scheduling agreements should be based on accurate demand forecasting. They emphasized the importance of avoiding overstocking or understocking situations. The study findings were in line with Nyokabi, (2021), who stated that their negative consequences of overstocking, such as increased storage costs, inventory obsolescence, and reduced cash flow.

The study used qualitative research analysis to explain findings on the supplier and buyer maintains a longer-term economic perspective they value long-term relationships with their suppliers as it allows for better communication, trust, and understanding of each other's needs and capabilities. They mentioned that this collaborative relationship helps in achieving shared goals, such as faster delivery times, higher quality products, and cost reduction. The findings concurred with

Odhiambo and Kwasira, (2019) study found that the suppliers also benefit from these relationships as they gain more insights into their customers' needs and can better align their offerings accordingly.

The respondents also highlighted that the implementation of quality management systems standards helps in identifying and addressing areas of improvement within public health facilities. They mentioned that the standards provide a framework for assessing performance, identifying gaps, and implementing necessary changes to enhance the quality of services. According to Mutangili, (2019) the study found that quality management systems standards play a crucial role in ensuring patient safety.

4.6 Statistical Modelling

4.6.1 Hypothesis Testing

The following sets of hypothesis were tested in order to obtain the relationship between each of the independent variable and the dependent variable. One way ANOVA Test was used to test for existence of statically significant relationship between each of the independent variable and the dependent variable. The alpha (α) level was set at 0.05, at 95% confidence in testing all the hypotheses.

The Strength of the relationship was further evaluated using Crammer's V values, which is a symmetric measure for strength of relationship between two or more variables. CRAMER'S V: Used to measure the strength of the association between one nominal variable with either another nominal variable, or with an ordinal variable. Both of the variables can have more than 2 categories. (It applies to either nominal X nominal crosstabs, or ordinal X nominal crosstabs, with no restriction on the number of categories.

Table 4.15: Measures of Association: Nominal data--Phi and Cramer's V

Level of Association	Verbal Description	Comments
0.00	No Relationship	Knowing the independent variable does not help in predicting the dependent variable.
.00 to .15	Very Weak	Not generally acceptable
.15 to .20	Weak	Minimally acceptable
.20 to .25	Moderate	Acceptable
.25 to .30	Moderately Strong	Desirable
.30 to .35	Strong	Very Desirable
.35 to .40	Very Strong	Extremely Desirable
.40 to .50	Worrisomely Strong	Either an extremely good relationship or the two variables are measuring the same concept
.50 to .99	Redundant	The two variables are probably measuring the same concept.
1.00	Perfect Relationship.	If we the know the independent variable, we can perfectly predict the dependent variable.

Relationship Framework and Supply Chain Performance

H_0: Contract Relationship framework has negative or no effect on Supply Chain Performance of Level four Hospitals

H_1: Contract Relationship framework has a positive effect on supply chain performance

From the table above, a significance value, p = 0.018 was obtained. This value is less that the set alpha value, α =0.05. Therefore, the null hypothesis is rejected and consequently, the alternate hypothesis is approved. It can this be concluded that Contract Relationship framework has a positive effect on Supply Chain Performance of Level four Hospitals.

From the symmetric measures table regarding the strength of the relationship between the two variables, the Cramer's V value obtained is 0.323. This value shows that the relationship between the two variables is moderate. Further, the Cramer's V value is also positive, which indicates that the relationship is as well positive

Table 4.16: Relationship Framework and Supply Chain Performance

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	29.928	20	1.496	.094	.018
Within Groups	355.995	189	1.884		
Total	385.924	209			

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.647	.256
	Cramer's V	.323	.256
N of Valid Cases		210	

Quantity Frameworks and Supply Chain Performance of Level four Hospitals

H_0: Quantity Frameworks has negative or no effect on Supply Chain Performance of Level four Hospitals

H_1: t Quantity Frameworks has a positive effect on Supply Chain Performance of Level four Hospitals

From the table above, a significance value, p= 0.016 was obtained. This value is less that the set alpha value, α =0.05. Therefore, the null hypothesis is rejected and consequently, the alternate hypothesis is approved. It can this be concluded that Quantity Frameworks has a positive effect on supply chain performance.

From the symmetric measures table regarding the strength of the relationship between the two variables, the Cramer's V value obtained is 0.582. This value shows that the relationship between the two variables is strong. Further, the Cramer's V value is also positive, which indicates that the relationship is as well positive

Table 4.17: Quantity Frameworks and Supply Chain Performance

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	31.471	15	2.098	1.148	.016
Within Groups	354.453	194	1.827		
Total	385.924	210			

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.465	.250
	Cramer's V	.482	.250
N of Valid Cases		210	

Evaluation Framework and Supply Chain Performance of Level four Hospitals

H_0: Evaluation Framework has negative or no effect on Supply Chain Performance of Level four Hospitals

H_1: Evaluation Framework has a positive effect on Supply Chain Performance of Level four Hospitals

From the table above, a significance value, p= 0.670 was obtained. This value is higher than that the set alpha value, α =0.05. Therefore, fail to reject null hypothesis. It can this be concluded that Contract evaluation Framework has no positive effect on supply chain performance.

From the symmetric measures table regarding the strength of the relationship between the two variables, the Cramer's V value obtained is 0.649. This value shows that the relationship between the two variables is undesirable. Further, the Cramer's V value is also positive, which indicates that the relationship is as well positive.

Table 4.18: Evaluation Framework and Supply Chain Performance

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	29.736	12	2.478	1.371	.670
Within Groups	356.188	197	1.808		
Total	385.924	209			

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.698	.321
	Cramer's V	.649	.321
N of Valid Cases		210	

Service Framework and Supply Chain Performance

H_0: Service Framework has negative or no effect on Supply Chain Performance of Level four Hospitals

H_1: Service Framework has a positive effect on Supply Chain Performance of Level four Hospitals

From the table above, a significance value, p= 0.003 was obtained. This value is less that the set alpha value, α =0.05. Therefore, the null hypothesis is rejected and consequently, the alternate hypothesis is approved. It can this be concluded that Contract Service Framework has a positive effect on supply chain performance**.**

From the symmetric measures table regarding the strength of the relationship between the two variables, the Cramer's V value obtained is 0.209. This value shows that the relationship between the two variables is very strong. Further, the Cramer's V value is also positive, which indicates that the relationship is as well positive

Table 4.19: Service Framework and Supply Chain Performance

		Sum of Squares	df	Mean Square	F	Sig.
Between Groups		61.551	35	1.759	.943	.002
Within Groups		324.373	174	1.864		
Total		385.924	209			
				Value	**Approximate Significance**	
Nominal by Nominal	Phi			.817		.002
	Cramer's V			.209		.003
N of Valid Cases				210		

Table 4.20: Hypothesis Testing

	Objective	Research Hypotheses	Statistical Model	P –value obtained / Cramer's V value	Main Tools of Analysis/ Cramer's V value	Comment
1	To establish the effect of Contract Relationship framework supply chain performance of Public level four hospitals in Kenya.	H_{01}: Supply Contract Relationship framework does not influences on supply chain performance of Public level four hospitals in Kenya.	$Y=\beta_0+\beta_1X_1+\varepsilon$ Where: Y= Supply chain performance β_0 = Constant β_1 = Coefficient of X_1 X_1 = Contract Relationship framework ε =Error term	P–value obtained-0.18 <0.05 Cramer's V value 0.323; accept if (0.25≥;≤0.50)	Regression and Correlation Analysis; If P value is ≤0.05 research hypothesis is true	Reject Null hypothesis
2	To determine the influence Contract Quantity Frameworks on supply chain performance of Public level four hospitals in Kenya.	H_{02}: Supply Contract Quantity Frameworks does not improves on supply chain performance of Public level four hospitals in Kenya.	$Y=\alpha+\beta_2X_2+\varepsilon$ Where: Y= Supply chain performance β_0 = constant β_2= Coefficient of X_2 X_2 = Quantity Frameworks ε =Error term	P–value obtained-0.16 <0.05 Cramer's V value 0.482; accept if (0.25≥;≤0.50) P–value obtained-0.670 <0.05	Regression and Correlation Analysis; If P value is ≤0.05 research hypothesis is true	Reject Null hypothesis

	Objective	Research Hypotheses	Statistical Model	P –value obtained / Cramer's V value	Main Tools of Analysis/ Cramer's V value	Comment
3	To find out the effect of Contract evaluation Framework on supply chain performance of Public level four hospitals in Kenya	H03: Contract evaluation Framework does not improves on supply chain performance of Public level four hospitals in Kenya...	$Y = \alpha + \beta_3 X_3 + \varepsilon$ Where: Y= Supply chain performance β_0 = constant β_3= Coefficient of X_3 X_3 = Contract evaluation Framework ε =Error term	Cramer's V value 0.649; accept if (0.25≥;≤0.50)	Regression and Correlation Analysis; If P value is ≤0.05 research hypothesis is true	Fail to reject Null hypothesis
4	To establish the effect of Contract Service Framework supply chain performance of Public level four hospitals in Kenya	H_{04}: Contract Service Framework does not influence positively supply chain performance of Public level four hospitals in Kenya	$Y = \alpha + \beta_4 X_4 + \varepsilon$ Where: Y= Supply chain performance β_0 = constant β_4= Coefficient of X_4 X_4 = Contract Service Framework ε =Error term	P–value obtained-0.41 <0.05 Cramer's V value 0.209; accept if (0.25≥;≤0.50)	Regression and Correlation Analysis; If P value is ≤0.05 research hypothesis is true	Reject Null hypothesis

4.7. Diagnostic Test

4.7.1 Collinearly diagnostics

The collinearity diagnostics were tested through regression of individual predictor variables against the predicted variable. The collinearity was assessed using the VIF value. A VIF Value between 1 and 10 indicates lack of collinearity. Tolerance values range between 0 and 1; with high tolerance being associated with low collinearity and low tolerance being associated with high collinearity. However, a VIF Value greater than 10 indicates the presence of collinearity between the predictor variable(s) and the predicted variable.

The following equation was use for evaluation of collinearity

1. 1>=VIF<=10 ⇒ Non collinearity
2. VIF>10 ⇒ Collinearity
3. 0.0>=Tolerance<=0.5 ⇒ High collinearity
4. 0.5>Tolerance<=0.9 ⇒ Low collinearity
5. Tolerance value of 1 implies no collinearity

Relationship framework vs. Quantity Frameworks

Table 4.19 indicated that A VIF value of 1.000 and tolerance of 1.000 were obtained in the linear regression between Contract Relationship framework (predictor variable) and Quantity Frameworks (predictor variable). This VIF value is less than 10 and tolerance value is 1; hence, there exists no collinearity between the two variables.

Table 4.21: Relationship framework vs. Evaluation Frameworks

Model		t	Sig.	Collinearity Statistics	
				Tolerance	VIF
1	(Constant)	3.624	.000		
	Relationship framework	.170	.865	1.000	1.000

a. Dependent Variable: Evaluation Frameworks

Quantity Frameworks vs. evaluation Frameworks

Table 4.20 designated that A VIF value of 1.000 and tolerance of 1.000 were obtained in the linear regression between quantity frameworks (predictor variable) and evaluation Frameworks (dependent variable). This VIF value is less than 10 and tolerance value is 1; hence, there exists no collinearity between the two variables.

Table 4.22: Quantity Frameworks vs. Evaluation Frameworks

Model		t	Sig.	Collinearity Statistics	
				Tolerance	VIF
1	(Constant)	4.252	.000		
	Quantity Frameworks	1.659	.099	1.000	1.000

a. Dependent Variable: Evaluation Frameworks

Coefficients Evaluation Framework vs. Service Framework

Table 4.21 point out that VIF value of 2.000 and tolerance of 1.000 were obtained in the linear regression between evaluation Framework (predictor variable) and Service Framework (dependent variable). This VIF value is less than 10 and tolerance value is 1; hence, there exists no collinearity between the two variables.

Table 4.23: Evaluation Framework vs. Service Framework

Model		t	Sig.	Collinearity Statistics	
				Tolerance	VIF
1	(Constant)	4.102	.000		
	Evaluation Framework	1.878	.062	1.000	2.000

Service Framework

Coefficients Service Framework vs. Relationship framework

Table 4.22 designated that A VIF value of 1.000 and tolerance of 1.000 were obtained in the linear regression between Contract Service Framework (predictor variable) and Contract Relationship framework (dependent variable). This VIF value is less than 10 and tolerance value is 1; hence, there exists no collinearity between the two variables.

Table 4.24: Service Framework and Relationship framework

Model		t	Sig.	Collinearity Statistics	
				Tolerance	VIF
1	(Constant)	5.661	.000		
	Contract Service Framework	1.268	.206	1.000	1.000

a. Dependent Variable: C Relationship framework

4.7.2 Autocorrelation

Autocorrelation was tested through regression of individual predictor variables against the predicted variable. The autocorrelation was assessed using the Durbin-Watson value. The Durbin-Watson statistic test is often used for this purpose; to detect the existence of any autocorrelation. A Durbin Watson value of 2 indicates the absence of

autocorrelation, while greater than 2 indicates negative autocorrelation and less than 2 indicates positive autocorrelation. The presence of autocorrelation in the dataset usually indicates that the model may not be sufficiently accurate in predicting the independent variable and hence the results may be flawed (Trochim, 2019).

Relationship framework

In the table 4.23 presented above, a Durbin-Watson value of 1.908 was obtained, which is approximately 2. Owing to the fact that the value obtained in the current study is approximately 2, the regression model produced is, therefore reliable and credible as the predictor and predictor variables are not subject to autocorrelation

Table 4.25: Relationship framework

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.012[a]	.000	005	0.008	1.908

a. Predictors: (Constant), Relationship framework
b. Dependent Variable: Supply Chain Performance of Level four Hospitals

Quantity Frameworks

In the table 4.24 presented above, a Durbin-Watson value of 2.002 was obtained, which is approximately 2. Owing to the fact that the value obtained in the current study is approximately 2, the regression model produced by contract quantity frameworks and supply chain Performance of Level four Hospitals is, therefore reliable and credible as the predictor and predictor variables are not subject to autocorrelation

Table 4.26: Quantity Frameworks

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.114[a]	.013	.008	0.353	2.002

a. Predictors: (Constant), Quantity Frameworks
b. Dependent Variable: Supply Chain Performance of Level four Hospitals

Evaluation Framework

In the table 4.25 presented above, a Durbin-Watson value of 2.014 was obtained, which is approximately 2. Owing to the fact that the value obtained in the current study is approximately 2, the regression model produced by evaluation framework and supply chain performance of level four hospitals is, therefore reliable and credible as the predictor and predictor variables are not subject to autocorrelation.

Table 4.27: Evaluation Framework

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.129[a]	.017	.012	0.051	2.014

a. Predictors: (Constant), Evaluation Framework
b. Dependent Variable: Supply Chain Performance of Level four Hospitals

Service Framework

In the table 4.26 presented above, a Durbin-Watson value of 1.871 was obtained, which is approximately 2. Owing to the fact that the value obtained in the current study is approximately 2, the regression model produced by Service Framework and Supply Chain Performance, is therefore reliable and credible as the predictor and predictor variables are not subject to autocorrelation.

Table 4.28: Service Framework

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.088[a]	.008	.003	0.057	1.871

a. Predictors: (Constant), Service Framework
b. Dependent Variable: Supply Chain Performance

4.7.3 Normality Test

Normality test was performed to outset whether the data collected depicted a normal distribution. Further, the test was also performed to outset the likelihood of a random variable in the dataset being normally distributed. Abnormalities in the distribution of

data indicate possible collinearity and autocorrelation of the variables. This test was performed using Kolmogorov–Smirnov normality test (K–S test). The Kolmogorov-Smirnov test is used to decide if a sample comes from a population with a specific distribution. As such, it tests whether the independent samples are drawn from the same continuous distribution. The alpha level was set at 0.05, at 95% confidence.

K-S Test Relationship framework

The significance value obtained (p=0.04) I less than the set alpha level (α =0.05). As such, there exists little or no substantial deviation form normality. Thus, the data for both the Contract Relationship framework and supply chain performance comes from a normal distribution. This is well depicted in the Q-Q Plot below

Table 4.29: K-S Test Relationship framework

Relationship framework	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Supply_Chain_Performance	.287	7	.004

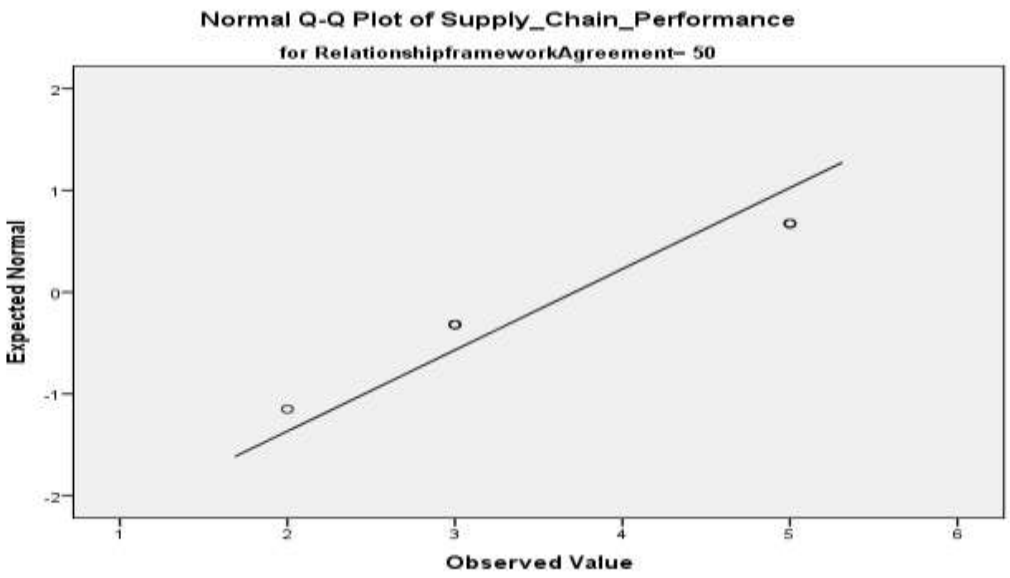

Figure 4.2: Normal Q-Q Plot of Relationship framework

K-S Test Quantity Frameworks

The significance value obtained (p=0.000) I less than the set alpha level (α =0.05). As such, there exists little or no substantial deviation form normality. Thus, the data for both the Quantity Frameworks and supply chain performance comes from a normal distribution. This is well depicted in the Q-Q Plot below

Table 4.30: K-S Test Quantity Frameworks

Quantity Frameworks	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Supply Chain Performance	.147	8	.000

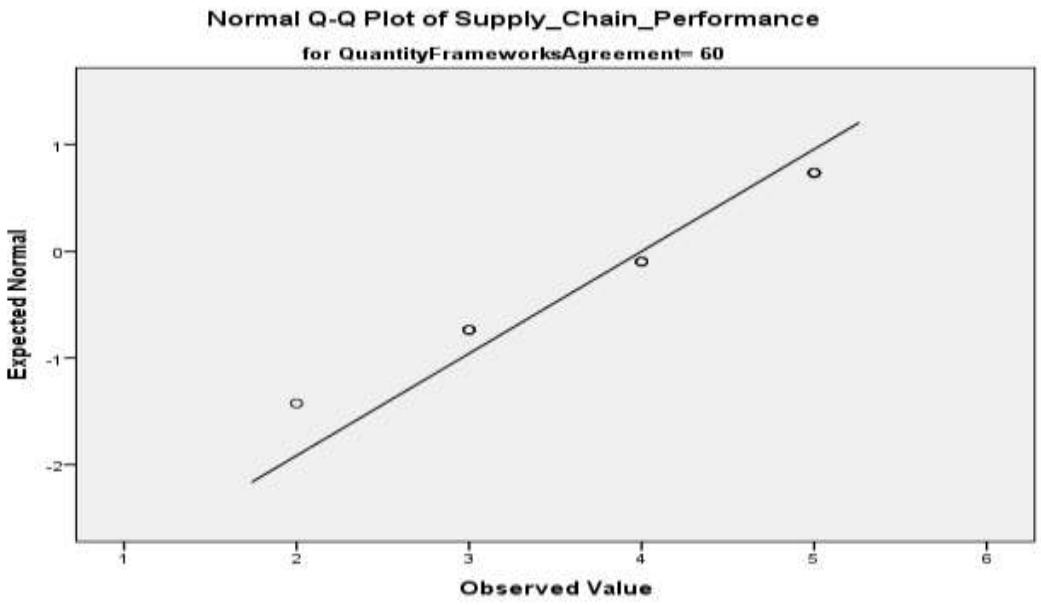

Figure 4.3 : Normal Q-Q Plot of Relationship Framework

K-S Test Evaluation Framework

The significance value obtained (p=0.013) I less than the set alpha level (α =0.05). As such, there exists little or no substantial deviation form normality. Thus, the data for both the evaluation Framework and supply chain performance comes from a normal distribution. This is well depicted in the Q-Q Plot below

Table 4.31: K-S Test Evaluation Framework

Evaluation Framework	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Supply Chain Performance	.312	10	.013

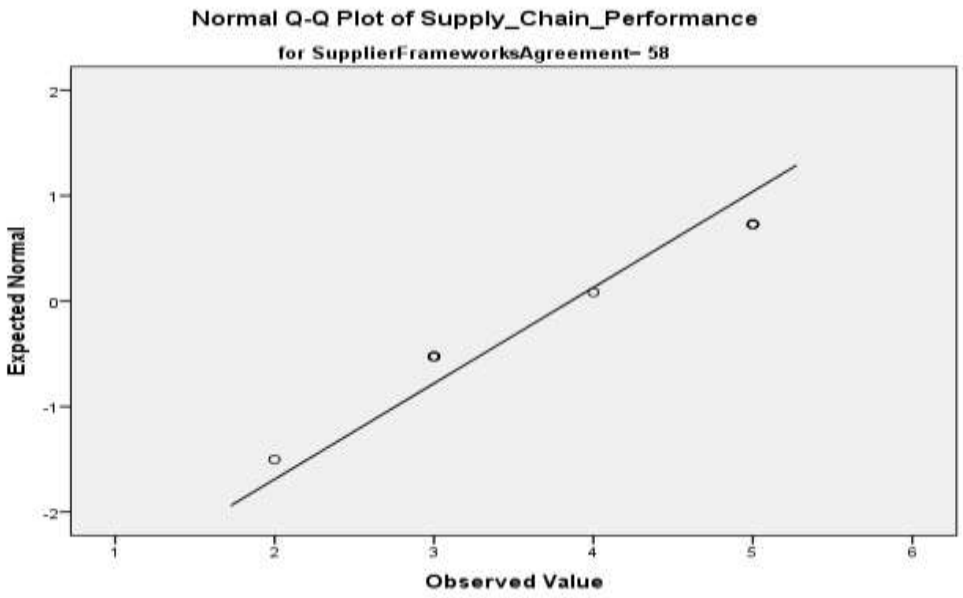

Figure 4.4: Normal Q-Q Plot of evaluation Framework

K-S Test Service Framework

The significance value obtained (p=0.023) I less than the set alpha level (α =0.05). As such, there exists little or no substantial deviation form normality. Thus, the data for both the Service Framework and Supply Chain Performance comes from a normal distribution. This is well depicted in the Q-Q Plot below

Table 4.32: K-S Test Service Framework

Service Framework	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Supply Chain Performance	.412	6	.023

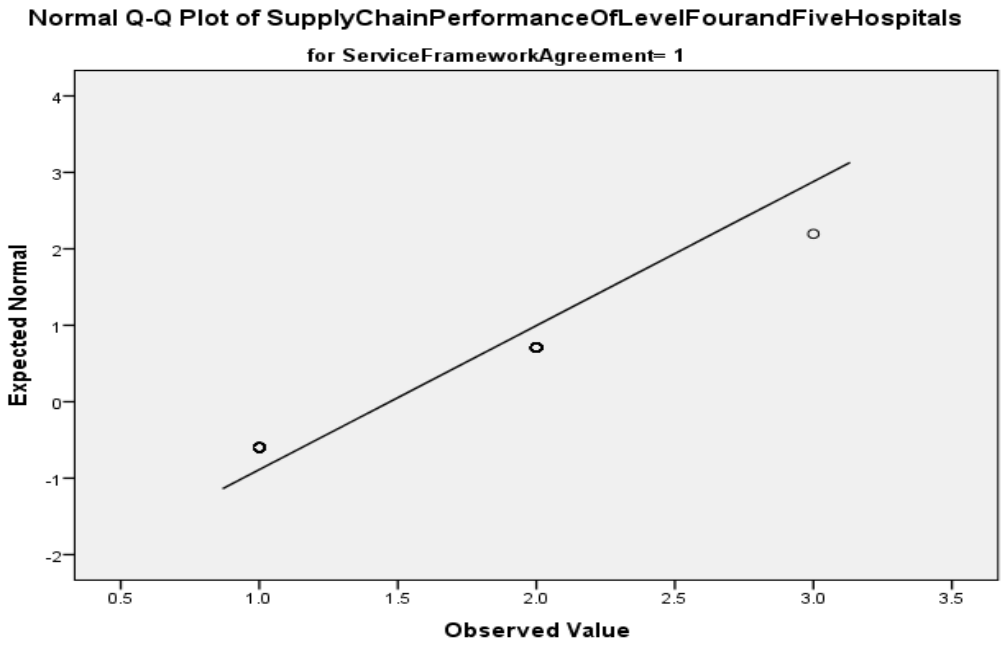

Figure 4.5: Normal Q-Q Plot of Service Framework

4.8 Linear regression

4.8.1 Relationship framework Supply Chain Performance of Level four Hospitals

A multiple linear regression analysis was done in table Table 4.31 to examine the relationship of the independent variables with the dependent variable. The R2 is the coefficient of determination. This value explains how supply chain performance of public level four hospitals in Kenya varied with Relationship framework. The R Square in table 4.30 shows that the predictors can explain 41.8% of change supply chain performance of public level four hospitals in Kenya namely Relationship framework an implication that the remaining 58.2 % of the variation in supply chain performance could be accounted for by other factors not involved in this study. This shows that the variables are very significant therefore need to be considered in any effort to boost supply chain performance of public level four hospitals in Kenya.

F Test was done through One Way Anova to test the effect of all the independent variables on the dependent variable in a simultaneous manner. From a statistical

perspective, the F-Test is done to show whether there is a joint effect of independent variable on the dependent variable. The results of the test are presented in the tables below. The critical value for the analysis is 1.8924, and was computed through the use of k-1 numerator (4) and N-k denominator (209) degrees of freedom. The F value obtained (910.746) is greater than the F Critical Value (1.8924). Additionally, the significance value obtained is 0.000, which is less than the set value of 0.05. The study established that there existed a significant goodness of fit of the model $Y = \beta_0 + \beta_1 X_1 + \varepsilon$. Based on the findings, in Table 4.30 the results indicate the $F_{Cal} = 910.746 > F_{Cri} = 1.8924$ at confidence level 95 % and sig is 0.000<0.05. This implies that there was a goodness of fit of the model fitted for this study:

The Multiple regression analysis ($y = B_{0+} B_1X_1 + \boldsymbol{\varepsilon}$) was run with on supply chain performance of public level four hospitals in Kenya as the dependent factor and Relationship framework as the predictor variable. From regression results in Table 4.30, the 1.479 represented the constant which predicted value of productivity (supply chain performance of Level four Hospitals) when all Relationship framework effects remain constant at zero (0). This implied that supply chain performance of public level four hospitals in Kenya would be at 1.479 holding Contract Relationship framework at zero (0).

Regression results revealed that Relationship framework has significance influence on supply chain performance of public level four hospitals in Kenya.as indicated by β_1=0.664, p=0.001<0.05, t= .902. The implication is that as increase in Relationship framework led to increase in on supply chain performance of public level four hospitals in Kenya. By $\beta_{1=}$ 0.664. This implied that an increase in Relationship framework would lead increase in Level four Hospitals performance. The regression model based on the findings in Table 4.30 from the SPSS is given by: SC performance of level four hospitals =1.479+0.664RFA.

Table 4.33: Relationship framework and Supply Chain Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.248[a]	.418	.417	.284

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	113.153	1	113.153	910.746	.000[b]
	Residual	25.842	208	.124		
	Total	138.995	209			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.479	.098		15.119	.000
	Relationship framework	.664	.022	.902	30.179	.000

a. Dependent Variable: Supply Chain Performance of Level four Hospitals
b. Predictors: (Constant), Relationship framework

4.8.2 Quantity Frameworks Supply Chain Performance of Level four Hospitals

A multiple linear regression analysis was done to examine the relationship of the independent variables with the dependent variable. The R2 is the coefficient of determination. This value explains how supply chain performance of public level four hospitals in Kenya varied with contract quantity frameworks. The model summary table shows that the predictors can explain 49.6 % of change supply chain performance of public level four hospitals in Kenya namely quantity frameworks an implication that the remaining 50.4% of the variation in supply chain performance could be accounted for by other factors not involved in this study. This shows that the variables are very significant therefore need to be considered in any effort to boost supply chain performance of public level four hospitals in Kenya.

Table 4.32 showed that F Test was done through One Way Anova to test the effect of all the independent variables on the dependent variable in a simultaneous manner. From a statistical perspective, the F-Test is done to show whether there is a joint effect of independent variable on the dependent variable. The results of the test are presented

in the tables below. The critical value for the analysis is 2.464, and was computed through the use of k-1 numerator (4) and N-k denominator (209) degrees of freedom. The F value obtained (204.755) is greater than the F Critical Value (1.464). Additionally, the significance value obtained is 0.000, which is less than the set value of 0.05. The study established that there existed a significant goodness of fit of the model $Y = \beta_0 + \beta_2 X_2 + \varepsilon$. Based on the findings, in Table 4.33 the results indicate the $F_{Cal} = 204.755 > F_{Cri} = 2.464$ at confidence level 95 % and sig is 0.000<0.05.

Table 4.32 showed that The Multiple regression analysis ($y = B_{0+} B_2X_2 + \boldsymbol{\varepsilon}$) was run with on supply chain performance of public level four hospitals in Kenya as the dependent factor and quantity frameworks as the predictor variable. From regression results in Table 4.31, the 1.493 represented the constant which predicted value of productivity (supply chain performance of Level four Hospitals) when all contract quantity frameworks effects remain constant at zero (0). This implied that supply chain performance of public level four hospitals in Kenya. Would be at 1.493 holding relationship framework at zero (0).

Regression results revealed that quantity frameworks have significance influence on supply chain performance of public level four hospitals in Kenya.as indicated by β_1=0.544, p=0.000<0.05, t= 14.309. The implication is that as increase in contract quantity frameworks lead to increase in on supply chain performance of public level four hospitals in Kenya. By $\beta_{2=}$ 0.544. This implied that an increase in contract quantity frameworks would lead increase in Level four Hospitals performance. The regression model based on the findings in Table 4.32 from the SPSS is given by: Supply chain performance of public level four hospitals in Kenya =1.493+0.544QRA.

Table 4.34: Quantity Frameworks Supply Chain Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.704[a]	.496	.494	.647

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	85.711	1	85.711	204.755	.000[b]
	Residual	87.070	208	.419		
	Total	172.781	209			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.493	.089		16.816	.000
	Contract Quantity Frameworks	.544	.038	.704	14.309	.000

a. Dependent Variable: Supply Chain Performance of Level four Hospitals

4.8.3 Evaluation Framework and Supply Chain Performance

Table 4.33 indicated that a multiple linear regression analysis was done to examine the relationship of the independent variables with the dependent variable. The R2 is the coefficient of determination. This value explains how supply chain performance of public level four hospitals in Kenya varied with evaluation Framework. The model summary table shows that the predictors can explain 6.1% of change supply chain performance of public level four hospitals in Kenya namely evaluation Framework an implication that the remaining 93.9% of the variation in supply chain performance could be accounted for by other factors not involved in this study. This shows that the variables are very significant therefore need to be considered in any effort to boost supply chain performance of public level four hospitals in Kenya.

Table 4.33 indicated that F Test was done through One Way Anova to test the effect of all the independent variables on the dependent variable in a simultaneous manner. From a statistical perspective, the F-Test is done to show whether there is a joint effect of independent variable on the dependent variable. The results of the test are presented in the tables below. The critical value for the analysis is 0.464, and was computed

through the use of k-1 numerator (4) and N-k denominator (209) degrees of freedom. The F value obtained (13.475) is greater than the F Critical Value (0.464). Additionally, the significance value obtained is 0.000, which is less than the set value of 0.05. The study established that there existed a significant goodness of fit of the model $Y = \beta_0 + \beta_3 X_3 + + \varepsilon$. Based on the findings, in Table 4.21 the results indicate the $F_{Cal} = 13.475 > F_{Cri} = 0.464$ at confidence level 95 % and sig is $0.000 < 0.05$.

Table 4.33 specified The Multiple regression analysis ($y = B_{0+} B_3 X_3 +$ **ε)** was run with on supply chain performance of public level four hospitals in Kenya as the dependent factor and evaluation Framework as the predictor variable. From regression results in Table 4.34, the 4.594 represented the constant which predicted value of productivity (supply chain performance of Level four Hospitals) when all Contract evaluation Framework effects remain constant at zero (0). This implied that supply chain performance of public level four hospitals in Kenya. Would be at 4.594 holding Contract Relationship framework at zero (0).

Regression results revealed that evaluation Framework has significance influence on supply chain performance of public level four hospitals in Kenya.as indicated by $\beta_3 = 0.151$, $p = 0.001 < 0.05$, $t = 3.671$. The implication is that as increase in Contract evaluation Framework led to increase in on supply chain performance of public level four hospitals in Kenya. By $\beta_{3=}$ 0.151 this implied that an increase in Contract evaluation Framework would lead increase in Level four Hospitals performance. The regression model based on the findings in Table 4.33 from the SPSS is given by: Supply chain performance of public level four hospitals in Kenya **=4.594+0.151X SFA.**

Table 4.35: Evaluation Framework and Supply Chain Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.247[a]	.061	.056	.503

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.409	1	3.409	13.475	.000[b]
	Residual	52.615	208	.253		
	Total	56.024	209			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.594	.086		53.698	.000
	Evaluation Framework	.151	.041	.247	3.671	.000

a. Dependent Variable: Supply Chain Performance of Level four Hospitals
b. Predictors: (Constant), Evaluation Framework

4.8.4 Service Framework and Supply Chain Performance of Level four Hospitals

Table 4.34 indicated a multiple linear regression analysis was done to examine the relationship of the independent variables with the dependent variable. The R2 is the coefficient of determination. This value explains how supply chain performance of public level four hospitals in Kenya varied with Contract Service Framework The model summary table shows that the predictors can explain 41.5% of change supply chain performance of public level four hospitals in Kenya namely Contract Service Framework an implication that the remaining 58.5 % of the variation in supply chain performance could be accounted for by other factors not involved in this study. This shows that the variables are very significant therefore need to be considered in any effort to boost supply chain performance of public level four hospitals in Kenya.

Table 4.34 specified an F Test was done through One Way Anova to test the effect of all the independent variables on the dependent variable in a simultaneous manner. From a statistical perspective, the F-Test is done to show whether there is a joint effect of independent variable on the dependent variable. The results of the test are presented

in the tables below. The critical value for the analysis is 1.7367, and was computed through the use of k-1 numerator (4) and N-k denominator (209) degrees of freedom. The F value obtained (147.362) is greater than the F Critical Value (1.7367). Additionally, the significance value obtained is 0.000, which is less than the set value of 0.05. The study established that there existed a significant goodness of fit of the model $Y = \beta_0 + \beta_4 X_4 + \varepsilon$. Based on the findings, in Table 4.21 the results indicate the $F_{Cal} = 147.362 > F_{Cri} = 1.7367$at confidence level 95 % and sig is 0.000<0.05. This implies that there was a goodness of fit of the model fitted for this study

Table 4.34 indicated that The Multiple regression analysis ($y = B_{0+} B_4X_4 + \boldsymbol{\varepsilon}$) was run with on supply chain performance of public level four hospitals in Kenya as the dependent factor and Contract Service Framework as the predictor variable. From regression results in Table 4.34, the 1.560 represented the constant which predicted value of productivity (supply chain performance of Level four Hospitals) when all Contract Service Framework effects remain constant at zero (0). This implied that supply chain performance of public level four hospitals in Kenya. Would be at 1.560 holding Contract Relationship framework at zero (0).

Regression results revealed that Contract Service Framework has significance influence on supply chain performance of public level four hospitals in Kenya.as indicated by β_3=0. .567, p=0.001<0.05, t= 12.139. The implication is that as increase in Contract Service Framework to lead to increase in on supply chain performance of public level four hospitals in Kenya. By $\beta_{3=}$ 0.151 this implied that an increase in Contract Service Framework would lead increase in Level four Hospitals performance. The regression model based on the findings in Table 4.34 from the SPSS is given by: Supply chain performance of public level four hospitals in Kenya =1.560+0.567X SFA.

Table 4.36: Service Framework and Supply Chain Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.644[a]	.415	.412	.697

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	71.649	1	71.649	147.362	.000[b]
	Residual	101.132	208	.486		
	Total	172.781	209			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.560	.098		15.980	.000
	Contract Service Framework	.567	.047	.644	12.139	.000

a. Dependent Variable: Supply Chain Performance of Level four Hospitals
b. Predictors: (Constant), Service Framework

4.9. Optimal Model Summary

H_o: Contract firework implementation has no effect on Supply Chain Performance of Level four Hospitals

$H_{1:}$ Contract firework level of implementation has a positive effect on Supply Chain Performance of Level four Hospitals

From the model summary Table 4.34 indicated a, the R square value obtained is (0. 757). This implies that approximately 75.7% (0. 757) of the changes in the predicted variable can be attributed to effect of the independent variable. The remaining 24.3% s accounted by other factors that are not captured within the scope of this dissertation.

ANOVA Test was carried out Table 4.34 indicated a, for all the independent variables against the dependent variables. The test was made to unveil the existence of any significant relationship between the independent variables and the dependent variables. Comparatively, the independent variables (Contract evaluation Framework, Contract Relationship framework, Contract Service Framework, and Quantity Frameworks) formed the contract framework in supply chain management.

A significant value of 0.000 as obtained after testing the general hypothesis is for this study. This value is lower compared to the set alpha level of 0.05. As a result, the null hypothesis is hereby rejected and alternate hypothesis accepted. Conclusively, it can be deduced that Contract firework agreement has a positive effect on supply chain performance

The Table 4.35 shows the coefficients obtained when a model is constructed for the independent variables against the dependent variable. Using the Linear regression equation; Y=MX+ C. In the present case where there are several Independent Variables, the equation can be rewritten as $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$.

In the above case, b0 is the y intercept (and the constant in the table below) while the b1-b4 are the variable coefficients.

a. Dependent Variable: Supply Chain Performance

Y Supply Chain Performance = 0.649+0.744(Contract Service Framework) 0.682+ (Contract Relationship framework) +0.417(Contract Quantity Frameworks) + 0.130(Contract evaluation Framework) + **e**

From the regression

$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$.

The optimal developed model

$$\mathbf{Y = 649+0.744X_1 +0.682X_2+0.417X_3 +0.130X_4+e}$$

Table 4.37: Optimal Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.826[a]	.757	.754	.347

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	148.035	4	37.009	306.590	.000[b]
	Residual	24.746	205	.121		
	Total	172.781	209			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.649	.060		9.747	.000
	Service Framework		.744	.075 .870	9.902	.000
	Relationship Framework		.682	.058 .883	8.663	.000
	Quantity Frameworks		.417	.119 .478	3.513	.001
	Evaluation Framework		.130	.131 .176	1.520	.002

a. Dependent Variable: Supply Chain Performance

b. Predictors: (Constant), evaluation Framework, Relationship framework, Service Framework, Quantity Frameworks

4.9.1 Moderated Multiple Linear Regression

The table 4.36 indicated below shows the coefficients obtained when a moderated model is constructed for the independent variables against the dependent variable. Using the Linear regression equation; Y=MX+ C. In the present case where there are several Independent Variables, the equation can be rewritten as **Y predicted = Y = β0 + β1X1 + β2X2 + β3X3 + β4X4 + ε. ….** In the above case, b0 is the y intercept (and the constant in the table below) while the b1-b4 are the variable coefficients. The effect of the moderating variable can be obtained by carrying out a regression of the independent variable, the moderating variable, and a product of the moderated and independent variables. The coefficients of the product of the moderating and independent variable show the effect of the moderating on the relationship between the predicted and predictor variables.

Y Supply Chain Performance = 8.256 + 0.427(Relationship framework) + 0.264(Quantity Frameworks) + 0.185(evaluation Framework) + 0.039(Service Framework) + 0.533(Procurement Legal Framework) +

0.210(Relationship_framework_Mod_Procurement Legal Framework) + 0.025(Quantity Frameworks _Mod_ Procurement Legal Framework) + 0.202 (Supplier_Framework_Mod_Procurement Legal Framework) + 0.11(Service_Framework _Mod_ Procurement Legal Framework

From the above equation, the new variable Relationship framework Mod_ Procurement Legal Framework has a coefficient of 0.202, compared to the other three new variables. This shows that the moderating greatly affects the affects the strength of the relationship between the Supplier Contract framework and the Supply chain performance. The higher the coefficient of the new variables, the higher the effect of the moderating variable on the original variable form, which the new variable was derived. Relationship_framework_Mod_Procurement Legal Framework has the lowest coefficient, which implies that the moderating variables have least effect on the strength of the relationship between the relationship frameworks a free and supply chain performance.

Table 4.38: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.256	2.828		2.087	.003
	Relationship framework	.427	.386	.121	4.317	.002
	Quantity Frameworks	.264	.115	.886	2.283	.001
	evaluation Framework	.185	.145	.232	.587	.003
	Service Framework	.339	.052	.284	.738	.002
	Procurement Legal Framework	.533	.298	3.065	1.788	.022
	Quantities_Framework_Mod Procurement Legal Framework	.210	.112	1.190	.1119	.004
	Quantity Frameworks _Mod_ Procurement Legal Framework	.025	.003	2.283	2.044	.002
	Evaluation Framework_Agreement_Mod _ Procurement Legal Framework	.202	.003	.787	.626	.001
	Service Framework_ _Mod_ Procurement Legal Framework	.411	.143	.480	1.891	.000

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter describes the summary of the study, conclusions and recommendations of the study. The main purpose of the study was to establish contract framework level of implementation and supply chain performance of public level four hospitals in Kenya. The study also determined the influence independent variables (relationship framework, contract quantity frameworks, evaluation framework, service framework and procurement legal framework) on the dependent variable (performance of Level four Hospitals).

5.2 Summary of Major Finding

In this chapter, the researcher makes a summary of the study then draws a conclusion and gives recommendations based on the research findings and analysis done in the previous chapter. The summary is a brief overview of the research process while the conclusion is the report of the crucial findings and the recommendations are suggestions and advice based on the research findings. The main purpose of the study was to determine the influence of contract framework level of implementation on supply chain performance of public level four hospitals in Kenya

The study also determined the influence independent variables (contract relationship framework, contract quantity frameworks, contract evaluation framework, contract service framework and procurement legal framework) on the dependent variable (performance of level four hospitals). The population for the study comprised of national hospital, provincial hospital, teaching and district hospitals in Kenya.

This study constituted of 270 of officers in public level four hospitals in Kenya referral hospitals, county hospital, and sub-county hospital in all the 47 counties in Kenya the study used descriptive research design is used to describe characteristics of a population or phenomenon being studied. Descriptive research design is used to describe characteristics of a population or phenomenon being studied semi-structured

questionnaire containing both open-ended and close-ended questions was used to collect primary data for this study.

The Statistical Package for Social Sciences (SPSS) computer software version 23 was used specifically for the purpose of analyzing the quantitative data and presenting it inform of tables, pie charts and bar charts. Qualitative data analysis method was employed to analyze qualitative data gathered using open-ended questionnaires. Homogeneity of variance-covariance matrices assumption was used to test Multicollinearity means that the variables of interest are highly correlated and high correlations should not be present among variables of interest.

5.2.1 Relationship Framework and Supply Chain Performance

The study aimed to investigate the relationship between the contract relationship framework and supply chain performance in public level four hospitals in Kenya. The findings of the study revealed that there is a significant positive relationship between the contract relationship framework and supply chain performance in public level four hospitals in Kenya. Hospitals that had well-established and effective contract relationships with their suppliers tended to have better supply chain performance. Specifically, the study found that hospitals with clear and mutually agreed-upon performance metrics in their contracts had improved supply chain performance. These metrics included indicators such as on-time delivery, availability of essential drugs and medical supplies, and adherence to quality standards. In addition, hospitals that had strong accountability mechanisms in their contracts, such as penalties or incentives for meeting or failing to meet performance targets, also had better supply chain performance. The R Square value shows that the predictors can explain 41.8% of change supply chain performance of public level four hospitals in Kenya namely contract relationship framework an implication that the remaining 58.2 % of the variation in supply chain performance could be accounted for by other factors not involved in this study

5.2.2 Quantity Frameworks and Supply Chain Performance

The study findings on supply chain contract quantity frameworks and supply chain performance in public level four hospitals in Kenya revealed several key findings. Firstly, it was found that the majority of the public level four hospitals in Kenya had implemented supply chain contract quantity frameworks. These frameworks provide guidelines for determining the appropriate quantity of medical supplies to be procured and supplied to the hospitals. The implementation of these frameworks is aimed at ensuring that hospitals have sufficient supplies to meet the demands of the patients. Secondly, the study found that the supply chain contract quantity frameworks had a significant positive impact on the supply chain performance of the hospitals. Hospitals that had implemented these frameworks experienced improvements in various aspects of their supply chain performance such as reduced stock outs, increased order accuracy, and improved delivery times. This indicates that the proper implementation of supply chain contract quantity frameworks can improve the overall efficiency and effectiveness of the supply chain in public level four hospitals in Kenya. Furthermore, the study also found that the effectiveness of supply chain contract quantity frameworks in improving supply chain performance varied across different hospitals. Some hospitals experienced more significant improvements in their supply chain performance compared to others. The study identified several factors that influenced the effectiveness of these frameworks, including the availability of skilled staff, the strength of supply chain management systems, and the commitment of the R Square value shows that the predictors have the highest impact which explain 49.6 % of change in supply chain performance of Public level four hospitals in Kenya namely Contract Quantity Frameworks an implication that the remaining 50.4% of the variation in supply chain performance could be accounted for by other factors not involved in this study.

5.2.3 Evaluation Framework and Supply Chain Performance

The study found that there is a lack of a comprehensive supply chain contract evaluation framework in public level four hospitals in Kenya. This means that there is no systematic process in place to evaluate the contracts that the hospitals enter into

with their suppliers. This lack of framework has led to inefficiencies and suboptimal performance in the supply chain. The study found that the supply chain performance in public level four hospitals in Kenya is generally poor. Key issues identified include frequent stock outs of essential medicines and medical supplies, low inventory turnover rates, and longer lead times for procurement and delivery. These issues contribute to delays in patient care and can have serious implications for the health outcomes of the population. The study also revealed that the lack of an effective supply chain contract evaluation framework is a significant contributing factor to the poor supply chain performance. Without a framework in place to evaluate the performance of suppliers, hospitals are unable to effectively monitor and manage their contracts. This leads to a lack of accountability and the inability to address poor performance or make improvements.

The findings of this study highlight the need for a comprehensive supply chain contract evaluation framework in public level four hospitals in Kenya. Such a framework would provide hospitals with a systematic process for evaluating and managing their contracts, leading to improved supply chain performance. The predictor variable had the least level of implementation The R Square value shows that the predictors can explain 6.1% of change supply chain performance of public level four hospitals in Kenya namely Contract evaluation Framework an implication that the remaining 93.9% of the variation in supply chain performance could be accounted for by other factors not involved in this study.

5.2.4 Service Framework and Supply Chain Performance

The study findings indicate that there is a significant relationship between the supply chain contract service framework and supply chain performance in public level four hospitals in Kenya. The study found that hospitals that had well-defined and implemented supply chain contract service frameworks experienced better supply chain performance. This was seen in various aspects of the supply chain such as inventory management, procurement process, and overall operational efficiency. Hospitals with effective supply chain contract service frameworks were able to reduce stock outs and wastage of medical supplies, resulting in improved patient care. These

hospitals also demonstrated better financial management and cost control, as they were able to negotiate favorable terms with suppliers and reduce supply chain costs. Additionally, the study found that hospitals with clear supply chain contract service frameworks had better relationships with suppliers. This resulted in improved communication, transparency, and trust, leading to more reliable and timely supply of medical products and services. The study highlights the importance of establishing and implementing supply chain contract service frameworks in public level four hospitals in Kenya. The R Square value shows that the predictors can explain 41.5% of change supply chain performance of public level four hospitals in Kenya namely Contract Service Framework an implication that the remaining 58.5 % of the variation in supply chain performance could be accounted for by other factors not involved in this study.

5.2.5 Procurement Legal Framework and Supply Chain Performance

The study findings suggest that the procurement legal framework in public level four hospitals in Kenya has a substantial impact on supply chain performance. One of the key findings of the study is that the level of adherence to the procurement legal framework has a direct correlation with supply chain performance. Hospitals that strictly adhere to the legal requirements in procurement tend to have better supply chain performance compared to those with lax adherence. This includes factors such as transparency, accountability, fairness, and competitiveness in the procurement process. The study also found that hospitals with a clear understanding of the procurement legal framework and proper documentation of procurement practices tend to have better supply chain performance. This includes having well-defined procurement procedures, proper record-keeping, and compliance with auditing requirements., the study found that inadequate enforcement of the procurement legal framework leads to poor supply chain performance. Hospitals that do not face consequences for non-compliance tend to have a higher likelihood of corruption, mismanagement, and inefficiencies in their supply chains.

5.3 Conclusion of the study

Based on the study conducted on the Contract Relationship framework and supply chain performance for public level four hospitals, the following conclusions were

found that Effective supplier selection and evaluation processes are crucial for achieving supply chain performance. Public level four hospitals need to carefully assess suppliers based on their capabilities, delivery performance, quality, and cost factors. Regular evaluations and feedback mechanisms should be in place to ensure continuous improvement. Contracts should be designed to meet the unique requirements of the healthcare sector, allowing for adaptability to changing market conditions and emerging healthcare needs. Building strong relationships with suppliers is essential for improving supply chain performance. Public level four hospitals should invest in fostering trust, effective communication, and long-term partnerships with suppliers. This can lead to enhanced collaboration, risk-sharing, and joint problem-solving.

Based on the study conducted on public level four hospitals, it can be concluded that the use of contract quantity frameworks has a significant impact on supply chain performance. The contract quantity frameworks provide a structured approach to managing the quantity and quality of supplies, ensuring a consistent supply of essential items to the hospitals. The findings also highlight the importance of collaboration between hospitals and suppliers. Effective communication and information sharing between the two parties can lead to better forecasting, improved coordination, and reduced lead times. Public level four hospitals should actively engage with their suppliers to develop contract quantity frameworks that align with their needs and ensure a smooth supply chain operation. In conclusion, contract quantity frameworks play a crucial role in enhancing the supply chain performance

The study concludes that utilizing this framework, public level four hospitals optimize their supply chain operations and improve overall performance. The evaluation process enables hospitals to assess supplier capabilities and track performance over time, ensuring that contracts are awarded to the most qualified and reliable suppliers. The findings of the study highlight several benefits of implementing the Contract Evaluation Framework. Firstly, it enables hospitals to make more informed decisions when selecting suppliers, leading to better quality products and services. Furthermore, it helps hospitals identify potential risks and mitigate them through proper contract terms and conditions. The framework promotes transparency and accountability by

establishing clear expectations for both suppliers and hospitals. Additionally, the study suggests that the Contract Evaluation Framework can lead to cost savings for public level four hospitals.

The study concluded that significantly impacts supply chain performance in Public Level Four hospitals. A well-designed and effective CSF improves the coordination and collaboration between the hospital and its vendors, leading to enhanced supply chain efficiency and effectiveness. The CSF promotes transparency and accountability in vendor management. It helps to ensure that vendors are selected based on rigorous criteria, such as their quality of goods or services, pricing, and adherence to delivery schedules. This scrutiny leads to the engagement of reliable vendors, reducing the risk of supply chain disruptions and enhancing overall performance. The CSF establishes clear expectations and benchmarks for vendors. Through well-defined contractual agreements, the hospital sets performance targets, including key performance indicators (KPIs), service level agreements (SLAs), and penalties for non-compliance. Such measures incentivize vendors to meet or exceed expectations, ultimately enhancing the hospital's supply chain performance.

The study concluded supply chain legal framework that supply chain performance in public level four hospitals is influenced by several other factors apart from the legal framework. These factors include financial resources, human resources, technology adoption, management practices, and collaboration with suppliers and other stakeholders. A holistic approach that considers these factors along with the legal framework is necessary to optimize supply chain performance in public level four hospitals. Overall, the study emphasizes the importance of having a robust legal framework in place for supply chain management in public level four hospitals. Compliance with legal regulations ensures transparency, fairness, and accountability in procurement and logistics processes, leading to improved supply chain performance. However, it is crucial to consider other factors alongside the legal framework to achieve holistic and sustainable improvements in supply chain performance.

5.4 Recommendation of the study

The study recommends that strengthening collaborative relationships between the hospital and its suppliers is crucial. Which is achieved through regular communication to establish a mutual understanding of expectations, goals, and objectives. Developing trust and cooperation will lead to better coordination and responsiveness in the supply chain. Constructing well-defined and transparent contracts is essential to ensure clarity and fairness in supplier agreements. Contracts should clearly outline the roles, responsibilities, and performance expectations of both parties. Furthermore, including incentives for meeting or exceeding performance targets can motivate suppliers to deliver superior outcomes. Providing regular feedback and performance reviews will allow both the hospital and suppliers to identify areas for improvement and take corrective actions when needed.

The study recommends that implement a centralized procurement system: Public level four hospitals should establish a centralized procurement system to ensure effective contract quantity frameworks. This system should streamline the procurement process, enhance transparency, and enable better monitoring and control over the hospital's supply chain performance. Hospitals should consider entering into long-term contracts with suppliers to ensure a stable supply of goods and services. Long-term contracts can help in negotiating better pricing and terms, reducing supply disruptions, and building stronger relationships with suppliers. Align contract quantities with demand forecasting: Hospitals should improve their demand forecasting capabilities to align contract quantities with actual requirements. This will prevent overstocking or understocking of inventory, optimize inventory levels, and reduce wastage and costs.

The study recommends on contract evaluation framework that hospitals to Implement Performance-Based Contracts: Hospitals should consider implementing performance-based contracts that incentivize suppliers to meet or exceed desired outcomes. These contracts should include specific performance indicators and penalties for non-compliance. Performance-based contracts to enhance supply chain performance by aligning suppliers' interests with the hospital's objectives and driving efficiency and quality improvements. Enhance Data Visibility and Analytics: Public level four

hospitals should invest in technology infrastructure that provides real-time visibility into supply chain data. Implementing focus on maintaining or increasing a competitive advantage, reducing the effects of competition and realizing cost savings are among the most common, both in business-to-business and in business-to-supplier technical partnerships.

The study recommends that contract service framework for public level four hospitals in Kenya, should assess the existing service framework: Conduct a thorough evaluation of the current service framework in place at public level four Hospitals. Evaluate the supply chain processes and procedures within these hospitals. Identify areas of improvement such as inventory management, procurement practices, and distribution strategies Benchmark against best practices: Compare the service framework and supply chain performance of public level four hospitals with other successful hospitals, both locally and internationally.: Explore the integration of technology solutions, such as hospital management systems, electronic health records, and inventory management software, to streamline operations and improve supply chain performance. Assess the feasibility and potential benefits of implementing these solutions in public level four hospitals.

The study recommends that procurement legal framework Public level four hospitals in Kenya should carry out Legal Framework Analysis Identify and assess the legal framework governing supply chain processes in public level four hospitals, Analyze the strengths and weaknesses of the current legal framework and Evaluate the alignment of the legal framework with best practices and industry standards, further recommends for enhancing the legal framework to improve supply chain performance in public level four hospitals Suggest policy changes and amendments to address the weaknesses identified in the legal framework. Propose strategies for implementing the recommended changes and ensuring their effectiveness

5.5 Areas for Further Study

This study was not exhaustive meaning as it was only limited to variable Relationship framework, Quantity Frameworks, evaluation Framework, Service Framework and

Procurement Legal Framework on supply chain performance of public level four hospitals in Kenya.

It is also limited to only public hospitals it is therefore recommended that another study be replicated in other contract framework in other public institutions in entire country. This is because contract management and contract execution are a rich research field and is still evolving. The analysis was limited to the information disclosed by the respondents. Regression analysis indicated an R squared of 86.3% an indication that variables considered do not explain 100% variation in the dependent variables meaning that other factors exit not covered by the current study that significantly determine the influence of contract framework on supply chain performance of public level four hospitals in Kenya and therefore future studies should endeavor to uncover these other factors.

The study was not exhaustive since it only addressed contract framework on supply chain performance of public level four hospitals in Kenya and it did not tackle contract operationalization and monitoring which have a great impact on contract performance; which is a rich research area that needs to be exploited. The study recommends further research on areas related to the nature contract management of public hospitals in Kenya which have a great influence on supply chain performance since various contract requires specialized handling measures that the research was not able to cover during this study.

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APPENDICES

Appendix I: Introduction Letter

Dear Respondents,

I am a student at Jomo Kenyatta University of Agriculture and Technology (JKUAT) undertaking a philosophy Degree in Procurement. Working on Research thesis **'**to establish the of influence of Contract framework on performance of Public level four hospitals in Kenya**.** Your responses will be used for the purposes of the study. Kindly respond sincerely to issues in the questionnaire. Please read and answer the questions given by ticking the correct answer. Where required write brief answers in the space provided. You are assured that all information received from the respondent will be held confidentiality.

Thank you in advance for participating in this study. Feel free to get back to me with the contact below.

Yours Faithfully,

Ambrose M.Kamanda

Phone: 0713112802

Email:ambrokam@gmail.com

Appendix II: Questionnaires

Please help me to collect data for my PHD program by taking a few moments to fill out this survey form. This questionnaire is meant to collect data regarding to establish the of influence of contract framework on supply chain performance of Public level four hospitals in Kenya

PART I: Relationship Framework

Contract form

1: Below are various statements of Contract form on supply chain performance of Public level four hospitals in Kenya. Kindly indicate to what extent you agree with each of the identified statements using a scale of 1 to 5

	Statement	**1**	**2**	**3**	**4**	**5**
a	Maintain contract records in SAP, ensuring governance requirements are met at all times					
b	Negotiate the many details of a contract for each instance a product is sold or a service is used.					
c	Contracts have the potential to reduce transaction costs by eliminating the need for annual tender evaluation					
d	Binding agreement as to the relevant parties or the relevant scope.					
e	Align to standard contract terms on the length of the agreement, renewal terms, and volume and price ranges					
f)	Providing mechanisms so that suppliers and buyer share system's risks and costs					
g	Cross-functional teams during contract tendering, formation, administration and negotiation;					
h	Contract acquisition strategies within area of responsibility and communicate strategies to project clients					

Term of Contracts

2. They should be clear and transparent, and cover as many relevant and foreseeable elements as possible, including rights and procedures of termination's.

explain……
……

Collaborative processes

3. Please indicate the extent to which the following Collaborative processes statements affect the Supply chain performance of Public level four hospitals in Kenya Use a scale of 1-5, where

	Statement	**1**	**2**	**3**	**4**	**5**
a)	Working with the best in each field increase the quality of the product/service provided					
b)	Suppliers that work well under the company's culture and values and ensure the standard that is required of them					
c)	Collaboration for cost reduction focuses on cutting costs for both sides beyond traditional sourcing levers					
d)	Collaboration for value to improve safety and quality of products and of supply for a new or capacity-constrained component,					
e)	Collaboration for innovation is the practice of working with suppliers to improve the pace and process innovation					
f)	Successfully creating transparency and trust, however, can deliver remarkable value.					
g)	A value-sharing model must detail the targets of cooperation, defining the benefits and agreeing on how to share those benefits					

PART III: Quantity Frameworks

Shipment Schedules

5 Below are various statements of Shipment Schedules on supply chain performance of Public level four hospitals in Kenya. Kindly indicate to what extent you agree with each of the identified statements using a scale of 1 to 5

	Statement	**1**	**2**	**3**	**4**	**5**
a)	Validation in delivery that delivery quantity should not be greater than open quantity of schedule line,					
b)	Does the suppliers Delivery created against the scheduling agreement					
c)	Break down the weekly or monthly schedule lines sent in by the customer into daily requirements					
d)	Limit the planning period of schedule lines in forecast delivery schedules					
e)	The planning delivery schedule is structured in the same way as forecast and just-in-time (JIT) delivery schedules					
f)	Work together in the scheduling agreement; see Combining Delivery Schedules and Setting Requirements and Delivery Relevance.					
g)	The forecast delivery schedule as a basis for planning production and sales, and for controlling shipping.					
h)	Schedules for delivery drivers each day or having to pull up delivery and pick-up information on your customers					
i)	The time frames for delivery indicated by bidders will be taken into account during the detailed evaluation,					
j)	To deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.					

Economic Order Quantity

6 Delivered Quantity in scheduling agreement should be in line with demand forecasted or the current need

Eplain……
……
……

Operations requirements

11.Please indicate the extent to which the following Operations requirements statements affect the performance of Public level four hospitals in Kenya Use a scale of 1-5

	Statements	**1**	**2**	**3**	**4**	**5**
a	The right product at the right time reliability delivers the correct product on time goods and services work as described					
b	The operations are compliant with relevant government licenses and approvals for plants, materials and distribution					
c	The suppliers and subcontractors shall allow regular formal contract reviews at a frequency agreed locally or whenever changes happen					
d	Cooperation with the supplier and other stakeholders to develop the operations.					
e	Requiring detailed plan for corrective actions from the supplier.					
f	Suppliers and contractors must comply with the payment terms					
g	Monitor the supplier performance					
h	Specific methods of delivery and quality assurance processes					

PART IV: Evaluation Framework

Blanket Contracting

7. Below are various statements of blanket contracting on supply chain performance of Public level four hospitals in Kenya? Kindly indicate to what extent you agree with each of the identified statements using a scale of 1 to 5

Statements	1	2	3	4	5
As needs and product or service requirements may change over the term of the agreement.					
Based on the blanket order, sales orders blanket releases or 'release orders') and invoice items can be created as needed until the contract is fulfilled					
The buyer the quantities of goods kept in order that the buyer could know the status of the stock.					
Before the buyer issuing the purchase order to supplier.					
The ability to change terms to the agreement to keep up with those changes.					

ii. Training Framework

8.The supplier and buyer maintains a longer-term economic perspective via a collaborative, on-going, and trusted relationship with suppliers through developing of the delivers components, subsystems, or services that help Solutions to their Customers.

Eplain……

……..……

……

iii. Partnering agreement

14.Please indicate the extent to which the following Partnering agreement statements affect the performance of Public level four hospitals in Kenya Use a scale of 1-5, where

Statements	1	2	3	4	5
Tailored business relationship based on mutual trust, openness, shared risk and shared rewards that yield a competitive advantage, resulting in business performance greater that would be achieved by the firms individually.					
Partnerships based on value and respect. Each company has to value and respect the other with a solid, long-term relationship that implies continuous improvement					

Firms involved in buyer-supplier partnerships stress continuous quality improvements,						
Joint cost reduction programs, ongoing and open communications, and heightened customer service levels.						

PART V: Service Framework

Contract process

9.Please indicate the extent to which the following Contract process statements affect the performance of Public level four hospitals in Kenya Use a scale of 1-5, where

	Statement	**1**	**2**	**3**	**4**	**5**
a)	KPIs evaluate the success of an organization or of a particular activity , products and contract in which it engages					
b)	identification of potential improvements, so performance indicators are routinely associated with					
c)	evaluated, KPIs are linked to target values, so that the value of the measure can be assessed as meeting expectations					
d)	transactions according to the level agreed on in the SLA As with capacity management,					
e)	Capacity management involves planning and controlling that meets the minimum performance expectations in the SLA					
f)	The specifying review and approval route depends on the type and value of the contract at issue					
g)	Managing Service Delivery To ensure that the products are delivered as and when they are ordered.					
h)	Contract administration to ensure that the day-to-day procurement activities follow the spirit and sections of the contract.					
i)	Ongoing and regular monitoring of each vendor should be instigated and maintained.					

Product warranties

10. The specification must include all necessary drawings, dimensions, environmental factors, ergonomic factors, aesthetic factors, maintenance that will be needed, etc. It may also give specific examples of how the design should be executed, helping others work properly Eplain

……..……
……..……

Payment terms

11. When a payment is linked to a certain phase in the Services, the corresponding invoice shall be subject to the complete and effective performance of specific delivery carried out?

Eplain……
……..……
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PART VI: Procurement Legal Framework

Purchase Order Compliance

12.Please indicate the extent to which the following Purchase Order Compliance statements affect the performance ; organization responsible for maintaining compliance requirements for varying and changing regulations such as serialization

Eplain……
……..……
……

ISO-Cerfication

19. Quality management systems standards are designed to help public health facilities ensure that they meet the needs of customers and other stakeholders while meeting

statutory and regulatory requirements related to a product or service Eplain……
……..……
……

Procurement Legal Framework

20. Below are various statements of procurement legal framework on supply chain performance of public level four hospitals in Kenya. Kindly indicate to what extent you agree with each of the identified statements using a scale of 1 to 5

Statement	1	2	3	4	5
How would you rate the influence of the Procurement Legal Framework on procurement practices within your organization?					
Do you believe that the PPRA policies adequately guide procurement activities in accordance with the Public Procurement and Asset Disposal Act 2015**?**					
. How familiar are you with the procurement procedures outlined in the Public Procurement and Asset Disposal Act 2015?					
Have you observed any positive changes in procurement practices since the implementation of the Public Procurement and Asset Disposal Act 2015					
What challenges have you faced in implementing the framework contract under the Procurement Legal Framework?					
. How would you assess the effectiveness of the Procurement Legal Framework in promoting transparency and accountability in public procurement?					
Are there any gaps or areas for improvement that you have identified in the Procurement					

Legal Framework and its influence on procurement procedures?					
How well do the PPRA policies align with the objectives and provisions of the Public Procurement and Asset Disposal Act 2015?					
To what extent do you believe the Procurement Legal Framework ensures fair competition and value for money in public procurement?					

PART VII: Supply Chain Performance.

20.Please indicate the level of performance experienced by your organization in the last five years in terms of productivity, customer satisfaction, total operating costs, market share, revenue, and profitability, supply chain contract framework agreement by taking year 2014 as the base year.

Indicators	**Performance levels**				
Year	**2014**	**2015**	**2016**	**2017**	**2018**
Delivery Time (days)					
Cost reduction (Kshs)					
Lead Time (days)					

Supply Chain Performance on Inventory Turnover Ratio

21 Please indicate the extent to which you agree or disagree with the following statements on the influence of Just in Inventory Turnover Ratio on Performance of Public level four hospitals Facilities. (Please Tick 1 for “Strongly Disagree”, 2 for “Disagree”, 3 for neutral”, 4 for “Agree” and 5 for “Strongly Agree”).

	Statement	1	2	3	4	5
a	comparison of on-hand inventory to order point and generation of recommended replenishment orders					

b	review and calculation of order points and order quantities based on movement data and special information					
c	replenishment frequencies play an important role in integrated inventory models to reduce the total cost of supply chains					
d	automatic monitoring of projected spoilage to avoid placing risky orders and prompting stores to markdown stock when needed					
e	dynamic day-level safety stocks, adjusting stock levels to consumers' shopping patterns					
f)	Advanced algorithms for Automatic Stock Replenishment, based on demand forecasting and order generation.					
g	Less rework on the schedule during execution as orders will now fit in the storages and delivery vehicles, and match the delivery windows					
h	Inventory traceability throughout a facility - Managers will always know an accurate count at every location.					
i)	increase your replenishment rate, you can also decrease the amount of inventory at each workstation needed to keep the assembly line moving					
j)	Proactive delivery planning enables stores to synch deliveries with staff availability.					
k	Using accurate projections of future inventory and orders, exceptions (such as unusually large numbers of order lines) can be identified and dealt with before they become problematic.					
l)	Time-dependent parameters allow for planning changes, such as increasing shelf space for a promotion, well ahead.					
m	Keeping the product on the market but adding or removing features or finding new uses for it					
n	Reducing costs and production and keeping it just for a niche segment of the market.					

Appendix III: Public Level Four Hospitals in Kenya List

COUNTY	NO	CURRENT FACILITY NAME	TYPE OF FACILITY
1.Kiambu	**1**	Thika Level 5 Hospital	Level four Hospital - Kiambu
	2	Ruiru Sub-District Hospital	Level four Hospital - Kiambu
	3	Kiambu District Hospital	Level four Hospital - Kiambu
	4	Kihara Sub-District Hospital	Level four Hospital - Kiambu
	5	Igegania Sub-District Hospital	Level four Hospital - Kiambu
	6	Gatundu District Hospital	Level four Hospital - Kiambu
	7	Nyathuna Sub-District Hospital	Level four Hospital - Kiambu
	8	Tigoni District Hospital	Level four Hospital - Kiambu
2.Murang'a	**9**	Murang'a District Hospital	Level four Hospital - Murang'a
	10	Muriranjas District Hospital	Level four Hospital - Murang'a
	11	Kangema Sub-District Hospital	Level four Hospital - Murang'a
	12	Kirwara Sub-District Hospital	Level four Hospital - Murang'a
	13	Maragwa District Hospital	Level four Hospital - Murang'a
3.Kirinyaga	**14**	Kerugoya District Hospital	Level four Hospital - Kirinyaga
	15	Kianyaga Sub-District Hospital	Level four Hospital - Kirinyaga
	16	Kimbimbi Sub-District Hospital	Level four Hospital - Kirinyaga
4.Nyeri	**17**	Mt. Kenya Sub-District Hospital	Level four Hospital - Nyeri
	18	Karatina District Hospital	Level four Hospital - Nyeri
	19	Mukurwe-Ini Sub-District Hospital	Level four Hospital - Nyeri
	20	Othaya District Hospital	Level four Hospital - Nyeri
5.Nyandarua	**21**	Nyahururu District Hospital	Level four Hospital - Nyandarua
	22	Ol'kalou District Hospital	Level four Hospital - Nyandarua
	23	Engineer District Hospital	Level four Hospital - Nyandarua
6.Mombasa	**24**	Port Reitz District Hospital	Level four Hospital - Mombasa
	25	Tudor Sub-District Hospital	Level four Hospital - Mombasa
	26	Likoni Sub-District Hospital	Level four Hospital - Mombasa
7.Kwale	**27**	Msambweni District Hospital	Level four Hospital - Kwale
	28	Kinango District Hospital	Level four Hospital - Kwale
	29	Kwale District Hospital	Level four Hospital - Kwale
8.Kilifi	**30**	Kilifi District Hospital	Level four Hospital - Kilifi
	31	Malindi District Hospital	Level four Hospital - Kilifi
	32	Mariakani District Hospital	Level four Hospital - Kilifi
	33	Jibana Sub-District Hospital	Level four Hospital - Kilifi
	34	Bamba Sub-District Hospital	Level four Hospital - Kilifi
9.Tana River	**35**	Hola District Hospital	Level four Hospital Tana River
	36	Ngao District Hospital	Level four Hospital - Tana river
10.Lamu	**37**	Lamu District Hospital	Level four Hospital - Lamu

	38	Faza Sub-District Hospital	Level four Hospital - Lamu
	39	Mpeketoni Sub-District Hospital	Level four Hospital - Lamu
11.Taita/ Taveta	**40**	Wesu District Hospital	Level four Hospital - Taita/Taveta
	41	Wundanyi Sub-District Hospital	Level four Hospital - Taita/Taveta
	42	Moi (Voi) District Hospital	Level four Hospital - Taita/Taveta
	43	Taveta District Hospital	Level four Hospital - Taita/Taveta
	44	Mwatate Sub-District Hospital	Level four Hospital - Taita/Taveta
	45	Mwambirwa Sub-District Hospital	Level four Hospital - Taita/Taveta
12.Marsabit	**46**	Marsabit District Hospital	Level four Hospital - Marsabit
	47	Moyale District Hospital	Level four Hospital - Marsabit
13.Isiolo	**48**	Isiolo District Hospital	Level four Hospital - Isiolo
	49	Garbatulla District Hospital	Level four Hospital - Isiolo
14.Meru	**50**	Meru Level 5 Hospital	Level four Hospital - Meru
	51	Giaki Sub-District Hospital	Level four Hospital - Meru
	52	Timau Sub-District Hospital	Level four Hospital - Meru
	53	Kibirichia Sub-District Hospital	Level four Hospital - Meru
	54	Githongo Sub-District Hospital	Level four Hospital - Meru
	55	Kinoro Sub-District Hospital	Level four Hospital - Meru
	56	Mikumbune Sub-District Hospital	Level four Hospital - Meru
	57	Kanyakine Sub-District Hospital	Level four Hospital - Meru
	58	Mutuati Sub-District Hospital	Level four Hospital - Meru
	59	Nyambene District Hospital	Level four Hospital - Meru
	60	Muthara Sub-District Hospital	Level four Hospital - Meru
	61	Mikinduri Sub-District Hospital	Level four Hospital - Meru
	62	Mbeu Sub-District Hospital	Level four Hospital - Meru
	63	Miathene District Hospital	Level four Hospital - Meru
15.Tharaka-Nthi	**64**	Chuka District Hospital	Level four Hospital - Tharaka
	65	Magutuni Sub-District Hospital	Level four Hospital - Tharaka
	66	Tharaka (Marimanti) District Hospital	Level four Hospital - Tharaka
	67	Kibunga Sub-District Hospital	Level four Hospital - Tharaka
16.Embu	**68**	Kianjokoma Sub-District Hospital	Level four Hospital - Embu
	69	Runyenjes District Hospital	Level four Hospital - Embu
	70	Siakago District Hospital	Level four Hospital - Embu
	71	Ishiara Sub-District Hospital	Level four Hospital - Embu
17.Kitui	**72**	Kitui District Hospital	Level four Hospital - Kitui
	73	Katulani Sub-District Hospital	Level four Hospital - Kitui
	74	Ikanga Sub-District Hospital	Level four Hospital - Kitui

	75	Kanyangi Sub-District Hospital	Level four Hospital - Kitui
	76	Kauwi Sub-District Hospital	Level four Hospital - Kitui
	77	Mwingi District Hospital	Level four Hospital - Kitui
	78	Migwani Sub-District Hospital	Level four Hospital - Kitui
	79	Kyuso Sub-District Hospital	Level four Hospital - Kitui
	80	Tseikuru Sub-District Hospital	Level four Hospital - Kitui
	81	Nuu Sub-District Hospital	Level four Hospital - Kitui
	82	Mutitu Sub-District Hospital	Level four Hospital - Kitui
18.Machakos	**83**	Machakos Level 5 Hospital	Level four Hospital - Machakos
	84	Kangundo District Hospital	Level four Hospital - Machakos
	85	Kathiani Sub-District Hospital	Level four Hospital - Machakos
	86	Mwala Sub-District Hospital	Level four Hospital - Machakos
	87	Matuu Sub-District Hospital	Level four Hospital - Machakos
19.Makueni	**88**	Makueni District Hospital	Level four Hospital - Makueni
	89	Matiliku District Hospital	Level four Hospital - Makueni
	90	Sultan Hamud Sub-District Hospital	Level four Hospital - Makueni
	91	Makindu District Hospital	Level four Hospital - Makueni
	92	Kibwezi Sub-District Hospital	Level four Hospital - Makueni
	93	Nunguni Sub-District Hospital	Level four Hospital - Makueni
	94	Mbooni District Hospital	Level four Hospital - Makueni
	95	Tawa Sub-District Hospital	Level four Hospital - Makueni
	96	Kisau Sub-District Hospital	Level four Hospital - Makueni
20.Turkana	**97**	Lodwar District Hospital	Level four Hospital - Turkana
	98	Lopiding District Hospital	Level four Hospital - Turkana
	99	Lokitaung Sub-District Hospital	Level four Hospital - Turkana
21.West Pokot	**100**	Kapenguria District Hospital	Level four Hospital - West Pokot
	101	Chepareria Sub-District Hospital	Level four Hospital - West Pokot
	102	Kacheliba Sub-District Hospital	Level four Hospital - West Pokot
	103	Sigor Sub-District Hospital	Level four Hospital - West Pokot
22.Samburu	**104**	Maralal District Hospital	Level four Hospital Samburu
	105	Baragoi Sub-District Hospital	Level four Hospital Samburu
23.Trans Nzoia	**106**	Kitale District	Level four Hospital Tran Nzoia
	107	Saboti Sub-District Hospital	Level four Hospital Tran Nzoia
	108	Endebess Sub-District Hospital	Level four Hospital Tran Nzoia
24.Uasin Gishu	**109**	Huruma District Hospital	Level four Hospital Uasin Gishu
	110	Ziwa Sub-District Hospital	Level four Hospital Uasin Gishu
25.Elgeyo/ Marakwet	**111**	Iten District Hospital	Level four Hospital - Keiyo
	112	Tambach Sub-District Hospital	Level four Hospital - Keiyo

	113	Kamwosor Sub-District Hospital	Level four Hospital - Keiyo
	114	Kocholwo Sub-District Hospital	Level four Hospital - Keiyo
	115	Kaptarakwa Sub-District Hospital	Level four Hospital - Keiyo
	116	Chebiemit District Hospital (Marakwet)	Level four Hospital - Keiyo
	117	Tot Sub-District Hosptial	Level four Hospital - Keiyo
26.Nandi	**118**	Kapsabet District Hospital	Level four Hospital - Nandi
	119	Nandi Hills District Hospital	Level four Hospital - Nandi
	120	Meteitei Sub-District Hospital	Level four Hospital - Nandi
	121	Kaptumo Sub-District Hospital	Level four Hospital - Nandi
	122	Chepterwai Sub-District Hospital	Level four Hospital - Nandi
27.Baringo	**123**	Kabarnet District Hospital	Level four Hospital - Baringo
	124	Marigat Sub-District	Level four Hospital - Baringo
	125	Chemolingot Sub-District Hospital	Level four Hospital - Baringo
	126	Kapedo Sub-District Hospital	Level four Hospital - Baringo
	127	Eldama Ravine District Hospital	Level four Hospital - Baringo
28.Laikipia	**128**	Nanyuki District Hospital	Level four Hospital - Laikipia
	129	Doldol Sub-District Hospital	Level four Hospital - Laikipia
	130	Rumuruti Sub-District Hosptial	Level four Hospital - Laikipia
29.Nakuru	**131**	Annex Hospital Nakuru	Level four Hospital - Nakuru
	132	Naivasha District Hospital	Level four Hospital - Nakuru
	133	Gilgil Sub District Hospital	Level four Hospital - Nakuru
	134	Olenguruone Sub-District Hospital	Level four Hospital - Nakuru
	135	Molo Sub District Hospital	Level four Hospital - Nakuru
	136	Elburgonnyayo Sub District Hospital	Level four Hospital - Nakuru
	137	Bahati District Hospital	Level four Hospital - Nakuru
30.Narok	**138**	Narok District Hospital	Level four Hospital - Narok
	139	Ololulung'a District Hospital	Level four Hospital - Narok
	140	Kilgoris District Hospital	Level four Hospital - Narok
	141	Lolgorian Sub-District Hospital	Level four Hospital - Narok
31.Kajiado	**142**	Kajiado District Hospital	Level four Hospital - Kajiado
	143	Loitoktok Sub-District Hospital	Level four Hospital - Kajiado
	144	Ngong Sub-District Hospital	Level four Hospital - Kajiado
32.Kericho	**145**	Kericho District Hospital	Level four Hospital - Kericho
	146	Londiani District Hospital	Level four Hospital - Kericho
	147	Kipkelion Sub-District Hospital	Level four Hospital - Kericho
	148	Fort-Ternan Sub-District Hospital	Level four Hospital - Kericho

	149	Roret Sub-District Hospital	Level four Hospital - Kericho
33.Bomet	**150**	Cheptalal Sub-District Hospital	Level four Hospital - Bomet
	151	Longisa District Hospital	Level four Hospital - Bomet
	152	Sigowet Sub-District Hospital	Level four Hospital - Bomet
	153	Kapkatet District Hospital	Level four Hospital - Bomet
	154	Sigor Sub-District Hospital	Level four Hospital - Bomet
34.Kakamega	**155**	Navakholo Sub-District Hospital	Level four Hospital - Kakamega
	156	Iguhu District Hospital	Level four Hospital - Kakamega
	157	Shibwe Sub-District Hospital	Level four Hospital - Kakamega
	158	Malava District Hosptial	Level four Hospital - Kakamega
	159	Lumakanda District Hospital	Level four Hospital - Kakamega
	160	Matunda Sub-District Hospital	Level four Hospital - Kakamega
	161	Mautuma Sub-District Hospital	Level four Hospital - Kakamega
	162	Likuyani Sub-District Hospital	Level four Hospital - Kakamega
	163	Butere District Hospital	Level four Hospital - Kakamega
	164	Manyala Sub-District Hospital	Level four Hospital - Kakamega
	165	Matungu Sub-District Hospital	Level four Hospital - Kakamega
35.Vihiga	**166**	Vihiga District Hospital	Level four Hospital - Vihiga
36.Bungoma	**167**	Bungoma District Hospital	Level four Hospital - Bungoma
	168	Kimilili District Hospital	Level four Hospital - Bungoma
	169	Naitiri Sub-District Hospital	Level four Hospital - Bungoma
	170	Sirisia Sub-District Hospital	Level four Hospital - Bungoma
	171	Webuye District Hospital	Level four Hospital - Bungoma
	172	Bokoli Sub-District Hospital	Level four Hospital - Bungoma
	173	Mt. Elgon District Hospital	Level four Hospital - Bungoma
	174	Cheptais Sub-District Hospital	Level four Hospital - Bungoma
37.Busia	**175**	Busia District Hospital	Level four Hospital - Busia
	176	Khunyangu Sub-District Hospital	Level four Hospital - Busia
	177	Teso District Hospital (Kocholia)	Level four Hospital - Busia
	178	Alupe Sub-District Hospital	Level four Hospital - Busia
	179	Sio Port District Hospital	Level four Hospital - Busia
	180	Port Victoria Sdh	Level four Hospital - Busia
38.Siaya	**181**	Siaya District Hospital	Level four Hospital - Siaya
	182	Yala Sub-District Hospital	Level four Hospital - Siaya
	183	Ambira Sub-District Hospital	Level four Hospital - Siaya
	184	Bondo District Hospital	Level four Hospital - Siaya
	185	Got Agulu Sub-District Hospital	Level four Hospital - Siaya
	186	Madiany Sub-District Hospital	Level four Hospital - Siaya
39.Kisumu	**187**	Kisumu District Hospital	Level four Hospital - Kisumu
	188	Nyahera Sub-District Hospital	Level four Hospital - Kisumu
	189	Victoria Sub-District Hospital	Level four Hospital - Kisumu
	190	Miranga Sub-District Hospital	Level four Hospital - Kisumu

	191	Chulaimbo Sub-District Hospital	Level four Hospital - Kisumu
	192	Kombewa Sub-District Hospital	Level four Hospital - Kisumu
	193	Nyando District Hospital	Level four Hospital - Kisumu
	194	Muhoroni Sub-District Hospital	Level four Hospital - Kisumu
	195	Masogo Sub-District Hospital	Level four Hospital - Kisumu
	196	Ahero Sub-District Hospital	Level four Hospital - Kisumu
40.Homa Bay	**197**	Homa-Bay District Hospital	Level four Hospital - Homa Bay
	198	Rangwe Sub-District Hospital	Level four Hospital - Homa Bay
	199	Ndhiwa Sub-District Hospital	Level four Hospital - Homa Bay
	200	Rachuonyo District Hospital	Level four Hospital - Homa Bay
	201	Kabondo Sub-District Hospital	Level four Hospital - Homa Bay
	202	Othoro Sub-District Hospital	Level four Hospital - Homa Bay
	206	Kandiege Sub-District Hospital	Level four Hospital - Homa Bay
	207	Kendu Bay Sub-District Hospital	Level four Hospital - Homa Bay
	208	Mbita Sub-District Hospital	Level four Hospital - Homa Bay
	209	Ogongo Sub-District Hospital	Level four Hospital - Homa Bay
	210	Suba (Sindo) District Hospital	Level four Hospital - Homa Bay
	211	Kisegi Sub-District Hospital	Level four Hospital - Homa Bay
41.Migori	**212**	Migori District Hospital	Level four Hospital - Migori
	213	Karungu Sub-District Hospital	Level four Hospital - Migori
	214	Macalder Sub-District Hospital	Level four Hospital - Migori
	215	Kehancha District Hospital	Level four Hospital - Migori
	216	Ntimaru Sub-District Hospital	Level four Hospital - Migori
	217	Isebania Sub-District Hospital	Level four Hospital - Migori
	218	Rongo Sub-District Hospital	Level four Hospital - Migori
	219	Awendo Sub-District Hospital	Level four Hospital - Migori
42.Kisii	**220**	Marani Sub-District Hospital	Level four Hospital - Kisii
	221	Kisii Level 5 Hospital	Level four Hospital - Kisii
	222	Keumbu Sub-District Hospital	Level four Hospital - Kisii
	223	Ibeno Sub-District Hospital	Level four Hospital - Kisii
	224	Nyamache District Hospital	Level four Hospital - Kisii
	225	Nyacheki Sub-District Hospital	Level four Hospital - Kisii
	226	Gucha District Hospital	Level four Hospital - Kisii
	227	Kenyenya Sub-District Hospital	Level four Hospital - Kisii
	228	Iyabe Sub-District Hospital	Level four Hospital - Kisii
	229	Etago Sub-District Hospital	Level four Hospital - Kisii
	230	Nduru Sub-District Hospital	Level four Hospital - Kisii
43.Nyamira	**231**	Nyamira District Hospital	Level four Hospital - Nyamira
	232	Nyamusi Sub-District Hospital	Level four Hospital - Nyamira
	233	Ekerenyo Sub-District Hospital	Level four Hospital - Nyamira
	234	Nyangena Sub-District Hospital	Level four Hospital - Nyamira
	235	Manga Sub-District Hospital	Level four Hospital - Nyamira
	236	Esani Sub-District Hospital	Level four Hospital - Nyamira

	237	Keroka District Hospital(Masaba)	Level four Hospital - Nyamira
	238	Ibacho Sub-District Hospital	Level four Hospital - Nyamira
	249	Masimba Sub-District Hospital	Level four Hospital - Nyamira
	250	Gesusu Sub-District Hospital	Level four Hospital - Nyamira
	251	Kijauri Sub-District Hospital	Level four Hospital - Nyamira
44.Garissa	**253**	Mbalambala Sub-District Hospital	Level four Hospital - Garissa
	254	Iftin Sub-District Hospital	Level four Hospital - Garissa
	255	Masalani District Hospital	Level four Hospital - Garissa
	256	Hulugho Sub-District Hospital	Level four Hospital - Garissa
	258	Dadaab Sub-District Hospital	Level four Hospital - Garissa
	259	Modogashe District Hospital	Level four Hospital - Garissa
45.Wajir	**250**	Wajir District Hospital	Level four Hospital - Wajir
	261	Khorofharar Sub-District Hospital	Level four Hospital - Wajir
	262	Bute District Hospital	Level four Hospital - Wajir
	263	Buna Sub-District Hospital	Level four Hospital - Wajir
	262	Habaswein Sub-District Hospital	Level four Hospital - Wajir
46.Mandera	**263**	Mandera District Hospital	Level four Hospital - Mandera
	264	Lafey Sub-District Hospital	Level four Hospital - Mandera
	265	Rhamu Sub-District Hospital	Level four Hospital - Mandera
	266	Elwak Sub-District Hospital	Level four Hospital - Mandera
	267	Takaba Sub-District Hospital	Level four Hospital - Mandera
47.Nairobi	**268**	Kenyatta National Hospital	Level four Hospital - Nairobi
		Mbagathi District Hospital	
	269	Dagoretti Sub -District Hospital (Mutuini)	Level four Hospital - Nairobi
		Embakasi District Hospital	Level four Hospital - Nairobi
	270	Kayole Ii Sub-District Hospital	Level four Hospital - Nairobi