INFLUENCE OF CONTRACT MANAGEMENT ON PERFORMANCE OF PUBLIC INSTITUTIONS IN THE ENERGY SECTOR IN NAIROBI, KENYA

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DECLARATION AND APPROVAL

Declaration by the student

This research project is my own work and to the best of my knowledge. It has not been submitted for a degree at any university or college.

Signature .....Date: 06/03/2025

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MSCPM/2023/38138

Approval by the Supervisors

This research project has been submitted for review with my permission as the University supervisor.

Signature Date 06/03/2025

DEDICATION

This work is dedicated to my spouse Agatha Okiro, my children Teslae Lerato and Tesla Robel for the support extended, throughout this journey.

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I sincerely thank my supervisor for the guidance, advice and support I have received throughout this study. Their expertise and constructive feedback have steered the direction of my research and enhanced the quality of my work. I also extend my heartfelt gratitude to my family for their constant encouragement, patience and unwavering belief in my academic pursuits. Their moral and emotional support has been a source of strength, motivating me to stay focused and committed to completing this study.

ABSTRACT

The performance of energy sector parastatals is crucial for Kenya's economic development and reducing business costs. Consequently, the government is actively renegotiating energy contracts and implementing new policies to restructure energy operations. Issues such as fund mismanagement and poor internal control have led to the privatization or commercialization of some institutions, aiming for better efficiency and profitability. However, reports from the Office of the Auditor General reveal that these efforts have not yielded satisfactory performance, obstructing the delivery of affordable energy services. The purpose of this study was to examine the influence of contract management on the performance of public institutions in the energy sector in Kenya. Specifically, the study aimed to evaluate the influence of contract planning, assess the influence of contract documentation, investigate the influence of contract relationship management, and analyze the influence of contract monitoring and evaluation on performance of public institutions domiciled within Nairobi county, Kenya. The study was anchored on the contract compliance theory and the theory of public contracts. The study used a descriptive design, targeting parastatals operating in the energy sector. The population consisted of 1,118 staff members from these organizations, with a sample size of 294 respondents selected. Stratified sampling was employed to categorize respondents, followed by simple random sampling to select participants from each of the nine organizations. Middle-level and lower-level staff completed structured questionnaires, while an interview guide was used to gather qualitative data from top-level managers. A pilot study was conducted at the Kenya Pipeline Limited offices in Mombasa branch. Both descriptive and inferential statistics were used in the data analysis, which was carried out using SPSS. Regression analysis and correlation were employed to ascertain the connections among the variables under investigation. A multiple linear regression analysis was used. For analysis, the qualitative data were categorized into themes and subthemes. Graphs, charts, and narratives were used to display the findings in order to give a thorough summary. Results showed that contract planning significantly and positively influenced performance of Kenyan public institutions in the energy sector ($\beta = 0.140$, $p = 0.018$). There was a positive and insignificant influence of contract documentation on performance of public institutions in the energy sector ($\beta = 0.099$, $p = 0.136$). Contract relationship management had a positive and significant influence on performance of public institutions in the energy sector ($\beta = 0.183$, $p = 0.000$). Contract monitoring and assessment had a positive and significant influence on public institutions' performance in the energy sector ($\beta = 1.291$, $p = 0.000$). This study concludes that maintaining a payment schedule for suppliers and incorporating change management provisions positively influence performance. The study concludes that proactive contractor involvement, active feedback-seeking and effective collaboration influence project performance. Effective contingency planning measures mitigate risks during contract execution. The study recommends that public institutions in the energy sector should prioritize comprehensive contract planning and ensure structured payment schedules for suppliers. Energy sector institutions must establish monitoring frameworks, contingency planning and contractor incentives.

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LIST OF ABBREVIATIONS AND ACRONYMS

IEA	Institute of Economic Affairs
IPPs	Independent Power Producers
MW	Mega Watts
NACOSTI	National Commission for Science, Technology and Innovation
SPSS	Statistical Package for Social Sciences
USA	United States of America
USD	United States Dollars

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The economic growth of any nation hinges on the pivotal role of the energy sector. The energy sector significantly influences economic growth and organizational performance (Zhang & Bai, 2022). A sound and vibrant energy sector tend to instill confidence in investors and attract more investors due to a stable, reliable and cost-effective power which leads to lower cost of operations leading to bigger profit margins. This high rate of returns on the investment act as an incentive to entrepreneurs attracting more investments in the country spurring economic growth.

Performance is the evaluation of an institution's effectiveness, efficiency in discharging its mandate and environmental responsibility. Performance encompasses metrics related to the successful execution of specific tasks, highlighting the act of applying knowledge rather than barely owning it. It represents the overall result of an organization's strategies and operations (Augustins, Jaunzems, Rochas & Kamenders, 2018). Performance measurement systems form the basis for strategic planning, enabling the assessment of an organization's achievement of objectives and goals (Foroozandeh, Ramos, Soares, Vale & Dias, 2022).

Contract management is important for enhancing public institutions' performance in the energy sector by ensuring transparent, cost-effective and timely energy project delivery.

Contract management involves inviting and evaluating bids, awarding and implementing contracts (Hassan & Omwenga, 2023). It also includes relationship management between contract parties, planning, documentation and evaluation of contract agreements and projects (Nyaga & Mwangangi, 2019). Contract management ensures all parties adhere to the contract's terms and conditions. It involves recording and agreeing to necessary changes in contract implementation, aiming to minimize risks, optimize resources, foster accountability and ultimately enhance efficiency, reliability and performance in public energy projects (Patel, Good & Chaudhry, 2019).

Contract management ensures that all parties involved adhere to the stipulated conditions and terms of the contract, while also documenting and mutually agreeing upon any necessary modifications (change management framework) during the contract implementation process (Nyaga & Mwangangi, 2019). Management contract encompass contract monitoring and evaluation, contract relationship management, contract documentation and contract planning (Eriksson & Westerberg, 2017). Contract planning involves the development of a strategy that addresses controlling and managing contract variations, contractor payments, asset management, report drafting, and contract termination (Aigbavboa, Oke & Mojele, 2016).

Contract planning, constituting the formal governance of the contract, focuses on the mechanics of the relationship between the contracting parties. Contract documentation entails all records essential to establishing or demonstrating the existence of the contract (Kwakye, 2020). Effective contract management involves managing relationships within contracts for better supplier management (Olendo & Kavale, 2017). Contractor monitoring ensures that all parties involved achieve their objectives in accordance with

the agreed contractual terms (Byamukama & Basheka, 2017). The proficient management of procurement contracts not only helps organizations maintain long-term relationships with suppliers but also elevates overall performance (Aigbavboa et al., 2016).

Globally, contract management is widely employed in the energy sectors of various countries, with the USA adopting this practice as early as the 1980s (Giretti, Corneli & Naticchia, 2021). Each country possesses its unique context in terms of policy, both financial and physical capital, Geographical landscape and human resource making it impractical to replicate or apply the contract management strategies utilized in one nation's energy sector to another. Consequently, it is crucial to comprehend the nuances of contract management in different countries to extract best practices and lessons learned. Contract management has been instrumental in facilitating energy services from renewable sources in nations such as India, China, Sri Lanka, Kiribati and Fiji (Hwang, Saar & Chen, 2019).

European Union countries and developed nations like Canada and Japan, have successfully implemented contract management practices to promote energy efficiency (Imran, Rahman & Mohamed, 2020). However, the performance of many developing countries in their energy sectors remains subpar. While contract management significantly enhances energy sector performance in industrialized nations, it poses challenges related to energy usage in low-income countries due to ineffective policies (Muhammad, Saoula, Issa & Ahmed, 2019). Therefore, it is imperative to assess contract management practices pertaining to energy efficiency, evaluate their current status, and identify barriers encountered at various stages of development to determine

their applicability in developing countries.

Indonesia's energy sector is predominantly reliant on fossil fuels like oil, gas and coal constituting 95% of the overall fuel consumption, while renewable energy is considered merely an alternative, contributing a mere 4.5% to the total power consumption (Muhammad et al., 2019). There exists substantial potential for energy savings ranging from 10% to 30% in both the commercial building and industrial sectors within Indonesia. In its 2014 National Energy Policy, the government established a target to annually decrease energy intensity by 1% (Yoesry, 2019). The implementation of energy efficiency measures in Indonesia serves not only to secure and fortify domestic energy supply but also aligns with the national goal of reducing greenhouse gas emissions and enhancing sector-wide performance (Santoso, Harsanto, Sulila & Bahsoan, 2020).

Regionally, Ghana has committed to expanding the adaptation of energy renewal to 10 percent by 2030. Additionally, the country aims to enhance energy efficiency by 20 percent (Changalima, Mchopa & Ismail, 2022). Ghana anticipates requiring an investment of nearly 3,500 USD million by 2030 to achieve its energy requirements. This financial commitment is intended not only to ensure increased rural access to electricity but also to make a substantial contribution to achieving energy security (Tonder & Rwelamila, 2023). Recognizing the significant role of the private sector in fostering economic growth, Ghana, like many other African countries, actively seeks increased private sector participation through the public private partnership(PPP) framework. Presently, Ghana has attracted non-governmental shareholders, with a total investment of 3,289 USD million allocated to Private-Public coalition energy projects,

predominantly in the renewable energy sector (Amoah & Nkosazana, 2022).

Ethiopia grapples with an energy crisis primarily due to its heavy dependence on hydrological sources of energy, which are vulnerable to the effects of change in climate. Consequently, there is a need for Ethiopia to invest in more reliable and resilient energy sources that can withstand varying climatic conditions (Matto, Ame & Nsimbila, 2021). In response to this challenge, the Ethiopian government has outlined plans to boost its power generation capacity by 300%, with a focus on renewable energy sources. Of this total, 5,200 MW is anticipated to be generated through Independent Power Production (IPPs) modalities (Endris, 2019). To encourage private sector involvement, Ethiopia has adopted the wind auction strategy as a means of creating a sound and vibrant renewable energy sector. This approach involves specific payments for generated energy, fostering Public-Private Partnerships as a financing model for renewable energy initiatives and ultimately contributing to the realization of energy security (Nnene, Senshaw, Zuidgeest, Hamza, Grafakos & Oberholzer, 2023).

Kenya's energy sector is critical in-service provision and economic development. It constitutes a vital component of Kenya's economic blueprint, Vision 2030. Parastatals operating in the energy sector include the Kenya Electricity Transmission Company, Electricity Regulatory Board, Geothermal Development Company, National Oil, Kenya Pipeline Company, Kenya Power, Kenya Electricity Generating Company, Kenya Petroleum Refineries and the Rural Electrification Authority (Ministry of Energy, 2016). The International Energy Agency reports that Kenya has around 44.35 million population with a Gross Domestic Product of roughly $28.05 billion (IEA, 2015). Kenya consumes around 18 million tons of oil, which is roughly equivalent to 7.33

terawatt- hours of electricity usage (Ministry of Energy, 2016). The Kenyan government has pledged to lower its greenhouse gas emissions to less than 30% of what they currently are by the year 2030. In order to meet this goal, the government intends to put money into renewable energy initiatives (green economy), specifically aiming to boost the use of solar and geothermal energy sources (Nyariki & Waruguru, 2021).

Kenya has experienced a steady increase in the availability of electricity to its people. In 1990, approximately 11% of the population had electricity. The percentage rose to 15% in 2000 and then climbed to 23% in 2010 (Ministry of Energy, 2016). The electricity production in Kenya is heavily dependent on hydro resources, fossil fuels, geothermal energy, and wind power generation, which has been introduced more recently. According to data from the World Bank (2015), geothermal sources emerged as the primary contributor, making up 51% of the total energy supplied to the national grid and reaching a capacity of 280 megawatts that year. The government of Kenya in collaboration with the world bank has initiated the Last Mile project across the country in its efforts to ensure it mitigates on the effects of global warming. This aims to ensure as many people as possible are connected to the national grid. Green economy has taken center stage in its development agenda where efforts to support electric motor vehicles have been put in place, using solar panels in the regions that are off grid to provide energy. Banks are financing several schools to abandon the traditional way of cooking by use of firewood and adopt clean energy. All these efforts the government is initiating through subcontracting different entities to implement the projects.

For the government to realize its objectives an elaborate contract management policy needs to be put in place. However, even with all these initiatives having been put in

place, the energy sector in Kenya is host to various challenges, including insufficient capacity, frequent power outages and low access rate to reach the existing high demand, especially within periods of drought when river volumes decrease. Additionally, poor revenue collection contributes to losses in the sector (Nyaga & Mwangangi, 2019). As of 2011, Kenya's installed capacity was estimated at only 40 watts per capita (Ministry of Energy and Petroleum, 2016).

The Kenya power and lightning company has been consistently making losses over the last seven years due to efficiencies in operations that is characterized by loss of transmission lines due to theft of equipment to scrap metal dealers, unpaid bills especially by other government institutions and frequent power outages have made big industries begin their power plants or switch to solar systems. Additionally, Kenya's discovery of oil in Turkana county raised hopes of the country joining oil exporting countries and significantly lower its energy costs. However, the project was faced with a variety challenges ranging from weak institutions, poor infrastructure, the regions topography, inadequate macroeconomic policies, poor governance and lack of profit-sharing mechanisms among the relevant stakeholders (local communities, central government and national and international private sector investors). These challenges could threaten and even derail effective use of these resources to improve the lives of those in the region.

There is a pressing need to enhance production capacity , to address Kenya's energy demand, by 5,000 MW by 2016 and 23,000 MW by 2030 (Ministry of Energy and Petroleum, 2016). Despite facing challenges in energy exploitation, Kenya has significant geothermal potential. However, challenges in energy sector operations

hinder the realization of its full potential and performance (Ministry of Petroleum and Energy, 2016). Given the projects-intensive capital nature, the country must seek partners to enhance its capacity (World Bank, 2015). This necessitates policies encouraging prudence in contract management, capacity building and resource evaluation, as part of the government's energy sector agenda (Hanák & Vítková, 2022).

Inadequate access to energy resources and infrastructure hinders human and economic progress. Both renewable and non-renewable energy sources exist in the environment (Jia, 2020). According to the SDG goal number 7, every person is entitled to clean, modern and reliable energy. The public sector's role in energy is important for service provision and economic development, aligning with Kenya's Vision 2030. The energy sector has been facing a myriad of challenges and there is concern from the public of the high energy bills, frequent power blackouts and inefficiencies in the energy sector. Effective contract management could aid enhance the public institutions performance in the energy sector by ensuring transparent, cost-effective project execution, risk minimization and optimal resource allocation (Liu & Sun, 2022). This would enhance accountability and efficiency, contributing to the successful implementation of projects (Jia, 2020). This study examined the effect of management contract on public institutions performance in the sector of energy in Kenya.

1.2 Statement of the problem

The performance of energy sector parastatals for the Kenyan economy, due to its macroeconomic effect over key sectors and the government has increasingly been taking keen interests in this sector both through policy interventions and financial management. Inefficiency and mismanagement have plagued Kenya's energy sector,

resulting in high energy costs compared to other nations (Nyariki & Waruguru, 2021). As such, lowering its competiveness in the region for investors to come and set business in Kenya. In fact, some firms which previously had set Manufacturing in plants closed down and relocated to neighboring countries who have relatively lower energy tariffs (Kipkemoi & Makori, 2021). Energy supply and demand are subject to a range of external factors, including the volume of power generated, the number of customers linked to the grid and governmental policy regulations (Tanui & Moronge, 2021). The high cost of energy in Kenya has been occasioned by several factors, particularly the high cost of energy generation through the Independent Power Producers (IPPs) contracts (Nyaga & Mwangangi, 2019).

Several commissions set to investigate the major reason for high energy costs in Kenya have pointed out the independent power producer's agreements as the main reason. The government has been at the forefront of renegotiating these IPPs contracts yet it has not been successful in lowering energy costs despite these interventions (Nyariki & Waruguru, 2021). The IPP model is a type of contract that depends on project financing, through implementation of contract management practices from planning, negotiations, documentation, relationship management and coming up with a change management policy, the government will be able to deal with this issue (Nyariki & Waruguru, 2021). Additionally, misuse of funds and inadequate internal management have led some of the institutions in the energy sector to be privatized, commercialized or adopt contract management practices for improved efficiency and profitability (Hassan & Omwenga, 2023). In spite these efforts, reports from the Office of the Auditor General indicate unsatisfactory performance, hindering public institutions in the energy sector from

delivering affordable services to the people (Nyaga & Mwangangi, 2019).

Previous studies have not adequately assessed contract management and energy sector performance. Hassan and Omwenga (2023) carried out a study on state-owned companies, evaluating how contract management affects procurement outcomes. The results showed a notable and positive relationship between contract administration, monitoring, relationship management, dispute resolution, and procurement performance. However, the study is constrained by a conceptual gap as it focuses exclusively on procurement performance as the dependent variable, limiting its scope. Gatari, Shale and Osoro (2022) investigated how procurement contract management is linked to the state corporation's performance sustainability. Their conclusions highlighted the critical importance of contract conflict resolution, evaluation, administration, and contract for organizational performance. Notably, the study concentrated on contract administration and conflict resolution, revealing a conceptual gap.

Kipkemoi and Makori (2021) studied how management contract practices affect the state corporation's operational performance. The results they discovered showed that contract management has a beneficial effect on performance operation. Additionally, the research conducted by Njoki, Ismail and Osoro (2021) examined how management contract affects the state corporation's overall performance. Their findings emphasize the important effect of management contract on state-owned firms' performance. Various knowledge gaps are evident in previous studies; this research seeks to, thus, assess the effect of contract management on public institutions performance in the energy sector in Kenya.

1.3 Purpose of the study

The purpose of this study was to examine the influence of contract management on performance of public institutions in the energy sector in Nairobi, Kenya.

1.4 Objectives of the study

This study sought to:

i. Evaluate the influence of contract planning on performance of public institutions in the energy sector in Kenya.
ii. Assess the influence of contract documentation on performance of public institutions in the energy sector in Kenya.
iii. Investigate the influence of contract relationship management on performance of public institutions in the energy sector in Kenya.
iv. Analyze the influence of contract monitoring and evaluation on performance of public institutions in the energy sector in Kenya.

1.5 Research questions

i. What is the influence of contract planning on performance of public institutions in the energy sector in Kenya?
ii. How does contract documentation influence performance of public institutions in the energy sector in Kenya?
iii. To what extent does contract relationship management affect performance of public institutions in the energy sector in Kenya?
iv. What is the influence of contract monitoring and evaluation on performance of public institutions in the energy sector in Kenya?

1.6 Significance of the study

This study will have significance for public organizations in the energy industry in Kenya. These organizations will have a deeper understanding of how contract management practices affect performance. This will provide information for improving institutional performance through better contract management policies. The study's recommendations will provide a foundation for policies regarding contract management and performance in such institutions.

This research will be significant for the department of Energy. Ministry officials and policy makers will gain a clearer understanding of how contract management affects performance. More importantly they get to understand how contract management can be incorporated in execution of projects in the government which is characterized by bureaucracy without exposing the institution to loses and legal risks. As a result, they will create and enhance policies in order to improve the public institutions performance in the sector of energy in their quest to lower energy costs and spur economic growth of Kenya.

Scholars will find the research valuable as it will add to the understanding of contract management and performance in public institutions. Students studying project management, procurement, and similar fields will utilize the research as a resource on how public institutions handle contracts management and how it impacts on their performance. Suggestions for future research will provide a framework for scholars to build upon their studies.

1.7 Scope of the study

The study concentrated on analyzing how management contracts influenced the performance of public organizations in the industrial energy sector. It focused on the influence of contract planning, contract documentation, contract relationship management and contract monitoring and evaluation on performance.

It focused on employees working in government-owned energy industry corporations. The study was conducted in Nairobi and was conducted over a period of three months.

1.8 Study limitations

The research was limited by variables outside the researcher's control. Respondents' attitudes could not be controlled, as they might have provided responses that were socially acceptable rather than entirely accurate. The study relied solely on the data and information provided by respondents, who may have been inclined to share information they deemed acceptable. To mitigate potential bias, the researcher ensured respondents' confidentiality throughout the study.

Additionally, the study did not consider any other variable than contract management that could potentially affect the performance of the public institutions in the energy sector. That is to say, no intervening or Moderating factors were considered.

1.9 Delimitations of the study

This research focused on contract relationship management, contract documentation, contract planning and contract monitoring and evaluation. The study was conducted within specific predefined boundaries and a set timeframe. Research instruments were provided only to individuals who willingly and voluntarily consented to participate. This approach aimed to establish the credibility of the research by ensuring that participants engaged willingly and were not coerced into participation.

1.10 Assumptions of the study

It was expected that respondents were knowledgeable about performance and contract management. As a result, they were anticipated to provide credible and viable information necessary to draw the study's conclusions. The study assumed that the performance of public institutions in the energy sector in Kenya was influenced by contract relationship management, contract documentation, contract planning, and contract monitoring and evaluation. Additionally, it was assumed that respondents were able to link contract management to performance, excluding any other factors that might influence such performance.

1.11 Operational definition of terms

Contract documentation keeping track of a contract that is binding. It describes the rights and responsibilities of each partner as well as the rules and conditions of the agreement

Contract monitoring and evaluation tracking the performance and status of contracts is aimed at ensuring that the intended obligations are fulfilled. Contract monitoring typically includes a thorough review of the progress of individual contracts and the associated data.

Contract planning systematic development of a strategy to meet contractual obligations. This process encompasses a range of activities, spanning from formulating an initial proposal to engaging in negotiations leading to the final agreement.

Contract relationship management overseeing legally-binding agreements from inception to completion involves the comprehensive management of contracts. This encompasses tasks such as drafting and negotiating, executing contracts, monitoring compliance, and handling renewal or closure processes.

Energy sector It entails all organizations involved in exploring and developing reserves, as well as those in drilling and refining. Furthermore, the energy sector includes power utility companies that are involved in both renewable energy and coal.

Performance The ability of an organization to achieve its goals and improve results is essential. Organizational performance is its capacity to achieve objectives in a dynamic and constantly changing environment.

Public institutions	an organization that offers particular set of public goods and/or services to the public

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This section examined empirical reviews studies on management contract on performance of government institutions, as per the research objectives. The study was guided by the theories discussed. The section presented and explained the framework concept for the research. A summary of review literature was then presented.

2.1 Empirical review

This part reviewed relevant studies of empirical on the influence of contract planning on public institutions performance, the influence of contract documentation on public institutions performance, the effect of contract management relationship on public institutions performance and the effect of contract evaluation and monitoring on public institutions performance.

2.1.1 Contract planning and performance of public institutions

Contract planning encompasses the strategic foresight concerning various aspects and stages of a contract from inception to completion. This includes activities such as overseeing and regulating contract modifications, contractor payment procedures, asset management, report drafting, and contract termination and hand-over (Matto et al.,2021; Mwangi, 2020). It constitutes the formal framework governing the contractual relationship, emphasizing the procedural mechanisms between the involved parties. This involves establishing protocols defining their interaction and ensuring the smooth execution of administrative tasks, including change management, handover policies,

cost monitoring, scheduling payments, and generating management reports (Jia, 2020).

Jin and Wang (2018) conducted a quantitative investigation into the planning and execution of performance-based logistics contracts. Their research centered on a comprehensive service delivery environment, where manufacturers not only develop high-capital systems but also offer post-sales support. They introduced a model that is analytical to assess availability of operational system, considering five critical performance factors: fleet size, spare parts inventory, utilization rate, repair duration and inherent failure rate. This analytical framework enables service providers to optimize total costs across various phases including system design, production, maintenance and repairs. The study scrutinized two contracting strategies, emphasizing cost minimization and profit maximization. It seamlessly integrated service parts logistics and reliability design into a unified support model decision aimed at operational availability enhancement while reducing lifecycle costs. The authors demonstrated the effectiveness and applicability of the support decision proposed tool through numerical examples. The study was limited as it was purely quantitative.

Lines, Sullivan, Hurtado and Savicky (2017) emphasize the importance of planning in enhancing the building projects performance, especially in terms of quality, cost and schedule, However, project teams frequently overlook effective planning methods, often citing constraints such as limited time or capability for detailed planning. In response, the study proposed a concise yet the project of robust planning approach known as the model of pre-contract planning. This aspect was introduced uniquely between selected contractor project teams and the owner before award contract to foster

alignment of team and enable transmission of greater risk directly to contractor from the owner. Pre-contract normally happens after the bidding process and prior to the contract award. It enables all agreed deliverables from the planning process to be included in the contract and provides high levels of clarifications beyond the selected contractor's base approach in the bidding phase. Findings from the study showed that the influence of planning pre-contract model on three indicators success: owner satisfaction, schedule growth and cost growth. The growth and cost of the schedule were determined by calculating the percentage increase from the original contract values. Comparison was made between projects utilizing pre-contract planning and a control group using traditional project delivery, wherein the contractor went straight to awarding contract with no formal process planning. Examination revealed that pre-contract planning model greatly decreased both schedule growth and cost by a maximum of 70% and 54% respectively. These results suggested that pre-contract planning could serve as a mechanism that is viable to enhance practices of planning in the construction industry. The authors adopted a multi-case longitudinal research, while the proposed research used a descriptive design, hence a methodological gap.

Muhwezi, Tumusime and Onyutha (2020) highlight the escalating concerns surrounding procurement, a pivotal function within public sector entities. Their research evaluated the ramifications of processes of procurement on the of construction contracts performance within Ugandan domestic governments. The authors employed purposive sampling to survey 81 respondents using a descriptive research design. Questionnaires were adopted to collect data. SPSS software was also adopted to conduct data analysis. Findings illustrated that inadequate procurement planning resulted in

substantial budget deficits, significantly affecting the performance of construction contracts. Moreover, delays in the disbursement of funds for construction contracts significantly impeded performance. The researchers recommended the adoption of the developed model by Local Governments to regulate procurement processes and rectify construction contracts management and anomalies in the award. Notably, the study identified several knowledge gaps, including a conceptual gap concerning the focus on procurement processes as an independent variable, and a contextual gap given the study's specific focus on local governments in Uganda. Additionally, the reliance solely on questionnaires posed limitations in data analysis and collection.

Okello and Kihara (2019) assessed the effect of the lifecycle procurement on the government ministries performance in Kenya. Investigating the effects of contract management, contract award and procurement planning on ministry performance were the research objectives. The authors adopted a descriptive research technique. The research focused on 18 government ministries and gathered primary data using both closed-ended and open-ended surveys. Multiple regression analysis was used alongside descriptive and inferential statistics in the research for analysis. The findings showed that 51.8% of the variance in performance ministry could be accounted for by the technique used, underscoring the importance of the elements identified in the procurement lifecycle. However, the study also noted the presence of other influencing factors beyond those examined. The study's recommendations included enhancements in procurement contract award processes and improved contract administration practices within government ministries in Kenya. The research was performed in ministries of government, while the proposed research was conducted among public

institutions in the energy sector.

2.1.2 Contract documentation and performance of public institutions

Contract documentation involves all documents which form part of, constitute or evidence the Contract, including these Conditions and any quotations, offers, orders, acknowledgements of order, acceptances and specifications of the Purchaser or Seller and any documents referred to in any of them. If any of the parties involved in the contract fail to fully grasp the terms and misinterpret the contents of the contract documents, their contractual obligations may become questionable in terms of their obligations, responsibilities and their rights. The drafted contract documents are legally binding and should therefore serve as comprehensive references and guidelines for the parties' relationship throughout the project to avoid conflicts. Contracts are often formalized in documents such as standard forms or specific conditions (Hanák & Vítková, 2022). Issues arising from contractual language and its judicial interpretation can hinder the understanding of contract needs, leading to misinterpretation and misunderstandings regarding contractual obligations. Such situations may enable opportunistic parties to unfairly exploit others during contract adjustments. Hence, it is imperative to thoroughly understand the contract documents to enhance the contractual relationship and ensure the intended delivery of the product (Dangrochiya & Rathod, 2017).

Mishra, Yadav and Aithal (2021) assessed contract performance focusing on the cost and time aspects of the Sikta Irrigation Projects in Nepal. The research utilized secondary data from contract records, project document reviews, and key informant interviews to evaluate contract performance. Out of a total of 52 contracts associated with the Sikta

Irrigation Project, only 18 were completed within the scheduled timeframe, while 16 contracts lagged behind schedule. Additionally, 16 contracts were still in process, significantly delayed, and one contract was terminated prematurely. The study recommended that clients engage in thorough project preparation, encompassing proper planning, design, and comprehensive preliminary studies, to enhance project implementation.

Meanwhile, Dangrochiya and Rathod (2017) addressed the pervasive issue of disputes within the Indian construction industry, emphasizing their detrimental effect on project schedules, the necessity for litigation proceedings, and the potential erosion of business relationships if left unresolved. Disputes occur when there are differing claims or interpretations regarding the terms, obligations or rights as outlined in the contract document. The disputes may stem from interpretation, performance or enforcement of the contractual terms. They highlighted the complex nature of disputes within construction, attributed to factors such as scope changes, poor contract documentation, limited access, unforeseen site conditions, and contractual ambiguities. Despite widespread recognition of these factors, disputes continue to persist in the industry. The construction sector, a vital component of national infrastructure and industrial development, has grappled with resolving disputes efficiently and cost-effectively without impeding project progress. Efforts to standardize and enhance efficiency in the sector of construction have led to the distribution and development of harmonized bidding conditions and standard bidding documents for domestic contracts by government agencies and public sector organizations. However, the industry still contends with prevalent issues such as time and cost overruns, attributed to factors like

rework, design variations, incomplete documentation, and delayed approvals. These issues can escalate into conflicts and disputes, disrupting project schedules, inflating costs, and straining relationships among project stakeholders. Failure to promptly resolve disputes may necessitate expensive litigation proceedings, further burdening involved parties. In drafting contracts, the parties should strive in putting a conflict resolution mechanism in place to handle disagreements in the contractual relationship. Dispute resolution frameworks serve to clarify the intentions of each party, the rights and obligations of the parties as well as provide a fair and appropriate remedies for any breaches or losses incurred. This saves time unlike the lengthy litigation process which always end in damaged relationships.

Dosumu, Idoro and Onukwube (2017) investigated the known causes of errors in contract documents construction, adopting a mixed research methods and survey research design in Nigeria. The research involved 86 consulting firms and 98 contracting firms in the building construction sector, with interviews conducted among contractors, project managers, and consultants. SPSS version 20 was adopted by the study. The research identified frequent reasons for errors in contract documents, including lack of design management experience, insufficient time for document preparation and clients making frequent changes in design, among others. The findings showed that the causes of errors varied across various types and states of buildings, as well as based on the services provided by construction organizations. The study recommended proactive measures to prevent identified errors, emphasizing the importance of quality assurance processes for all designs, particularly those associated with consultants, to minimize cost and time overruns. The study adopted a survey research design; hence a

methodological gap and the research did not statistically identify the effect of errors in construction contract documents.

Contract management is a significant concern within numerous procuring entities, primarily due to challenges in service delivery and perceived shortcomings in achieving value for money in contract implementation. Faustin and Gamariel (2021) investigated the influence management contract on performance purchase within a selected procuring entity Energy Group in Rwanda. Compliance with contract terms and conditions was found to contribute significantly (81.4%) to purchasing performance. Similarly, significant relationships were observed between contract documentation and purchasing performance, as well as between overall purchasing performance and contract management, with adjusted R-square and R-square values indicating strong associations. Additionally, positive relationships were noted between purchasing performance, contract monitoring, and contract cost management. The study summarized that effective management contract played a pivotal role in purchasing performance enhancement. Recommendations included ensuring strict adherence to contract conditions and terms, maintaining accurate and comprehensive contract documentation, implementing policies of robust cost control contract and establishing diligent contract monitoring practices. The research underscored the importance of adhering to principles outlined in contract theory to bolster the effectiveness of procurement processes and elevate entity performance. Purchasing performance was the study's dependent variable while public institutions performance is the current study's dependent variable hence a conceptual gap. Only quantitative techniques were adopted in data analysis and collection, hence a limitation in findings.

Ochola and Kitheka (2019) defined a contract as a legally binding agreement, whether written or oral, between identified parties, outlining terms and conditions that both parties commit to fulfill. Contract management, on the other hand, encompasses the business processes involved in creating, implementing, and evaluating contracts to optimize business performance and mitigate risks. Conversely, inadequate organizational structure could reveal the enterprise to various economic and operational risks, affecting the final outcome in terms of quality, cost and adherence to timelines. Despite the crucial role of contract management in procurement, many organizations worldwide encounter numerous challenges in recognizing its significance. This is caused by either the ignorance of the project team on the significance of contract management or deliberate actions (professional negligence) by the executors due to conflicts of interests by the team executing the tasks. Ochola and Kitheka (2019) assessed the top determinants of management procurement contract and their effect on organizational performance. The research used a descriptive research design, targeting a population consisting of 20 management personnel, 25 procurement staff, 25 finance staff and 25 procurement staff from external and internal stakeholders within organizational settings. The research emphasized the significant role of contract documentation in organizational performance. The study failed to ascertain the coverage to which contract documentation affected organizational performance. Additionally, no correlation was performed to ascertain the effect of documentation contract on performance.

2.1.3 Contract relationship management and performance of public institutions

Contract management encompasses various crucial aspects essential for ensuring

successful contractor relationships and effective project execution (Faustin & Gamariel, 2021). This emphasizes the importance of building and maintaining strong collaborative ties between the contracting company and the contractor throughout the contract lifecycle. It also enables parties to build collaborative relationships beyond the contract. Muhammad, Saoula, Issa, and Ahmed (2019) carried out a research investigating the association between contract management and firm performance in Indonesia. Their empirical findings highlighted various factors influencing firm performance, including the nature of the solution, cost-benefit analysis, project delivery, and project quality. While certain variables showed significant associations with contract length, the research failed to conclusively identify the coverage to which management contract directly affected performance. Nevertheless, the findings highlighted the importance of considering multiple factors in contract management to enhance overall business performance.

Changalima, Mchopa, and Ismail (2022) assessed the association between procurement performance and public entity supplier development in Tanzania, while also examining the potential moderating influence of management contract challenges on this link. The research uncovered a positive and noteworthy association between procurement performance and supplier development using a cross-sectional data collected from 179 public procuring sectors. Moreover, the research showed that the measure of contract management difficulty could potentially affect this association, underscoring the significance of efficiently handling contracts to enhance procurement results within the public entity.

Muheesi, Kasenge, Ssebagala and Namuli (2019) assessed the effect of management

contract on the performance operational of the Ugandan road construction sector. A sample of 108 participants was obtained from a cross-sectional research design. Questionnaires were adopted to collect data. The results showed a positive association between operational performance and contract management, suggesting that management contract effectiveness predicts improved operational performance. The study recommended that authorities pay close attention to all dimensions of management contract outlined in the research, as they all positively affect organizational operational performance.

Contract management holds strategic importance for both organizations and projects, offering opportunities for increased control, efficiency, cost reduction, and strategic advantage. Kariuki (2017) explored the effect of the association between clients and service providers on contract performance. The research utilized a design of descriptive survey. Data was collected from 24 participants through the use of organized questionnaires. The study, performed using multiple regression, found that a large proportion (64.9%) of contract performance can be linked to factors like mutual trust and effective communication between service providers and clients. Moffat and Mwangangi (2019) evaluated how a management contract affected the performance of Kiambu County in Kenya. The research gathered 96 participants through a descriptive survey approach with a focus on quantitative analysis. The results showed that performance was positively and significantly influenced by both contract relationship management and contract cost management. The study focused on a county setting, underscoring the importance of effective contract management practices in local government contexts.

Tanui and Moronge (2021) examined how practices of management contract affect the operational performance of state corporations in Kenya. Totaling 162 across Kenya, the study targeted heads of departments within state corporations using a descriptive research design. Employing a census survey, the study encompassed all 162 state corporations, with questionnaires serving as the primary tool for data collection. Before the main survey, a pilot study was performed with workers in state-owned companies that were not part of the final sample. Mixed methods were used in the analysis, combining both descriptive and inferential methodologies. The results showed a strong connection between the way management contracts are implemented and the overall operational effectiveness. However, the limited scope of unit of observation, which solely focused on heads of departments, may have an influence on the generalizability of the findings.

Similarly, Nyariki and Waruguru (2021) underscored the usefulness of contract relationship management in promoting organizational sustainability in both private and public sectors. Despite the deployment of practices of management contract to enhance the performance of energy sector corporations in Kenya, state corporations still encounter various challenges that hinder procurement performance. Nyariki and Waruguru (2021) examined how contract association management affects Kenya's energy sector procurement performance sector state corporations. The research utilized a survey design that focused on descriptive data collection. The research indicated that contract association control had a significant effect on procurement performance. The research suggested that energy sector state corporations should integrate efficient contract management strategies into their operational plans to improve procurement

performance.

Procurement is an important economic activity for any government, profoundly shaping the utilization of taxpayers' funds. However, it remains a susceptible area, prone to corruption and mismanagement, leading to substantial financial losses through exaggerated budgets, poorly executed contracts, breaches of contractual terms and sometimes litigation. Nyaga and Mwangangi (2019) shed light on the significant effect of procurement mismanagement within the Kenyan government, showcasing instances of wasted taxpayer money due to various factors such as prolonged contract durations, canceled contracts, poor service delivery, incomplete projects, corruption, and canceled contracts. It is this inefficiency and the porous existing public procurement that have led to the government to initiate and advocate for e-procurement in order to mitigate on this risks. Nyaga and Mwangangi (2019) carried out an assessment that centered on how contract management affects the performance of Kiambu County. Utilizing a descriptive survey design, the research utilized a quantitative inquiry method and surveyed 96 participants. Results from the research emphasized the beneficial effect of managing contract relationships and costs on overall performance. However, the study's reliance solely on questionnaires for data collection could pose limitations in both data collection tools and subsequent analysis.

Similarly, Hassan and Omwenga (2023) emphasized the critical importance for public entity organizations to adopt contract management efficient procedures to bolster their competitive edge and optimize resource utilization. Despite the implementation of robust contract management methodologies within the industry energy, there was a notable 25% increase in procurement prices, suggesting room for improvement. To

delve deeper into this phenomenon, Hassan and Omwenga (2023) performed research examining the effect of management contract on the effectiveness of procurement procedures within state entities. The research adopted a cross-sectional research design. Yamane's sample size formulas were employed to obtain a sample of 113 participants from a target population of 157 individuals. Data collection was facilitated through questionnaires. The research unveiled a statistically significant positive correlation between procurement performance and contract relationship management underscoring the pivotal role of effective contract management practices in optimizing procurement outcomes. The research focused on procurement performance, hence a narrow scope of the dependent variable.

2.1.4 Contract monitoring and evaluation and performance of public institutions

Technical contract management is vital for organizations to monitor contractor compliance with contractual obligations. This involves contractor monitoring and acceptance management, ensuring contractors fulfill responsibilities per contract terms (Yadeta, 2019). Key activities include project progress reviews, compliance assessments, performance evaluations, and feedback mechanisms. Effective monitoring allows early identification of issues, enabling timely solutions. Acceptance management, conducted pre-contracting, establishes clear contract understanding and measurement criteria for deliverables. It includes a rejection and remediation clause outlining steps for addressing non-conforming goods or services, communication notifications, and remediation timelines. This clause protects both parties' interests and defines corrective actions for failures (Hwang, Saar & Chen, 2019). Understanding the

economic framework of procurement processes is also essential for successful contractual agreements.

Harerimana (2021) investigated how management contract practices affect road construction performance projects in Rwanda. Grounded in the two-factor theory and employing an explanatory research design, the study utilized questionnaires to gather data and employed inferential statistics for analysis. The results portrayed a statistically and positive significant correlation between contract monitoring and performance project. The study recommended the implementation of capacity-building and knowledge transfer plans to address any root causes that may lead to future negligence of negotiation practices, which could negatively affect project performance in the long term.

Efficient contract management strategies are essential for organizations aiming to gain a competitive edge and make optimal use of resources. Despite demonstrating effective methodologies for management contract, the energy sector encountered a notable 25% increase in procurement costs (Okello & Kihara, 2019). Meanwhile, Kipkemoi and Makori (2021) conducted research focusing on the effect of management contract practices on the operational performance of Kenyan corporation states. The research revealed a significant association between operational performance and contract planning using a descriptive research design targeting department head of these corporations in the construction industry.

Nduhura, Anyango and Mugerwa (2021) assessed road construction management contracts by Busia Local Government. Their mixed-method study, involving data

review, questionnaires, observations, and interviews, highlighted the significant effect of management contract on the road construction performance projects in Busia Municipality. Key processes such as contract monitoring, risk management and evaluation were identified as crucial for project success. This finding is particularly important considering the substantial budget allocation for public infrastructure projects like roads, emphasizing the need for value for money. The study identified specific areas for improvement in practices of management contract to benefit road construction projects, addressing a gap in current knowledge. However, the study's focus on local government set up presents a contextual gap, as the proposed research focuses on institutions in the energy sector.

In another study, Kingoto and Ismail (2021) examined the procurement contract management role in the commercial state corporation's performance in Nairobi County. Using a descriptive research design and mixed research strategies, the study targeted heads of commercial state corporations. Their findings indicated that both contract structure and monitoring significantly influenced organizational performance. As a recommendation, commercial state corporations' management should focus on enhancing terms of contract, adherence, dispute resolution, inspection methods, and negotiations to improve overall performance. The research was limited in scope as only organizations in Nairobi were studied.

2.2 Theoretical review

This study was anchored on the contract compliance theory and the theory of public contracts**.**

2.3.1 Contract compliance theory

Contract compliance theory, as proposed by Ness and Haugland (2005), outlines adherence to contractual agreements between buyers and sellers. It encompasses the act of conforming to the terms and conditions stipulated within a contract, ensuring that all parties involved fulfill their responsibility as outlined in the agreement. Contract compliance therefore regards fulfillment of the criteria that are set in the agreement. The hallmark of contract compliance must be based on accountability, transparency, fairness and equity, and must adhere to the rule of law. In the realm of procurement, the responsibility for ensuring compliance often falls on the purchasing function, which is tasked with ensuring that all aspects of the contract are met.

Internal compliance is adherence of the purchasing organization to the rules and provisions laid out within the contract. This can involve meeting minimum order requirements, specified payment terms or exclusively purchasing from approved suppliers as outlined in the agreement. Additionally, internal compliance may also entail utilizing framework agreements across the entire company (Abutabenjeh & Rendon, 2023). By implementing such framework agreements company-wide, organizations can effectively maintain high levels of contract compliance while simultaneously reducing purchasing costs. This, in turn, enhances the overall success of procurement processes, increasing the likelihood of achieving desired outcomes (Ness & Haugland ,2005).

External contract compliance encompasses various forms, including the availability of products or services, adherence to contracted pricing, timely delivery, and meeting specified quality standards. Failure to comply with these external factors can lead to disruptions in procurement processes and negatively affect performance. For instance, deviations from reduced costs, late deliveries, or items that do not attain specified requirements can hinder operational efficiency and erode trust between parties. Thus, the adherence to external contract compliance is crucial for ensuring smooth and successful procurement operations (Ness & Haugland ,2005).

The application of contract compliance theory is important to the study as it highlights the importance of adhering to contractual agreements to enhance performance outcomes. Organizations can mitigate risks, optimize procurement processes and improve performance (Ness & Haugland, 2005). Through a comprehensive understanding of contract compliance theory, organizations can proactively address potential challenges, promote stronger buyer-seller relationships and achieve greater success in their procurement endeavors. Contract Compliance Theory emphasizes adherence to contractual terms, legal requirements and regulatory standards to ensure effective contract execution. In contract planning, it guides the development of clear, enforceable agreements, while in contract documentation, it ensures accurate record-keeping, risk mitigation, and accountability, promoting transparency and contract performance.

2.3.2 Theory of public contracts

As developed by Spiller (2008), it explains how entities of government procuring establish and enhance contracts that are legal. This aspect aids in understanding the

influence of contract management on the state corporation's performance, providing a theoretical underpinning for this research. At its core, the theory assesses the processes through which parties with divergent interests negotiate and formalize contracts, both through formal contractual agreements and informal arrangements (Dayal, 2019). The theory highlights the nature of public procurement contracts, highlighting their characteristic features such as formality, consistency, bureaucratic procedures, and inflexibility. These contracts are often regarded to be rigid in structure, necessitating frequent formal renegotiations, and carrying a higher propensity for legal disputes. According to the public administration view, contracting inefficiencies are associated with the large number of formal processes that appear to be essential to ensure the public sector's functions. Public contracts tend to be "expensive" and "inefficient" compared to pure private contracts. Higher prices in quotations and inefficiencies in the implementation of these contracts result from their specificity and rigidity. Contract rigidity refers to strict adherence to the original terms and conditions during implementation and intolerance to adaptation of contracts that normally correlates with specificity. The more specific the contract is, the more rigid its implementation and enforcement is expected to be. Otherwise, if the contract is specific and then the parties agree to deviate, third parties can accuse the contracting parties of collusion.

Contractors' perception of specificity and rigidity as well as on the enactment of stronger compensating clauses will translate into charging higher prices to match the risks. The whiff of corruption and the concern for misuse of other people's monies make challenging public contracts feasible. Additionally, public contracts tend to provide weaker incentives for performance improvement compared to their private counterparts

(Dayal, 2019). Although understanding the principles outlined in the theory would enable stakeholders within state corporations to manage contracts more effectively. They can leverage this theoretical framework to identify areas for improvement, streamline bureaucratic processes, and mitigate risks associated with contract formalization and execution (Spiller, 2008).

Furthermore, adherence to legal and regulatory provisions ensures compliance with established standards, fostering trust among stakeholders and ultimately driving performance excellence within the energy sector institutions (Dayal, 2019). The relevance of the theory of public contracts to this study lies in its applicability to institutions in the energy sector. Public institutions in this sector are governed by stringent regulations, including the Public Procurement Act, laws and regulatory frameworks, which dictate the processes and procedures for contract management. These regulatory requirements are important for promoting transparency, accountability and fairness in procurement practices, thereby contributing to enhanced organizational performance. The theory of public contracts emphasizes transparency, accountability and efficiency in contractual engagements between public entities and contractors. In contract relationship management, it promotes collaboration, trust and compliance with legal and ethical standards. In contract monitoring and evaluation, it ensures performance assessment, risk mitigation and adherence to contractual obligations for optimal service delivery.

2.3 Conceptual framework

It illustrates the proper relationship between the variables in the study. It describes how the goals of a study relate to one another in order to present logical conclusions. The study's independent variables are contract planning, contract documentation, contract relationship management and contract evaluation and monitoring, which have a direct association with the performance of public institutions as the dependent variable. Hereafter, in Figure 1.1, is a presentation of conceptual framework of this research.

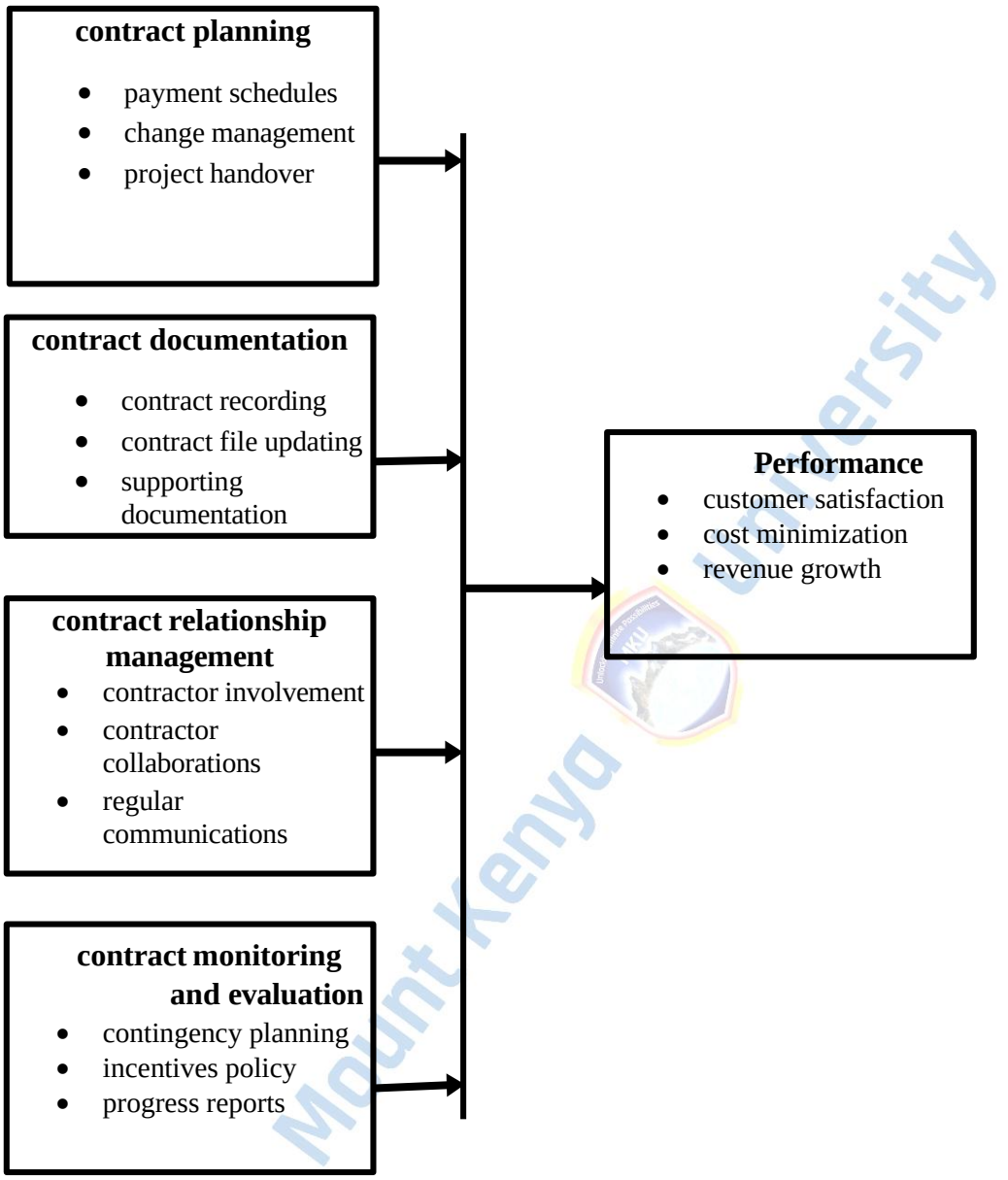

Figure 1: Conceptual framework

Figure 2. 1: Conceptual framework Source: Researcher (2024)
Source: Researcher (2024)

2.4 Recap of literature Review

Previous studies presented various knowledge gaps. Okello and Kihara (2019) investigated how the procurement lifecycle affects the performance of government ministries in Kenya. Their research focused on ministries within the government sector. In contrast, the proposed study aims to explore similar aspects but within public institutions operating in the energy sector. Ochola and Kitheka (2019) identified key factors influencing procurement contract management and their influence on organizational performance. However, their research did not fully determine the extent to which contract documentation influenced organizational performance. Furthermore, they did not conduct correlation analysis to evaluate the specific effects of documentation contract on performance.

Tanui and Moronge (2021) explored how management contract practices affect the operational performance of corporations' in Kenya. Their research had a limited scope of observation, as it solely included heads of departments as the target population, potentially overlooking broader perspectives within these corporations. Nduhura, Anyango, and Mugerwa (2021) evaluated the management of road construction contracts. Their findings indicated that effective management contract significantly affected the of road construction performance projects. This research highlights on the importance of management contract practices in attaining project success within government entities. Local governments have a different setup from state institutions/parastatals, hence a contextual gap.

The aspect of contract compliance is applicable to this research as it outlines how compliance to a contract could enhance performance. The public contracts theory is

applicable to this research as public institutions in the energy sector are bound by the public procurement act, regulations and laws. The study's independent variables are contract planning, contract documentation, contract relationship management and contract evaluation and monitoring, which have a direct association with the dependent variable, public institutions performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This section discussed the location and design of the research. The location of the study was highlighted. The target population sample population and sampling procedures were explained. Research instruments were described. Analysis techniques and data collection were explained. Ethical considerations were discussed.

3.1 Research design

It is a systematic and structured strategy that an observer uses to carry out a study (Abutabenjeh & Jaradat, 2018). A descriptive study design was used in this study. Siedlecki (2020) claims that this approach entails observing and evaluating the study variables in their unaltered state, devoid of any intentional alterations or adjustments. Data classification, measurement, analysis, and interpretation are all part of the descriptive study design in addition to data gathering. This study used a quantitative research approach to systematically collect and analyze numerical data on contract management and its influence on public institutions in the energy sector. A descriptive research design was used to observe and evaluate the effects of contract relationship management, documentation, planning and monitoring without changing the study variables. Additionally, a survey method is applied to gather primary data from relevant stakeholders, ensuring objective measurement and interpretation of findings. The descriptive study aided examine effect of management contract on performance of

public institutions in the energy entity in Kenya. Specifically, the design helped examines the effect of contract relationship management, contract documentation, contract planning and contract monitoring and evaluation on performance of public institutions in the energy sector in Kenya.

3.2 Location of the study

This study was conducted among public institutions operating within Kenya's energy sector, specifically targeting their headquarters located in Nairobi. The choice of headquarters was strategic, as these offices were central hubs where key policy decisions, regulatory frameworks and management strategies were formulated and implemented. The study collected data from top-level decision-makers to examine the influence of contract management on performance of public institutions in the energy sector in Kenya.

3.3 Target population

It is drawn from parastatals operating in the energy sector. These are the Geothermal Development Company, Electricity Regulatory Board, Kenya Pipeline Company, National Oil, Kenya Power, Kenya Electricity Generating Company, Kenya Electricity Transmission Company, Kenya Petroleum Refineries and the Rural Electrification Authority (Ministry of Energy, 2016). The 1118 staff of these organizations were the study's unit of observation, as illustrated in Table 1:

Table 1:Target population

Category	Population
Top level	57
Middle level	346
Lower level	715
Total	**1118**

Source: Ministry of Energy (2023)

3.4 Sampling procedures and techniques

The process of choosing a specific group to collect data for a study is known as sampling (Gumpili & Das, 2022). The foundation for choosing a sample from a population is a sampling frame. It is a list of individuals, households or institutions eligible for sampling, that provide the basis for ensuring representativeness and accuracy in research (Ganesha & Aithal, 2022). The study employed stratified sampling to population to get the number of respondents' category. Simple random sampling was then used to choose respondents in each of the 9 organisations.

3.5 Sample size

To determine the sample size for the households, the study employed the Yamane (1973). formula. Hence; n= N/ (1+ N(e)2 Where: n is the sample size; N = the population of the study and e = error margin. From the formula, n=294. Table 2 illustrates the sample size: -

Table 2:Sample size

Classification	Population	Sample
Top Level	57	15
Middle Level	346	91
Lower Level	715	188
Total	**1118**	**294**

3.6 Data collection research instruments

The participants were given structured questionnaires to complete. The questionnaires contained a Likert scale , and respondents indicated their level of dis (agreement) with the statements. The questionnaire contained 6 sections s that comprised of study variables. Middle-level and lower-level staff selected for the study completed these questionnaires. The purpose of the structured questions was to collect quantitative data. An interview guide was used to collect qualitative data from the 15 top-level managers of the 9 parastatals in the energy sector. The interview guide included questions that aligned to the study objectives.

3.7 Testing for validity and reliability

A pilot study was conducted to evaluate the appropriateness of the data collection tools. The Kenya Pipeline Limited Mombasa branch offices served as the site of the pilot research. A total of 29 respondents, which represented 10% of the main study's sample (Connelly, 2018), were picked at random to make up the pilot sample. The pilot

participants were given questionnaires to fill out and the researcher explained the purpose of the study to them. In order to identify any potential problems during the pilot test, the researcher assessed the procedures and tasks. A time log of the questionnaire completion procedure was also maintained. Participants' concerns about the statements' clarity were acknowledged and will be corrected.

3.7.1 Reliability

According to Mohajan (2017), the degree to which an instrument regularly measures the specific variable for which it is intended is a measure of its dependability. The test-retest method was used to assess respondents' consistency in their responses across time. To ensure uniformity, the same set of participants received the identical tool several times, and their responses were compared. Internal consistency looked at how well questions measuring the same idea agreed with one another in order to evaluate the consistency of the questions within the instrument itself. Reliability was indicated by a Cronbach's Alpha score of 0.7 or more (Taber, 2018).

3.7.2 Validity

Validity determines if the instruments can accurately capture the desired purpose (Taherdoost ,2016). To determine whether the instruments accurately measured the concepts they were designed to, construct validity was employed. An evaluation of the instruments' content validity assessed how well they measured the study's goals. Criterion validity assessed the instruments' consistency in yielding reliable results.

3.8 Data collection methods and procedures

In order to obtain the necessary consent from the participants, the researcher recruited and supervised two assistants to distribute the questionnaires, informed the chosen respondents of the study's objectives, provided them with the questionnaires and enough time to complete them, and then evaluated the returned questionnaires for accuracy and completeness. The researcher conducted interviews after distributing the questionnaire. The top management personnel of the company were interviewed by the researcher at least 14 days in advance. To facilitate future evaluation, the interviews were taped (Oben, 2021).

3.9 Proposed data analysis techniques and procedures

There was a consistency and accuracy check on the questionnaires. To identify any anomalies in the responses, data cleaning and analysis were carried out using editing, coding, and tabulation. For further analysis, each response was assigned a unique numerical value. SPSS was used in data analysis. The analysis involved the utilization of both descriptive and inferential statistics. Statistical methods like regression and correlation analysis were employed to establish the connection between the variables under study. The research utilized multiple linear regression analysis to examine the correlation between variables:

$$Y=\beta 0+\beta 1X1+\beta 2X2+\beta 3X3+\beta 4X4+ \acute{\varepsilon}$$

Where Y= performance of public institutions in the energy sector

β0 is a constant, (βi; i=1, 2, 3, 4} are the Beta coefficients of independent variables

X1= contract planning

X2= contract documentation

X3= contract relationship management

X4= contract monitoring and evaluation

ε is the error term

Qualitative data were thematically analysed and study results presented in tables, graphs and narratives.

3.10 Ethical considerations

Prior to beginning the data collection process, the researcher requested authorization from the institution. Additionally, an application was made for a research permit from NACOSTI. Before participants began the study, a letter of introduction asking for their informed consent was attached to the research tool. This was done to make sure the responders participated voluntarily and intelligently. Strict measures were implemented to safeguard participant and data privacy. The information gathered was utilized for scholarly purposes, and the results that were published did not reveal the identities of the respondents.

CHAPTER FOUR

RESEARCH FINDINGS, ANALYSIS AND PRESENTATION

4.0 Introduction

This study sought to examine the influence of contract management on performance of public institutions in the energy sector in Kenya. This chapter presents demographics, descriptive statistics, inferential statistics, thematic analysis, interpretations and discussions. Consequently, the chapter analyses data collected as per the objectives; that is, to evaluate the influence of contract planning on performance of public institutions in the energy sector in Kenya, assess the influence of contract documentation on performance of public institutions in the energy sector in Kenya, investigate the influence of contract relationship management on performance of public institutions in the energy sector in Kenya and analyze the influence of contract monitoring and evaluation on performance of public institutions in the energy sector in Kenya.

4.1 Response rate

The study issued 294 questionnaires to staff of public institutions in the energy sector in Kenya. Two hundred and sixty-eight were filled and returned; hence a response rate of 91%. Table 4.1 presents the response rate for three categories of respondents: Top Level, Middle Level and Lower Level. The sample sizes for these categories were 15, 91, and 188, respectively. The responses received were 12 for Top Level (80% response rate), 84 for Middle Level (92% response rate), and 172 for Lower Level (91% response rate). The high response rate enhanced the reliability of findings.

Table 3:Response rate

Classification	Questionnaires	Responses	Rate of response
Top Level	15	12	80%
Middle Level	91	84	92%
Lower Level	188	172	91%
Total	**294**	**268**	91%

Source: Field data (2024)

4.2 Reliability results

The study conducted a pilot test to ascertain the reliability of the research instruments. The pilot respondents were given questionnaires to complete, and the researcher explained the objectives to them. The reliability results from the pilot research are indicated in Table 4

Table 4:Reliability Results

Variable	Item	Alpha Value	Recommendations
Contract planning	7	0.724	Reliable
Contract documentation	7	0.741	Reliable
Contract relationship management	7	0.709	Reliable
Contract monitoring and evaluation	7	0.733	Reliable
Performance	7	0.726	Reliable

Source: Field data (2024)

For every variable, the Cronbach Alpha Coefficient was computed. Coefficient for contract planning was 0.724, contract documentation was 0.741, contract relationship management was 0.709, contract monitoring and evaluation was 0.733 and performance was 0.726. All the variables had reliability values higher than 0.7, which was adequate.

4.3 Validity tests

The study conducted validity tests for the questionnaire. The research's instrument validity was achieved by seeking the university supervisor's professional advice. Upon adequate advice from the supervisors, the questionnaire was examined, revised and accepted. The questionnaire provided data that accurately answered the study's research questions.

4.4 Demographic data

The study evaluated the respondents' demographic information. The study considered years of experience, education level, gender, and age.

4.4.1 Gender

The research sought to establish the gender of the respondents. Results are shown in Table 5

Table 5:Gender of respondents

Gender	Frequency	Percentage
Male	150	56
Female	118	44
Total	**268**	**100**

Source: Field data (2024)

4.4.2 Age of the respondents

Male respondents made up the majority of the sample, with 150 (56%) of the 268 respondents being male and 118 (44%) being female (Table 4.3). The purpose of the study was to determine the respondents' ages. The findings are displayed in Table 6

Table 6:Age of the respondents

Age	Frequency	Percentage
18-24 years	10	4
25-34 years	67	25
35-44 years	121	45
45-54 years	62	23
above 54 years	8	3
Total	**268**	**100**

Source: Field data (2024)

Table 6 illustrates the age distribution of respondents, revealing that the majority (45%) were within the 35-44 years age bracket, indicating this as the most represented age group in the study. The 24-34 years category follows with 25%, while 23% are aged 45-54 years, showing significant participation from middle-aged individuals. Younger respondents aged 18-24 years comprise 4%, and those above 54 years represent 3%, indicating relatively lower engagement from these age groups.

4.4.3 Education level

The education level of respondents was ascertained. Results are shown in Table 7

Table 7:Education level of the respondents

Education	Frequency	Percentage
Diploma	44	16
Degree	195	73
Post graduate	29	11
Total	**268**	**100**

Source: Field data (2024)

Table 4.5 indicates that the majority of the respondents, 73%, hold a degree, indicating a well- educated sample population. Respondents with diploma qualifications constitute 16%, while those with postgraduate education account for 11%. This distribution suggests that most participants possess at least a degree.

4.4.4 Years worked in the Firm

Table 8 displays the results of determining the length of time respondents have worked for the company.

Table 8:Years worked in the firm by the respondents

Work experience	Frequency	Percentage
Below 5 years	22	8
5-10 years	78	29
Above 10 years	168	63
Total	**268**	**100**

Source: Field data (2024)

The study revealed that 22(8%) had worked for less than 5 years, 78(29%) had worked

in the organization for 5-10 years and 168 (63%) worked in the firm above 10 years. Most of the respondents had worked in the firms above 10 years.

4.5 Descriptive analysis

The researcher used descriptive statistics in this section to establish the study's main findings and draw conclusions. The analysis is presented in accordance with the research objectives, which are to assess the impact of contract planning on the performance of public institutions in Kenya's energy sector. Evaluate how contract documentation affects public institutions' performance in Kenya's energy sector, look into how contract relationship management affects public institutions' performance in Kenya's energy sector, and examine how contract monitoring and evaluation affect public institutions' performance in Kenya's energy sector.

4.5.1 Influence of contract planning on performance

The first objective evaluated the influence of contract planning on performance of public institutions in the energy sector in Nairobi, Kenya. Respondents were asked seven questions and responses presented on a Likert scale. Organizations maintained a payment schedule for contracted suppliers (mean = 4.21, std. dev. = 0.518) and included provisions for change management in contracts (mean = 4.34, std. dev. = 0.582). Similarly, contracts outlined a comprehensive process for project handover (mean = 4.30, std. dev. = 0.521) and ensured fair and balanced payment terms (mean = 4.31, std. dev. = 0.553) were highly rated. Respondents also affirmed the effectiveness of dispute resolution mechanisms (mean = 4.41, std. dev. = 0.557) and the consideration of organizational needs and objectives during contract planning (mean = 4.31, std. dev. = 0.557). The contract planning phase effectively addressed potential risks and

uncertainties in projects (mean = 4.41, std. dev. = 0.556). The aggregate mean of 4.33 indicated a positive influence of contract planning on performance. Table 9 presents the results.

Table 9: Influence of contract Management on contract performance

Statement	N	Mean	Std.D	SA	A	NS	D	SD
The parastatal maintains a payment schedule for all contracted suppliers.	268	4.21	0.518	26	69	5	0	0
Adequate provisions for change management were included in the contract to address unforeseen circumstances.	268	4.34	0.582	40	54	6	0	0
Contracts outline a comprehensive process for parastatal's project handover.	268	4.30	0.521	33	64	3	0	0
Payment terms and conditions in the contract is fair and balanced.	268	4.31	0.553	36	60	4	0	0
Contracts provide mechanisms for resolving disputes related to payment schedules.	268	4.41	0.557	45	52	3	0	0
The contract planning process considers the unique needs and objectives of the organization.	268	4.31	0.557	35	60	5	0	0
The contract planning phase effectively addresses potential risks and uncertainties in projects.	268	4.41	0.556	44	53	3	0	0
Aggregate mean		**4.33**						

Source: Field data (2024)

The researcher interviewed top level managers and inquired the influence of contract planning on performance of public institutions in the energy sector in Kenya.

Respondent 1 indicated,

"Contract planning is crucial for public institutions in Kenya's energy sector,

enhancing performance by ensuring clear deliverables and accountability. Clear payment schedules and dispute resolution mechanisms promote efficient operations, minimizing delays. Including change management provisions aids in adapting to challenges. Proper planning has resulted in no litigations and amicable dispute resolution, improving project continuity and reducing operational downtime."

Respondent 3 said,

"*Contract planning is important for the operational and financial success of Nairobi's energy sector public institutions. A contract clarifies stakeholder roles, minimizing conflicts. Integrating dispute resolution and clear payment terms promotes predictability and trust. Addressing risks, such as material cost changes, prevents project delays. Aligning contract goals with institutional objectives ensures projects support strategic vision. Effective planning avoids inefficiencies that can impede growth. Appreciation is given to the project team for their planning efforts, leading to successful project execution.*"

4.5.2 Influence of contract documentation on performance

The second objective assessed the influence of contract documentation on performance of public institutions in the energy sector in Nairobi, Kenya. Respondents were asked seven questions and responses were presented on a Likert scale. Accurate recording of essential details (mean = 4.21, std. dev. = 0.518) and regular updates to contract files throughout the project lifecycle (mean = 4.34, std. dev. = 0.582) were emphasized as critical for effective contract management. Comprehensive supporting documentation (mean = 4.30, std. dev. = 0.521) and well-organized records (mean = 4.31, std. dev. =

0.553) were noted to enhance accountability and project oversight. Additionally, the alignment of parties' performance with documented terms (mean = 4.41, std. dev. = 0.557) and improved communication among stakeholders (mean = 4.31, std. dev. = 0.550) were highly rated. The adherence to standardized documentation practices (mean = 4.42, std. dev. = 0.558) enhanced credibility. The aggregate mean of 4.33 indicated the vital role of contract documentation in ensuring performance. Table 10 illustrates the results.

Table 10: Influence of contract documentation on the performance

Statement	N	Mean	Std. D	SA	A	NS	D	SD
Contract recording ensures all essential details are accurately captured.	268	4.21	0.518	26	69	5	0	0
Contract files are regularly updated to reflect any changes or developments throughout the project lifecycle.	268	4.34	0.582	40	54	6	0	0
The supporting documentation provided alongside contracts in our institution is comprehensive	268	4.30	0.521	33	64	3	0	0
Well-organized contract Documentation enhances accountability in the management of projects	268	4.31	0.553	36	60	4	0	0
The performance of the contract parties aligns with the terms and conditions outlined in the contract documentation.	268	4.41	0.557	44	52	3	0	0

Contract documentation facilitates clear communication between all stakeholders.	268	4.31	0.550	35	60	5	0	0
Consistent adherence to standardized practices for contract documentation enhances credibility.	268	4.42	0.558	45	51	4	0	0
Aggregate mean		**4.33**						

Source: Field data (2024)

The researcher interviewed top level managers and inquired the influence of contract documentation on performance of public institutions in the energy sector in Kenya.

Respondent 2 indicated,

> "*Contract documentation plays a crucial role in ensuring the smooth execution of projects in the energy sector. Well-maintained documentation ensures that any changes during the project lifecycle are effectively tracked and implemented, preventing delays. Implementation of a clearly defined record keeping and access protocols standing operating procedures have ensured that only updated and latest revisions are in possession of the implementing officers.*"

Respondent 5 asserted,

> "*Proper documentation creates a strong foundation for project planning, execution, and monitoring. In my organization, I have observed that improved documentation practices correlate directly with better project outcomes and institutional performance as decisions can be made promptly due to swift access to the relevant documentation for reference.*"

4.5.3 Influence of contract relationship management on performance

The third goal looked into how contract relationship management affected the efficiency of government agencies in Nairobi, Kenya's energy sector. The responses to the seven questions posed to the respondents were shown on a Likert scale. Table 11 shows how contract relationship management affects public institutions' performance; a mean score of 4.37 suggests that there is broad consensus regarding its beneficial effects. Proactive involvement by contractors (mean = 4.55, std. dev. = 0.555) and active feedback-seeking for improvement (mean = 4.51, std. dev. = 0.515) were critical for successful project execution. Effective collaboration to address challenges (mean = 4.30, std. dev. = 0.574) and timely conflict resolution (mean = 4.26, std. dev. = 0.573) were also key factors. The alignment of contractor performance with contract terms (mean = 4.24, std. dev. = 0.619) and efforts to add value beyond contractual obligations (mean = 4.31, std. dev. = 0.553) further enhanced project outcomes. Regular meetings between the organization and contractors (mean = 4.41, std. dev. = 0.557) ensured effective communication and coordination.

Table 11: Influence of contract relationship management on the performance

Statement	N	Mean	Std. Deviation	SA	A	NS	D	SD
Contractors demonstrate proactive involvement in projects.	268	4.55	0.555	58	39	3	0	0
Collaborations between the contracting parties are effective in addressing project challenges.	268	4.30	0.574	36	58	6	0	0
Contractors actively seeks feedback and suggestions for improvement.	268	4.51	0.515	52	47	1	0	0
Timely resolution of conflicts and issues between the parties ensures smooth project progress.	268	4.26	0.573	33	60	7	0	0
Contractor's performance aligns closely with the terms and conditions outlined in the contract	268	4.24	0.619	34	56	10	0	0
Contractor actively seeks opportunities to add value to the project beyond contractual obligations.	268	4.31	0.553	36	60	4	0	0
The organization regularly organizes meetings with contractors for projects execution.	268	4.41	0.557	44	52	4	0	0
Aggregate mean		**4.37**						

Source: Field data (2024)

The researcher interviewed top level managers and inquired the influence of contract relationship management on performance of public institutions in the energy sector in Kenya.

Respondent 4 indicated,

"*Contract relationship management significantly enhances performance by*

fostering trust and collaboration between parties. In our institution, open, clear and effective communication with contractors ensures that challenges are addressed promptly, minimizing delays. Regular meetings and feedback sessions create opportunities to align expectations and explore innovative ways to improve project outcomes…. relationship management is important in maintaining project timelines and achieving desired performance levels."

Respondent 6 stated,

"*Strong contract relationship management ensures that contractors remain proactive and aligned with project goals. When conflicts or issues arise, timely resolution is facilitated*

through open communication channels, helping projects stay on track. … I have observed improved quality and efficiency in project execution. This collaborative drive better institutional performance in the energy sector."

4.5.4 Influence of contract monitoring and evaluation on performance

The fourth objective analysed the influence of contract monitoring and evaluation on performance of public institutions in the energy sector in Nairobi, Kenya. Respondents were asked 7 questions and responses were presented on a Likert scale. Contingency planning measures were effectively implemented to mitigate risks during contract execution (mean = 4.21, std. deviation = 0.518). Contractors were seen as well-incentivized to meet performance expectations, with an incentives policy in place (mean = 4.34, std. deviation = 0.582). Progress reports provided by contractors accurately reflected the status of project deliverables (mean = 4.30, std. deviation = 0.521). Regular monitoring against key performance indicators (KPIs) was practiced (mean = 4.31, std.

deviation

= 0.553). Evaluation mechanisms to assess contractor effectiveness in meeting project deliverables had a mean of 4.41 and a standard deviation of 0.557. The process of contract monitoring included periodic reviews to identify areas for improvement (mean = 4.31, std. deviation = 0.553). Performance metrics were clearly defined in contracts (mean = 4.41, std. deviation = 0.557). The aggregate mean of 4.33 indicates that contract management practices were effective. Table 12 indicates the results.

Table 12:Influence of contract monitoring and evaluation on performance

Statement	N	Mean	Std. Deviation	SA	A	NS	D	SD
Contingency planning measures are effectively implemented to mitigate risks during the contract execution.	268	4.21	0.518	26	69	5	0	0
The incentives policy in place incentivizes contractors to meet performance expectations outlined in the contract.	268	4.34	0.582	40	54	6	0	0
Progress reports provided by the contractors accurately reflect the status of project deliverables and milestones.	268	4.30	0.521	33	64	3	0	0
Contract performance is regularly monitored against predefined key performance indicators.	268	4.31	0.553	36	60	4	0	0
Evaluation mechanisms are in place to assess the effectiveness of contractors in meeting project deliverables	268	4.41	0.557	44	52	4	0	0

The contract monitoring process includes regular reviews to identify areas for improvement.	268	4.31	0.553	36	60	4	0	0
Performance metrics are clearly defined in contracts.	268	4.41	0.557	44	52	4	0	0
Aggregate mean		**4.33**						

Source: Field data (2024)

The researcher interviewed top level managers and inquired the influence of contract relationship management on performance of public institutions in the energy sector in Kenya.

Respondent 7 indicated,

> "*Contract monitoring and evaluation are critical for ensuring that projects are executed on schedule and under budget. Through regular assessments and tracking of milestones and other key deliverables, we can spot possible difficulties early and adopt corrective actions before they increase. …an elaborate monitoring and evaluation framework drive better outcomes by keeping all stakeholders aligned with project objectives*."

Respondent 9 said,

> *"Effective monitoring and evaluation provide the necessary insights to track the progress and performance of contracts….. we ensure that resources are utilized efficiently and any deviations are promptly addressed. We also ensure that uncertainties that may have a risen a properly documented and the effects on the key deliverables noted to avoid a conflict in future. This process also fosters transparency and builds trust between our institution and contractors…. monitoring and evaluation directly contribute to enhanced operational efficiency and the successful completion of energy sector projects."*

4.5.5 Contract management on performance

The study examined the influence of contract management on performance of public institutions in the energy sector in Nairobi, Kenya. Respondents indicated that effective monitoring and evaluation led to increased customer numbers (mean = 4.21, std. dev. = 0.518) and enhanced customer satisfaction (mean = 4.34, std. dev. = 0.582). Furthermore, the organization successfully minimized project execution costs (mean = 4.30, std. dev. = 0.521) and experienced revenue growth (mean = 4.31, std. dev. = 0.553). The institution's ability to efficiently respond to emergencies and disruptions in energy supply (mean = 4.41, std. dev. = 0.557) was also rated highly, reflecting the value of effective monitoring. Additionally, respondents highlighted the well-maintained energy infrastructure across the country (mean = 4.36, std. dev. = 0.617) and increased investment in research and development (mean = 4.35, std. dev. = 0.620) as key outcomes of diligent contract evaluation. These findings demonstrate how monitoring and evaluation practices contribute to operational efficiency, customer satisfaction, and long-term growth in the sector. Table 13 indicates the results

Table 13:Influence of contract management on the performance

Statement	N	Mean	Std. Dev.	SA	A	NS	D	SD
There is an increased number of customers for the organization.	268	4.21	0.518	26	69	5	0	0
There is increased customer satisfaction.	268	4.34	0.582	40	54	6	0	0
The organization has managed to minimize its costs in projects execution.	268	4.30	0.521	33	64	3	0	0

There is evident revenue growth in the organization.	268	4.31	0.553	36	60	4	0	0
The public institution efficiently responds to emergencies and disruptions in energy supply.	268	4.41	0.557	44	52	4	0	0
The infrastructure to support energy is well maintained throughout the country.	268	4.36	0.617	43	49	8	0	0
There is increased investment on research and development in the organization.	268	4.35	0.620	43	50	7	0	0
Aggregate mean		**4.33**						

Source: Field data (2024)

The researcher interviewed top level managers and inquired how contract management affected performance of public institutions in the energy sector. Additionally, the researcher asked on what more could be done to enhance contract management for performance of public institutions in the energy sector.

Respondent 8 indicated,

> "*Contract management has played a crucial role in ensuring that projects within our institution are completed on time and within the allocated budgets. …we've been able to maintain better control over the execution of energy projects by monitoring deliverables any deviations are dealt early enough to*

keep the projects on course. The alignment of contract terms with performance expectations has also contributed significantly to improving the overall performance of the institution."

Respondent 10 indicated,

"*Effective contract management has led to enhanced accountability and transparency, which in turn has positively affected our performance. With proper management and oversight, we've minimized the risk of disputes through regular engagements and open communication with the contractors that has ensured contractors deliver as expected. This has also contributed to increased customer satisfaction and a better public perception of our services…. contract management has helped optimize resource utilization and improved the quality of our energy projects*."

Respondent 11 indicated,

"*… we need to invest in more advanced contract management software that can provide real-time tracking and analytics. This will help in identifying potential risks and bottlenecks early, allowing for swift corrective actions. Strengthening post-contract evaluations to identify the inherent strengths within our organization and optimize on it as well as ensure lessons learned are applied in future contracts would also be beneficial*."

Respondent 12 indicated,

"*…it is important to increase the capacity of our contract management team through continuous professional development programs…. we can enhance contract management. I suggest increasing stakeholder engagement and*

communication to prevent misunderstandings and to align project goals. Implementing a more rigorous performance review mechanism for contractors would also ensure better outcomes as well as lead to collaborative engagements beyond the contract."

4.6 Inferential analysis

Statistical inference involves analyzing data to make assumptions about the probability distribution it comes from. Inferential statistical analysis draws conclusions about a population by testing hypotheses and making estimates (Hubbard, Haig & Parsa, 2019). The data set observed is a sample taken from a bigger population. Inferential statistics differs from descriptive statistics in that descriptive statistics focuses only on the characteristics of the data that has been observed, without assuming that the data is representative of a larger population (Wolcott, Duarte & Weckerly, 2019). Statistical inference involves making statements about a population based on sampled data. Statistical inference involves choosing a statistical model for data generation and deriving conclusions from this model for a population hypothesis (Sawa & Wu, 2023). The study conducted Pearson correlation analysis and multiple regression analysis.

4.6.1 Correlation Analysis

Correlation is a statistical method that assesses the extent of the association and the orientation between two variables. The correlation coefficient can vary from +1 to -1 based on the level of the association. The table presents the Pearson correlation coefficients and p-values for various green procurement practices and their effect on responsiveness in manufacturing firms. Table 14 presents the Pearson correlation coefficients and p-values.

Table 14:correlation analysis

		Performance
Performance	Pearson Correlation	1
	Sig. (2-tailed)	
	N	268
Contract planning	Pearson Correlation	.660**
	Sig. (2-tailed)	0.000
	N	268
Contract documentation	Pearson Correlation	.740**
	Sig. (2-tailed)	0.000
	N	268
Contract relationship management	Pearson Correlation	.648**
	Sig. (2-tailed)	0.000
	N	268
Contract monitoring	Pearson Correlation	.906**
	Sig. (2-tailed)	0.000
	N	268

**. Correlation is significant at the 0.05

Source: Field data (2024)

There was a strong positive correlation between contract planning and performance (r = 0.660, p = 0.000). Contract documentation showed a significant positive correlation with performance (r = 0.740, p = 0.000). Results indicated a positive correlation (r = 0.648, p = 0.000) between contract relationship management and performance. Contract monitoring had a strong, positive correlation with performance (r = 0.906, p = 0.000).

4.6.2 Linear regression model

A statistical method for determining the linear connection between one or more independent variables and a single dependent variable is called linear regression (Hirsch, 2024). While multiple linear regression uses many explanatory variables, simple linear

regression just uses one (Pisică, Dammers, Boersma & Volovici, 2022). The impact of the independent variables on the dependent variable was examined using a multiple regression analysis. A summary of the linear regression model is shown in Table 4.13.

Table 15:Model Theory

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.914[a]	0.836	0.833	0.11601	1.346

a. Predictors: (Constant), contract monitoring, contract planning, contract relationship management, contract documentation
b. Dependent Variable: performance

Source: Field data (2024)

Performance and the independent variables have a very strong positive association, as shown by the correlation coefficient, R, of 0.914 in Table 15. With an R-squared of 0.836, these predictors account for 83.6% of the variation in performance. The number of predictors in the model is considered by the adjusted R-squared value of 0.833, which shows that the model is very explanatory. The model appears to have a relatively low level of inaccuracy in performance prediction, as indicated by the standard error of the estimate (0.11601). According to the Durbin-Watson statistic of 1.346, the model's error components are independent and there is no discernible autocorrelation between the residuals.

Table 16: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	18.012	4	4.503	334.591	.000[b]
Residual	3.539	263	0.013		
Total	21.551	267			

a. Dependent Variable: performance

b. Predictors: (Constant), contract monitoring, contract planning, contract relationship management, contract documentation

Source: Field Data (2024)

Results of the ANOVA revealed a significant correlation between the independent and dependent variables at the significance level of 0.000. It was discovered that the obtained F-value (334.591 > 2.372) was greater than the threshold F-value. As a result, the model is trustworthy. Therefore, the results are adequate to draw firm conclusions and make trustworthy suggestions.

Table 17:Coefficients

	Unstandardized Coefficients	**Std. Error**	**Standardized Coefficients**	**t**	**Sig.**	**VIF**
(Constant)	0.568	0.166		3.426	0.001	
contract planning	0.140	0.059	0.104	2.374	0.018	3.073
contract documentation	0.099	0.066	0.077	1.496	0.136	4.265
Contract relationship management	0.183	0.042	0.183	4.331	0.000	2.859
contract monitoring	1.291	0.074	1.192	17.539	0.000	7.396

a. Dependent Variable: performance

Source: Field Data (2024)

Table 4.15 shows the model equation regressed:

$Y = 0.568 + 0.140\ X_1 + 0.183\ X_3 + 1.291\ X_4 + \varepsilon$

The constant indicates that, if the values of contract planning, contract documentation, contract relationship management and contract monitoring and evaluation are fixed at zero, performance of public institutions in the energy sector in Kenya would be 0.568. The study revealed a significant and positive influence of contract planning on performance of public institutions in the energy sector in Kenya ($\beta = 0.140$, $p = 0.018$). The relationship between contract documentation and performance of public institutions in the energy sector in Kenya was positive and insignificant ($\beta = 0.099$, $p = 0.136$). Findings indicated a positive and significant influence of contract relationship management on performance of public institutions in the energy sector in Kenya ($\beta = 0.183$, $p = 0.000$). There was a positive and significant influence of contract monitoring and evaluation on performance of public institutions in the energy sector in Kenya ($\beta = 1.291$, $p = 0.000$).

4.7 Discussion of findings

The study revealed a significant and positive influence of contract planning on performance of public institutions in the energy sector in Kenya ($\beta = 0.140$, $p = 0.018$). This aligns with a study by Matto et al. (2021) and Mwangi (2020), who explain the importance of contract planning, which includes managing contract modifications, overseeing contractor payments, and maintaining asset management and reporting procedures. These elements form the core framework that guides contractual relationships, ensuring that tasks are carried out smoothly, including change management, payment scheduling, and generating management reports (Jia, 2020). In establishing the change management protocols, the contract should include change-control procedure, that clearly identifies the parties' roles and responsibilities along

with the guidelines for raising, evaluating and costing the change requests. Similarly, Jin and Wang (2018) highlighted the role of planning in optimizing performance-based logistics contracts, demonstrating how comprehensive planning in service delivery environments reduces lifecycle costs while improving operational system availability. Moreover, Lines et al. (2017) emphasized the significance of pre-contract planning, showing that it can reduce project delays and cost overruns by up to 70% and 54%, respectively, through effective alignment of teams before contract award. Pre-contract planning in itself serves as a risk mitigation plan. Activities in the Pre-contract stage include scrutinization, review of tender drawings and (or) documents for discrepancies, Planning and coordinating for material that needs to be procured. Additional BoQ (Bill of Quantities) items and scope is considered for incorporation and inclusion within a tender offer. Likewise, Muhwezi et al. (2020) also identified the detrimental effects of poor procurement planning on public construction contracts, illustrating the importance of strategic planning to mitigate budget deficits and delays. In the same vein, Okello and Kihara (2019) found that lifecycle procurement planning significantly affect the performance of government ministries in Kenya, hence; contract planning contributes to better performance.

The relationship between contract documentation and performance of public institutions in the energy sector in Kenya was positive and insignificant ($\beta = 0.099$, $p = 0.136$). Jia (2020) emphasize that while well-documented contracts set the foundation for smooth operational execution, the mere presence of comprehensive documentation does not automatically guarantee improved performance if other factors, such as effective monitoring or implementation, are lacking. Furthermore, Jin and Wang (2018)

demonstrate that contract documentation plays a role in performance-based logistics, but its effect is moderated by the efficiency of the contract execution process, suggesting that documentation alone may not be sufficient without robust execution strategies. Similarly, Lines et al. (2017) highlighted that while pre-contract planning and documentation are important, their effect on performance is only realized when paired with effective management practices in the project lifecycle.

Findings indicated a positive and significant influence of contract relationship management on performance of public institutions in the energy sector in Kenya ($\beta = 0.183$, $p = 0.000$). This finding is consistent with a study by Faustin and Gamariel (2021), who explained that successful contract management involves building and maintaining strong relationships between the contracting company and the contractor, which fosters collaboration throughout the project lifecycle. Likewise, Muhammad et al. (2019) found that the nature of the management contract significantly influenced firm performance by ensuring that essential aspects such as cost-benefit analysis and project delivery were effectively addressed. Furthermore, Changalima et al. (2022) highlighted the importance of efficient contract management in public procurement performance, demonstrating that managing contract challenges effectively could improve outcomes in public entities. The findings are further supported by Muheesi et al. (2019), who indicated that effective management contracts positively influenced the operational performance of road construction projects in Uganda, emphasizing that robust management strategies are crucial for improving performance. Similarly, Kariuki (2017) demonstrated that mutual trust and effective communication between clients and service providers were essential in ensuring successful contract performance, with effective relationship

management accounting for a significant portion of contract success. This is consistent with Moffat and Mwangangi (2019), who found that both contract relationship management and cost management positively influenced performance in Kiambu County, Kenya. Tanui and Moronge (2021) also corroborated this by showing how well-implemented management contracts contributed to the operational effectiveness of state corporations in Kenya.

There was a positive and significant influence of contract monitoring and evaluation on performance of public institutions in the energy sector in Kenya ($\beta = 1.291$, $p = 0.000$). Indeed, Yadeta (2019) highlights the essential role of contractor monitoring and acceptance management in verifying that contractors fulfill their responsibilities as per the contract terms. Close monitoring of contractor performance allows contracting organizations to address any issues or potential problems early, ensuring the timely implementation of solutions. Likewise, Jia (2020), identifies key components of contract management as controlling, evaluating and monitoring contractor performance.

The economic framework of procurement processes, as outlined by Hwang, Saar, and Chen (2019), further supports the importance of monitoring by highlighting the levers in procurement business deals that set out clear expectations and provide assurances to both parties involved. These levers ensure that the procurement process remains on track, enhancing overall performance through effective management. Harerimana (2021) also provides evidence from road construction projects in Rwanda, showing that contract monitoring significantly correlates with project performance. The study found that a lack of attention to contract monitoring could lead to project delays or inefficiencies, underlining the critical role that monitoring plays in ensuring successful

project outcomes.

Moreover, Nduhura et al. (2021) emphasize the importance of contract monitoring and risk management. The study found that these practices were crucial for project success, particularly when managing substantial public budgets for infrastructure projects. Although the focus was on local government projects, the findings are applicable to the energy sector, where monitoring practices play a similar role in ensuring value for money and project efficiency.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The results of the study are summarized in this chapter. The study's conclusions are presented. The study's recommendations are then put forth. Additionally, recommendations for additional research and study are provided.

5.2 Summary of findings

This section presents a summary of the findings according to the objectives of the study.

5.2.1 Influence of contract planning on performance

This study evaluated the influence of contract planning on performance of public institutions in the energy sector in Nairobi, Kenya. The study revealed a significant and positive influence of contract planning on performance of public institutions in the energy sector in Nairobi, Kenya ($\beta = 0.140$, $p = 0.018$). Organizations maintained a payment schedule for contracted suppliers and included provisions for change management in contracts. Similarly, contracts outlined a comprehensive process for acceptance criterion, project handover and also ensured fair and balanced payment terms, which were highly rated. Respondents also affirmed the effectiveness of dispute resolution mechanisms and the consideration of organizational needs and objectives during contract planning. The contract planning phase effectively outlined the desired outcomes, addressed potential risks and uncertainties in projects.

5.2.2 Influence of contract documentation on performance

The study assessed the influence of contract documentation on performance of public institutions in the energy sector in Nairobi, Kenya. The relationship between contract documentation and performance of public institutions in the energy sector in Kenya was positive and insignificant (β= 0.099, p = 0.136). Accurate recording of essential details and regular updates to contract files throughout the project lifecycle were critical for effective contract management. Comprehensive supporting documentation and well-organized records enhanced accountability and project oversight. Additionally, there was alignment of parties' performance with documented terms and improved communication among stakeholders. Adherence to standardized documentation practices enhanced credibility.

5.2.3 Influence of contract relationship management on performance

The study investigated the influence of contract relationship management on performance of public institutions in the energy sector in Nairobi, Kenya. Findings indicated a positive and significant influence of contract relationship management on performance of public institutions in the energy sector in Kenya (β = 0.183, p = 0.000). Proactive involvement by contractors and active feedback-seeking for improvement were critical for successful project execution. Effective collaboration to address challenges and timely conflict resolution were key in projects performance. Alignment of contractor performance with contract terms and efforts to add value beyond contractual obligations enhanced project outcomes. Regular meetings between the organization and contractors ensured effective communication and coordination.

5.2.4 Influence of contract monitoring and evaluation on performance

This study analyses the influence of contract monitoring and evaluation on performance of public institutions in the energy sector in Nairobi, Kenya. There was a positive and significant influence of contract monitoring and evaluation on performance of public institutions in the energy sector in Kenya ($\beta = 1.291$, $p = 0.000$). Contingency planning measures were effectively implemented to mitigate risks during contract execution. Contractors were seen as well-incentivized to meet performance expectations, with an incentives policy in place. Progress reports provided by contractors accurately reflected the status of project deliverables and regular monitoring against KPIs was practiced. Evaluation mechanisms to assess contractor effectiveness in meeting project deliverables were in place and clearly established Change management strategies were adopted to align the projects to the changes encountered during execution. Contract monitoring included periodic reviews to identify areas for improvement. Performance metrics were clearly defined in contracts.

5.3 Conclusions

This study concludes that contract planning is important to enhance the performance of public institutions in the energy sector in Nairobi, Kenya. Maintaining a payment schedule for suppliers and incorporating change management provisions influence performance. Project handover and fair payment terms contribute to improved project outcomes. Effective dispute resolution mechanisms and consideration of organizational needs and objectives during contract planning, further support performance. Contract planning phase proves essential in mitigating risks and uncertainties.

The study concludes that proactive contractor involvement, open, effective communication, active feedback-seeking and effective collaboration affect project performance. Timely conflict resolution enhances performance as opposed to bureaucratic decision-making process characteristic of public institutions. The alignment of contractor performance with contract terms, coupled with efforts to add value beyond contractual obligations, contribute to improved project outcomes. Furthermore, regular meetings between the organization and contractors promote effective communication and coordination.

Effective contingency planning measures mitigate risks during contract execution contribute to improved performance. Contractors are well-incentivized to meet performance expectations, and progress reports accurately reflect the status of project deliverables. Regular monitoring against KPIs enhance project oversight. Evaluation mechanisms to assess contractor effectiveness in meeting deliverables ensure continuous improvement. Periodic contract reviews and clearly defined performance metrics support project performance.

5.4 Recommendations

This study recommends that public institutions in the energy sector should prioritize comprehensive contract planning. This involves maintaining well- structured payment schedules for suppliers and embedding provisions for change management in contracts to adapt to dynamic project needs. A detailed process for project handover and equitable payment terms should also be emphasized to ensure smooth transitions and financial transparency. Additionally, the inclusion of effective dispute resolution mechanisms and a thorough consideration of organizational goals during contract planning will help

mitigate risks and uncertainties, thereby improving project outcomes.

The study recommends that public institutions in the energy sector should focus on enhancing the accuracy and consistency of recording essential project details. Regular updates to contract files throughout the project lifecycle should be prioritized to ensure that all stakeholders have access to the most current and relevant information. Institutions should also adopt digital tools for managing and tracking contract documentation, which can streamline processes and reduce errors. Public institutions in the energy sector should ensure that supporting documentation is comprehensive and that records are well-organized to enhance accountability and facilitate project oversight. Public institutions in the energy sector should also establish clear guidelines and protocols for maintaining and auditing contract documentation, ensuring compliance with regulatory and organizational standards. Public institutions in the energy sector should emphasize adherence to standardized documentation practices to improve credibility and foster trust among stakeholders. This includes aligning parties' performance with documented terms to minimize misunderstandings and disputes. Improved communication among stakeholders, facilitated by well-documented agreements and processes, should also be prioritized to enhance collaboration and alignment throughout the project lifecycle.

Public institutions in the energy sector should encourage effective collaboration between stakeholders and addressing challenges through timely conflict resolution mechanisms are crucial for maintaining momentum in project execution. Ensuring that contractor performance aligns with contractual terms while encouraging innovation and

the delivery of value beyond the stated obligations will significantly enhance outcomes. Regular meetings between contractors and organizational representatives should be institutionalized to improve communication and coordination, promoting trust and accountability.

Public institutions in the energy sector should implement robust monitoring and evaluation frameworks. This includes integrating contingency planning measures to manage risks effectively and adopting incentives that motivate contractors to achieve performance benchmarks. Progress reports should be standardized to accurately reflect project deliverables and milestones. Regular monitoring against predefined KPIs and conducting periodic contract reviews are vital for identifying areas for improvement. Clearly defining performance metrics and establishing evaluation mechanisms to assess contractor effectiveness will promote continuous learning and improvement.

5.5 Recommendations for further studies and research

This study examined the influence of contract management on performance of public institutions in the energy sector in Nairobi, Kenya. Future research could investigate the influence of contract management other sectors, such as healthcare, transportation or manufacturing. Each sector may have unique dynamics and challenges that affect how contract planning, monitoring, evaluation and documentation are implemented. Furthermore, cross-sectoral studies could provide a better understanding of contract management's influence on organizational performance. Additionally, the researchers could investigate how contract management affects performance of private entities, since they have very distinct characteristics from public institutions.

Further studies could investigate the role of technology in contract management in public institutions as well as emerging issues. Consequently, future studies could examine how these technologies enhance efficiency, transparency and compliance. Researchers could evaluate the potential of automation and data-driven decision-making to address common challenges like delayed payments, disputes, and misaligned objectives in contract execution.

This study focused on the influence of contract planning, contract documentation, contract relationship management, and contract monitoring and evaluation on performance. Future research could investigate other variables that may influence performance, such as contract negotiation strategies and contractor selection criteria. Additionally, studies could examine the moderating and intervening influence of organizational culture, leadership styles and external environmental factors on contract performance.

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APPENDICES

Appendix I: Informed consent

Dear Participant,

I invite you to participate in a research study entitled INFLUENCE OF CONTRACT MANAGEMENT PRACTICES ON PERFORMANCE OF PUBLIC INSTITUTIONS IN THE ENERGY SECTOR IN NAIROBI: I am currently enrolled at Mount Kenya University's MSc. Project Planning and Management program, and I am working on my Master's project. The research aims to determine: The goal of this research is to look into how contract management affects the functioning of public institutions in Kenya's energy industry.

Your participation in this research experiment is entirely voluntary. You may decline completely or leave blank any questions you do not want to answer. There are no known dangers to involvement other than those encountered in normal living. Your responses will remain confidential and anonymous. This study's data will be kept confidential and only given as a combined total. Only the researchers will be aware of your specific responses to this questionnaire

Participating in this research will provide you with no immediate rewards. However, you may find it intriguing to discuss about the topics covered in the research, which may be valuable to the field and prospective clients or persons who have faced similar challenges. If you accept to participate in this experiment, please fill out the form as completely as possible. It should take about 30 minutes to complete. Please return the questionnaire as soon as possible so that I may complete the project report. If you have any queries concerning the project, please contact the INVESTIGATOR.

Norce Maruti Phone no: +254 726 246126 and/or SUPERVISOR Ruth Winnie Munene Phone no.
+254 722 835443. If you have questions about your rights as a research participant, please be in touch with the Chairman, Mount Kenya University, Ethical Review Committee, P.O Box 342- 01000, Thika.

Thank you for your assistance in this important endeavor.

CONSENT
I read and understood the information offered, and I was given the opportunity to ask questions. I realize that my participation is entirely optional, and that I may withdraw at any moment without explanation or cost. I am aware that I will be provided a copy of this permission form. I willingly accept to take part in this study.

Participant's signature _____Date _____

Investigator's signature _ _____Date _____

Appendix II: Questionnaire

Kindly respond to the questions and tick as appropriate.

PART A: DEMOGRAPHIC CHARACTERISTICS

1. Select the gender. Male ( ) Female ( )
2. Age in years

   18-24 years ( ) 25-34 years ( ) 35-44 years ( ) 45-54 years above 54 years ( )
3. Education level

   Secondary ( ) Diploma ( ) degree ( ) Post Graduate ( )
4. Period in the organization? Less than 5 years ( )

   5-10 years ( ) Above 10 years ( )

PART B: Contract planning and performance of public institutions

In this section and following sections, please use the scale below and mark the score that best represents your agreement: 5=strongly agree, 4=agree, 3=not sure, 2=disagree, 1=strongly disagree.

Statement	**5**	**4**	**3**	**2**	**1**
The parastatal maintains a payment schedule for all contracted suppliers.					
Adequate provisions for change management were included in the contract to address unforeseen circumstances.					
Contracts outline a comprehensive process for parastatal's project handover.					
Payment terms and conditions in the contract are fair and balanced.					
Contracts provide mechanisms for resolving disputes related to payment schedules.					

The contract planning process considers the unique needs and objectives of the organization.					
The contract planning phase effectively addresses potential risks and uncertainties in projects.					

PART C: Contract documentation and performance of public institutions

Statement	**5**	**4**	**3**	**2**	**1**
Contract recording ensures all essential details are accurately captured.					
Contract files are regularly updated to reflect any changes or developments throughout the project lifecycle.					
The supporting documentation provided alongside contracts in our institution is comprehensive					
Well-organized contract documentation enhances accountability in the management of projects					
The performance of the contract parties aligns with the terms and conditions outlined in the contract documentation.					
Contract documentation facilitates clear communication between all stakeholders.					
Consistent adherence to standardized practices for contract documentation enhances credibility.					

PART D: Contract relationship management and performance of public institutions

Statement	**5**	**4**	**3**	**2**	**1**
Contractors demonstrate proactive involvement in projects.					
Collaborations between the contracting parties are effective in addressing project challenges.					

Contractors actively seeks feedback and suggestions for improvement.					
Timely resolution of conflicts and issues between the parties ensures smooth project progress.					
Contractor's performance aligns closely with the terms and conditions outlined in the contract					
Contractor actively seeks opportunities to add value to the project beyond contractual obligations.					
The organization regularly organizes meetings with contractors for projects execution.					

PART E: Contract monitoring and evaluation on performance of public institutions

Statement	**5**	**4**	**3**	**2**	**1**
Contingency planning measures are effectively implemented to mitigate risks during the contract execution.					
The incentives policy in place incentivizes contractors to meet performance expectations outlined in the contract.					
Progress reports provided by the contractors accurately reflect the status of project deliverables and milestones.					
Contract performance is regularly monitored against predefined key performance indicators .					
Evaluation mechanisms are in place to assess the effectiveness of contractors in meeting project deliverables					
The contract monitoring process includes regular reviews to identify areas for improvement.					
Performance metrics are clearly defined in contracts.					

PART F: Performance of public institutions

Statement	**5**	**4**	**3**	**2**	**1**
There is an increased number of customers for the organization.					
There is increased customer satisfaction.					
The organization has managed to minimize its costs in projects execution.					
There is evident revenue growth in the organization.					
The public institution efficiently responds to emergencies and disruptions in energy supply.					
The infrastructure to support energy is well maintained throughout the country.					
There is increased investment on research and development in the organization.					

THANK YOU

Appendix III: Interview Guide

i. What is the influence of contract planning on performance of public institutions in the energy sector in Kenya?
ii. How does contract documentation affect performance of public institutions in the energy sector in Kenya?
iii. To what extent does contract relationship management affect performance of public institutions in the energy sector in Kenya?
iv. What is the influence of contract monitoring and evaluation on performance of public institutions in the energy sector in Kenya?
v. How has contract management affected performance of public institutions in the energy sector?
vi. What more could be done to enhance contract management for performance of public institutions in the energy sector?

Appendix IV: Ethical Review Certificate

Mount Kenya University

REF: **MKU/ISERC/4599**
TO: **NORCE KEMO MARUTI**

Date: 19 November 2024

REG: **MSCPM/2023/38138**

Dear Sir/Madam,

RE: INFLUENCE OF CONTRACT MANAGEMENT ON PERFORMANCE OF PUBLIC INSTITUTIONS IN THE ENERGY SECTOR IN NAIROBI KENYA

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **3321.** The approval period is **19/11/2024 - 18/11/2025.**

This approval is subject to compliance with the following requirements;

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

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

Yours sincerely,

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

MOUNT KENYA UNIVERSITY
ETHICS REVIEW COMMITTEE
P. O. Box 342 - 01000,
THIKA

Main Campus, General Kago Road, P.O. Box 342-01000 Thika.
Tel: +254 20 287 8000, Cell: +254 709 153 000
Email: info@mku.ac.ke, Web: www.mku.ac.ke

Appendix V: University Introduction letter

Mount Kenya University

DIRECTORATE OF GRADUATE STUDIES

MSCPM/2023/38138

19th November, 2024

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

Dear Sir/Madam,

RE: NORCE KEMO MARUTI – REGISTRATION NO. MSCPM/2023/38138

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

The title of the research is **"Influence of Contract Management on Performance of Public Institutions in the Energy Sector in Nairobi, Kenya."** It has been cleared by the University's Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data between **November, 2024 and January, 2025.**

Any assistance accorded to the student will be highly appreciated.

Thank you.

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

For
Dr. Samuel M. Karenga, PhD
Director, Graduate Studies
Enc.

Appendix VI: NACOSTI Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **815657**

Date of Issue: **29/November/2024**

RESEARCH LICENSE

This is to Certify that Mr.. NORCE Maruti KEMO of Mount Kenya University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: INFLUENCE OF CONTRACT MANAGEMENT PRACTICES ON PERFORMANCE OF PUBLIC INSTITUTIONS IN THE ENERGY SECTOR IN NAIROBI,KENYA for the period ending : 29/November/2025.

License No: **NACOSTI/P/24/414288**

815657

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

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See overleaf for conditions

Appendix VII: Similarity Index Cover Page Report

INFLUENCE OF CONTRACT MANAGEMENT ON PERFORMANCE OF PUBLIC INSTITUTIONS IN THE ENERGY SECTOR IN NAIROBI KENYA

by Kemo MARUTI

Submission date: 07-Feb-2025 04:23PM (UTC+0300)
Submission ID: 2568156122
File name: ct_management_in_energy_institutions_in_public_institutions.docx (443.42K)
Word count: 20977
Character count: 129843

Appendix VIII: Similarity Index Summary page

INFLUENCE OF CONTRACT MANAGEMENT ON PERFORMANCE OF PUBLIC INSTITUTIONS IN THE ENERGY SECTOR IN NAIROBI KENYA

ORIGINALITY REPORT

20%	17%	7%	11%
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