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Contract Management Practices and Project Performance of Parastatals under the Ministry of Energy and Petroleum in Kenya

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Abstract

Purpose: This study aimed to assess the effect of contract management practices specifically contract planning, contract monitoring, contract cost management, and contract documentation on the project performance of parastatals under the Ministry of Energy and Petroleum in Kenya.

Methodology: The researcher used a descriptive and correlational research design, combining both qualitative and quantitative approaches. Structured questionnaires were employed as the primary research instruments. The target population comprised senior supply chain officers, procurement officers, finance managers, project engineers, and legal officers drawn from 13 parastatals within the Ministry of Energy and Petroleum. A census survey approach was adopted owing to the manageable population size and the technical expertise required from respondents. Data were analyzed using the Statistical Package for Social Sciences (SPSS Version 28), and results were presented using tables, charts, and regression output indicators.

Findings: The results revealed that all four-contract management practices had a statistically significant positive effect on project performance. The regression coefficients showed strong predictive power, while correlation analysis indicated a strong positive linear relationship between contract management practices and performance outcomes, demonstrating that improved planning, monitoring, cost control, and documentation significantly enhance timeliness, efficiency, and service delivery.

Unique Contribution to Theory, Practice, and Policy: The study contributes to Transaction Cost Economics, Stakeholder Theory, Institutional Theory, and Agency Theory by demonstrating how structured contract processes reduce uncertainty, strengthen accountability, and enhance project delivery. The study recommends that parastatals strengthen contract planning, adopt robust monitoring frameworks, automate cost management systems, and implement secure digital documentation platforms to enhance performance and ensure better governance within Kenya's public energy sector.

Keywords: *Contract Management Practices, Project Performance, Parastatals, Ministry of Energy and Petroleum, Contract Planning, Contract Monitoring, Cost Management, Contract Documentation*

INTRODUCTION

Contract management is increasingly recognized as a critical determinant of project success across both public and private sectors. It involves systematic processes of planning, implementing, monitoring, and documenting contractual obligations to ensure that goods, works, and services are delivered as specified. Global evidence shows that ineffective contract management contributes to significant financial losses, delays, and project underperformance. According to the World Commerce and Contracting Commission (2023), organizations lose an average of 9.2% of annual revenue due to contract mismanagement. As infrastructure projects grow more complex, especially in energy, transport, and public utilities, the need for robust contract management systems has become imperative for ensuring timely delivery, quality outcomes, and value for money.

In developing economies, contract management plays an even more central role due to limited resources, high project risks, and governance challenges. Many African countries implementing large-scale public projects face recurring issues of cost overruns, inadequate supervision, contractual disputes, and poor documentation. Studies within the region indicate that weak contract planning, insufficient monitoring mechanisms, and limited technical capacity significantly undermine project outcomes (Azhgaliyeva et al., 2020). For energy-related projects where technological expertise, safety requirements, and capital intensity are high effective contract management is essential for supporting sustainable development, promoting transparency, and minimizing operational risks. Strengthening contract management systems thus emerges as a strategic requirement for improving public sector performance.

In Kenya, contract management remains a focal concern within the public sector, where billions of shillings have been lost due to inefficiencies and misuse of procurement and contractual processes. Auditor-General and PPRA reports consistently highlight challenges such as poor planning, inadequate contract monitoring, weak cost control, and incomplete documentation across state corporations. These gaps often lead to stalled or delayed projects, inflated expenditure, and disputes between procuring entities and contractors. Within the Ministry of Energy and Petroleum, previous flagship initiatives including rural electrification, renewable energy installations, and large infrastructure developments have faced setbacks linked directly to contract management weaknesses. These challenges hinder the government's ability to deliver reliable, affordable, and sustainable energy solutions.

Parastatals under the Ministry of Energy and Petroleum including KPLC, REREC, Kenya Electricity Transmission Company (KETRACO), and Geothermal Development Company (GDC) play an essential role in supporting Kenya's energy access, industrialization agenda, and economic growth. Their project performance depends heavily on how well contracts are planned, monitored, costed, and documented. Inefficiencies in these areas result in delays in electrification programs, escalating project costs, and compromised quality of works, ultimately affecting national development priorities such as universal energy access and renewable energy expansion. Understanding how contract management practices influence project performance within these entities is therefore crucial for identifying gaps, improving governance, and strengthening the effectiveness of Kenya's energy sector.

Problem Statement

Despite extensive investments in Kenya's energy infrastructure, parastatals under the Ministry of Energy and Petroleum continue to experience persistent challenges such as cost overruns, project delays, contractual disputes, and substandard work quality. Auditor-General reports and PPRA reviews consistently attribute these failures to weak contract planning, inadequate project oversight, and insufficient documentation systems (Kamau & Achuora, 2023). Globally, poor contract management has been shown to cause significant financial losses and compromised project delivery, with organizations losing up to 9.2% of revenue annually due to contract mismanagement (Jackson, 2021). These challenges undermine Kenya's electrification goals and hinder the ministry's capacity to deliver reliable and sustainable energy solutions.

Although international evidence shows that effective contract planning, monitoring, cost control, and documentation significantly improve project outcomes (Larsson & Larsson, 2020; Baccarini, 2019), implementation within Kenya's energy parastatals remains inconsistent. Weak monitoring mechanisms limit the early detection of delays, budget deviations, and technical non-compliance (Demachkieh et al., 2019), while cost management practices are often reactive, contributing to escalating financial risks (Wisner et al., 2021). Additionally, documentation practices in many parastatals are characterized by inaccuracies, incomplete records, and poor security, creating loopholes for disputes, inflated claims, and accountability gaps (Abdul-Malak et al., 2019; Kodynetz et al., 2019). These issues collectively diminish project efficiency and affect overall institutional performance.

Although contract management has been studied in other sectors, minimal empirical research has focused specifically on parastatals within the Ministry of Energy and Petroleum, despite their strategic role in implementing national energy projects. Existing studies either generalize state corporations or overlook sector-specific contractual challenges (Gunduz & Elsherbeny, 2020; Odhiambo, 2021). This results in a knowledge gap regarding how contract planning, monitoring, cost management, and documentation individually or collectively influence project performance in the energy sector. Addressing this gap is essential for informing policy reforms, improving governance, and enhancing project implementation effectiveness. This study therefore investigates the effect of contract management practices on the performance of parastatals under the Ministry of Energy and Petroleum in Kenya.

LITERATURE REVIEW

Theoretical Framework

This study is anchored on four major theories that explain how contract management practices influence project performance: Transaction Cost Economics Theory, Stakeholder Theory, Institutional Theory, and Agency Theory. Transaction Cost Economics (Williamson, 1979) emphasizes reducing negotiation, monitoring, and enforcement costs through well-structured contract planning and monitoring, which helps minimize uncertainty, opportunism, and project delays. Stakeholder Theory (Freeman, 1984) highlights the importance of engaging contractors, regulators, communities, and internal departments in contract processes. Effective communication, monitoring, and documentation ensure alignment of expectations, reduce conflict, and improve overall project acceptance and performance.

Institutional Theory (Scott, 2014) asserts that organizational actions are shaped by laws, norms, and institutional pressures. Energy parastatals operate under frameworks such as the Public Procurement and Asset Disposal Act (2015), which influence contract planning, monitoring, and documentation practices, enhancing legitimacy and compliance. Agency Theory (Ross, 1973) explains principal–agent relationships, noting that information asymmetry may allow contractors to act in self-interest. Clear contract documentation, performance monitoring, and financial controls reduce opportunism and strengthen accountability. Together, these theories provide a comprehensive foundation for understanding how contract management practices affect project performance within the Ministry of Energy and Petroleum parastatals.

Conceptual Framework

This study proposes that four contract management practices contract planning, contract monitoring, cost management, and documentation jointly influence the project performance of energy parastatals. Effective planning clarifies scope and timelines, monitoring ensures compliance, cost management prevents overruns, and documentation enhances accountability. Together, these practices are expected to improve project outcomes such as timeliness, cost adherence, and service deliver.

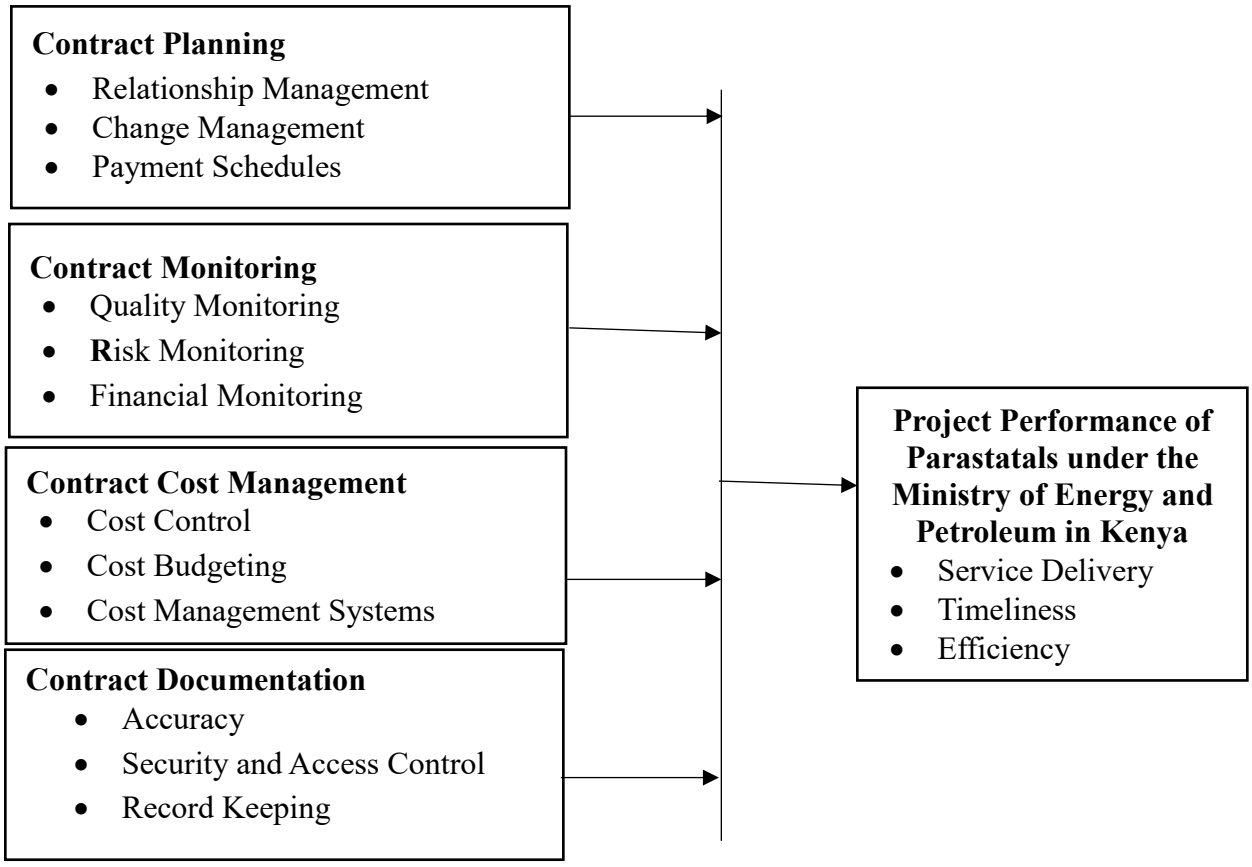

Figure 1: Conceptual Framework

Empirical Review

Empirical research consistently highlights contract planning as a foundational determinant of project success in public sector environments. Kerzner (2019) found that detailed scope definition, clear specifications, and realistic scheduling significantly reduce ambiguity and limit scope creep, thereby improving project predictability. Similarly, Ndirangu et al. (2019) reported that well-structured planning in Kenyan construction and energy projects enhances transparency, minimizes disputes, and accelerates implementation. These findings reinforce the argument that comprehensive planning reduces early-stage risks and establishes the conditions necessary for strong project performance.

Studies on contract monitoring further demonstrate its critical role in ensuring contractual compliance and controlling deviations. Aluonzi, Oluka, and Nduhura (2016) established that systematic monitoring through inspections, progress reporting, and compliance checks enhances timeliness and service quality in public works projects. Demachkieh et al. (2019) similarly found that active monitoring enables early detection of risks and performance gaps, reducing cost overruns and enhancing output quality. Conversely, poor monitoring has been linked to stalled projects, contractor non-performance, and escalating claims in developing countries.

Empirical findings related to contract cost management highlight its importance in preventing budget overruns and ensuring financial discipline. Sanchez and Terlizzi (2017) revealed that structured budgeting, expenditure tracking, and cost-control tools significantly improve cost adherence in infrastructure projects. Wisner, Tan, and Leong (2021) further demonstrated that organizations with strong cost-management frameworks achieve higher efficiency, better resource allocation, and improved project sustainability. These studies affirm that cost management is not only a financial function but a strategic enabler of project performance.

Research on contract documentation also underscores its influence on project outcomes. Abdul-Malak et al. (2019) found that accurate, complete, and accessible documentation enhances communication, reduces disputes, and supports timely decision-making. Kodynetz et al. (2019) showed that secure documentation systems improve audit readiness and enforce accountability in public sector projects. Weak documentation, however, has been associated with information asymmetry, inflated claims, contractual disputes, and governance failures. Collectively, empirical evidence affirms that when contract planning, monitoring, cost management, and documentation are effectively implemented, project performance improves significantly.

METHODOLOGY

This study adopted a descriptive and correlational research design to examine the effect of contract management practices, contract planning, monitoring, cost management, and documentation on project performance among parastatals under the Ministry of Energy and Petroleum. The target population comprised procurement officers, finance officers, supply chain managers, project engineers, and legal officers drawn from 13 parastatals. Owing to the small, specialized population, a census approach was used, allowing the study to gather data from all eligible respondents. Primary data were collected through structured questionnaires containing Likert-scale items informed by prior empirical studies. A pilot test conducted on a comparable group confirmed

reliability, with all constructs recording Cronbach's Alpha values above 0.70, while expert review validated the content and structure of the instrument.

Data collection was conducted electronically and in compliance with ethical standards, ensuring voluntary participation and confidentiality. Collected data were analyzed using the Statistical Package for Social Sciences (SPSS Version 28). Descriptive statistics summarized respondent characteristics, while inferential analysis Pearson correlation and multiple regression was used to determine the strength of relationships and the predictive effect of contract management practices on project performance. Results were presented using tables and interpreted in line with existing literature to support meaningful conclusions and recommendations.

RESULTS

Response Rate

Table 1: Response Rate

Response	Frequency	Percent
Returned	80	87.9%
Unreturned	11	12.1%
Total	**91**	**100%**

The study targeted parastatals under the Ministry of Energy and Petroleum in Kenya, distributing 91 questionnaires to eligible respondents. Of these, 80 were completed and returned, yielding a response rate of 87.9%, which Mellahi and Harris (2016) define as the proportion of completed questionnaires relative to the total sample. Although some respondents declined to participate, the achieved rate was considered highly satisfactory and adequate for analysis. According to Fincham (2014), a response rate above 60% is acceptable for meaningful interpretation, while Kothari (2012) classifies 70% and above as remarkable. Therefore, the 87.9% response rate attained in this study was representative and sufficient to support reliable conclusions and generalization of the findings.

Descriptive Statistics

Contract Planning

Table 2: Contract Planning Practices

Statements on Contract Planning	Mean	Std. Deviation
Our firm has well-defined contract planning process	3.28	1.006
The contract planning process involves all relevant stakeholders, including procurement, legal, and technical teams	2.86	1.329
The contract planning process is regularly reviewed and updated	3.74	.868
Our organization has a clear process for managing changes to the contract scope, timeline, or budget	3.94	.891
We clearly define deliverables, timeframes, and metrics in contracts	3.90	.949
The organization has a formal process for resolving disputes and conflicts with contractors	3.79	.924
The organization also leverage clear procedures for mutual agreement on changes	3.95	.926
We have a clear and transparent payment schedule that is communicated to contractors in advance	3.66	1.158

The findings on contract planning indicate generally positive perceptions across the eight measured statements, with mean scores ranging between 2.86 and 3.95. Respondents agreed that the organization has a clear process for managing changes to contract scope, timelines, or budgets (M = 3.94, SD = 0.891) and leverages clear procedures for mutual agreement on changes (M = 3.95, SD = 0.926), suggesting strong change-management mechanisms. Contract deliverables, timeframes, and performance metrics were also reported as being clearly defined (M = 3.90, SD = 0.949), while dispute-resolution processes were viewed as formalized (M = 3.79, SD = 0.924). The contract planning process was perceived as regularly reviewed and updated (M = 3.74, SD = 0.868), and payment schedules were seen as transparent and communicated in advance (M = 3.66, SD = 1.158). However, stakeholder involvement in the planning process recorded the lowest mean score (M = 2.86, SD = 1.329), indicating a potential gap in inclusive planning across procurement, legal, and technical teams. Overall, the results suggest that while contract planning practices are generally well-structured, improvements are needed in enhancing stakeholder participation.

Contract Monitoring

Table 3: Contract Monitoring Practices

Statements on Contract Monitoring	Mean	Std. Deviation
The organization receives and reviews regular quality reports from contractors	3.79	1.076
We develop and implements risk mitigation plans	3.68	1.178
There are cost control measures that ensure that expenses are within budget	3.95	1.211
Contract monitoring guarantee timely expenditure in contract execution	4.00	1.102
The constant monitoring of contracts affects the corporates responsiveness to customer needs	3.97	1.169
We conduct annual reviews of contracts to ensure their relevance and value	4.01	1.131
We have implemented Key Performance Indicators (KPIs) in contracts	4.35	.995
We conduct periodic performance evaluations for contract performance	4.22	1.018

The results on contract monitoring show strong agreement across all statements, with mean scores ranging from 3.68 to 4.35, indicating that monitoring practices are well established within the organization. The highest-rated aspect was the implementation of Key Performance Indicators (KPIs) in contracts (M = 4.35, SD = 0.995), followed by periodic performance evaluations (M = 4.22, SD = 1.018) and annual contract reviews to ensure continued relevance and value (M = 4.01, SD = 1.131). Respondents also agreed that contract monitoring supports timely expenditure during execution (M = 4.00, SD = 1.102) and enhances corporate responsiveness to customer needs (M = 3.97, SD = 1.169). Cost-control measures were perceived as effective in keeping expenses within budget (M = 3.95, SD = 1.211), while regular quality reports from contractors (M = 3.79, SD = 1.076) and risk mitigation plans (M = 3.68, SD = 1.178) further demonstrate robust oversight mechanisms. Overall, the findings suggest that the organization has a strong contract monitoring framework, particularly in the use of KPIs, periodic evaluations, and structured financial control measures.

Contract Cost Management

Table 4: Contract Cost Management Practices

Statements on Contract Cost Management	Mean	Std. Deviation
There are clear guidelines and procedures for managing contract-related expenses.	4.49	.857
The organization takes prompt corrective actions to address any cost overruns	4.15	1.148
There is a well-defined process for developing and approving contract budgets	3.95	1.090
The organization involves key stakeholders in the contract budgeting process.	3.89	1.079
There is a robust cost management system in place	3.70	1.237
The organization's cost management system is integrated with other relevant systems	4.43	.792
Cost control predicts the future expenses and costs accordingly to work towards the expected revenues	3.35	1.323
Cost budgeting ensures predefined costs are maintained as recorded in the contract agreement	3.79	1.027

The findings on contract cost management reveal strong organizational capacity in controlling and coordinating contract-related expenditures, with mean scores ranging from 3.35 to 4.49. Respondents strongly agreed that the organization has clear guidelines and procedures for managing contract expenses (M = 4.49, SD = 0.857) and that the cost management system is well integrated with other operational systems (M = 4.43, SD = 0.792), indicating a high level of financial oversight. Corrective actions to address cost overruns were also rated positively (M = 4.15, SD = 1.148). Processes for developing and approving contract budgets (M = 3.95, SD = 1.090) and involving key stakeholders in budgeting (M = 3.89, SD = 1.079) were viewed as well established. However, the robustness of the cost management system received a comparatively lower mean score (M = 3.70, SD = 1.237), while the lowest rating was recorded for cost control's ability to predict future expenses (M = 3.35, SD = 1.323), indicating potential gaps in forecasting and forward-looking financial planning. Overall, cost management practices are strong in procedural clarity and system integration, though improvements are needed in predictive cost control and enhancing system robustness.

Contract Documentation

Table 5: Contract Documentation Practices

Statement on Contract Documentation	Mean	Std. Deviation
The institution ensures contracts use unambiguous language to avoid misunderstandings	3.09	1.314
Our contract documentation plan includes details about how the entire contract deliverables will be executed from the start to the end of the contract	3.64	.958
Standardized contract templates incorporate essential elements for various types of agreements.	2.47	1.607
Understanding contract document ensures all involved parties understand their roles and rights.	3.66	1.030
We have implemented electronic document management systems.	4.16	1.073
We regularly update contract data to adapt to changing market conditions.	2.88	1.554
We have adopted contract documentation practices to improve our organizational performance	3.93	1.016

The results on contract documentation reveal mixed perceptions regarding the strength of documentation practices within the organization, with mean scores ranging from 2.47 to 4.16. Respondents strongly agreed that electronic document management systems have been implemented (M = 4.16, SD = 1.073) and that contract documentation practices contribute positively to organizational performance (M = 3.93, SD = 1.016). Clarity in outlining contract deliverables from initiation to completion (M = 3.64, SD = 0.958) and the role of documentation in ensuring all parties understand their rights and responsibilities (M = 3.66, SD = 1.030) were also rated positively. However, the use of unambiguous contract language received a moderate rating (M = 3.09, SD = 1.314), and the lowest scores were recorded for standardized templates (M = 2.47, SD = 1.607) and regular updating of contract data (M = 2.88, SD = 1.554). These findings suggest that although key documentation systems exist particularly digital platforms the organization still faces challenges in standardizing documentation processes and maintaining up-to-date contract records, indicating areas for improvement in consistency and responsiveness to changing conditions.

Project Performance

Table 6: Project Performance Practices

Statements on Project Performance	Mean	Std. Deviation
Our contract management practices are responsive to clients' needs	3.72	1.031
The organization has adopted cost-cutting measures	4.21	1.099
The organization has adequate policies that support contract management	3.09	1.608
There's an excellent rating of the corporate image of our firm	3.84	1.107
We experience high order fill rates	3.95	1.200
The level of operating costs in our firm has gone down in the recent years	3.30	1.602
Contract efficiency improves our responsiveness	3.74	1.430
Contract value leads to improved customer service	3.93	1.016

The findings on project performance indicate generally positive perceptions of organizational outcomes, with mean scores ranging from 3.09 to 4.21. Respondents agreed that the organization has adopted effective cost-cutting measures (M = 4.21, SD = 1.099) and experiences high order fill rates (M = 3.95, SD = 1.200), suggesting improved operational efficiency. Contract value was also perceived to enhance customer service (M = 3.93, SD = 1.016), while contract management practices were viewed as responsive to client needs (M = 3.72, SD = 1.031) and supportive of improved responsiveness through efficiency (M = 3.74, SD = 1.430). Corporate image was rated relatively well (M = 3.84, SD = 1.107), reflecting positive stakeholder perceptions. However, organizational policies supporting contract management (M = 3.09, SD = 1.608) and reductions in operating costs (M = 3.30, SD = 1.602) received lower scores, indicating areas where performance improvements are still needed. Overall, the results suggest that while project performance is generally strong particularly in cost control, service delivery, and operational efficiency policy support and sustained cost reduction remain key improvement areas.

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Inferential Data Analysis

Table 7: Correlation Analysis

		Contract Planning	Contract Monitoring	Contract Cost Management	Contract Documentation	Project Performance
Contract Planning	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	80				
Contract Monitoring	Pearson Correlation	.497**	1			
	Sig. (2-tailed)	.000				
	N	80	80			
Contract Cost Management	Pearson Correlation	.012	.125	1		
	Sig. (2-tailed)	.916	.271			
	N	80	80	80		
Contract Documentation	Pearson Correlation	.028	.040	.181	1	
	Sig. (2-tailed)	.805	.728	.108		
	N	80	80	80	80	
Project Performance	Pearson Correlation	.367**	.379**	.499**	.290**	1
	Sig. (2-tailed)	.001	.001	.000	.009	
	N	80	80	80	80	80

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis results show varying degrees of association between contract management practices and project performance among the energy parastatals. Contract planning exhibited a positive and statistically significant relationship with project performance (r = .367, p = .001), indicating that improvements in planning are associated with enhanced performance outcomes. Contract monitoring also showed a significant positive correlation with project performance (r = .379, p = .001), demonstrating that strong oversight mechanisms contribute to better organizational results. Contract cost management reported the strongest significant correlation with project performance (r = .499, p = .000), suggesting that effective cost control and budgeting practices play a critical role in driving performance improvements. Contract documentation was moderately but significantly related to project performance (r = .290, p = .009), implying that clear and well-

maintained records support effective project execution. The inter-correlations among the independent variables were generally weak, indicating minimal multicollinearity and confirming that each variable contributes uniquely to project performance. Overall, the results affirm that contract management practices significantly and positively influence project performance.

Regression Analysis

Table 8: Multiple Linear Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.765[a]	.542	.512	.900

a. Predictors: (Constant), Contract Documentation, Contract Planning, Contract Cost Management, Contract Monitoring

The model summary indicates that the combined effect of contract planning, contract monitoring, contract cost management, and contract documentation explains 54.2% of the variation in project performance among parastatals under the Ministry of Energy and Petroleum, as shown by an R Square value of 0.542. The Adjusted R Square of 0.512 further confirms that after adjusting for the number of predictors in the model, 51.2% of the changes in project performance can still be attributed to the four contract management practices, demonstrating a strong predictive capability. The correlation coefficient (R = 0.765) signifies a strong positive relationship between the predictors and project performance, while the standard error of the estimate (0.900) indicates a reasonable level of accuracy in predicting the dependent variable. Overall, the results suggest that contract management practices constitute a substantial and meaningful contribution to explaining project performance in the energy sector.

Table 9: Summary of ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.982	4	9.495	14.846	.000[b]
	Residual	47.968	75	.640		
	Total	**85.950**	**79**			

a. Dependent Variable: Project Performance

b. Predictors: (Constant), Contract Documentation, Contract Planning, Contract Cost Management, Contract Monitoring

The ANOVA results show that the overall regression model is statistically significant in predicting project performance among parastatals under the Ministry of Energy and Petroleum. With an F-value of 14.846 and a corresponding p-value of 0.000, the model demonstrates that contract planning, contract monitoring, contract cost management, and contract documentation collectively have a significant effect on project performance. The regression sum of squares (37.982) compared to the residual sum of squares (47.968) indicates that a substantial proportion of the variance in project performance is explained by the independent variables. Since the significance value is below the 0.05 threshold, the study concludes that the model provides a good fit and that contract management practices meaningfully contribute to explaining variations in project performance.

Table 10: Overall Significance of Test Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.326	.741		1.790	.078
	Contract Planning	.342	.129	.264	2.647	.010
	Contract Monitoring	.210	.114	.186	1.850	.068
	Contract Cost Management	.627	.127	.437	4.939	.000
	Contract Documentation	.159	.071	.196	2.234	.028

a. Dependent Variable: Project Performance

The regression coefficient results demonstrate that several contract management practices significantly influence project performance among energy parastatals. Contract planning shows a positive and statistically significant effect on project performance ($\beta = 0.264$, $t = 2.647$, $p = 0.010$), indicating that improvements in planning activities contribute meaningfully to better performance outcomes. Contract cost management exhibits the strongest influence ($\beta = 0.437$, $t = 4.939$, $p = 0.000$), confirming that effective cost control and budgeting practices are critical drivers of performance. Contract documentation also has a significant positive effect ($\beta = 0.196$, $t = 2.234$, $p = 0.028$), suggesting that clear, accurate, and accessible documentation enhances project execution and accountability. Although contract monitoring shows a positive relationship ($\beta = 0.186$), its effect is marginally insignificant at the 5% level ($t = 1.850$, $p = 0.068$), implying that while monitoring contributes to performance, its impact is comparatively weaker and may require further strengthening. Overall, the results affirm that contract planning, cost management, and documentation are significant predictors of project performance, with cost management emerging as the most influential factor.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary

This study examined the influence of contract management practices contract planning, contract monitoring, contract cost management, and contract documentation on the project performance of parastatals under the Ministry of Energy and Petroleum in Kenya. Descriptive findings showed that most contract management practices are moderately to strongly implemented across parastatals. Contract planning practices, such as change management procedures, deliverable definition, and dispute resolution frameworks, recorded positive ratings, though stakeholder involvement was comparatively weak. Contract monitoring practices were the strongest dimension, particularly the use of KPIs, periodic evaluations, and annual reviews. Contract cost management emerged as a major performance driver, evidenced by significant ratings on cost control procedures, corrective actions, and integration of cost management systems. Contract documentation practices were mixed; while electronic systems and documentation clarity were evident, updating and standardization of templates remained inadequate. Correlation and regression analyses confirmed that all four practices positively influenced project performance,

with cost management emerging as the strongest predictor, followed by planning, documentation, and monitoring.

Conclusion

The study concludes that contract management practices significantly enhance project performance in energy-sector parastatals. Contract planning improves performance by providing clarity, establishing change-control mechanisms, and reducing risks. Contract monitoring, though positive, requires strengthening since its statistical significance was marginal; however, it still contributes to project responsiveness and quality assurance. Contract cost management is the most critical determinant of performance, demonstrating that efficient budgeting, cost control, and integrated systems greatly improve operational efficiency, expenditure discipline, and value for money. Contract documentation also meaningfully predicts performance by ensuring clarity, reducing disputes, and enhancing accountability. Overall, the results affirm that parastatals with robust and coordinated contract management frameworks exhibit higher levels of service delivery, timeliness, and operational efficiency.

Recommendations

The study recommends that parastatals under the Ministry of Energy and Petroleum strengthen contract planning, monitoring, and cost management processes to enhance project performance. Contract planning should be made more inclusive by involving procurement, finance, legal, and technical teams to ensure clear definition of deliverables, timelines, and payment structures. Strengthening change-management mechanisms will help manage variations transparently and minimize disputes. Similarly, contract monitoring should be intensified through more frequent performance evaluations, stronger application of KPIs, and robust risk-tracking systems that enable early detection of challenges and reinforce accountability throughout the project cycle.

In addition, the study recommends prioritizing contract cost management and documentation practices, given their significant effect on performance. Parastatals should adopt advanced cost-control systems, improve forecasting accuracy, and ensure timely corrective actions to reduce cost overruns and enhance value for money. Improving documentation practices through standardized templates, regularly updated records, and effective electronic document-management systems will enhance clarity, reduce disputes, and support compliance and audit processes. Strengthening these areas collectively will promote transparency, efficiency, and improved project outcomes across the energy sector.

Limitations, Challenges, and Contextual Factors Affecting Results

The study's results were influenced by several limitations, challenges, and contextual factors. First, reliance on self-reported questionnaire data may have introduced bias, as respondents could overstate the effectiveness of contract management practices due to social desirability or organizational pressure. The cross-sectional design also limited the ability to capture changes in practices or performance over time, despite the dynamic nature of the energy sector where regulatory shifts, budget cycles, and technological adoption continually evolve. Furthermore, variations in organizational capacity, resource availability, leadership commitment, and digital maturity across parastatals may have created inconsistencies in how contract processes are applied. External contextual factors such as procurement regulations, political influences, inflation, and

supply chain disruptions may also have affected project performance outcomes during the study period. Nonetheless, these findings still offer meaningful insights into contract management practices within Kenya's energy sector.

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