



POST-AWARD CONTRACT RELATIONSHIP MANAGEMENT AND PERFORMANCE OF NATIONAL GOVERNMENT ROAD PROJECTS IN KENYA; MODERATING ROLE OF REGULATORY FRAMEWORK ADOPTION

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ABSTRACT

Road construction projects in Kenya have been getting sustainability warning owing to poor quality standards. With a dearth of studies on the effects of post contract, this study sought to fill the gap by, establishing the impact of post-contract relationship management on performance of national government road construction projects in Kenya and to establish the moderating impact of regulatory framework on the relationship between post-contract relationship management and performance of national government road construction projects in Kenya. The study was guided by stakeholder theory. The target population for the research was all 255 on-going road projects by road agencies in Kenya which are Kenya National Highway Authority (KeNHA), Kenya Rural Roads Authority (KeRRA) and Kenya Urban Roads (KURA). Therefore, the target population was 255 road projects. The overall sample size for this study was determined using the Nassiuma (2000) formula. The sample size for the study was 127 projects. This study used stratified random sampling technique to select the sample. Primary data was obtained utilizing a semi-structured questionnaire. The Statistical Package for Social Sciences (SPSS) version 25 software was used to analyse the data. Qualitative data was analysed using content analysis and presented in prose form. Qualitative data was analysed using descriptive and inferential analysis. Pearson correlation coefficient was used for testing strength and direction between the independent and the dependent variables. A multiple regression model was used to test the significance of the influence of the independent variables on the dependent variable. The findings were presented in Tables and figures. The study found that a unit increase in post-contract relationship management resulted in a 0.782-unit ($P < 0.05$) improvement in project performance. Further regulatory framework moderates the relationship between post-contract relationship management and performance, signifying that an improvement in regulatory frameworks positively influences the impact of contract management on performance. National government agencies overseeing road projects should recognize the importance of strong and collaborative relationships with contractors and suppliers. To improve project performance, these agencies should foster an environment of trust and cooperation through effective communication and conflict resolution mechanisms. Encouraging open dialogue and the sharing of ideas can lead to innovative solutions and better project outcomes. Additionally, agencies should consider establishing long-term partnerships with contractors who consistently demonstrate a commitment to quality and timely project delivery.

Key Words: Regulatory framework, Post-contract relationship management, Performance, National government road construction projects

Introduction

Contract management of a project revolves around control of cost, time, quality and resources (Pryke, 2017). Assessing post-award performance entails several activities to ensure that the delivery of projects meets the terms of the contract. Owing to the importance of post-award contract management on performance of government projects, this study seeks to establish the effect of post-contract appraisal, post-contract relationship management, post-contract administration, and contract closure on performance of national government road projects in Kenya. These key deliverables in contract are echoed by Meredith and Mantel (2012), who emphasize on planning, monitoring and controlling of time, cost and scope.

Kenya just like other countries in Sub Saharan Africa has numerous road projects constructed by the national government as well as by the county governments (Matu, Kyalo, Mbugua & Mulwa, 2020). In Kenya, road project contractors have a history of problems including high cost, delays, failed procurement, or unavailability of private financing (Gituro & Mwawasi, 2017; Hassan, 2017) which implies poor performance by road contractors (Densford, Rosemary & Ngugi, 2018). Currently, there is a search for solutions by stakeholders on the best strategies aimed at improving, the general performance of road contractors, which calls for analysis of the management factors.

Despite enormous allocation of funds by the Government of Kenya in the financial budgets, the road sector continues to face a challenge in performance with poor management of funds and poor delivery of services to the road user being mostly cited as the major performance drawbacks (Njenga, 2018). According to Parkera and Hartley (2017), currently, Kenya loses taxpayers' money to improper procurement processes, specifically poor contract management practices. This commonly happens in the country's state corporations due to issues, such as, corruption, litigations, contract cancellations and substandard service or product delivery. This calls for the pressing need to make appropriate policies and decisions to save the situation. Since the state requires to realize its value for money in the process of the serving its people, every state corporation is required to account for its expenses (Contract Monitoring Kenya Network, 2012). Therefore, contract management is a valuable step in public procurement as it ensures that service or product delivery is undertaken as per the contractual terms and conditions. The study helped unearth the post-contract management strategies on project performance in national government construction projects (KeNHA, KURA, and KeRRA).

Statement of the problem

According to government of Kenya (2018) the poor performance of the road contracts is due to poor management of funds and poor delivery of services to the road user. Road contractor's performance problem appears in many aspects, ranging from fail in time performance, cost performance and others fail in other performance indicators (Ugwa & Haupt, 2017). In Kenya cost overrun, delayed completion period, conflicts in the complicated vendor relationship, poor contract relationship management practices, extortion and bribery, poor risk mitigation and poor quality work are the norm rather than exception in the undertaking of contracted construction projects (Kibuchi & Muchungu, 2018; Cleland & Bidanda, 2019; Lepartobiko, 2018; Chuah et al., 2019). With a dearth of studies on the effects of contract relationship management practices, especially post contract, this study sought to fill the gap by, establishing the impact of post award contract management measured by post-contract relationship management on supplier performance in the road construction industry in Kenya.

Objectives of the Study

- i. To establish the influence of post-award contract relationship management on performance of national government road projects in Kenya

- ii. To establish the moderating influence of regulatory framework on the relationship between post-award contract relationship management and performance of national government road projects in Kenya

Research Hypothesis

This study sought to test the following research hypothesis;

- i. **H₀₁**: Post-award contract relationship management has no significant influence performance of national government road projects in Kenya
- ii. **H₀₂**: Regulatory framework has no significant moderating influence on the relationship between contract relationship management and performance of national government road projects in Kenya

Significance of the Study

The study is also important to the national government road agencies; KeRRA, KeNHA and KURA who should establish components of post-award contract management that should be put in place to ensure satisfactory performance of roads construction projects under their jurisdiction. The Development Partners are expected to gain confidence funding road agencies with robust post-award contract management frameworks as this will guarantee high levels of success in completion of the road projects.

Road contractors are the implementers of construction projects in Kenya while the Consultants supervise the road projects on behalf of the Road Agencies and the County Governments. They are therefore important stakeholders in roads construction projects. Consultants are expected to be aware of the road agencies post-award contract management practices. The Contractors on the other hand are expected to put in place adequate governance structures in their projects for example contracts with clients and agents, reporting mechanisms, and stakeholder management to ensure successful implementation of road projects.

This study is of value to scholars and researchers as it adds knowledge to the existing research on post-award contract management. The study explored the various gaps and trigger further research by scholars and other stakeholders. Excerpts of the research published in academic journals makes it accessible to students and scholars and give insight on the impact of post-award contract management on performance of national government road construction projects in Kenya.

LITERATURE REVIEW

Theoretical Review

Stakeholders Theory

Stakeholder theory originated by Freeman (1984) is defined as “any group or individual who can affect or affected by the achievement of the organization’s objectives”. Unlike agency theory in which the managers are working and serving for the shareholders, stakeholder theorists suggest that managers in organizations have a network of relationships to serve that include the suppliers, employees and business partners. According to Freeman (2002), each stakeholder is given an important say in making important decisions. Business and executives who manage them, should create value for customers, suppliers, communities and financiers (Stieb, 2008).

The stakeholder argues about the importance of firm paying special attention to the various stakeholder groups that are deemed to have a stake in the operations of an organization. The representation of all stakeholders groups on boards is therefore necessary for effective supply chain performance (Gibson, 2000). The model depicts the stakeholders in a typical large corporation.

The stakes of each are reciprocal, since each can affect the other in terms of harms and benefits as well as rights and duties (Freeman, 2002). Owners have financial stake in the organizations and expect returns.

Unlike agency theory in which the managers are working and serving for the stakeholders, stakeholder theorists suggest that managers in organizations have a network of relationships to serve that include the suppliers, employees and business partners. The stakeholders' theory was used to establish how relationship management affects project performance through supporting different stakeholders such as the suppliers, the government, civil society and various user departments in ensuring proper contract relationship management competencies.

Conceptual Framework

A conceptual framework is a set of broad ideas and principles taken from relevant field of enquiry and used to structure a subsequent presentation (Reichel & Ramey, 2018).

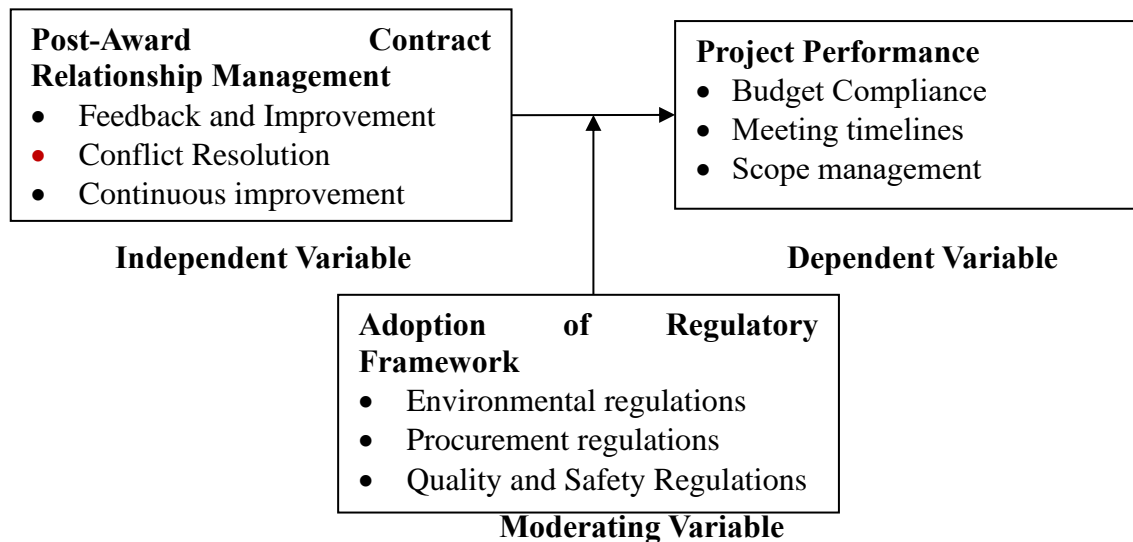


Figure 1: Conceptual Framework

Post- Award Contract Relationship Management

Post-contract relationship management involves development of effective working relationships suppliers to achieve better service delivery, value maximization and acquisition of quality products (Muhammad, Saoula, Issa, & Ahmed, 2019). It enhances the key aspects of strategies and business relations thus play an important role in promoting project performance (Sayed, Hendry, & Zorzini, 2021). Sound post-contract relationship management is therefore crucial to the sustainability of organizations in both public and private sectors. In the context of national government road projects in Kenya, effective post-contract relationship management can help to ensure that the project is completed on time, within budget, and to the required quality standards. Moreover, the fact that relationship management may be less prevalent in the public sector than in the private sector potentially makes this study even more important.

Effective contract relationship management incorporates appropriate information sharing, collaborations and contract compliance elements. It is also anchored on the foundations of organization-supplier communication based on mutual understanding, trust and accountability. Song, Zhu, Klakegg, and Wang (2018) noted that information sharing in contract relationship management and in procurement management at large is often essential to get the best services and sustainable procurement performance. Construction projects share the necessary information with the appropriate suppliers to enhance procurement performance. It is paramount for

government owned organizations in the construction sector to deliver more efficient public services that are coordinated around the needs of the citizens (Verweij & Van-Meerkerk, 2021).

The procurement function, through the post-contract relationship management contributes immensely towards the service delivery. Therefore, information sharing as component of contract relationship management influence the procurement performance at a large extent. Sharing information sharing in post-contract relationship management is also essential in enabling interventions and negotiations between the road construction organizations and the suppliers and hence lead to attainment of positive outcomes (Mwendwa & Ochiri, 2019).

However, inappropriate post-contract relationship management inevitably erode the organizations efforts to achieve sustainable performance in the context of procurement management (Mutangili, 2021). This happens when public sector organizations become complacent and fail to execute their obligations according to the terms of the contract. Moreover, post-contract relationship management is vital since procurement of commodities and services cannot be undertake successfully in complete isolation from effective engagements between the organization and the suppliers. The engagements between the public sector projects are informed by the effectiveness of the post-contract relationship management (Kamoni, 2020).

Regulatory Framework

Transparency, fairness and competition in procurement bring to public light mistakes, errors in judgments and bad practices that affect the management and administration of a country (World Bank, 2017). They allow citizens to challenge unfair public officials and make them more accountable to the people. Efficiency and effectiveness in procurement ensures expenditure control since they minimise cost and ensures value for money. Again ethical approach (i.e. Adhering to procurement laws) as a principle of procurement leads to bureaucracy in financial management (Kluwer, 2020). The relationship between ethical approach and bureaucracy is to avoid personal interest and promote public interest.

Kenya's public Regulatory Framework have recently undergone and continue to undergo major changes (Ombaka, 2019). Regulations have been put in place for domestic purposes, with individual governments using them to promote domestic goals (Otieno, 2018). The Public Procurement and Asset Disposal Act of 2015 have set new standards for public procurement in Kenya. Getting value for money, preventing corruption, promoting industrial or social policies in developing market economies, and also as a method of improving their existing market-based procurement systems supported by the UNICITRAL Model Law are among the most important reasons for Kenya's public procurement system transformation (Thai, 2018). A good public procurement system may improve accountability by making processes explicit and allowing compliance to be verified.

The Public Procurement and Disposal Act of 2005 and the Public Procurement and Asset Disposal Act of 2015 in Kenya established mechanisms for public organizations to purchase and dispose of unserviceable, outdated, or excess goods and equipment. The Act established three independent bodies to regulate the act; National treasury, the Public Procurement Regulatory Authority (PPRA) and the Public Procurement Administrative Review Board (PPARB). These regulations and acts give the conceptual framework in which procurement of goods, services and works should be performed right from user identification, specification development, supplier sourcing and selection, contract management, expediting, contract execution and delivery to receiving and disposal.

Empirical Literature Review

Post-Contract Relationship Management and Project Performance

Kamoni (2020) undertook a study on the emerging supply chain management practices and procurement performance of public mega projects in the energy sector in Kenya. The study found that Public Private Partnership, E-procurement, Procurement Risk Management, and Global Sourcing have a positive significance influence on procurement performance of mega projects in the energy sector in Kenya. The study did not link contract relationship management to procurement performance. Furthermore, the research found that Regulatory Framework does not have a significant moderating effect on procurement performance. The current study established the relationship between contract compliance and procurement performance.

Kimundu and Moronge (2019) assessed the influence of contract relationship management on procurement performance in manufacturing firms in Kenya. The study established that contract relationship management accounted for 62% of the procurement performance of Kenya's manufacturing firms. This study was undertaken from manufacturing firms and not the state corporations in the energy sector. Furthermore, the research was a case study of Bidco Oil Refinery Ltd and the findings may not have applied to all other manufacturing firms in the Country. The current study was a survey of multiple energy sector corporations. It examined the influence of contract relationship management elements of information sharing, collaboration and compliance on procurement performance of state corporations in the Kenya's energy sector.

Song, Zhu, Klakegg, and Wang (2018) noted that information sharing in contract relationship management and in procurement management at large is often essential to get the best services and sustainable procurement performance. State corporations in energy sector share the necessary information with the appropriate suppliers to enhance procurement performance. It is paramount for government owned organizations in the energy sector to deliver more efficient public services that are coordinated around the needs of the citizens (Verweij & Van-Meerkerk, 2021). The procurement function, through the contract relationship management contributes immensely towards the service delivery. Therefore, information sharing as component of contract relationship management influence the procurement performance at a large extent. Sharing information in contract relationship management is also essential in enabling interventions and negotiations between the energy sector organizations and the suppliers and hence lead to attainment of positive outcomes (Mwendwa & Ochiri, 2019).

Regulatory Framework on Project Performance

Sarfo and Baah-Mintah (2017) assessed the effect of the Procurement Act (663) on the public financial management in Ashanti Region. This article discussed the extent to which the Public Procurement Act (654) has achieved transparency in the use of state resources, causes of delays in the procurement process and effects of the Procurement Act on government expenditure in the Ashanti Region. The descriptive and explanatory research designs were used for the study. The study relied on both probability and non probability sampling techniques. The study revealed that procurement activities and procedures were transparent because decisions on procurement activities followed the rules and regulations of the Act. It was further revealed that contractors were not paid on time after execution of contracts and this affected their organisational management. It was concluded that the Procurement Act had reduced government expenditure considerably in the sense that the Procurement Act has reduced wastage and leakage of financial resources through effective auditing, expenditure monitoring and cost effectiveness and competition which has brought value for money.

Mutangili (2019) studied the effects of procurement law on procurement performance: a case of Kenya National Highway Authority. The specific objectives of the study were; to establish the effect of procurement law implementation on procurement performance of Kenya National Highway Authority, to establish the challenges facing the implementation of procurement laws by Kenya National Highway Authority. The study used a desk study review methodology where relevant empirical literature was reviewed to identify main themes. The study results indicated positive relationship between procurement law implementation and procurement performance. The study concluded that, Procurement policy implementation has a positive influence on performance of procurement function. The study recommended that Kenya National Highway Authority should appoint a procurement oversight committee to oversee implementation of the procurement law and government policies on procurement.

Muange and Chirchir (2016) researched on procurement legislation and performance of constituency development fund committees in Kenya. The study employed descriptive survey design. The population of the study was all the 290 constituencies and a census was conducted in the study. The study used primary data which was collected through use of a questionnaire. A five point likert scale questionnaire was used. Also a Yes or No structured questionnaire was also administered. The data collected was analyzed using descriptive statistics inferential statistics. The descriptive technique was used to generate frequencies, mean and percentages while inferential statistics were generated the fitness of the model and regression of coefficients. The findings concluded that the procurement performance affected procurement legislation and procurement performance of constituency development fund (CDF) committees in Kenya. Effects of Procurement Legislation on procurement performance were found to be statistically significant with a positive impact on the importance of procurement performance. Results also indicate that Procurement management had positive and significant effect on procurement performance.

Ngari (2016) researched on effects of public procurement and disposal act on procurement in parastatals in Kenya. The study adopted a cross sectional descriptive research design. For the purposes of this study, the population of interest was all parastatals in Kenya based in the Nairobi County. The study adopted proportionate stratified Sampling design. Primary data was collected for the purpose of this study. It was collected using interviewer administered questionnaires. The questionnaires were piloted with three subject experts before final administration. The filled questionnaires was inspected for completeness and edited. The study targeted a sample of 30 respondents out of which 22 respondents filled in and returned the questionnaire giving a response rate of 73%. The study concluded that that PPDA improved the competitiveness of the procurement processes among parastatals. In addition PPDA improved the quality of services and goods delivered, and finally it promoted ethical standards among Parastatals in procurement. On the challenges of PPDA, the study concluded that corrupt officers, unresponsive bids ignorance of the PPDA guidelines, inefficiency of the PPOA on enforcing the penalties to the offenders and lack of organizational incentives & pressures for Public procurement guidelines implementation were to a great extent challenges.

RESEARCH METHODOLOGY

A research design is a plan for gathering, measuring, and analyzing data to find answers to research questions (Cooper & Schindler, 2016). The research problem of the current study was studied through use of cross-sectional survey research design. Cross sectional surveys are versatile in nature and therefore give accurate means of evaluating information while enabling the researcher to confirm whether there are significant causalities among the variables (Harlow, 2014). Research philosophy is the foundation of knowledge, and the nature of that knowledge contains essential assumptions about how researchers view the world (Saunders, Lewis, & Thornhill, 2017). The

current study was anchored on the positivism paradigm because it is highly structured in methodology which enables generalization of quantifiable observations and evaluation of results with the help of statistical methods. Further, the study was theory based and conceptual framework guiding the study was developed from existing literature and appropriate hypothesis formulated. The formulated hypotheses were tested through statistical analysis leading to accepting or rejecting hypotheses.

The target population for the research was all on-going construction projects whose completion date was not earlier than December of 2023 by the three agencies in Kenya which are Kenya National Highway Authority (KeNHA), Kenya Rural Roads Authority (KeRRA) and Kenya Urban Roads (KURA). The study mainly focused on contractors of the projects as they play a critical role in providing the requisite data and information for the finalization of the research. Contractors were selected because they are well versed with the management of road projects in Kenya and more particularly in the three road agencies in Kenya. Therefore, the target population for this study was 255 on-going projects by the national government. Using Nassiuma (2000) formula, the sample size for the study was 127 projects. Sampling is used when it is not possible to include the whole population in a study (Cooper & Schindler, 2017). Stratified random sampling is the technique was used in selecting the sample for this study. The data for this study was collected using both closed-ended and open-ended questions. According to Lancaster, Dodd, and Williamson (2019), the sample size for high precision pilot studies should be between 1% and 10%. Twelve projects from the three road authorities were given questionnaire for pilot testing.

The Statistical Package for Social Sciences (SPSS) version 25 software was used to analyze the data. The research used descriptive analysis. Pearson correlation coefficient was used for testing associations between the independent and the dependent variables. A regression model was used to test the significance of the influence of the independent variables on the dependent variable

RESEARCH FINDINGS AND DISCUSSION

A total of 127 were selected as the sample for this study. The returned questionnaires were verified for accuracy and completeness, and 113 were found to be valid and reliable, and suitable for further analysis and reporting. The response rate for the study was 89.0%, which is considered excellent according to Sekaran and Bougie's (2016) criteria. They suggest that a response rate of 50% or above is adequate, 60% or above is good, and 70% or above is excellent for analysis. Therefore, the response rate of 89% is excellent and provides a solid foundation for further analysis and reporting

Descriptive Analysis of Study Variables

Post-Contract Relationship Management

The second objective of the study was to establish the effect of post-contract relationship management on performance of national government road projects in Kenya. Respondents were therefore requested to indicate their level of agreement with statements to establish the impact of post-contract relationship management on performance of national government road construction projects in Kenya. Table 1 presents summary of the findings obtained.

Based on the findings, respondents agreed on trust statements that they have developed effective working relationships with their suppliers ($M= 3.963$, $SD= 0.766$); that they have developed effective working relationships with their contractors ensuring effective delivery of projects ($M= 3.823$, $SD= 0.617$); and that public trust in their organization is improved by sharing common values or peer recommendations ($M= 3.67$, $SD= 0.229$). Regarding commitment, respondents agreed on average that they are committed to serve the public and deliver road projects for the

people (M= 3.935, SD= 0.969); that commitment affect public's level of satisfaction in the organization (M= 3.916, SD= 0.291); and that commitment affects timely completion of road projects (M= 3.712, SD= 0.748). Furthermore, on mutual process, respondents agreed on average that contract information affect procurement cycle time in the organization (M= 3.936, SD=0.563); that contract participation affects quality of projects (M= 3.684, SD= 0.427); and that they have a binding contract with their suppliers and contractors to cover any contingency (M= 3.759, SD= 0.708).

Based on the findings above and an aggregate mean of 3.822 (SD= 0.591) respondents agreed that post-contract relationship management affects performance of national government road projects in Kenya. There are several studies that have emphasized the importance of effective post-contract relationship management in ensuring project success which agrees with present study findings. For example, a study by Kumaraswamy and Chan (2018) found that effective post-contract relationship management is crucial for ensuring that construction projects are completed on time, within budget, and to the required quality standards. Similarly, a study by Kaming et al. (2017) identified post-contract relationship management as a critical factor in project success, and highlighted the need for regular communication between clients and contractors. Another study by Abdelgawad et al. (2019) on the factors affecting project success in the construction industry in Egypt found that effective post-contract relationship management was one of the key factors influencing project success. The authors emphasized the importance of developing strong and collaborative relationships between clients and contractors to ensure project success.

The findings of the current study suggest that post-contract relationship management is also a critical factor in the success of national government road projects in Kenya. Effective communication and collaboration between clients and contractors can lead to improved project outcomes, including better adherence to project timelines, budgets, and quality standards.

Table 1: Descriptive statistics on Post-Contract Relationship Management

Statements.	Mean	Std. Dev.
Public trust in our organization is improved by sharing common values or peer recommendations	3.67	0.229
We have developed effective working relationships with our contractors ensuring effective delivery of projects	3.823	0.617
We have developed effective working relationships with our suppliers	3.963	0.766
Commitment affect public's level of satisfaction in the organization	3.916	0.291
Commitment affects timely completion of road projects	3.712	0.748
We are committed to serve the public and deliver road projects for the people	3.935	0.969
We have a binding contract with our suppliers and contractors to cover any contingency	3.759	0.708
Contract information affect procurement cycle time in the organization	3.936	0.563
Contract participation affects quality of projects	3.684	0.427
Aggregate score	3.822	0.591

Respondents were also asked to indicate other ways they think post-contract relationship management affect performance in the road construction industry in Kenya. They explained that post-contract relationship management can foster improved collaboration between clients and contractors, enabling them to work together more effectively towards achieving project goals. This can lead to improved project outcomes, including better adherence to project timelines, budgets, and quality standards. Also, developing strong and collaborative relationships between clients and

contractors through effective post-contract relationship management can help build trust between the parties. This can help to reduce the likelihood of disputes and conflicts arising during the project, and can contribute to a more positive working environment.

Further, effective post-contract relationship management can help identify and manage risks throughout the project lifecycle, allowing for timely interventions to address potential issues before they become major problems. Also, post-contract relationship management can help to ensure that appropriate project governance structures are in place, and that all parties involved in the project are aligned with project objectives and working towards a common goal. It can also contribute to improved project outcomes, including higher quality deliverables, better value for money, and greater client satisfaction.

Regulatory Framework

The second objective of the study was to establish the moderating effect of Regulatory Framework on the relationship between post-award contract relationship management and performance of national government road projects in Kenya. Respondents were therefore requested to indicate their level of agreement with statements on Regulatory Framework on performance of national government road construction projects in Kenya. Table 2 presents summary of findings obtained. Based on the findings, respondents agreed on average that accountability is ensured through Regulatory Framework (M= 4.005, SD= 0.833); that Regulatory Framework provides institutional framework that arranges for carrying out public procurement (M= 3.958, SD= 0.358); and that Regulatory Framework provides framework of implementation and management of all steps in procurement cycle (M= 3.912, SD= 0.876). They also agreed that Regulatory Framework provides framework of administration of procurement contracts (M= 3.883, SD= 0.461); and that Regulatory Framework provides framework of item judgment and application of discretion to procurement decision such as e-procurement (M= 3.622, SD= 0.657). Furthermore, they agreed that Regulatory Framework provide required procurement document, records management (M= 3.616, SD= 0.965); that procurement regulation allows fairness in procurement which bring to public light mistakes and errors that affect contract management (M= 3.609, SD= 0.813); and that procurement regulation provides guidelines to ensure transparency in government projects (M= 3.6, SD= 0.273).

The findings above also supported by an aggregate mean of 3.776 (SD= 0.655) show that Regulatory Framework affect performance of national government road construction projects in Kenya. The finding is consistent with the literature on public procurement and project management. For example, research by Manley et al., (2018) has shown that Regulatory Framework can have a significant impact on project outcomes, including cost, quality, and delivery time. Effective Regulatory Framework can help to ensure transparency, fairness, and accountability in the procurement process, which can in turn promote competition and improve the quality of the bids received (OECD, 2017). In addition, Regulatory Framework can help to ensure that the procurement process is efficient and effective, reducing the risk of delays, cost overruns, and other performance issues. However, inadequate Regulatory Framework or poor implementation can lead to negative outcomes, including corruption, favoritism, and substandard quality (Manley et al., 2018). Therefore, effective Regulatory Framework are a critical component of project success in the road construction industry in Kenya, and can impact performance in a range of ways. By ensuring transparency, fairness, and accountability in the procurement process, Regulatory Framework can help to promote competition and improve the quality of bids received, leading to better project outcomes.

Table 2: Descriptive statistics on Regulatory Framework

Statements	Mean	Std. Dev.
Accountability is ensured through Regulatory Framework	4.005	0.833
Regulatory Framework provides institutional framework that arranges for carrying out public procurement	3.958	0.358
Regulatory Framework provides framework of implementation and management of all steps in procurement cycle	3.912	0.876
Regulatory Framework provides framework of administration of procurement contracts	3.883	0.461
Regulatory Framework provides framework of item judgment and application of discretion to procurement decision such as e-procurement	3.622	0.657
Regulatory Framework provides required procurement document, records management	3.616	0.965
Procurement regulation allows fairness in procurement which bring to public light mistakes and errors that affect contract management	3.609	0.813
Procurement regulation provides guidelines to ensure transparency in government projects	3.6	0.273
Aggregate Score	3.776	0.655

Correlation Analysis

The results revealed a significant positive correlation between post-contract relationship management and project performance ($r = 0.767$, $p < 0.05$). This finding is in line with research emphasizing the significance of strong post-contract relationship management in achieving favorable project outcomes (Jones, Bejou, & Keeling, 2015). Effective relationship management practices foster cooperation, trust, and effective communication between project stakeholders, leading to improved project performance. The significant correlation between post-contract relationship management and project performance highlights the importance of establishing and maintaining strong relationships with project partners.

Table 3: Correlation Analysis

		Project Performance	Post-contract relationship management
Project Performance	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	113	
Post-contract relationship management	Pearson Correlation	.767**	1
	Sig. (2-tailed)	.000	
	N	113	113

Test of Hypotheses

Test for Hypothesis One

The first specific objective of the study was to establish the effect of post-contract relationship management on performance of national government road projects in Kenya. The associated null hypothesis was Post-contract relationship management has no significant effect performance of national government road projects in Kenya.

To test the first hypothesis, the study conducted univariate regression analysis to examine the effect of post-contract relationship management on the performance of national government road projects in Kenya. The model summary results in Table 4 indicate that the R-squared value is 0.585, suggesting that approximately 58.5% of the variation in project performance can be explained by

changes in post-contract relationship management. The adjusted R-squared value is 0.582, indicating that this relationship holds even after controlling for other factors. The remaining 41.5% suggest that there are other factors other than post-contract relationship management that can be used to explain performance of national government road projects in Kenya.

Table 4: Model Summary for Post-Contract Relationship Management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.765 ^a	.585	.582	.54645

a. Predictors: (Constant), Post-contract relationship management

To test the significance of the model, analysis of variance was computed. The analysis of variance (ANOVA) results in Table 5 reveals that the regression model is statistically significant. The Prob>F value of 0.000 is less than the significance level of 0.05, indicating that the model is a good fit for predicting the performance of national government road projects in Kenya. Furthermore, the F-calculated value of 156.641 is greater than the F-critical value of 3.927, providing additional support for the significance of post-contract relationship management in predicting project performance.

Table 5: ANOVA for Post-Contract Relationship Management

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	46.774	1	46.774	156.641	.000 ^b
1 Residual	33.145	111	.299		
Total	79.919	112			

a. Dependent Variable: Project Performance
b. Predictors: (Constant), Post-contract relationship management

From the results in Table 6, the following regression model was fitted.

$$Y = 0.770 + 0.782 X_2$$

(X_1 is Post-contract relationship management)

The beta coefficient results in Table 6 demonstrate that post-contract relationship management has a significant positive effect on project performance. The unstandardized coefficient (B) for post-contract relationship management is 0.782, indicating a strong positive relationship. It was also noted that the P-value for post-contract relationship management was 0.000 which is less than the set 0.05 significance level indicating that post-contract relationship management was significant.

Based on these findings, the null hypothesis (H_{01}) that post-contract relationship management has no significant effect on performance of national government road projects in Kenya is rejected. The study provides evidence supporting the alternative hypothesis, indicating that post-contract relationship management has a positive and significant effect on performance of national government road projects in Kenya. These findings are consistent with research by Liu et al. (2017) emphasized the importance of robust relationship management practices in enhancing project performance. Additionally, Osei-Kyei and Chan (2015) highlighted the significance of effective relationship management in achieving success in public-private partnership projects. The findings also align with the broader literature on project management, which recognizes the importance of relationship management in driving positive project outcomes (Chinyio & Olomolaiye, 2019).

Table 6: Beta Coefficients for Post-Contract Relationship Management

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.770	.239		3.224	.002
1 Post-contract relationship management	.782	.062	.765	12.516	.000

a. Dependent Variable: Project Performance

Test for Hypothesis Two

The fifth objective of the study was to establish the moderating effect of Regulatory Framework on the relationship between post-award contract relationship management and the performance of national government road projects in Kenya. The null hypothesis (H_{02}) states that Regulatory Framework has no significant moderating effect on the relationship between post-award contract relationship management and performance of national government road projects in Kenya.

To test this hypothesis, the study conducted regression analysis, including post-award contract relationship management as the independent variable, performance of national government road projects as the dependent variable, and Regulatory Framework as the moderating variable. The model summary results in Table 4.30 show that the R-squared value for the first model (without the moderating variable) is 0.684, indicating that approximately 68.4% of the variation in project performance can be explained by changes in post-award contract relationship management. The adjusted R-squared value is 0.681, suggesting a good fit even after controlling for other factors.

The findings in the second model included both post-award contract relationship management and Regulatory Framework as predictors, along with their interaction term. The R-squared value for this model increased to 0.875, indicating that the introduction of Regulatory Framework as a moderating variable led to a 19.2% increase in the amount of variation explained by the model. This suggests that Regulatory Framework positively moderate the relationship between post-award contract relationship management and project performance.

Table 7: Model Summary for Moderation Effect

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.827 ^a	.684	.681	.47714	.684	240.038	1	111	.000
2	.936 ^b	.875	.873	.30077	.192	169.359	1	110	.000

a. Predictors: (Constant), Post-award contract relationship management

b. Predictors: (Constant), Post-award contract relationship management, Regulatory Framework

The analysis of variance (ANOVA) results in Table 8 revealed that the second model, which includes both post-award contract relationship management and Regulatory Framework as predictors, the R-squared value increases to 0.875, indicating that the addition of the moderating variable improves the explanation of project performance. The F-calculated value of 256.702 is highly significant (sig. = 0.000), supporting the finding that Regulatory Framework have a moderating effect on the relationship between post-award contract relationship management and project performance.

Table 8: ANOVA for Moderation Effect

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.648	1	54.648	240.038	.000 ^b
	Residual	25.271	111	.228		
	Total	79.919	112			
2	Regression	70.010	3	23.337	256.702	.000 ^c
	Residual	9.909	109	.091		
	Total	79.919	112			

a. Dependent Variable: Project Performance

b. Predictors: (Constant), Post-award contract relationship management

c. Predictors: (Constant), Post-award contract relationship management, Regulatory Framework , Interaction

Further, by substituting the beta values as well as the constant term from model 2 emanating from the second step in regression modelling the following regression model was fitted:

$$Y = 0.413 + 0.360 X + 0.581 M + 0.653 X * M$$

Where X is post-award contract relationship management; M is Regulatory Framework and X*M is the interaction term between post-award contract relationship management and Regulatory Framework .

The findings show that when post-award contract relationship management, Regulatory Framework and the interaction term (X*M) are held to a constant zero, performance of national government road projects in Kenya will be at a constant value of 0.431. On the other hand, interaction of post-award contract relationship management and Regulatory Framework (X*M) also had a positive and significant effect on performance of national government road projects in Kenya as shown by a regression coefficient of 0.653 (p-value= 0.000).

Based on these findings, the null hypothesis (**H₀₂**) that Regulatory Framework have no significant moderating effect on the relationship between post-award contract relationship management and the performance of national government road projects in Kenya is rejected. The study provides evidence supporting the alternative hypothesis, indicating that Regulatory Framework do have a positive significant moderating effect on this relationship between post-award contract relationship management and performance of national government road projects in Kenya.

The study's findings align with Johnson et al. (2019) investigated the impact of Regulatory Framework on infrastructure projects in developing countries. They found that well-designed and properly enforced regulations enhance the efficiency and effectiveness of contract relationship management processes, resulting in better project outcomes. Their findings suggested that Regulatory Framework act as a moderating factor in the relationship between contract relationship management and project performance.

Table 9: Beta Coefficients for Moderation Effect

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.206	.099		2.081	.031
	Post-award contract relationship management	.916	.059	.827	15.493	.000
2	(Constant)	.431	.121		3.580	.001
	Post-award contract relationship management	.360	.057	.325	6.339	.000
	Regulatory Framework	.581	.045	.666	13.014	.000
	Interaction (X*M)	.653	.115	.749	5.660	.000

a. Dependent Variable: Project Performance

Conclusions

The findings of this study demonstrated that post-contract relationship management exerts a statistically significant influence on the performance of national government road projects in Kenya. This implies that fostering strong working relationships and trust with suppliers and contractors has a positive impact on project outcomes. Therefore, the null hypothesis H_{02} , which proposed no effect of post-contract relationship management on performance, was rejected. The study concludes that emphasizing effective post-contract relationship management is essential for improving the performance of national government road projects in Kenya.

The study's findings revealed a significant moderating effect of the regulatory framework on the relationship between post-award contract relationship management and the performance of national government road projects in Kenya. This suggests that as regulatory frameworks improve, the influence of post-award contract relationship management on project performance becomes more pronounced. Consequently, we reject the null hypothesis H_{02} , which posited that regulatory framework has no moderating influence. The study concludes that as regulatory framework is crucial, it does significantly alter the relationship between post-award contract relationship management and project performance in the context of national government road projects in Kenya.

Recommendations

National government agencies overseeing road projects should recognize the importance of strong and collaborative relationships with contractors and suppliers. To improve project performance, these agencies should foster an environment of trust and cooperation through effective communication and conflict resolution mechanisms. Encouraging open dialogue and the sharing of ideas can lead to innovative solutions and better project outcomes. Additionally, agencies should consider establishing long-term partnerships with contractors who consistently demonstrate a commitment to quality and timely project delivery.

Since the regulatory framework was found to have significant moderating influence on the relationship between post-award contract relationship management and project performance, it remains a critical aspect of project governance. National government agencies should continually assess and update the regulatory framework to align with best practices and industry standards. Moreover, they should strive to streamline and simplify regulatory processes to reduce bureaucratic hurdles that may hinder project progress. Effective collaboration between regulatory authorities and project management teams can help ensure that projects are conducted in compliance with all relevant laws and regulations.

Recommendations for Further Studies

While this study explained a significant portion of performance variation, a portion remained unexplained. Future research should focus on identifying additional factors that contribute to this unexplained variance. This could involve investigating external market dynamics, economic conditions, or firm-specific attributes that might play a role in performance outcomes. Future studies should explore the possibility of conducting comparative analyses among the three national government road agencies under investigation. These comparative studies can offer valuable insights into the patterns, disparities, and contextual factors that contribute to variations in performance across these distinct agencies. Furthermore, such research may help elucidate whether specific strategies or drivers exhibit varying levels of effectiveness within the unique contexts of these agencies.

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