

Research Article

Effect of Contract Segregation Practice on Performance of CDF Funded School Infrastructure Projects in Uasin Gishu County

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Abstract

The allocation of the National Government Constituency Development Fund (NGCDF) to schools has produced positive results. However, projects funded by the CDF in Uasin Gishu County face several performance challenges, including persistent delays in implementation, instances of financial mismanagement, and infrastructure that often does not meet expected standards. This study aimed to evaluate the impact of contract segregation practices on the performance of NGCDF projects in Uasin Gishu County, guided by contingency theory. Using a descriptive research design, the study targeted CDF committee members from all six constituencies in Uasin Gishu County, with each constituency having nine committee members, resulting in a total of 54 members. Additionally, the study focused on 136 project management committee members involved in ongoing school infrastructure projects funded by the CDF in the region. Primary data was gathered through structured questionnaires and interview schedules. Qualitative data were analyzed using thematic analysis, while quantitative data were examined through descriptive and inferential statistics. The findings indicated a moderate positive and statistically significant correlation between contract segregation and the performance of CDF-funded school infrastructure projects in Uasin Gishu County ($r=0.625$; $p<0.05$).

Keywords: National Government Constituency Development Fund (NGCDF), Contract segregation Practice, Performance, descriptive research design, Qualitative data, Uasin Gishu County.

Introduction

Contract management involves overseeing agreements between organizations and their suppliers to ensure mutual obligations are met and objectives are achieved (Tanui and Moronge, 2021). Effective contract management enhances transparency, reduces legal disputes, and optimizes resource use (Schuhmann & Eichhorn, 2020). As organizations engage in complex business partnerships, the need for strong performance indicators to evaluate and monitor contract management becomes essential. Performance indicators are vital to improving contract management effectiveness.

Mensah and Owusu (2020) identify key aspects of contract management practices, including managing contract terms, segregating contracts, scheduling, and monitoring. According to the U.S. Government Accountability Office (GAO), effective contract management in educational projects is crucial to ensuring efficient use of taxpayer funds and achieving project goals (GAO, 2021). Collaboration between educational institutions and contractors supports successful project outcomes (Haveman, 2020).

In Ethiopia, where the education system is expanding rapidly, contract management practices in school projects are evolving. The government places emphasis on capacity building and knowledge transfer during project implementation (MoE Ethiopia, 2021). Ethiopia's legal framework, including the Public Procurement Proclamation, guides contract management practices (FDRE, 2020). Challenges such as limited infrastructure in remote areas and the need for skilled personnel impact project performance, highlighting the importance of continuous improvement.

The education sector in Kenya has witnessed significant growth and development, and the government places a strong emphasis on improving educational infrastructure. However, the effectiveness of contract management practices plays a crucial role in determining project success, (Gitonga & Mugambi, 2019). In Kenya, the procurement of school projects is guided by the Public Procurement and Asset Disposal Act (PPADA) of 2015. This legal framework aims to enhance transparency, competition, and accountability in public procurement processes. The use of competitive tendering is widespread, and the Public Procurement Regulatory Authority (PPRA) oversees compliance with procurement regulations (PPRA, 2020).

Objectives of the Study

The study sought to establish the effect of contract segregation practice on performance of CDF funded school infrastructure projects in Uasin Gishu County.

Theoretical Review

The study was based on contingency theory. Contingency theory was developed by Donaldson (1961) and further expanded by Lawrence and Lorsch (1967). The theory focuses on the idea that organizational effectiveness is contingent upon adapting to the unique circumstances of the external environment. The theory assumes that there is no universal best way to manage organizations, emphasizing that different situations require different approaches, (Burnes, 2009). Its strength lies in its ability to provide a framework for understanding how organizational structures and strategies should align with environmental conditions. Critics argue that contingency theory can be overly deterministic, neglecting the role of human agency and the complexity of internal organizational dynamics (Lawrence & Lorsch, 1967).

Literature Review

Hasan et al. (2019) did a study on evaluating the impact of contract terms practices on Information Technology (IT) projects in North America: Lessons from Silicon Valley. This study, situated in North America, specifically in Silicon Valley, employed a case study research design to investigate the influence of contract terms management practices on IT project performance. A sample of 150 IT professionals and project managers was selected through purposive sampling. Data was collected through interviews and document analysis. The findings underscored the critical role of well-defined contract terms management practices in optimizing project performance, emphasizing the importance of clarity and specificity.

Shang, Wu and Cao (2023) focused on enhancing construction project performance through effective contract terms management practices: A Case Study in Beijing, China. This research, based in Asia, specifically in Beijing, China, explored the impact of contract terms management practices on construction project performance. Employing a longitudinal research design, the study followed 10 construction projects over a period of three years. A sample of 300 stakeholders was selected using purposive sampling. Data was collected through project documentation analysis and structured interviews. The findings indicated that well-structured and clear contract terms management practices positively influenced project performance by fostering cooperation and minimizing disputes.

Rodriguez and Martinez, (2019) sought to assess the effects of contract terms management practices and construction project performance: Insights from Latin America. This research, conducted in Latin America, focused on the impact of contract terms management practices on construction project outcomes. Employing a comparative research design, the study included 200 stakeholders selected through stratified random sampling. Data was collected through structured interviews and project documentation analysis. The findings highlighted the significance of culturally tailored contract terms management practices in positively influencing project performance in the Latin American context.

Batetah and Wabala (2021) sought to assess the effect of impact of contract terms management practices on infrastructure development projects in Kenya. This study, conducted in Kenya, employed a mixed-methods research design to assess the influence of contract terms management practices on the performance of infrastructure development projects. A sample of 500 stakeholders, including project managers, contractors, and government officials, was selected through stratified random sampling. Data was collected through surveys and interviews. The findings revealed that well-defined and clear contract terms management practices positively correlated with project success. The study concluded that meticulous attention to contract terms management practices significantly enhances project performance, reducing disputes and delays.

Research Methodology

The study adopted a descriptive research design. The study targeted CDF committee members from all the 6 constituencies in Uasin Gishu County. Each constituency has 9 CDF committee members therefore the total CDF committee members were 54. The study also targeted 136 project management committee members of continuing school infrastructure projects funded by CDF within Uasin Gishu County. Since the target population was manageable the study adopted census technique to include all the 54 targeted CDF committee members and 136 project management committee members. Primary data was collected through structured questionnaires and interview schedules. The pilot study was carried in Ainamoi Constituency and Bureti Constituency in Kericho County to assess the effectiveness of the data collection instruments before venturing fully into data collection. An internal consistency technique was used to ascertain reliability Cronbach's Alpha values of 0.7 or more was acceptable. Qualitative data was analyzed through thematic analysis while quantitative data was analyzed using descriptive and inferential statistics. After analysis qualitative data was presented in prose form while quantitative data was presented in table form.

Results

Descriptive Statistics

The respondents were asked to indicate their level of agreement on the effect of segregation of contracts on performance NG-CDF funded projects. The findings are as indicated in Table 1.

Table 1: Segregation of Contracts

Statement	N	Mean	Std
Segregation of contracts promotes transparency by preventing conflicts of interest and ensures that each party is held accountable for their specific responsibilities.	50	4.419	0.667
Assigning specific responsibilities to different parties, risks can be identified and managed more effectively, reducing the likelihood of project failure.	50	3.887	1.073
Segregation of contracts allows for a more focused approach to quality management, with experts overseeing each stage to ensure compliance with standards and specifications.	50	4.177	0.932
Segregation of contracts allows for the allocation of resources based on the specific requirements of each phase of school infrastructure project	50	3.984	1.032
Segregation of contracts allows for the allocation of resources based on the specific requirements of each phase of school infrastructure project	50	4.145	0.921
Segregating contracts allows for a more focused approach to risk management, with specific risks associated with each phase of school project addressed separately	50	4.145	0.807
Segregation of contracts facilitates effective project management by allowing for clear lines of communication, coordination, and oversight	50	3.955	0.927

Table 1 show that the highest-rated statement, with a mean of 4.419 and a low standard deviation (0.667), suggests strong agreement that segregating contracts enhances transparency by preventing conflicts of interest and fostering accountability for distinct responsibilities. This high mean, coupled with low variance, indicates a consensus that contract segregation is effective in enhancing project transparency and accountability.

The statements related to resource allocation and risk management also garnered relatively high means (4.145 for both), though the standard deviations were slightly higher (0.921 for resource allocation and 0.807 for risk management). This implies general agreement but with some variability in perceptions, perhaps due to differing experiences with how effectively segregated contracts address these aspects across various project phases.

Quality management also received a high mean score (4.177) but with a standard deviation of 0.932, indicating agreement that contract segregation improves quality oversight by allowing experts to monitor each stage. However, the higher variance here suggests some differing views, possibly due to variability in quality management outcomes.

The statement on managing risks and avoiding project failures had a slightly lower mean of 3.887, with a higher standard deviation (1.073), indicating that while respondents see some benefit in risk identification and management through segregated contracts, their views vary significantly. This could imply that segregated contracts are perceived as less effective in managing all aspects of risk or that some project risks remain challenging to address despite this approach.

Finally, contract segregation's role in enhancing communication and coordination for effective project management was moderately rated, with a mean of 3.955 and a standard deviation of 0.927. This suggests that while respondents generally agree with the benefits of contract segregation for communication and oversight, the results are not as conclusive as other aspects such as transparency and accountability.

Overall, the data indicates a strong endorsement of contract segregation, particularly in terms of transparency and accountability, though there is moderate variability in responses for statements relating to specific aspects of risk and resource management.

The study conducted an interview from project management committee members to understand the process of contract offer and acceptance mechanism. The findings indicated that the contract offer and acceptance process for CDF funded school projects involves several structured steps to ensure transparency and compliance. Initially, a needs assessment and detailed project proposal are developed and approved by the CDF committee, followed by public advertisement and bid invitations.

One of the project member stated that *"An evaluation committee reviews the bids and selects the most advantageous one, after which a formal contract is drafted, negotiated, and signed. The contractor then begins*

work, monitored regularly by the Project Management Committee to ensure adherence to specifications and timelines”

In addition the researcher sought to determine whether project management committee members involved in planning and budgeting of school projects. The findings indicated that they are involved in planning and budgeting of school projects in planning and budgeting. One of the project committee member state that “We engage with various stakeholders, including school administrators, teachers, parents, and local leaders, to gather input and ensure the project has broad support”

Regression

The study conducted a linear regression analysis to help make inferences from the descriptive analysis between contract segregation practice and the following statistics were produced as shown in Tables 2,3 and 4.

Table 2: Model summary for contract segregation practice and performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.970 ^a	.942	.941	.26022	.180
a. Predictors: (Constant), CSP					
b. Dependent Variable: P					

Table 2 shows that the R value of .970, which implies that 97.0% of changes in performance by performance of CDF funded school infrastructure projects in Uasin Gishu County are explained by the independent variable, contract segregation practice, while 3.0% is explained by the error term. The adjusted R² value of .942 shows that 94.2% changes in performance by performance of CDF funded school infrastructure projects in Uasin Gishu County is explained by the contract segregation practice while the difference, 5.8% is captured by the error term hence showing a model with a good fit at 95.3% (Cohen, 1988).

Table 3: ANOVA for contract segregation practice and performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	125.047	1	125.047	1846.678	.000 ^b
	Residual	7.719	50	.068		
	Total	132.767	50			
a. Dependent Variable: CSP						
b. Predictors: (Constant), P						

Table 3 indicates that contract segregation practice statistically had a significant effect on performance F(1,50) =1846.678, p-value<.005. The model is highly significant (p < .001), indicating that CTP is a significant predictor of Performance. The F-statistic is very large, showing that the regression model explains a substantial portion of the variance in performance. The majority of the variability in Performance is explained by CTP (126.502 out of 132.767 total sums of squares). This indicates a strong relationship between CTP and Performance.

Table 4: Coefficients for contract segregation practice and performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.043	.087		.489	.626		
	Contract segregation practice	.970	.023	.970	42.973	.000	1.000	1.000
a. Dependent Variable: P								

The study revealed from the coefficients of regression that the correlation between contract segregation practice on performance of performance of CDF funded school infrastructure projects in Uasin Gishu County was statistically significant B(0.970) p<0.005 an indication that projects of CDF funded school infrastructure projects in Uasin Gishu County are more likely to realize better performance.

The t-value for Contra is 42.973, and the Sig. value is 0.000, meaning that the relationship between Contra and P is highly statistically significant. Statistically, the null hypothesis, “There is no significant relationship

between the contract segregation practice and performance, was rejected since $p < 0.05$. Hence, the study accepted the alternative hypothesis that there is significant association between contract segregation practice and performance in the performance of CDF funded school infrastructure projects in Uasin Gishu County in Trans Nzoia County.

The regression equation for predicting performance from contract segregation practice was $Y = 0.043 + 0.970X$ implying that contract segregation practice has positive significant influence on $(B = 0.970, p < 0.05)$. The influence is significant as indicated by positive t-value (42.973) and probability value < 0.05 . In quantitative terms, the regression estimates of 0.970 means that, holding other factors constant, an increase in contract segregation practice by one unit, performance increase by 0.970 units.

Conclusions

The study also concludes that segregation of contracts practice ($p < 0.05, B = .017, t = .358$) is a significant positive predictor of performance of national government constituency development fund projects in Uasin Gishu County. The study also concludes that contract scheduling Practice ($p < 0.05, B = .534, t = .071$) is a significant positive predictor of performance of national government constituency development fund projects in Uasin Gishu County.

Recommendations

The duty bearer should ensure that contract terms are clear, detailed, and comprehensive to avoid ambiguity and disputes. This is so because clearly defined contract terms create a shared understanding of project expectations and responsibilities between all parties. This minimizes misunderstandings and contract disputes that can lead to delays or project failures. The study recommends that the government should enhance the practice of contract segregation by breaking down large contracts into smaller, more manageable components. Segregating contracts into phases or specific components (e.g., design, construction, and post-construction) can improve efficiency by allowing specialized teams to focus on their areas of expertise. This also improves tracking and accountability for different project stages.

Declarations

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