



PROJECT MANAGEMENT PRACTICES AND SUCCESSFUL IMPLEMENTATION OF JUNIOR SECONDARY CLASSES CONSTRUCTION PROJECTS IN KENYA

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ABSTRACT

The proposed study investigated the relationship between project management practices and the successful execution of junior secondary school construction projects in Kenya. The significance of this research lies in its focus on the critical elements of project cost management and change management, and their impact on the success of construction projects. Identifying the effects of these project management practices is essential for policymakers, project managers, and other stakeholders involved in the implementation of construction projects in Kenya. Descriptive survey design was adopted for this study, targeting 32,594 primary schools in Kenya. This design is suitable because it allowed the researcher to gather precise information about the phenomena under investigation, describing the characteristics, opinions, attitudes, preferences, and perceptions of individuals relevant to the study. The study used a large sample size calculated using the sample size formula for large populations, and data was collected through questionnaires administered to relevant stakeholders. Both descriptive and inferential data analyses were performed using SPSS version 29 and MS Excel to facilitate the analysis. The conceptual framework draws on the Resource Dependence Theory and (RDT) and Change management theory, providing a robust theoretical background for the study. Overall, the proposed study promises to contribute to the existing literature on project management practices in Kenya and shed light on the critical factors influencing the successful implementation of construction projects. The study concludes that project cost management has a positive and significant influence on successful implementation of junior secondary classes' construction projects in Kenya. Further, the study concludes that change management has a positive and significant influence on successful implementation of junior secondary classes' construction projects in Kenya. Based on the findings, the study recommends that the management of construction projects in Kenya should adopt comprehensive and participatory budgeting during the planning phase. Engaging all relevant stakeholders ensures that cost estimates are realistic, inclusive, and account for potential risks.

Key Words: Project Management Practices, Project Cost Management, Change Management, Successful Implementation, Junior Secondary Classes Construction Projects

Background of the Study.

The field of project management has gained recognition for its role in enhancing project and successful implementation of junior secondary classes' construction projects in Kenya (Suk et al., 2017). While there is considerable research advocating the institutionalization of best practices in project management, the effective implementation of these practices, particularly in the public sector, remains challenging (Ajmal, Malik & Saber, 2017). Identifying practices contributing to successful project management is a persistent challenge, and the term "project success" is subject to diverse interpretations. Fernandes, Ward, and Arauj (2018) emphasize the need for guidance on key project management initiatives that organizations should prioritize.

Project management practices and methodologies are built around the unique organizational culture of each company and their approach to teamwork, problem-solving, and decision-making (Kerzner, 2018). Successful project implementation aligns with effective project management practices, which serve as tools to achieve business objectives and organizational goals (Wana, Ogola & Datche, 2019). Despite the growing knowledge in project management theory, there is still a need for full integration of project management practices (Ahadzie, Kissi & Adjei-Kumi, 2018). Institutionalizing project management practices is crucial for better project development, resource management within time, cost, and quality constraints, and ensuring strategic alignment with organizational goals (Besner & Hobbs, 2019).

In project management, there are ten essential practices or "knowledge areas" to be adopted, including time management, human resource management, cost management, scope management, communication management, stakeholder management, procurement management, change management, risk management, and integration management (PMI, 2019). This study specifically focused on the role of project communication, project risk, project scope, and project stakeholder management in enhancing the chances of project success. However, the adoption of best project management approaches is not without challenges, and organizations need to confirm the strategic alignment of projects with organizational goals before applying these practices (Ferreira et al., 2013; Fraz et al., 2016; Fitsilis & Chalatsis, 2014).

Project management has evolved over the years, with researchers and practitioners attempting to identify causes of project failure and factors leading to success (Akira & Simba, 2016). The one-time nature of projects poses challenges, making it difficult for organizations to transfer knowledge between projects and learn from past successes and failures (Desta et al., 2018). Project success depends on effective management, encompassing planning, implementation, cost and time control, and quality achievement (Alias et al., 2014). Ambiguity in the meaning of project success exists among practitioners, with varying definitions based on the triple constraints of time, cost, and quality, project objectives, organizational objectives, and social and environmental objectives (Kerzner, 2018; Asbjorn et al., 2014; Burgan & Burgan, 2018). Critical success factors (CSFs) are proposed as elements influencing the increased probability of project success (Muller & Jugdev, 2017).

In Canada and Britain, project management practices tend to fall somewhere in between these two extremes, balancing technical efficiency with interpersonal skills and collaboration (Chan et al., 2021; Lewis, 2011). For example, Canadian project managers may utilize a hybrid approach that combines traditional project management tools with agile methodologies and collaborative decision-making techniques (Chan et al., 2021). Similarly, British project managers may emphasize the importance of clear communication, stakeholder engagement, and adaptive leadership in order to successfully deliver complex projects (Lewis, 2011).

According to the Africa Construction Trends Report (Deloitte, 2020), project management practices in Africa are evolving rapidly, with a shift towards more integrated and sustainable approaches. Traditionally, project management in Africa has been dominated by a linear,

sequential approach focused on delivering projects on time and within budget (Ngowi, 2013). However, this approach has been criticized for failing to adequately consider local context and stakeholder needs (Morris & Pinto, 2004).

The rapid urbanization and infrastructure development in Kenya have created a high demand for effective project management practices. The construction sector, in particular, has seen substantial growth, accounting for approximately 6.7% of Kenya's gross domestic product (GDP) in 2020 (World Bank, 2021). To keep up with the pace of development, project managers in Kenya have had to adopt modern project management practices, including the use of advanced project management tools and techniques, agile methodologies, and lean construction principles. Furthermore, the increasing popularity of public-private partnerships (PPPs) in financing infrastructure projects has led to the adoption of internationally recognized project management standards, such as the Prince2 and PMI's Project Management Professional (PMP) certifications.

Statement of the Problem

The Kenyan government's ambitious initiative to implement the Competency-Based Curriculum (CBC) has necessitated the construction of junior secondary classrooms across the country. However, the successful implementation of these projects faces significant challenges, raising concerns about their effectiveness in achieving educational goals. Inadequate project management practices have been identified as a major hurdle in this endeavor. Weak planning and budgeting, as highlighted by Odhiambo and Irungu (2019), contribute to cost overruns, delays, and substandard construction.

Kenyan government's plan to transition primary school pupils to a 2-6-3-3-3 education system highlight critical issues related to project management practices (Odhiambo, 2019). The insufficient capacity and expertise in project management have resulted in poor planning, budgeting, supervision, and quality control, leading to cost overruns, delays, and compromised classroom durability and safety (Egbeke, 2017; Akintola & Oni, 2018; Assensoh, 2012).

Muriithi and Ng'ang'a (2020) argue that limited involvement of communities, school administrators, and teachers in the planning and execution stages can result in projects that do not meet the specific needs of the users. This lack of inclusivity may hinder the overall success of the construction projects. Kimenyi (2013) emphasizes that inefficient tendering processes, unclear contract terms, and inadequate oversight of contractors can lead to corruption, shoddy workmanship, and delays. These issues not only impact the quality of construction but also contribute to a lack of trust in the project delivery process.

Otieno and Ng'ang'a (2018) argue that the absence of robust mechanisms to track progress, identify problems, and implement corrective measures can hinder project success and limit accountability. The compromised quality of education, resulting from substandard classrooms with inadequate facilities (Anyia, 2016), creates a poor learning environment that hinders student achievement. Inefficient resource utilization, caused by wastage of funds due to cost overruns and delays, diverts resources from other critical educational needs (Kenya Institute for Curriculum Development, 2017). Additionally, the erosion of public trust, stemming from the failure to deliver on the promise of quality education infrastructure, can damage public confidence in government initiatives and CBC implementation (Transparency International Kenya, 2020).

In light of these challenges, this research aims to investigate the relationship between project management practices and the successful implementation of junior secondary class construction projects in Kenya. Moreover, the research explored the key challenges and constraints hindering effective project management in this context. By addressing these questions, the study seeks to identify best practices and innovative approaches that can be

adopted to improve project management and ensure the successful implementation of junior secondary classrooms construction projects (Transparency International Kenya, 2020).

Objectives of the Study

General Objective

The purpose of this study is to examine the relationship between project management practices and successful implementation of junior secondary classes' construction projects in Kenya

The study was guided by the following specific objectives:

- i. To determine the effect of project cost management on successful implementation of junior secondary classes' construction projects in Kenya
- ii. To evaluate the effect of change management on successful implementation of junior secondary classes' construction projects in Kenya

Theoretical Framework

Resource Dependence Theory (RDT)

Resource Dependence Theory (RDT) is a macro-level sociological theory that explains how organizations depend on resources outside of themselves to function and survive (Pfeffer & Salancik, 1978). Resources can include anything that is necessary for an organization to accomplish its objectives, such as personnel, materials, finances, and equipment. RDT suggests that an organization's ability to acquire and manage resources is critical to its success. If an organization cannot obtain the necessary resources, it may fail to achieve its goals or even cease to exist.

Cost management is a critical element of project management, as it pertains to the acquisition and allocation of resources. The Project Management Institute (PMI) defines cost management as the processes involved in estimating, budgeting, and controlling costs so that the project can be completed within the approved budget (PMI, 2017). Effective cost management ensures that resources are acquired and allocated efficiently, minimizing waste and maximizing value. Verma and Pulliam (2017) found that effective cost management increases the likelihood of project success, as it helps to prevent cost overruns and ensure that resources are used effectively.

In the context of junior secondary classes' construction projects in Kenya, cost management is particularly important. The construction industry is known for its high capital intensity, and projects often require significant expenditure on materials, labor, and equipment. Effective cost management ensures that resources are acquired and utilized efficiently, reducing waste and increasing the likelihood of project success. By carefully managing costs, project managers can ensure that resources are directed toward high-priority activities, maximizing the value derived from each dollar spent.

Resource Dependence Theory supports the hypothesis that effective project cost management positively affects the successful implementation of junior secondary classes' construction projects in Kenya. By effectively managing costs, project managers can ensure that resources are acquired and allocated efficiently, reducing waste and maximizing value. This, in turn, increases the likelihood of project success, ensuring that the constructed classrooms meet the needs of the students and communities they serve. Overall, cost management is a critical element of project management, and its effective implementation is essential for the successful implementation of junior secondary classes' construction projects in Kenya..

Change management theory

Change management theory is a widely studied area in organizational studies, which suggests that organizations need to manage change strategically to survive and thrive in today's dynamic business environment (Weick & Quinn, 1999). Change management refers to the process of

preparing, equipping, and supporting individuals to embrace and implement changes in an organization. In project management, change management is a critical process that involves managing project modifications effectively to ensure that the project stays on course and achieves its objectives (PMI, 2017).

Effective change management is essential for the successful implementation of any project, including junior secondary classes' construction projects in Kenya. Changes in project parameters, such as scope, time, or budget, can occur due to various reasons, including errors in initial estimates, unforeseen circumstances, or stakeholder demands. When changes occur, project managers need to assess their impact on the project, communicate them to relevant stakeholders, and manage them effectively to minimize disruptions and maintain project momentum. Failure to manage changes effectively can result in project delays, cost overruns, and decreased stakeholder satisfaction. Research has established a positive relationship between effective change management and project success (Kotter, 1996). Kotter (1996) identifies eight steps for managing change effectively, including creating a sense of urgency, forming a powerful coalition, creating a vision, communicating the vision, removing obstacles, creating short-term wins, consolidating gains, and anchoring new approaches in the culture. By following these steps, project managers can manage changes effectively, minimize disruptions, and increase the likelihood of project success.

Therefore, change management theory supports the hypothesis that effective change management positively affects the successful implementation of junior secondary classes' construction projects in Kenya. By managing changes effectively, project managers can minimize disruptions, maintain project momentum, and increase stakeholder satisfaction, thereby increasing the likelihood of project success. It is therefore essential for project managers to master the art of change management and apply it effectively to ensure the successful implementation of junior secondary classes' construction projects in Kenya.

Conceptual Framework

A conceptual frame work is defined as a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation (Kombo and Tromp, 2009). The conceptual framework is founded from the literature review, which depicts a linkage between project management practices and successful implementation of junior secondary classes' construction projects in Kenya.

Independent Variable

Dependent Variable

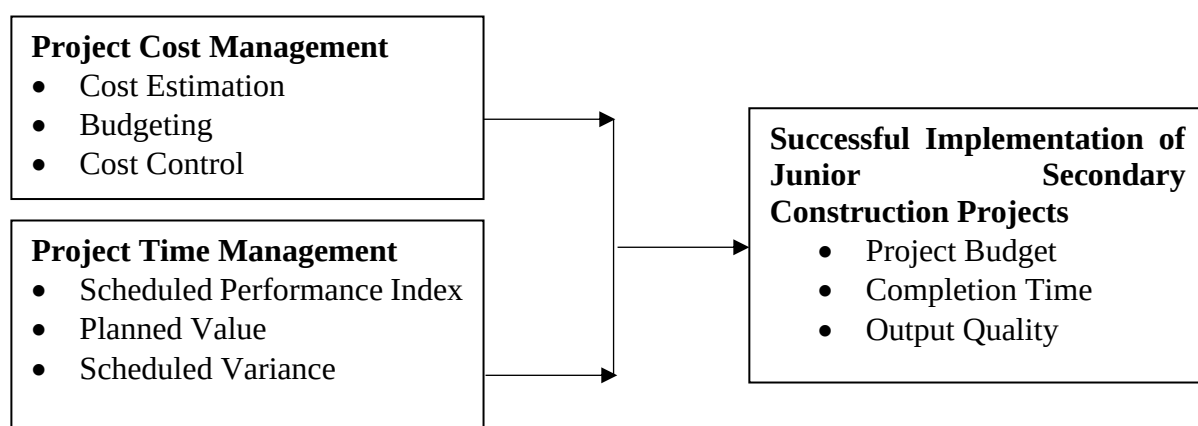


Figure 2. 1: Conceptual Framework

Project Cost Management

Project Cost Management is a fundamental aspect of project management, which entails the processes involved in estimating, budgeting, and controlling costs throughout the project

lifecycle (PMI, 2017). Effective cost management ensures that the project is delivered within the approved budget, avoiding unnecessary expenses and ensuring value for money. In the context of junior secondary classes' construction projects in Kenya, project cost management is critical for ensuring that the projects are completed within the allocated budget, thereby contributing to the success of the project.

Indicators of effective project cost management include accurate cost estimation, realistic budgeting, and effective cost control measures. Accurate cost estimation involves forecasting the total cost of the project, including direct and indirect costs, based on historical data, market trends, and other relevant factors. Realistic budgeting involves allocating sufficient resources to the project, considering the estimated costs and contingencies. Effective cost control measures involve monitoring actual costs against planned costs, identifying variances, and implementing corrective actions to keep the project within budget.

Effective project cost management is achieved through various project management practices, including earned value management, cost baseline development, and variance analysis. Earned value management is a project management technique that compares the physical progress of the project with the planned progress, enabling project managers to measure project successful implementation of junior secondary classes' construction projects in Kenya and identify variances (PMI, 2017). Cost baseline development involves establishing a cost baseline, which serves as a reference point for measuring cost successful implementation of junior secondary classes' construction projects in Kenya throughout the project. Variance analysis involves comparing actual costs with planned costs, identifying variances, and taking corrective action to keep the project within budget.

Research indicates that effective project cost management increases the likelihood of project success (Verma & Pulliam, 2017). According to Verma and Pulliam (2017), effective cost management practices, such as accurate cost estimation, realistic budgeting, and effective cost control measures, contribute to project success by reducing cost overruns, improving resource utilization, and enhancing stakeholder satisfaction. Moreover, effective project cost management enables project managers to identify potential cost risks and take proactive measures to mitigate them, thereby reducing the likelihood of project failure.

Project cost management is critical for the successful implementation of junior secondary classes' construction projects in Kenya. Effective cost management is achieved through accurate cost estimation, realistic budgeting, and effective cost control measures, which are enabled by various project management practices, such as earned value management, cost baseline development, and variance analysis. Research indicates that effective project cost management increases the likelihood of project success by reducing cost overruns, improving resource utilization, and enhancing stakeholder satisfaction. Therefore, it is imperative to invest in effective project cost management practices to ensure the successful implementation of junior secondary classes' construction projects in Kenya.

Change Managemenet

Cost management is a critical aspect of project management that involves planning, estimating, budgeting, and controlling costs to complete a project within the approved budget (PMI, 2017). Effective cost management ensures that resources are used judiciously, and the project stays within the allocated budget. In the context of junior secondary classes' construction projects in Kenya, cost management is essential to ensure that the projects are completed within the allocated budget and resources are utilized optimally.

Several studies have examined the relationship between cost management and the successful implementation of construction projects. According to Verma and Pulliam (2017), effective cost management increases the likelihood of project success. They found that projects with effective cost management practices, such as accurate cost estimation, realistic budgeting, and

effective cost control measures, have a higher chance of completing within the approved budget. Moreover, proper cost management practices enable project managers to identify potential cost risks and take proactive measures to mitigate them, thereby reducing the likelihood of project failure.

Effective cost management practices in junior secondary classes' construction projects in Kenya include accurate cost estimation, realistic budgeting, and effective cost control measures. Accurate cost estimation involves forecasting the total cost of the project, including direct and indirect costs, based on historical data, market trends, and other relevant factors. Realistic budgeting involves allocating sufficient resources to the project, considering the estimated costs and contingencies. Effective cost control measures involve monitoring actual costs against planned costs, identifying variances, and implementing corrective actions to keep the project within budget.

Some of the indicators of effective cost management practices include accurate cost estimates, realistic budgets, and effective cost control measures. These indicators demonstrate that the project manager has properly planned and allocated resources to the project, monitored costs, and taken corrective actions to keep the project within the approved budget. Moreover, effective cost management practices can enhance stakeholder confidence and trust in the project. By demonstrating a proactive approach to cost management, project managers can assure stakeholders that they are committed to delivering the project on time, within budget, and to the required quality standards.

RESEARCH METHODOLOGY

Research Design

The study employs a descriptive research design, which entails amassing exact information regarding the phenomenon being scrutinized to arrive at legitimate conclusions. This form of research intends to portray features, viewpoints, dispositions, choices, and impressions of persons connected to the investigation, as pointed out by Casteel and Bridier (2021).

Furthermore, this study incorporates a correlational research design, as outlined by Creswell (2017), to ascertain links between variables using inferential statistics. Drawing from Kothari (2009), correlational research makes it possible to probe cause-effect relationships amongst variables and estimate scores on one variable founded on scores obtained on other variables.

Target Population

The unit of analysis and unit of observation are important measures that explain the subjects and objects under study. The target population will consist of 32,594 primary schools in Kenya (MOE, 2024). This is the population included (Head teacher, Directors of education in the county and one board member of the school) that the study made inferences to.

Sample Size and Sampling Technique

The sample size was computed using Bell, Brymann, and Harley's (2018) sampling scheme for vast populations exceeding 1000 entities, assuming normal distribution for a minimum sample size of 30 subjects. Adhering to Bell, Brymann, and Harley's (2018) guidance for sizable populations surpassing 1000 items, the suggested Sample Size (n) shall be established

$$n = \frac{z^2 pq}{e^2}$$

$$= \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2} = 384$$

Where $z = 1.96$, $p = 0.5$, $q = 0.5$ and $e = 0.05$

Data Collection Instrument

The study collected both secondary and primary data. The secondary data was collected from the journals, books and published academic references.

Questionnaires was used to collect primary data. Questionnaires provide written answers to written questions. A questionnaire is an instrument that is used to gather data and allows measurement for or against a particular viewpoint. It is meant to provide a standardized tool for data collection and attain objectivity in a survey (Gray, 2019). Structured and open-ended questions was used to collect primary data from the field. The questionnaires was used to collect data from different cadres of respondents. The questionnaires item was classssified into three(3) sub sections. The questionnaires was pilot tested to ascertain the extent to which the instrument collected the intended data, eliminate ambiguous questions, improve on validity and reliability.

Pilot Testing

Before a survey is carried out all aspects of the questionnaire as a survey instrument should undergo a pilot test (Yin, 2017). Pre-testing enables the researcher to modify and remove ambiguous items on instruments (Lune & Berg, 2016). A pilot test is conducted to detect weaknesses in design, instrumentation and to provide proxy data for selection of probability sample. Pilot test enables one to identify and eliminate any problems that may exist in a questionnaire (Best & Kahn, 2016) and examine the reliability and validity for measures used in the questionnaire (Yin, 2017). A pilot study is conducted with 4% - 10% of the sample population (Creswell & Clark, 2017). Thus, the pilot study comprised of 38 respondents that is 10% of the sample size.

Data Analysis and Presentation

Data analysis is a process of inspecting, cleaning, transforming, and modeling data with the goal of highlighting useful information, suggesting conclusions, and supporting decision-making (Creswell & Poth, 2017). All the data collected through the questionnaires was edited for completeness and consistency to validate the initial field findings. Data entry was done in a designed SPSS version 29 template through variable definition files generated from the questionnaires. Qualitative and quantitative data was analyzed using descriptive and inferential statistics. Qualitative data was analyzed by the use of content analysis. Content analysis involves grouping topics into meaningful segments, coding and analyzing them into categories. Qualitative data is summarized by editing, paraphrasing and summarizing so as to get meaning from it. Using content analysis technique, qualitative data is coded and then the data is categorized and analyzed depending on their categories.

This study used both descriptive and inferential statistics to analyses the quantitative data. Descriptive statistics describe and summarize the data in a meaningful way using charts, tables and bars while inferential statistics draw conclusions on the analyzed data thus helping in generalization. Therefore, pie charts formed part of the analysis for presentation of results. Predictions based on the results of the analysis was made and the results generalized on the population of study given that the test sample is part of the population.

To establish the relationships among the study variables, a Pearson's Product Moment correlation analysis was done. This is represented by r . A correlation coefficient enables a researcher to quantify the strength of the linear relationship between two ranked or numerical variables (Saunders *et al.*, 2013). As explained by Saunders *et al.* (2013), the correlation coefficient is represented by r which ranges from -1 to +1. The sign indicates the direction and strength of the relationship. This correlation coefficient was true with a significance level of $\alpha < 0.05$ for purposes of this study.

The data was presented using tables, bar graphs, and pie charts. Frequency distribution tables was used to summarize categorical or numerical data. According to pallant (2013), a frequency table is a table showing how often each value of the variable occurs in a data set. Frequencies and percentages was used to present the data in a simple form. The tables was numbered and titles given (Reichert & Harrison, 2016).

The study used two types of linear regression analyses; linear multiple regression and hierarchical linear regression. Linear regression was used to test relationship between variables due to linear relationship between the variables.

RESEARCH FINDINGS AND DISCUSSION

Descriptive Analysis

The study gives the findings on the specific objectives of the investigation in this section. The scale for the likert scale questions was 5 with 1 strongly disagree, 2 disagree, 3 somewhat disagree, 4 agree, and 5 strongly agree.

Project Cost Management

The first objective of the study was to investigate the influence of Project Cost Management on successful implementation of junior secondary classes' construction projects in Kenya. Respondents were therefore asked to give their level of agreement with various statements on Project Risk Management. The findings are presented in Table 4.1. On the statement "There are key performance indicators used for evaluating the effectiveness of risk management practices in junior secondary classes' construction projects in Kenya" 2.0% strongly disagreed to the statement, 2.8% of the respondents disagreed to the statement, 11.6% of the respondents neither agreed nor disagreed to the statement, 30.7% of the respondents agreed to the statement whereas 53.0% of the respondents strongly agreed to the statement, with a mean of 4.30 and standard deviation 0.922.

On the statement "Risk mitigation plans play a role in minimizing the impact of identified risks on junior secondary classes' construction projects in Kenya" 5.6% strongly disagreed to the statement, 7.2% of the respondents disagreed to the statement, 5.6% of the respondents neither agreed nor disagreed to the statement, 53.8% of the respondents agreed to the statement whereas 27.9% of the respondents strongly agreed to the statement, with a mean of 3.91 and standard deviation 1.058. On the statement "Project teams assess the severity and probability of identified risks during the analysis phase, 5.6% strongly disagreed to the statement, 27.1% of the respondents disagreed to the statement, 19.1% of the respondents neither agreed nor disagreed to the statement, 27.5% of the respondents agreed to the statement whereas 20.7% of the respondents strongly agreed to the statement, with a mean of 3.31 and standard deviation 1.229.

Regarding the statement "Project stakeholders prioritize identifying risks based on their potential impact and likelihood.", 10.4% strongly disagreed to the statement, 2.8% of the respondents disagreed to the statement, 19.1% of the respondents neither agreed nor disagreed to the statement, 41.8% of the respondents agreed to the statement whereas 25.9% of the respondents strongly agreed to the statement, with a mean of 3.70 and standard deviation 1.188.

Table 4:1 Project Cost Management Frequencies

Project Cost Management	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	Std. Dev.
There are key performance indicators used for evaluating the effectiveness of risk management practices in junior secondary classes' construction projects in Kenya.	2.0	2.8	11.6	30.7	53.0	4.30	0.922
Risk mitigation plans play a role in minimizing the impact of identified risks on junior secondary classes' construction projects in Kenya.	5.6	7.2	5.6	53.8	27.9	3.91	1.058
Project teams assess the severity and probability of identified risks during the analysis phase.	5.6	27.1	19.1	27.5	20.7	3.31	1.229
Project stakeholders prioritize identifying risks based on their potential impact and likelihood.	10.4	2.8	19.1	41.8	25.9	3.70	1.188

The findings agree with Masinde, A., & Osaki, S. (2017) who did a study on Project cost management for mega projects in Kenya: Case study of Lamu Port Southern Sudan Ethiopia Transport corridor project. *International Journal of Engineering and Technology*, 10(4), 237-245. This study investigates project cost management for mega projects in Kenya, focusing on the Lamu Port Southern Sudan Ethiopia Transport corridor project and explaining how effective cost management contributes to successful project implementation.

Change management

Respondents were therefore asked to give their level of agreement with various statements on Change management . The findings are presented in Table 4.2. On the statement "Communication and training programs play a role in facilitating cultural change during project implementation" 2.0% strongly disagreed to the statement, 2.8% of the respondents disagreed to the statement, 11.6% of the respondents neither agreed nor disagreed to the statement, 30.7% of the respondents agreed to the statement whereas 53.0% of the respondents strongly agreed to the statement, with a mean of 4.30 and standard deviation 0.922.

On the statement "There are strategies implemented to effectively in overcoming resistance to governance restructuring among project stakeholders" 5.6% strongly disagreed to the statement, 7.2% of the respondents disagreed to the statement, 5.6% of the respondents neither agreed nor disagreed to the statement, 53.8% of the respondents agreed to the statement whereas 27.9% of the respondents strongly agreed to the statement, with a mean of 3.91 and standard deviation 1.058. On the statement "There are primary drivers of cultural transformation within project teams and organizations", 5.6% strongly disagreed to the statement, 27.1% of the respondents disagreed to the statement, 19.1% of the respondents neither agreed nor disagreed to the statement, 27.5% of the respondents agreed to the statement whereas 20.7% of the respondents strongly agreed to the statement, with a mean of 3.31 and standard deviation 1.229.

Regarding the statement “Project teams assess the effectiveness of re-engineered processes in improving project outcomes.”, 10.4% strongly disagreed to the statement, 2.8% of the respondents disagreed to the statement, 19.1% of the respondents neither agreed nor disagreed to the statement, 41.8% of the respondents agreed to the statement whereas 25.9% of the respondents strongly agreed to the statement, with a mean of 3.70 and standard deviation 1.188. On the statement “Leaders foster a culture of innovation and adaptability to support change initiatives in junior secondary classes’ construction projects in Kenya” 21.9% strongly disagreed to the statement, 29.1% of the respondents neither agreed nor disagreed to the statement, 39.0% of the respondents agreed to the statement whereas 10.0% of the respondents strongly agreed to the statement, with a mean of 3.15 and standard deviation 1.284.

Table 4:2 Change management Frequencies

Change management	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean	Std. Dev.
Communication and training programs play a role in facilitating cultural change during project implementation.	2.0	2.8	11.6	30.7	53.0	4.30	0.922
There are strategies implemented to effectively in overcoming resistance to governance restructuring among project stakeholders.	5.6	7.2	5.6	53.8	27.9	3.91	1.058
There are primary drivers of cultural transformation within project teams and organizations.	5.6	27.1	19.1	27.5	20.7	3.31	1.229
Project teams assess the effectiveness of re-engineered processes in improving project outcomes.	10.4	2.8	19.1	41.8	25.9	3.70	1.188
Leaders foster a culture of innovation and adaptability to support change initiatives in junior secondary classes’ construction projects in Kenya .	21.9	-	29.1	39.0	10.0	3.15	1.284

This findings concurs with Muchiri, J. W., & Kyalo, G. (2019) on the Effects of change management on project implementation in public universities in Kenya. *International Journal of Human Resources Development and Management*, 19(3), 281-299. This study examines the effects of change management on project implementation in public universities in Kenya, concluding that effective change management practices enhance project success.

Correlation Analysis

Correlation analysis was used to establish the strength and direction of the relationship between dependent and the independent variables. If the variables are not related, then that would mean that the correlation coefficient is zero. The closer the correlation coefficient was to 1, the greater the relationship, whereas the closer the correlation coefficient is to 0, the weaker the relationship (Hair et al., 2020). The correlation strengths was interpreted using Cohen and Cleveland decision rules where 0.1 to 0.3 indicate weak correlation, 0.3 to 0.5 indicate moderate correlation strength and greater than 0.5 indicate a strong correlation between the variables.

Table 4.3: Correlation Analysis

		Implementation of JSS projects	Project Cost Management	Change management
Successful implementation of junior secondary classes' construction projects in Kenya	Pearson Correlation	1		
	Sig. (2-Tailed)			
	N	325		
Project Cost Management	Pearson Correlation	.698**	1	
	Sig. (2-Tailed)	.000		
	N	325	325	
Change management	Pearson Correlation	.702**	.325	1
	Sig. (2-Tailed)	.047	.147	
	N	351	351	351

Based on the findings in Table 4.3, project cost management is seen to have a strong positive and significant relationship with successful implementation of junior secondary classes' construction projects in Kenya ($r=0.698$, $p=0.000$). Since p-value was less than 0.05, the relationship between the two variables was considered to be significant. The finding that Project Cost Management has a strong positive and significant relationship with the successful implementation of junior secondary classes' construction projects in Kenya.

In addition, change management had strong positive relationship with successful implementation of junior secondary classes' construction projects in Kenya ($r=0.702$). The relationship between the two variables was significant since the p-value obtained (0.000) was less than the selected level of significance (0.05). The finding that Change management has a strong positive relationship with the successful implementation of junior secondary classes' construction projects in Kenya is consistent with previous research that emphasizes the importance of policy Change management and adaptation to improve successful implementation of junior secondary classes' construction projects in Kenya (Damanpour & Schneider, 2016).

Regression Analysis

Multiple regression analysis was used to determine the influence of project management practices and successful implementation of junior secondary classes' construction projects in Kenya.

Table 4.4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.883 ^a	.780	.754	.41075

a. Predictors: (Constant), project cost management and change management

b. Dependent Variable: Successful implementation of junior secondary classes' construction projects in Kenya

The predictive power of the model was determined using coefficient of determination (R^2). The model summary results in Table 4.4 show that the R-squared is 0.780 which suggests that 78% of all variation in successful implementation of junior secondary classes' construction projects in Kenya are explained by changes in project cost management and change management. The remaining 22% suggests that there are other factors that can be attributed to variation in successful implementation of junior secondary classes' construction projects in Kenya that were not discussed in this study. Correlation coefficient (R) shows the relationship strength between the study variables. From the findings the variables were strongly and positively related as indicated $r=0.83$.

Table 4.5 ANOVA Test

ANOVA ^a Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.775	2	9.888	618	.000 ^b
	Residual	5.568	348	.016		
	Total	25.343	350			

a. Dependent Variable: Successful implementation of junior secondary classes' construction projects in Kenya

b. Predictors: (Constant); project cost management and change management

From the analysis of variance (ANOVA), the study found out that the regression model was significant at 0.000 which is less than the selected level of significance (0.05). Therefore, the model was significant, meaning, data was ideal for making a conclusion on the population parameters. The F calculated value from Table 4.5 was greater than the F critical value from the f-distribution tables ($618 > 3.023$), an indication that project cost management and change management significantly influences successful implementation of junior secondary classes' construction projects in Kenya. The significance value was less than 0.05 indicating that the model was significant in predicting successful implementation of junior secondary classes' construction projects in Kenya.

Table 4.6: Beta Coefficients for the Study Variables

Coefficients ^a Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.058	0.313		3.3510	0.001
	Project Cost Management	1.466	0.174	0.8351	8.425	0.000
	Change management	1.058	0.313		3.3510	0.001

a. Dependent Variable: Successful implementation of junior secondary classes' construction projects in Kenya

Table 4.6 shows the coefficients of the regression model that were obtained. The regression model is specified as follows:

$$Y = 1.058 + 1.466X_1 + 0.186X_2 + e$$

The findings showed that holding project cost management and change management to constant at zero, successful implementation of junior secondary classes' construction projects in Kenya would be 1.058. The constant ($\beta = 1.058$) was significant at 0.05 significance level ($P = 0.001$).

Regarding project cost management, the study found that project cost management is statistically significant in explaining successful implementation of junior secondary classes' construction projects in Kenya ($\beta = 1.466$, $P = 0.000$). This indicates that project cost management positively and significantly relates with successful implementation of junior secondary classes' construction projects in Kenya. The findings also suggest that improvement in project cost management would lead to an increase in successful implementation of junior secondary classes' construction projects in Kenya by 1.466 units. The findings thus agrees with Hooi, Lean, and Lin (2019) that project cost management had a significant impact on the financial successful implementation of junior secondary classes' construction projects in Kenya of Malaysian banks.

In addition, the study found that change management is statistically significant in explaining successful implementation of junior secondary classes' construction projects in Kenya ($\beta =$

1.058, $P = 0.000$). This indicates that change management positively and significantly relates with successful implementation of junior secondary classes' construction projects in Kenya. The findings also suggest that improvement in change management would lead to an increase in successful implementation of junior secondary classes' construction projects in Kenya by 1.058 units.

Conclusions

The study concludes that that project cost management has a positive and significant influence on successful implementation of junior secondary classes' construction projects in Kenya. Findings revealed that cost estimation, budgeting and cost control influence successful implementation of junior secondary classes' construction projects in Kenya.

Further, the study concludes that change management has a positive and significant influence on successful implementation of junior secondary classes' construction projects in Kenya. Findings revealed that scheduled performance index, planned value and scheduled variance influences successful implementation of junior secondary classes' construction projects in Kenya.

Recommendations

The study recommends that the management of construction projects in Kenya should adopt comprehensive and participatory budgeting during the planning phase. Engaging all relevant stakeholders ensures that cost estimates are realistic, inclusive, and account for potential risks

In addition, the study recommends that the management of construction projects in Kenya should establish a clear communication and feedback framework. This involves creating structured channels through which project updates, changes in scope, timelines, or resource allocations are consistently communicated to all stakeholders.

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