Int Journal of Social Sciences Management and Entrepreneurship 8(3): 617-628 2024

ISSN 2411-7323

www.sagepublishers.com

PROJECT RISK MANAGEMENT AND PROJECT PERFORMANCE IN NATIONAL REFERRAL HOSPITALS IN KENYA

[1] Sure Timothy, [2] Dr. Mose Thomas, PhD

[1] Master of Science in Project Management at Jomo Kenyatta University of Agriculture and Technology

[2] Lecturer, Jomo Kenyatta University of Agriculture and Technology

ABSTRACT

National referral hospitals in Kenya face significant challenges related to project performance, particularly in the management of healthcare infrastructure and services. Despite their critical role, many of these institutions encounter issues with project execution, leading to delays, cost overruns, and suboptimal outcomes. Ministry of health statistics reveal that over 40% of healthcare projects in Kenya's national referral hospitals exceeded their budgets by more than 30%, and over 35% faced delays of six months or more. This study therefore sought to assess the influence of project risk management on project performance in national referral hospitals in Kenya. Specifically, the study sought to determine the effect of project risk control on project performance in national referral hospitals in Kenya and to assess the effect of project risk communication on project performance in national referral hospitals in Kenya. In this study, a descriptive research design was employed. The total target population was therefore 280 respondents comprising of 35 top managers, 105 middle managers and 140 lower level managers. The Yamane formula was adopted to calculate the study sample size. Therefore, the study sample size was 165 respondents. The stratified random sampling method was adopted to select the study sample size. This study used questionnaire to collect data relevant to this study. Quantitative data collected was analyzed using descriptive statistical techniques which are frequencies, mean, standard deviation. Inferential statistics which include Pearson correlation and the Regression Analysis Model was used to test the relationship between study variables. The significance of the model was tested at 5% level of significance. Data was analysed using Statistical Package for Social Sciences (SPSS) software. The study results were presented through use of tables and figures. From the findings the study concludes that project risk control has a significant effect on project performance in national referral hospitals in Kenya. The study also concludes that project risk communication has a significant effect on project performance in national referral hospitals in Kenya. Based on the findings the study recommends that the management of national referral hospitals should adopt a data-driven approach that leverages advanced analytics and real-time monitoring.

Key Words: Project Risk Management, Project Performance, National Referral Hospitals, Project Risk Control, Project Risk Communication

Background of the Study

National referral hospitals play a crucial role in the healthcare systems of many countries by serving as specialized centers that provide advanced medical care and complex treatments that are often beyond the capabilities of regional or district hospitals. These institutions are designed to handle cases that require high levels of expertise and sophisticated technology, making them pivotal in managing severe and rare conditions (Alsaadi & Norhayatizakuan, 2020). Their significance extends beyond immediate patient care to include roles in medical research, education, and policy development. Historically, national referral hospitals have emerged from the need to centralize specialized medical services in a few well-equipped institutions to ensure that patients with complex or rare health issues have access to the highest quality of care. This centralization helps in optimizing the use of advanced medical technologies and expert personnel, which might not be feasible in smaller, less specialized facilities. The evolution of these hospitals reflects broader trends in healthcare systems, where the focus has shifted towards enhancing the efficiency and effectiveness of medical interventions through specialization and resource consolidation (Roque & Marly, 2023).

The operation of national referral hospitals involves a complex interplay of factors, including governance structures, funding mechanisms, and healthcare policies. These hospitals are typically funded by national governments or large health organizations, which provide the necessary financial resources to support their high-cost operations. Additionally, the governance of these institutions often involves a mix of public administration and medical expertise to ensure that they meet national health priorities while maintaining high standards of care. In recent years, the effectiveness of national referral hospitals has been the subject of extensive study and evaluation (Wibowo, Hatmoko & Nurdiana, 2020). Researchers and policymakers examine various aspects, including patient outcomes, operational efficiency, and the impact on the overall healthcare system. These studies aim to identify best practices, address challenges, and optimize the functioning of referral hospitals to improve health outcomes and resource utilization. The findings from these studies are instrumental in shaping future healthcare policies and ensuring that national referral hospitals continue to meet their crucial role in delivering specialized medical care (Haithan & Abdussalam, 2021).

Statement of the Problem

National referral hospitals in Kenya are pivotal institutions within the country's healthcare system, providing essential specialized medical services and advanced treatments that are often unavailable in regional or district hospitals. These facilities play a crucial role in managing complex and severe medical conditions, contributing significantly to the overall health outcomes of the population (Kipkoech & Chelule, 2020). They serve as centers for medical research, training, and policy development, thereby supporting not only immediate patient care but also the long-term advancement of the healthcare system. Their ability to deliver high-quality, specialized care makes them indispensable to the nation's health infrastructure (Otieno & Mutiso, 2021)

However, national referral hospitals in Kenya face significant challenges related to project performance, particularly in the management of healthcare infrastructure and services. Despite their critical role, many of these institutions encounter issues with project execution, leading to delays, cost overruns, and suboptimal outcomes (Nyarangi, Ogolla & Kitheka, 2021). For instance, Ministry of health statistics reveal that over 40% of healthcare projects in Kenya's national referral hospitals exceeded their budgets by more than 30%, and over 35% faced delays of six months or more. These performance issues undermine the hospitals' capacity to deliver timely and effective care, impacting patient outcomes and overall operational efficiency (Aduma & Kimutai, 2023).

Project risk management is a critical factor influencing project performance, particularly in complex settings such as national referral hospitals. Effective risk management involves identifying potential risks early, assessing their impact, and implementing strategies to mitigate them. In the context of national referral hospitals, robust risk management practices can enhance project performance by reducing the likelihood of cost overruns, minimizing delays, and ensuring that projects meet their intended goals (Kemboi, Otinga & Miroga, 2021). For example, hospitals that implement comprehensive risk management frameworks are better positioned to handle unexpected challenges, optimize resource allocation, and achieve project objectives more efficiently. Consequently, strengthening risk management practices can significantly improve the performance of healthcare projects, leading to better outcomes for both patients and the healthcare system as a whole (Otieno & Mutiso, 2021). This study therefore sought to assess the influence of project risk management on project performance in national referral hospitals in Kenya

Objectives of the Study

The general objective of the study was to assess the influence of project risk management on project performance in national referral hospitals in Kenya

Specific Objectives

i. To determine the effect of project risk control on project performance in national referral hospitals in Kenya
ii. To assess the effect of project risk communication on project performance in national referral hospitals in Kenya

LITERATURE REVIEW

Theoretical Framework

Control Theory

Control Theory founded by Travis Hirschi in the 1960s is a management framework that focuses on how organizations can achieve optimal performance through the establishment of control mechanisms to monitor and regulate their activities. It emphasizes the importance of feedback loops, performance standards, and corrective actions to ensure that organizational processes align with strategic goals and objectives. Control Theory operates on the premise that organizations function more effectively when there are systems in place to monitor, evaluate, and adjust their activities in response to deviations from desired outcomes (Karigirwa & Rusibana, 2024). Control Theory suggests that effective control mechanisms involve several key components. Firstly, organizations need to establish clear performance standards and benchmarks against which performance can be measured. Secondly, they need to implement monitoring processes to track performance against these standards, using various metrics and key performance indicators. Thirdly, organizations must have feedback mechanisms in place to provide timely information on performance deviations and discrepancies. Finally, organizations need to take corrective actions based on feedback to address any performance gaps and ensure alignment with organizational goals (Bukar & Ibrahim, 2021).

Control Theory operates on several assumptions about organizational behavior and management practices. Firstly, it assumes that organizations are rational entities that seek to achieve their goals efficiently and effectively. Secondly, it assumes that organizations operate within complex and dynamic environments characterized by uncertainty and change. Thirdly, it assumes that control mechanisms are necessary to coordinate and regulate the activities of individuals and groups within the organization. Finally, it assumes that organizations can use

feedback from monitoring and evaluation processes to adapt and improve their performance over time (Mwaitete, 2024).

Despite its strengths, Control Theory has faced several critiques. One criticism is that it may lead to excessive bureaucracy and micromanagement, as organizations implement control mechanisms to regulate every aspect of employee behavior. This can stifle creativity, innovation, and employee autonomy, ultimately hindering organizational performance. Additionally, critics argue that Control Theory may overlook the importance of informal control mechanisms, such as organizational culture, norms, and values, which can also influence behavior and performance. Moreover, some argue that Control Theory may be less applicable in today's dynamic and uncertain business environments, where organizations need to be agile, flexible, and adaptable to thrive (Khisa & Mutiso, 2022). This theory is relevant in determining the effect of project risk control on project performance in national referral hospitals in Kenya.

Stakeholder Theory

Stakeholder Theory founded by R. Edward Freeman in 1984 represents a significant departure from the traditional view of businesses solely existing to maximize shareholder wealth. It posits that organizations have a responsibility to consider and balance the interests of all stakeholders, including employees, customers, suppliers, communities, and shareholders, in their decision-making processes. Stakeholder Theory emphasizes the importance of creating value not only for shareholders but also for all stakeholders involved or affected by the actions of the organization (Ojie, 2020). Stakeholder Theory suggests that organizations should recognize the interdependence between themselves and their stakeholders. It advocates for a broader perspective on corporate purpose and performance beyond financial metrics. According to this theory, successful organizations actively engage with stakeholders, understand their needs and expectations, and make decisions that take into account the impacts on various stakeholders (Singirankabo & Wanjiku, 2023).

The theory operates on several key assumptions. Firstly, it assumes that organizations operate within a complex network of relationships with various stakeholders, each with different interests and expectations. Secondly, Stakeholder Theory assumes that stakeholders can significantly influence the organization's performance and success, whether positively through support and cooperation or negatively through opposition and resistance. Thirdly, it assumes that by considering the interests of all stakeholders, organizations can enhance their long-term sustainability and value creation, leading to improved organizational performance (Muluka, Mukanzi & Nyang'au, 2021).

Despite its merits, Stakeholder Theory has faced several critiques. One criticism is that it may lack clarity in defining who exactly qualifies as a stakeholder and how their interests should be prioritized. This ambiguity can make it challenging for organizations to effectively implement the theory in practice (Musotsi & Muchelule, 2023). Additionally, some argue that Stakeholder Theory may lead to decision-making paralysis or conflicts of interest, as organizations attempt to balance competing stakeholder interests. Moreover, critics suggest that focusing too much on stakeholders other than shareholders could potentially dilute the organization's primary purpose of creating shareholder value, leading to suboptimal financial performance in the long run (Wasike, *et al*, 2023). This theory is relevant in assessing the effect of project risk communication on project performance in national referral hospitals in Kenya.

Conceptual Framework

A conceptual framework is a structured approach that outlines the key concepts, variables, and the relationships among them that are central to a study or research project. It serves as a visual

or narrative representation of how different elements within the research are connected and how they contribute to understanding the research problem. In this study, the independent variables include; project risk control and project risk Communication while the dependent variable is project performance in national referral hospitals in Kenya.

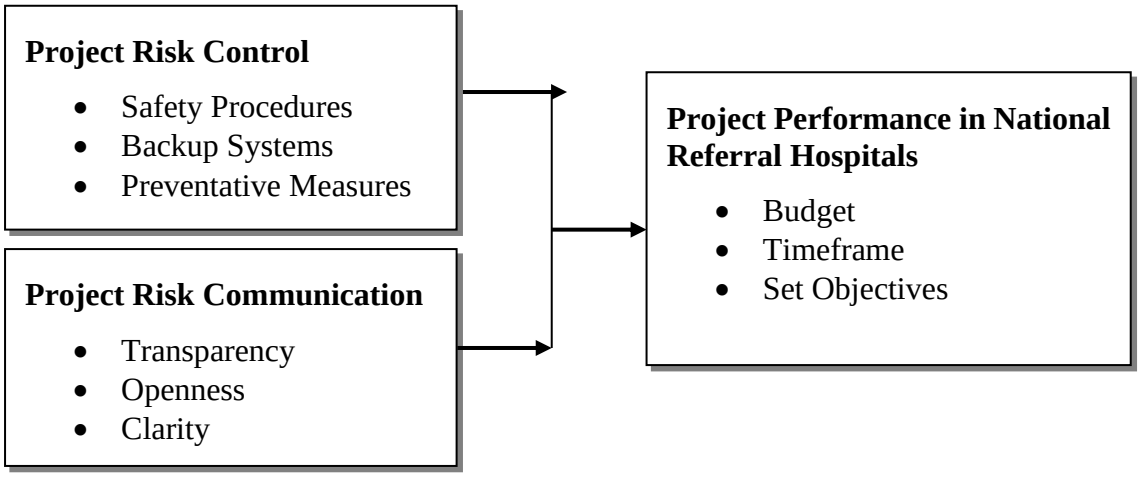

Figure 2. 1: Conceptual Framework

Project Risk Control

Project Risk Control refers to the process of implementing strategies and actions to manage and mitigate the potential impacts of identified risks throughout a project's lifecycle. It involves actively monitoring risks, executing planned risk responses, and making adjustments as needed to ensure that risks do not negatively affect the project's objectives, such as its scope, schedule, cost, or quality (Karigirwa & Rusibana, 2024). Safety Procedures are a set of guidelines and practices designed to ensure the safety and well-being of individuals involved in a project or operation. They are crucial for identifying, managing, and mitigating potential hazards that could cause harm or accidents (Bukar & Ibrahim, 2021). In the context of project management, safety procedures encompass risk assessments, emergency response plans, and safety training for employees. Implementing rigorous safety procedures helps to create a safe working environment, reduce the likelihood of accidents, and comply with regulatory requirements. For example, a construction project would have specific safety procedures for handling hazardous materials, operating heavy machinery, and managing site conditions. Adhering to these procedures not only protects personnel but also minimizes disruptions to the project, reduces liability, and fosters a culture of safety within the organization (Mwaitete, 2024).

Backup Systems refer to strategies and technologies used to ensure the continuity and recovery of critical data and operations in the event of a failure or disaster (Khisa & Mutiso, 2022). These systems are essential for safeguarding important information and maintaining business operations during unexpected disruptions, such as system crashes, data corruption, or cyberattacks. Backup systems typically involve regular data backups, redundancy measures, and disaster recovery plans. For instance, an FMCG company might implement automated daily backups of its inventory management system and establish off-site storage to protect against data loss. Having effective backup systems in place ensures that critical data can be restored quickly, minimizing downtime and operational impact. It also supports business resilience by providing a safeguard against potential data breaches and system failures (Karigirwa & Rusibana, 2024).

Preventative Measures are proactive actions taken to prevent potential risks and issues before they occur. These measures are designed to anticipate possible problems and implement controls or modifications to reduce the likelihood of their occurrence (Bukar & Ibrahim, 2021).

In project management, preventative measures can include routine maintenance, risk assessments, and implementing best practices to address identified vulnerabilities. For example, in an FMCG distribution center, preventative measures might involve regular inspections of equipment to prevent malfunctions, employee training to enhance compliance with safety standards, and updating software to protect against security threats. By focusing on prevention, organizations can avoid disruptions, reduce costs associated with unexpected issues, and improve overall efficiency. Effective preventative measures contribute to smoother project execution and enhance long-term sustainability by addressing risks before they manifest (Mwaitete, 2024).

Project Risk Communication

Project Risk Communication refers to the process of conveying information about potential risks and their management to all relevant stakeholders throughout the project lifecycle. This includes sharing details about identified risks, their potential impacts, and the strategies implemented to mitigate or manage them. Effective risk communication ensures that stakeholders are informed, engaged, and prepared to respond to potential issues, thereby enhancing overall project transparency and collaboration (Ojie, 2020). Transparency in project risk communication refers to the practice of openly sharing information about risks, risk management strategies, and any changes in risk status with all relevant stakeholders (Singirankabo & Wanjiku, 2023). It involves providing a clear view of how risks are being identified, assessed, and managed throughout the project lifecycle. Transparency builds trust and credibility, as stakeholders feel informed and confident that risk management is being handled effectively and honestly. For instance, a project manager who regularly updates stakeholders on the status of key risks and the effectiveness of mitigation measures demonstrates transparency. This openness not only helps in managing stakeholder expectations but also encourages collaborative problem-solving and reduces the potential for misunderstandings or conflicts. Ultimately, transparency ensures that everyone involved is on the same page regarding potential issues and their management (Muluka, Mukanzi & Nyang'au, 2021).

Openness in risk communication involves fostering an environment where stakeholders feel comfortable expressing their concerns, asking questions, and providing feedback about risks and their management (Musotsi & Muchelule, 2023). It means creating a dialogue rather than a one-way flow of information. When project leaders are open to receiving input from stakeholders, they can gain valuable insights, uncover additional risks, and improve the overall risk management process. For example, hosting regular risk review meetings where stakeholders are encouraged to share their perspectives and ask questions exemplifies openness. This collaborative approach not only enhances the accuracy of risk assessments but also ensures that all relevant perspectives are considered in decision-making processes. Openness also helps in building strong relationships and maintaining stakeholder engagement throughout the project (Wasike, *et al*, 2023).

Clarity in project risk communication refers to the need for presenting information about risks in a straightforward, understandable manner (Ojie, 2020). Clear communication involves using simple language, avoiding technical jargon, and ensuring that the risk-related information is structured logically. For example, risk reports should clearly outline the nature of each risk, its potential impact, and the steps being taken to address it. Clarity helps stakeholders easily grasp the significance of risks and the rationale behind risk management strategies. This is crucial for making informed decisions and ensuring that all parties understand their roles and responsibilities related to risk management. Clear communication also reduces the risk of misinterpretation and ensures that everyone involved has a consistent understanding of the risks and the project's overall status (Singirankabo & Wanjiku, 2023).

Empirical Review

Project Risk Control and Project Performance

Karigirwa and Rusibana (2024) conducted a study on the effect of project risk control on project performance of education projects in Rwanda: a case of SOMA Umenye Project. Descriptive research design was used and also the target population of the study was 169 employees of Rwanda Basic Education Board and all of them a sample size of 169 employees were selected by using stratified sampling technique. The study found that there is a positive relationship between project risk control on project performance of education projects in Rwanda. The study concluded that there is a significant effect of project risk control on Soma Umenye project performance.

Bukar and Ibrahim (2021) assessed on investigating the impact of project risk control on project performance in construction industry: evidence from Nigeria. A quantitative research design was used and adopting a descriptive study. Survey questionnaires used in collecting data from 84 sample respondents. The study found that project risk control significantly impacted on project performance. The study concluded that project risk control has statistically significant impact on the project performance.

Mwaitete (2024) investigated on the effect of project risk control on project performance: a case of the Mafuru-Kimambira Water Supply Project in Mvomero District. This study used quantitative research approach together with non-proportional stratified simple random sampling technique to obtain 98 project contractors. The study found that project risk control has a direct effect on Mafuru-Kimambira water supply project performance. The study concluded that project risk control has a direct impact on project performance.

Mwaitete (2024) examined on project risk control and project performance of irrigation projects in Embu County, Kenya. The research employed descriptive research design. The researcher targeted 4 irrigations project namely, Nthawa, Masinga, Kanyuambora irrigation project, and Rupingazi-Weru irrigation water project in Embu County. The study found that project risk control impact project performance. The study concluded that project risk control has a significant impact on project performance.

Khisa and Mutiso (2022) researched on project risk control and performance of selected construction projects in Kenya. This study used explanatory research design and the research philosophy was based on positivism. The population of the study was all construction projects carrying out construction and public works in selected firms in Kenya. The study found that project risk control had a significant influence on firm performance. The study concluded that project risk control had a statistically significant effect on performance of construction projects in Kenya.

Project Risk Communication and Project Performance

Ojie (2020) assessed on the role of project risk communication in the management of projects: a case of Alemu Nigeria Enterprises Limited. The study adopted a survey strategy, employing the use of a structured questionnaire to obtain primary data from the case organization – Alemu Nigeria Enterprises Ltd. A total of 60 questionnaires were administered to the entire staff of the organization. The study found that project risk communication enhances effective project performance. The study concluded that project risk communication improves project performance.

Singirankabo and Wanjiku (2023) conducted a study on the effect of project risk communication on performance of the international non-governmental organizational projects

in Rwanda. The study used a descriptive design. The study targeted 170 workers involved in the various projects implemented by INGOsproject in Rwanda. The study found that project risk communication was significantly correlated with performance of the international non-governmental organizational projects in Rwanda. The study concluded that project risk communication affects performance of the international non-governmental organizational projects in Rwanda.

Muluka, Mukanzi and Nyang'au (2021) researched on the influence of project risk communication on success of digital literacy programme in western Kenya. The study adopted a descriptive survey, correlational and cross-sectional survey design. The study population comprised of 31,460 members of Board of Management under Ministry of Education in Western Kenya counties of Kakamega, Bungoma, Busia and Vihiga. Stratified random sampling design was used to select 380 respondents from the four counties. The study found that there was a statistically significant moderate positive relationship between project risk communication and success of digital literacy programme. The study concluded that project risk communication influenced the Success of Digital Literacy Programme in Western Kenya.

Musotsi and Muchelule (2023) examined on the role of project risk communication on performance of water and sanitation projects in Siaya County, Kenya. A descriptive design was used in this research. The unit of observation was ten project managers, 20 representatives of community members, and five government officials. The study found that there is a very strong relationship between project risk communication and project performance. The study concluded that project risk communication has a positive and significant effect on performance of water and sanitation projects in Siaya County, Kenya.

Wasike, *et al* (2023) investigated on project risk communication and road construction projects performance in Kenya. The study adopted a mixed research design with a target population of 475 and a sample size of 143. The study found that project risk communication had a significant relationship with road construction projects performance in Kenya. The study concluded that project risk communication had a positive and significant effect on road construction projects performance in Kenya.

RESEARCH METHODOLOGY

In this study, a descriptive research design was employed. According to the ministry of health (2023) there are 7 National referral hospitals in Kenya. This study targeted management employees working in the 7 National referral hospitals in Kenya. Management employees were targeted since they are in a position to provide information on the influence of project risk management on project performance in national referral hospitals in Kenya. The total target population was therefore 280 respondents comprising of 35 top managers, 105 middle managers and 140 lower level managers. The Yamane formula was adopted to calculate the study sample size. Therefore, the study sample size was 165 respondents. The stratified random sampling method was adopted to select the study sample size.

Data obtained from the field was coded, cleaned, and entered into the computer for analysis using the SPSS version 25. For the quantitative reports, the tables consisted of mean and standard deviation values that were used to make interpretation of the analysis. Percentage, mean and standard deviation were used to show the frequency of responses. Tables were used to display the rate of responses and to facilitate comparison. Qualitative reports were presented in form of essay which were discussed as per the study objectives aligned with the theories and empirical study. Descriptive statistical included frequency, percentages, mean and standard deviation. Inferential statistical analysis comprised of multiple regression and correlation analysis. The significant of each independent variable were tested at a confidence level of 95%.

DATA ANALYSIS AND DISCUSSION OF FINDINGS

The sample size of the study was 165 respondents. The questionnaires were dropped off and picked up later after they were filled by the respondents. Out of 165 questionnaires which were distributed, 159 were duly filled and returned. The drop-off and pick-up-later method yielded the high response rate of 96.3%. According to Babbie (2019), a response rate of 75 per cent is adequate for analysis as well as making conclusions and inferences about a population. In addition, Kumar (2019) indicates that a response rate of 60% and above is acceptable for analysis. Further, Egbert (2015) indicates that a response rate of 50% should be considered average, 60% to 70% considered adequate while a response rate of above 70% should be regarded as excellent. This implies that the response rate of 96.3% was adequate for analysis, drawing conclusions and reporting.

Descriptive statistics

Project Risk Control and Project Performance

The first specific objective of the study was to determine the effect of project risk control on project performance in national referral hospitals in Kenya. The respondents were requested to indicate their level of agreement on various statements relating to project risk control and project performance in national referral hospitals in Kenya. The results were as shown in Table 1.

From the results, the respondents agreed that they establish and follow clear safety procedures for managing project risks (M=3.887, SD= 0.890). In addition, the respondents agreed that safety procedures are regularly reviewed and updated to address new risks (M= 3.870, SD= 0.695). Further, the respondents agreed that all team members are trained on the project's safety procedures (M=3.788, SD= 0.589). The respondents also agreed that they have reliable backup systems in place to protect critical project data (M= 3.775, SD= 0.751).

From the results, the respondents agreed that backup systems are tested regularly to ensure they function correctly (M= 3.767, SD= 0.943). In addition the respondents agreed that backup data is stored securely and is easily retrievable when needed (M= 3.678, SD= 0.864). Further, the respondents agreed they implement preventative measures to address potential project risks before they occur (SD=3.599, SD=0.776). The respondents also agreed that preventative measures are reviewed and updated based on project conditions (M=3.582, SD=0.765).

Table 1: Project Risk Control and Project Performance

	Mean	Std. Deviation
We establish and follow clear safety procedures for managing project risks.	3.887	0.890
Safety procedures are regularly reviewed and updated to address new risks.	3.870	0.695
All team members are trained on the project's safety procedures.	3.788	0.589
We have reliable backup systems in place to protect critical project data.	3.775	0.751
Backup systems are tested regularly to ensure they function correctly.	3.767	0.943
Backup data is stored securely and is easily retrievable when needed.	3.678	0.864
We implement preventative measures to address potential project risks before they occur.	3.599	0.776
Preventative measures are reviewed and updated based on project conditions.	3.582	0.765
Aggregate	**3.743**	**0.784**

Project Risk Communication and Project Performance

The second specific objective of the study was to assess the effect of project risk communication on project performance in national referral hospitals in Kenya. The respondents were requested to indicate their level of agreement on various statements relating to project risk communication and project performance in national referral hospitals in Kenya. The results were as shown in Table 2.

From the results, the respondents agreed that they provide transparent updates on risk status and management strategies (M=3.877, SD= 0.895). In addition, the respondents agreed that all relevant risk information is openly shared with stakeholders (M= 3.875, SD= 0.781). Further, the respondents agreed that changes in risk conditions are communicated promptly and clearly (M=3.873, SD= 0.795). The respondents also agreed that stakeholders are encouraged to share their concerns and feedback about risks (M= 3.797, SD= 0.973).

From the results, the respondents agreed that they actively seek input from team members regarding potential risks (M= 3.789, SD= 0.689). In addition the respondents agreed that there is an open dialogue about risk management and its impact (M= 3.778, SD= 0.867). Further, the respondents agreed that they use simple language and avoid jargon when communicating risks (SD=3.699, SD=0.779). The respondents also agreed that risk descriptions and updates are structured for easy comprehension (M=3.689, SD=0.822).

Table 2: Project Risk Communication and Project Performance

	Mean	Std. Deviation
We provide transparent updates on risk status and management strategies.	3.877	0.895
All relevant risk information is openly shared with stakeholders.	3.875	0.781
Changes in risk conditions are communicated promptly and clearly.	3.873	0.795
Stakeholders are encouraged to share their concerns and feedback	3.797	0.973
We actively seek input from team members regarding potential risks.	3.789	0.689
There is an open dialogue about risk management and its impact.	3.778	0.867
We use simple language and avoid jargon when communicating risks.	3.699	0.779
Risk descriptions and updates are structured for easy comprehension.	3.689	0.822
Aggregate	**3.797**	**0.825**

Project Performance

The respondents were requested to indicate their level of agreement on various statements relating to project performance in national referral hospitals in Kenya. The results were as shown in Table 3. From the results the respondents agreed that budget forecasts are regularly updated to reflect actual expenditures (M=3.875, SD= 0.715). In addition, the respondents agreed that cost overruns are promptly addressed and managed (M= 3.867, SD= 0.894).Further, the respondents agreed that financial performance is monitored closely against the budget (M=3.799, SD= 0.889). The respondents also agreed that any delays are communicated promptly and managed effectively (M= 3.748, SD= 0.868).

From the results, the respondents agreed that time management practices are in place to ensure timely project delivery (M=3.675, SD=0.731). In addition, the respondents agreed that changes to the project schedule are documented and communicated clearly (M=3.579, SD=0.709). Further, the respondents agreed that project objectives are clearly defined and understood by all stakeholders (M=3.572, SD=0.676). The respondents also agreed that the project meets the specified objectives and deliverables (M=3.568, SD=0.743).

Table 3: Project Performance

	Mean	Std. Dev.
Budget forecasts are regularly updated to reflect actual expenditures.	3.875	0.715
Cost overruns are promptly addressed and managed.	3.867	0.894
Financial performance is monitored closely against the budget.	3.799	0.889
Any delays are communicated promptly and managed effectively.	3.748	0.868
Time management practices are in place to ensure timely project delivery.	3.675	0.731
Changes to the project schedule are documented and communicated clearly	3.579	0.709
Project objectives are clearly defined and understood by all stakeholders.	3.572	0.676
The project meets the specified objectives and deliverables.	3.568	0.743
Aggregate	**3.710**	**0.763**

Correlation Analysis

The present study used Pearson correlation analysis to determine the strength of association between independent variables (project risk control and project risk communication) and the dependent variable (project performance in national referral hospitals in Kenya). Pearson correlation coefficient range between zero and one, where by the strength of association increase with increase in the value of the correlation coefficients.

Table 4: Correlation Coefficients

		Project Performance	Project Risk Control	Project Risk Communication	
Project Performance		Pearson Correlation			
		Sig. (2-tailed)			
		N			
Project Risk Control		Pearson Correlation	.093	1	
		Sig. (2-tailed)	.284		
		N	159	159	
Project Communication	Risk	Pearson Correlation	.479	.258	1
		Sig. (2-tailed)	.183	.276	
		N	159	159	159

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

The results revealed that there is a very strong relationship between project risk control and project performance in national referral hospitals in Kenya (r = 0.866, p value =0.002). The relationship was significant since the p value 0.002 was less than 0.05 (significant level). The findings are in line with the findings of Bukar and Ibrahim (2021) that there is a very strong relationship between project risk control and project performance.

The results also revealed that there was a very strong relationship between project risk communication and project performance in national referral hospitals in Kenya (r = 0.874, p value =0.001). The relationship was significant since the p value 0.001 was less than 0.05 (significant level). The findings are in line with the results of Muluka, Mukanzi and Nyang'au (2021) who revealed that there is a very strong relationship between project risk communication and project performance.

Regression Analysis

Table 5: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.239	0.061		3.918	0.000
	project risk control	0.357	0.098	0.356	3.643	0.003
	project risk communication	0.375	0.099	0.376	3.788	0.001

a Dependent Variable: project performance in national referral hospitals in Kenya

The regression model was as follows:

$$\mathbf{Y = 0.239 + 0.357X_1 + 0.375X_2}$$

The results revealed that project risk control has significant effect on project performance in national referral hospitals in Kenya, β1=0.357, p value= 0.003). The relationship was considered significant since the p value 0.003 was less than the significant level of 0.05. The findings are in line with the findings of Bukar and Ibrahim (2021) that there is a very strong relationship between project risk control and project performance.

In addition, the results revealed that project risk communication has significant effect on project performance in national referral hospitals in Kenya, β1=0.375, p value= 0.001). The relationship was considered significant since the p value 0.001 was less than the significant level of 0.05. The findings are in line with the results of Muluka, Mukanzi and Nyang'au (2021) who revealed that there is a very strong relationship between project risk communication and project performance.

Conclusions

the study concludes that project risk control has a significant effect on project performance in national referral hospitals in Kenya. The study findings revealed that safety procedures, backup systems and preventative measures influences project performance in national referral hospitals in Kenya.

The study also concludes that project risk communication has a significant effect on project performance in national referral hospitals in Kenya. The study findings revealed that transparency, openness and clarity influences project performance in national referral hospitals in Kenya.

Recommendations

The study recommends that the management of national referral hospitals should implement a robust risk mitigation plan that incorporates regular training and simulation exercises for staff. By conducting periodic training sessions and simulation drills, hospital staff can become well-versed in risk management protocols and emergency response procedures.

The study also recommends that the management of national referral hospitals should establish a clear, structured communication protocol that includes regular risk reporting and updates through a centralized platform. By implementing a dedicated communication system, hospitals can ensure that everyone is informed about current risks, mitigation strategies, and any changes to the risk landscape.

Suggestions for Further Studies

This study was limited to the influence of project risk management on project performance in national referral hospitals in Kenya hence the study findings cannot be generalized to project performance in other projects in Kenya. The study therefore suggests further studies on the influence of project risk management on project performance in other projects in Kenya.

REFERENCES

Abdulai, Y & Owusu-Manu, D. (2022). Project risk management and construction performance: a Ghanaian study. *Academy of Marketing Studies Journal, 26*(2), 1-10.

Aduma, L. K & Kimutai, G. (2020). Project risk management and project performance at the national hospital insurance fund in Kenya. *International Academic Journal of Information Sciences and Project Management, 3*(2), 80-110.

Alsaadi, N & Norhayatizakuan (2020). The impact of project risk management on the performance of construction projects. *Estudios de Economia Aplicada, 39*(4), 1-10.

Bukar, A. A & Ibrahim, U. A. (2021). Investigating the impact of project risk control on project performance in construction industry: evidence from Nigeria. *Science Journal of Business and Management, 9*(3), 224-230.

Butt, M. H, Igbal, S, Saddique, M. A & Shahid, H. (2021). The effect of project risk management at project planning phase on performance of construction projects in Pakistan. *Journal of Business and Social Review in Emerging Economies, 7*(1), 107-117.

Haithan, A & Abdussalam, S. (2021). Project risk management in construction projects in Iraq: contractors' perspective. *International Journal of Engineering Research-Online, 4*(3), 114-129.

Igihizo, L & Irechukwu, E. N. (2022). Project risk management and performance of MpaziChannel construction project in Nyabugogo, Kigali-Rwanda. *Journal of*

Mshuza, S. Y, Yusif, M & Ngatia, P. (2023). Project risk management and performance of public schools construction projects in Mara Region, Tanzania. *International Journal of Management and Commerce Innovations*, *11*(1), 41-52.

Muluka, K. O, Mukanzi, C. M & Nyang'au, S. P. (2021). Influence of project risk communication on success of digital literacy programme in western Kenya. *International Journal of Social Science and Technology*, *6*(2), 1-11.

Musotsi, A. A & Muchelule, Y. (2023). Role of project risk communication on performance of water and sanitation projects in Siaya County, Kenya. *International Journal of Management and Commerce Innovations, 11*(2), 31-41.

Mwaitete, C. (2024). Effect of project risk control on project performance: a case of the Mafuru-Kimambira Water Supply Project in Mvomero District. *Journal of Policy and Development Studies, 15*(2), 171-185.

Ojie, F. N. (2020). The role of project risk communication in the management of projects: a case of Alemu Nigeria Enterprises Limited. *International Journal of Innovative Research & Development, 5*(13), 197-207.

Oyenkule, O. (2024). Project risk management in Nigeria construction sector and impact on project performance. *Journal of Science & Technology*, *5*(2), 69-102.

Roque, R. J & Marly, M. C. (2023). Understanding the Impact of Project Risk Management on Project Performance: an Empirical Study. *Journal of Technology Management and Innovation, 8*(1), 64-78.

Tembo, C. K & Khatleli, N. (2020). *Project risk management practices on building projects in the Zambian construction industry (ZCI)*. Retrieved From, file:///C:/Users/user/Downloads/.

Wasike, P. W, Namusonge, G. S, Makokha, E. N & Karamunya, T. (2023). Project risk communication and road construction projects performance in Kenya. *European Journal of Business and Management, 15*(17), 157-174.

Watenga, K. E & Kinoti, K. (2024). Project risk control and project performance of irrigation projects in Embu County, Kenya. *International Journal of Science and Research, 13*(4), 1109-1118.

Wibow, M. A, Hatmoko, J. U. D & Nurdiana, A. (2020). *Project risk management in Indonesia construction project: a case study of a toll road project*. Retrieved From, file:///C:/Users/user/Downloads/.