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Project Team Management Strategies and Performance of Water
Projects in Kitui County, Kenya



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Project Team Management Strategies and Performance of Water Projects in Kitui County, Kenya



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ABSTRACT

Purpose: The main objective of the study is to examine the influence of project team management strategies on performance of water projects in Kitui County, Kenya. Specifically, the study sought to establish the influence of project team communication on performance of water projects in Kitui County, Kenya and to assess the influence of team conflict resolution on performance of water projects in Kitui County, Kenya. This study was guided by Social Exchange Theory (SET) and Social Interdependence Theory.

Methodology: To achieve the study purpose, the researcher adopted a descriptive research design. The target population comprised of 128 project managers, project team members and project consultants of government projects in Kitui County, Kenya which are managed at different levels of county administration. 97 respondents were sampled. The study used stratified random sampling technique in choosing the sample size from the three levels of management staffs. A pilot study was performed on 10% of entire sample size before exercise of major research. Descriptive and inferential statistic was used in analyzing quantitative data by the help statistical software known as SPSS version 28.

Findings: The study concludes that project team communication has a positive and significant effect on performance of water projects in Kitui County, Kenya. In addition, the study concludes that team conflict resolution has a positive and significant effect on performance of water projects in Kitui County, Kenya.

Unique Contribution to Theory, Practice and Policy: Based on the findings, the study recommends that the management of water projects in Kenya should institutionalize structured and continuous project team communication through regular coordination meetings, standardized reporting tools, and the use of digital communication platforms.

Key Words: *Management Strategies, Team Communication, Conflict Resolution, Water Projects*

Background of the Study

Water projects play a critical role in ensuring reliable access to safe and adequate water for domestic, agricultural, and industrial use (Fung & Siow, 2020). By developing infrastructure such as dams, boreholes, water treatment plants, and distribution systems, water projects help reduce water scarcity and improve the quality of life, especially in rural and urban underserved areas (Majeed, *et al*, 2023). Access to clean water through well-planned projects significantly lowers the prevalence of waterborne diseases, enhances hygiene and sanitation, and contributes to improved public health outcomes (Khalaf, 2024).

In agriculture, water projects such as irrigation schemes are essential for increasing food production and enhancing food security. They enable farmers to practice year-round farming, reduce dependence on unreliable rainfall, and improve crop yields and farm incomes (Nkam, *et al*, 2025). This supports livelihoods, reduces poverty, and strengthens rural economies. In arid and semi-arid regions, water projects are particularly important in mitigating the effects of drought and climate variability (Jean Paul & Jean de Dieu, 2024). Water projects also contribute to economic growth and sustainable development by supporting industrial activities, energy generation, and employment creation. Industries rely on consistent water supply for production processes, while hydropower projects provide renewable energy that supports national development (Mmbughu, 2021). Furthermore, well-managed water projects promote environmental conservation by enabling efficient water use, protecting water catchment areas, and supporting ecosystem sustainability for present and future generations (Abdirahman & Christopher, 2025).

Project Team Management Strategies refer to the deliberate approaches and practices employed to organize, lead, coordinate, and optimize the performance of a project team throughout the project lifecycle (Pelumi, Oshin & Sunday, 2020). These strategies encompass planning team roles and responsibilities, establishing communication protocols, resolving conflicts, developing skills, and fostering collaboration to achieve project objectives efficiently (Njoroge & Muchelule, 2024). Effective project team management strategies ensure that resources are utilized optimally, tasks are executed smoothly, and team members remain motivated, aligned, and accountable. By guiding interactions, decision-making, and workflow within the team, these strategies enhance cohesion, productivity, and overall project success (Leley, Omwenga & Lango, 2025). Project team communication ensures that information, instructions, and feedback flow effectively among team members. Clear and consistent communication aligns individual efforts with project objectives, promotes transparency in decision-making, and minimizes misunderstandings that can disrupt progress (Uwase & Gathiru, 2024). Team conflict resolution plays a critical role in maintaining harmony and cooperation within the team. By addressing disagreements and opposing views constructively, conflict resolution strategies foster trust, collaboration, and a sense of fairness, ensuring that differences do not hinder task execution or

project performance (Sorychta-Wojczyk & Kulik, 2024). This study sought to examine the influence of project team management strategies on performance of water projects in Kitui County, Kenya.

Water projects in Kitui County, Kenya, play a crucial role in addressing the chronic water scarcity experienced in the region. Kitui is predominantly arid and semi-arid, with unreliable rainfall and prolonged dry spells, which severely affect both domestic and agricultural water supply (Njoroge & Muchelule, 2024). To mitigate these challenges, the county has initiated a range of water projects including boreholes, water pans, sand dams, and piped water schemes. These projects aim to increase access to clean and safe water, reduce dependency on seasonal rains, and enhance the livelihoods of the local communities, especially in rural areas where water scarcity is most pronounced (Uwase & Gathiru, 2024).

The implementation of water projects in Kitui County involves collaboration between the government, non-governmental organizations, and community-based groups. These projects not only supply water for domestic use but also support irrigation for small-scale farming, livestock rearing, and other economic activities (Waita, Yusuf & Nambuswa, 2025). For instance, sand dams and water pans have been particularly effective in harvesting and storing rainwater, providing a reliable source during dry periods. Despite these efforts, challenges such as inadequate funding, poor maintenance, and logistical difficulties in remote areas continue to limit the effectiveness of some projects (Njoki & Nyang'au, 2023). Nevertheless, the ongoing investment in water infrastructure has significantly improved water availability and contributed to better health and economic outcomes for Kitui residents. Water projects in the county also emphasize sustainability and community involvement. Many initiatives incorporate training programs for local residents on water management and maintenance, ensuring that the infrastructure remains functional over the long term (Njoroge & Muchelule, 2024). Additionally, some projects focus on innovative technologies, such as solar-powered water pumps and mobile water kiosks, to expand access to underserved areas. The success of these projects is critical not only for addressing immediate water needs but also for supporting long-term development goals, including food security, health, and education, as access to water directly influences school attendance and productivity in the county (Uwase & Gathiru, 2024).

Statement of the Problem

Water projects play a critical role in Kenya's socio-economic development and overall well-being. Access to clean and reliable water sources is essential for domestic use, agriculture, industry, and sanitation (Waita, Yusuf & Nambuswa, 2025). In rural areas like Kitui County, where arid and semi-arid conditions prevail, water projects such as boreholes, dams, and water pans are vital in ensuring communities have a sustainable supply of water throughout the year (Njoki & Nyang'au, 2023). Beyond meeting basic human needs, these projects enhance agricultural productivity, reduce water-borne diseases, and contribute to poverty alleviation.

Additionally, water projects support industrial growth and environmental sustainability, making them central to achieving national development goals, including Kenya's Vision 2030 (Njoroge & Muchelule, 2024).

Water projects in Kitui County face persistent time related challenges that delay the delivery and impact of key infrastructure. A flagship initiative, the Kangu Kangu water project, was first conceptualized in 2014 but only commissioned in 2025, reflecting nearly 11 years between planning and completion due to political shifts, procurement delays, and capacity constraints (Waita, Yusuf & Nambuswa, 2025). These long timelines significantly slow the realization of benefits for communities: although the project is now designed to supply over 1.4 million litres of clean water daily to more than 100,000 residents, the delay meant that for over a decade many households continued to struggle with scarcity (Njoki & Nyang'au, 2023). Moreover, rural water access remains limited, with only about 42 % of Kitui's combined urban and rural population having basic water services, and a majority of people walking more than 2 km to reach water sources. These extensive delays often divert project teams to rework plans, manage community dissatisfaction, and contend with seasonal droughts that further complicate scheduling (Njoroge & Muchelule, 2024).

Challenges related to budget constraints and meeting set objectives also heavily impact water project performance in Kitui. Major investments like the Sh840 million Kangu Kangu project and additional smaller initiatives (e.g., solar-powered boreholes benefiting over 2,500 residents) underscore significant spending, yet 44 % of the county's population (~562,320 people) still lack access to clean water (Waita, Yusuf & Nambuswa, 2025). Persistent infrastructure losses—including about 52 % of piped water lost to leaks and vandalism—increase operational costs and reduce the effectiveness of allocated budgets (Njoki & Nyang'au, 2023). Furthermore, even where funding is provided, implementation often falls short of strategic objectives; planning reports note that unreliable water systems and high operational costs compromise long-term sustainability, leaving many communities without reliable or affordable water despite significant financial input (Njoroge & Muchelule, 2024).

Effective project team management strategies significantly influence the success and performance of projects. These strategies ensure that project activities are executed efficiently, resources are optimally utilized, and timelines are met. Various studies have been conducted in different parts of the world on project team management strategies and project performance. For instance, Njoroge and Muchelule (2024) researched on project team management practices and performance of water projects. Leley, Omwenga and Lango (2025) conducted a study on project team management and implementation of county funded road projects and Waita, Yusuf and Nambuswa (2025) examined on project team management strategies and performance of roads projects. However, none of these studies focused on project team communication and team conflict resolution on performance of water projects in Kitui County, Kenya. To fill the

highlighted gaps, the current study sought to examine the influence of project team management strategies (project team communication and team conflict resolution) on performance of water projects in Kitui County, Kenya

Objectives of the Study

General Objective

The main objective of the study is to examine the influence of project team management strategies on performance of water projects in Kitui County, Kenya

Specific Objective

The study is guided by the following specific objectives;

- i. To establish the influence of project team communication on performance of water projects in Kitui County, Kenya
- ii. To assess the influence of team conflict resolution on performance of water projects in Kitui County, Kenya

Theoretical Framework

Social Exchange Theory (SET)

Social Exchange Theory (SET) developed by George Homans (1958) is a sociological and psychological framework that explains social behavior in terms of the exchange processes that occur in interpersonal relationships (Aziz, *et al*, 2022). The theory posits that individuals engage in social interactions with the expectation of receiving rewards that are proportional to the costs incurred. This framework operates on the principle of maximizing benefits while minimizing losses, suggesting that human relationships are formed and maintained based on the perceived balance of these exchanges (Abdikani & Ouma, 2024). At its core, SET is grounded in the idea that people make decisions based on a cost-benefit analysis. When entering a relationship, individuals assess the potential rewards such as emotional support, companionship, and social status against the costs, which might include time, effort, and emotional vulnerability (Singirankabo & Wanjiku, 2023). This evaluation influences whether they choose to initiate, maintain, or terminate a relationship. Consequently, relationships that provide a favorable balance of rewards over costs are more likely to be sustained, while those that do not may lead to dissatisfaction and eventual dissolution (Cherop, Simba & Wanjala, 2025). Additionally, SET emphasizes the importance of comparison levels, which are the standards individuals use to evaluate the outcomes of their relationships. These standards are shaped by past experiences, societal norms, and individual expectations (Kipyegon, Yusuf & Okello, 2025). If the outcomes of a current relationship meet or exceed these comparison levels, individuals are likely to feel satisfied; if not, they may reconsider their involvement. This aspect of the theory highlights the dynamic nature of relationships, as perceptions of costs and benefits can change over time,

influenced by external circumstances and personal growth (Aziz, *et al*, 2022). This theory was used to establish the influence of project team communication on performance of water projects in Kitui County, Kenya

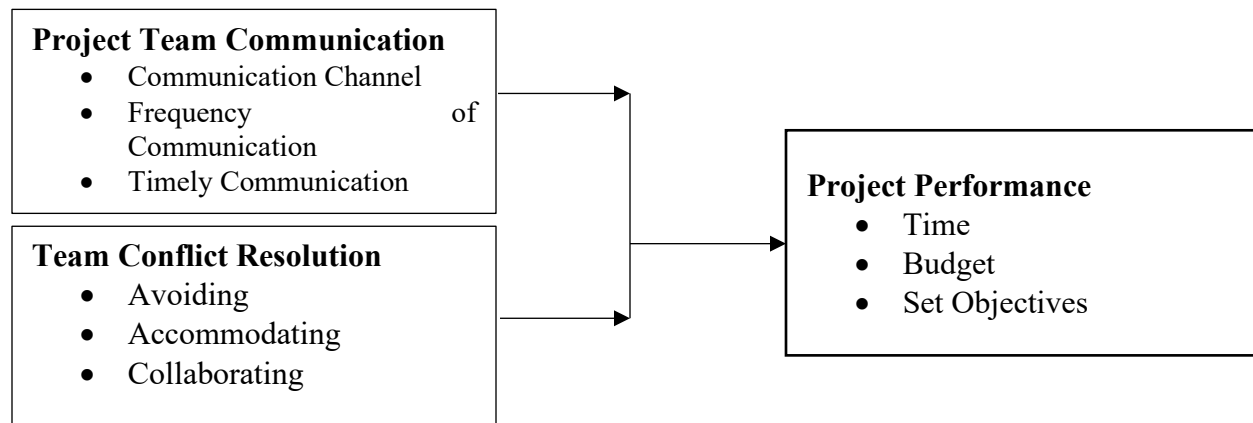
Social Interdependence Theory

Social Interdependence Theory, developed primarily by Morton Deutsch (1949), explains how the way in which individuals' goals are structured determines how they interact and, consequently, the outcomes of their interactions (Agusioma, 2020). The theory posits that the degree of interdependence among individuals whether positive, negative, or none, affects their motivation, behavior, and performance within a group setting (Ojiaku, 2025). Positive interdependence occurs when individuals perceive that their success is linked with that of others, fostering cooperation and mutual support (Kubana & Kimemia, 2025). Negative interdependence, on the other hand, arises when individuals see their goals as being in opposition, resulting in competition. When there is no interdependence, individuals act independently without influencing or being influenced by others (Micheni, 2024).

According to the theory, positive interdependence leads to promotive interaction, where individuals encourage and facilitate each other's efforts to achieve group goals. This type of cooperation enhances trust, open communication, and collective problem-solving (Njeri & Ngugi, 2021). In contrast, negative interdependence results in oppositional interaction, where individuals obstruct or compete against each other, often diminishing group effectiveness. The theory also identifies several factors that strengthen interdependence, including shared goals, joint rewards, and mutual accountability (Agusioma, 2020). Social Interdependence Theory therefore provides a strong framework for understanding teamwork, collaboration, and leadership dynamics in organizations, education, and other group-based environments. Social Interdependence Theory emphasizes that group outcomes are not merely the sum of individual efforts but are largely shaped by the relationships and interactions among members (Ojiaku, 2025). By promoting positive interdependence, teams and organizations can build synergy, enhance performance, and create environments of shared success. This theory is particularly relevant in modern organizational and educational settings where collaboration, adaptability, and collective achievement are essential for growth and sustainability (Kubana & Kimemia, 2025). This theory was relevant in assessing the influence of team conflict resolution on performance of water projects in Kitui County, Kenya.

Conceptual Framework

A conceptual framework is a diagram showing the relationship between independent variables and dependent variable. In this study, the independent variables are project team communication and team conflict resolution while dependent variable is performance of water projects in Kitui County, Kenya.

**Independent Variables****Dependent Variable****Figure 1: Conceptual Framework****Empirical Review****Project Team Communication and Project Performance**

Aziz, *et al* (2022) assessed on project team communication among project team in construction projects. The study utilized questionnaires and adopted a convenience purposive sampling approach. The study specifically targets project teams engaged in private high-rise residential developments in Selangor. The study found that effective project team communication not only strengthens interpersonal relationships among team members but also significantly enhances the overall performance of construction projects. The study concluded that project team communication influences project outcomes by facilitating knowledge sharing, reducing conflicts, and enhancing team effectiveness.

Abdikani and Ouma (2024) examined on the influence of project team communication on performance of project within non-governmental organizations in Mogadishu, Somalia. Descriptive research design was used, and the target population was 78 managers and 390senioremployees in the 78 NGOs in Mogadishu. The study adopted a stratified random sampling technique, where a sample size of 216 respondents was selected. The study found that project team communication within the NGO has an influence on organizational performance. The study concluded that project team communication is very key for any seamless operations within the project deliverables.

Singirankabo and Wanjiku (2023) conducted a study on the effect of project team communication on performance of the international non-governmental organizational projects in Rwanda. The study used a descriptive design with a correlational regression effect, and both qualitative and quantitative approaches. The study targeted 170 workers involved in the various projects implemented by INGOs project in Rwanda. The study found that project team

communication is significantly correlated with improved project schedules. The study concluded that project team communication has led to improved project schedules.

Cherop, Simba and Wanjala (2025) investigated on the influence of project team communication in implementation of water projects in Kenya. Descriptive survey research design adopted. The target population was from the eight water projects being implemented across the country and the accessible population was 1,675 staff members in the eight service boards in the country. The study found that there was strong positive correlation between project team communication and implementation of water projects in Kenya. The study concluded that project team communication had a positive and significant influence on implementation of water projects in Kenya.

Kipyegon, Yusuf and Okello (2025) researched on project team communication and performance of road infrastructure projects in Kenya. The study adopted the descriptive survey method and targeted 89 road infrastructure projects in Kenya, with the accessible population comprising 89 project managers from the projects, selected through simple random sampling. The study found that project team communication substantially contributes to improved performance. The study concluded that project communication plays a significant and positive role in enhancing the performance of road infrastructure projects in Kenya.

Team Conflict Resolution and Project Performance

Ojiaku (2025) conducted a study on team conflict resolution and employee performance of small and medium enterprises in Abuja Metropolis, Nigeria. This study employed a survey research design. Data was collected from 280 employees working with small and medium size companies in Abuja metropolis. The study found that team conflict resolution significantly influences performance outcomes. The study concluded that team conflict resolution significantly improved employee performance. This helps employees prioritize common goals, maintain open-mindedness, and foster strong interpersonal relationships.

Kubana and Kimemia (2025) assessed on team conflict resolution and project performance in Kigali Innovation City Project. A mixed-methods approach was used, combining quantitative data from structured questionnaires with qualitative insights from interviews. All 96 KIC staff members participated. The study found a strong link between team conflict resolution and improved project outcomes. The study concluded that effective communication, conflict coaching, and alternative dispute resolution practices are crucial for enhancing project success.

Micheni (2024) researched on the influence of team conflict resolution on employee performance in public hospitals in Meru County, Kenya. A descriptive research design was utilized in the study. The target population comprised 555 individuals from the five public hospitals in Meru County, targeting doctors, nurses, and clinical officers. Stratified random sampling was the sampling design of choice. The sample size was 167 respondents. The study found a strong

positive and significant relationship between team conflict resolution and employees' performance. The study concluded that team conflict resolution positively influenced employees' performance.

Njeri and Ngugi (2021) examined on the role of team conflict resolution on the performance of a project team in Kiambu County, Kenya. The study employed descriptive research design since it minimizes biasness. The study focused on completed projects from each of the 12 sub-counties in Kiambu County. Therefore, the target population was 473. The study found that team conflict resolution had a direct effect on the performance of the road construction projects. The study concluded that there is a positive and significant relationship between performance of the road construction projects and team conflict resolution.

Agusioma (2020) investigated on the influence of team conflict resolution on employee performance at public service commission in Kenya. This research adopted descriptive survey research design and mixed mode research approach. The target population in this study comprised of the top, middle and low level managers in the Public Service Commission in Kenya. The study sample size of 141 respondents was selected. The study found that team conflict resolution positively and significantly affected employee performance. The study concluded that team conflict resolution is crucial in enhancing employee performance and hence organization performance.

RESEARCH METHODOLOGY

The study adopted a descriptive research design to examine how project team management strategies influence the successful completion of government projects in Kitui County, Kenya. This design was chosen because it enables the researcher to systematically observe, describe, and report the current status of phenomena and the relationships between variables as they exist in their natural setting (Mugenda & Mugenda, 2016; Orodho, 2016).

The target population consisted of 128 individuals involved in county government projects, comprising project managers, project team members, and project consultants working at three administrative levels: County Headquarters (29, 22.7%), Sub-County offices (55, 43.0%), and Ward offices (44, 34.3%). Using Slovin's formula with a 95% confidence level and 5% margin of error, the researcher determined a sample size of 97 respondents. A stratified random sampling technique was employed to ensure proportional representation across the three strata (County HQ, Sub-County, and Ward levels), followed by simple random sampling within each stratum. This resulted in the following sample distribution: 22 respondents from County Headquarters, 42 from Sub-County, and 33 from Ward level.

Primary data were collected using structured questionnaires divided into six sections covering respondent demographics and questions on both independent and dependent variables. The questionnaires were preferred because they are suitable for literate respondents and facilitate

easier data analysis (Bhattacharjee, 2017). A pilot test was conducted on 10% of the sample size (10 respondents) using random sampling to identify and correct ambiguities, errors, and improve question relevance (Khan, 2019).

Quantitative data were analyzed using SPSS Version 28. Both descriptive statistics (frequencies, percentages, means, and measures of dispersion) and inferential statistics were applied. Results were presented using tables, pie charts, and bar charts for clear interpretation and communication of findings.

This methodological approach ensured the study achieved representative, reliable, and valid results regarding project team management and project success in Kitui County. The relationship between dependent and independent variable(s) was determined through regression analysis. Independent variables used in this study are four, and hence multi regression model was as follows;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Whereby;

Y = Performance of water projects in Kitui County, Kenya

β_0 = Constant

β_1 - β_2 = Coefficients of determination

X_1 = Project Team Communication

X_2 = Team Conflict resolution

ε = Error term

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

Descriptive Statistics Analysis

Project Team Communication and Project Performance

The first specific objective of the study was to establish the influence of project team communication on performance of water projects in Kitui County, Kenya. The respondents were requested to indicate their level of agreement on various statements related to project team communication and performance of water projects in Kitui County, Kenya. The results were as shown Table 1.

From the results, the respondents agreed that communication tools and channels facilitate smooth coordination among team members (M=3.826, SD= 0.588). In addition, the respondents agreed that the project team selects appropriate channels for different types of project information (M=3.813, SD= 0.840). Further, the respondents agreed that team members communicate regularly throughout the project lifecycle (M=3.808, SD=0.626).

From the results, the respondents agreed that Updates and progress reports are shared frequently to keep everyone informed ($M=3.800$, $SD= 0.719$). In addition, the respondents agreed that the project team ensures that critical updates are communicated on time ($M=3.792$, $SD= 0.893$). Further, the respondents agreed that information is shared promptly to enable quick decision-making ($M=3.781$, $SD=0.776$).

Table 1: Project Team Communication and Project Performance

	Mean	Std. Deviation
Communication tools and channels facilitate smooth coordination among team members.	3.826	0.588
The project team selects appropriate channels for different types of project information.	3.813	0.840
Team members communicate regularly throughout the project lifecycle.	3.808	0.626
Updates and progress reports are shared frequently to keep everyone informed.	3.800	0.719
The project team ensures that critical updates are communicated on time.	3.792	0.893
Information is shared promptly to enable quick decision-making.	3.781	0.776
Aggregate Mean	3.803	0.740

Team Conflict Resolution and Project Performance

The second specific objective of the study was to assess the influence of team conflict resolution on performance of water projects in Kitui County, Kenya. The respondents were requested to indicate their level of agreement on various statements related to team conflict resolution and performance of water projects in Kitui County, Kenya. The results were as shown Table 2.

From the results, the respondents agreed that team members manage conflicts by strategically avoiding distractions from the project goals ($M=3.804$, $SD= 0.882$). In addition, the respondents agreed that avoiding non-critical disagreements helps maintain overall project progress ($M=3.786$, $SD= 0.513$). Further, the respondents agreed that accommodating team members' views helps in achieving smooth project collaboration ($M=3.771$, $SD=0.739$).

From the results, the respondents agreed that the team successfully resolves disagreements by being flexible to each other's ideas ($M=3.764$, $SD= 0.781$). In addition, the respondents agreed that the team works together to find mutually beneficial solutions to conflicts ($M=3.751$, $SD= 0.689$). Further, the respondents agreed that open discussion and joint problem-solving strengthen team cohesion ($M=3.744$, $SD=0.592$).

Table 2: Team Conflict Resolution and Project Performance

	Mean	Std. Deviation
Team members manage conflicts by strategically avoiding distractions from the project goals.	3.804	0.882
Avoiding non-critical disagreements helps maintain overall project progress.	3.786	0.513
Accommodating team members' views helps in achieving smooth project collaboration.	3.771	0.739
The team successfully resolves disagreements by being flexible to each other's ideas.	3.764	0.781
The team works together to find mutually beneficial solutions to conflicts.	3.751	0.689
Open discussion and joint problem-solving strengthen team cohesion.	3.744	0.592
Aggregate Mean	3.777	0.699

Inferential Statistics

Inferential statistics such as correlation analysis and regression analysis were used to assess the relationships between the independent variables (project team communication and team conflict resolution) and the dependent variable (performance of water projects in Kitui County, Kenya).

Correlation Analysis

This research adopted Pearson correlation analysis determine how the dependent variable (performance of water projects in Kitui County, Kenya) relates with the independent variables (project team communication and team conflict resolution).

Table 3: Correlation Coefficients

		Project Performance	Project Team Communication	Team Conflict Resolution
Project Performance	Pearson	1		
	Correlation			
	Sig. (2-tailed)			
Project Team Communication	N	86		
	Pearson	.853**	1	
	Correlation			
Team Conflict Resolution	Sig. (2-tailed)	.000		
	N	86	86	
	Pearson	.831**	.308	1
	Correlation			
	Sig. (2-tailed)	.001	.021	
	N	86	86	86

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

From the results, there was a very strong relationship between project team communication and performance of water projects in Kitui County, Kenya ($r = 0.853$, $p \text{ value} = 0.000$). The relationship was significant since the $p \text{ value } 0.000$ was less than 0.05 (significant level). The findings are in line with the findings of Aziz, *et al* (2022) who indicated that there is a very strong relationship between project team communication and project performance.

Moreover, there was a very strong relationship between team conflict resolution and performance of water projects in Kitui County, Kenya ($r = 0.831$, $p \text{ value} = 0.001$). The relationship was significant since the $p \text{ value } 0.001$ was less than 0.05 (significant level). The findings are in line with the findings of Kubana and Kimemia (2025) who indicated that there is a very strong relationship between team conflict resolution and project performance.

Regression Analysis

Multivariate regression analysis was used to assess the relationship between independent variables (project team communication and team conflict resolution) and the dependent variable (performance of water projects in Kitui County, Kenya).

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.787	.619	.618	.10428

a. Predictors: (Constant), project team communication and team conflict resolution

The model summary was used to explain the variation in the dependent variable that could be explained by the independent variables. The r -squared for the relationship between the independent variables and the dependent variable was 0.619 . This implied that 61.9% of the variation in the dependent variable (performance of water projects in Kitui County, Kenya) could be explained by independent variables (project team communication and team conflict resolution).

Table 5: Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	72.486	2	36.243	67.366	.002 ^b
Residual	44.618	83	.538		
Total	117.104	85			

a. Dependent Variable: performance of water projects in Kitui County, Kenya

b. Predictors: (Constant), project team communication and team conflict resolution

The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 67.366 while the F critical was 3.107 . The $p \text{ value}$ was 0.002 . Since the F -calculated was greater than the F -critical and the $p \text{ value } 0.002$ was less than 0.05 , the model was considered as a good fit for the data. Therefore, the model can be used to predict the influence of project team

communication and team conflict resolution on performance of water projects in Kitui County, Kenya.

Table 6: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.253	0.065		3.892	0.000
	project team communication	0.358	0.093	0.357	3.849	0.000
	team conflict resolution	0.336	0.087	0.337	3.862	0.001

a Dependent Variable: performance of water projects in Kitui County, Kenya

The regression model was as follows:

$$Y = 0.253 + 0.358X_1 + 0.336X_2 + \varepsilon$$

According to the results, project team communication has a significant effect on performance of water projects in Kitui County, Kenya ($\beta_1=0.358$, p value= 0.000). The relationship was considered significant since the p value 0.000 was less than the significant level of 0.05. The findings are in line with the findings of Aziz, *et al* (2022) who indicated that there is a very strong relationship between project team communication and project performance.

The results also revealed that team conflict resolution has a significant effect on performance of water projects in Kitui County, Kenya ($\beta_1=0.336$, 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 findings of Kubana and Kimemia (2025) who indicated that there is a very strong relationship between team conflict resolution and project performance.

CONCLUSIONS AND SUMMARIES

The study concludes that project team communication has a positive and significant effect on performance of water projects in Kitui County, Kenya. Findings revealed that communication channel, frequency of communication and timely communication influence performance of water projects in Kitui County, Kenya. In addition, the study concludes that team conflict resolution has a positive and significant effect on performance of water projects in Kitui County, Kenya. Findings revealed that avoiding, accommodating and collaborating influence performance of water projects in Kitui County, Kenya.

Recommendations

The study recommends that the management of water projects in Kenya should institutionalize structured and continuous project team communication through regular coordination meetings,

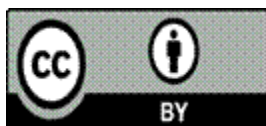
standardized reporting tools, and the use of digital communication platforms. Effective and timely communication enhances information sharing among engineers, contractors, county officials, and community representatives, reducing misunderstandings, delays, and costly rework. In addition, the study recommends that the management of water projects in Kenya should establish a formal team conflict resolution framework including clear grievance-handling procedures, defined escalation mechanisms, and basic conflict management training for project leaders.

REFERENCES

- Abdikani, A. A., & Ouma, C. A. (2024). Influence of Project Team Communication on Performance of Project within Non-Governmental Organizations in Mogadishu, Somalia. *The University Journal*, 6(1), 116-125.
- Abdirahman, M. O., & Christopher, F. (2025). The Effect of Project Team Management Strategies on Project Performance in Puntland State of Somalia. *International Journal of Academic Multidisciplinary Research*, 9(6), 38-45.
- Agusioma, N. L. (2020). The influence of team conflict resolution on employee performance at public service commission in Kenya. *International Journal of Current Aspects*, 3(2), 1-11.
- Aziz, N. A., Rahim, F. A. M., Aziz, N. M., & Ngah, N. S. (2022). *Project team communication among project team in construction projects*. Retrieved From, <https://rsisinternational.org/journals/ijriss/articles/>
- Daud, W., Anwar, J., & Abbasi, M. M. (2024). The Impact of Project Team Management Strategies on Project Performance: An Analysis of IT Sector of Pakistan. *The Regional Tribune*, 3(1), 338-355.
- Fung, H. P., & Siow, H. L. (2020). Relationship between project team management strategies and Project Performance as Perceived by Project Managers in Malaysia – A Mixed Methods Study. *Open Journal of Social Science Research*, 1(9), 238-24.
- Kemuma, O., & Lango, B. (2023). Influence of Project Team Development on Performance of Nairobi County Government Health Center Projects in Kenya. *International Journal of Entrepreneurship and Project Management*, 8(1), 1–21.
- Kesiime, D., Agaba, M., Kaaya, S., & Turyasingura, J. B. (2024). Project team development and performance of projects in Uganda. a case of forum for women development (FOWODE) in Kabale District. *Asian Journal of Management Entrepreneurship and Social Science*, 4(1), 62-89.
- Khalaf, A. A. (2024). The role of project team management strategies in the success of construction projects: the case of Iraq. *World Economics & Finance Bulletin*, 36(2), 158-174.

- Kipyegon, B. S., Dr. Muchelule, Y., & Okello, B. (2025). Project communication and performance of road infrastructure projects in Kenya. *The Strategic Journal of Business & Change Management*, 12(2), 958–979.
- Kubana, A. A., & Kimemia, M. (2025). Team conflict resolution and project performance in Kigali Innovation City Project. *International Journal of Advanced Business Studies*, 4(1), 51-70.
- Majeed, M. I., Mahmood, R., Md Som, H., & Munir, S. (2023). Impact of Project Team Management Strategies on Project Success. *Advances in Economics Management and Political Sciences*, 6(1), 283-294.
- Micheni, C. M. (2024). *Influence of team conflict resolution on employee performance in public hospitals in Meru County, Kenya*. Retrieved From, <https://erepository.mku.ac.ke/server/api/core/bitstreams/>
- Mmbughu, A. E. (2021). *Assessing the influence of project management team performance: a case of selected Tanzania Federation of Cooperative Projects, Dar Es Salaam*. Retrieved From, <https://repository.out.ac.tz/1220/1/>
- Mwakio, S., Oyoo, J., & Onyiego, G. (2020). *Effect of project team structure on performance of public housing construction projects in Kenya: a case study of Mombasa County*. Retrieved From, <https://elibrary.ru/item.asp?id=78804601>
- Ndunda, M. K., & Mose, T. (2021). Project team development and performance of nongovernmental organization funded projects in Kitui County, Kenya. *Journal of Applied Social Sciences in Business and Management*, 3(2), 265-280.
- Njeri, N. J., & Ngugi, P. K. (2021). Role of team conflict resolution on the performance of a project team in Kiambu County, Kenya. *International Journal of Social Sciences and Information Technology*, 8(10), 1-14.
- Njoki, M. Y., & Nyang'au, S. (2023). Project team management practices and performance of rural electrification projects in north eastern, Kenya. *International Journal of Social Sciences Management and Entrepreneurship*, 39(3), 142-153.
- Njoroge, J., & Muchelule, Y. (2024). Project team management practices and performance of water projects in Kiambu County, Kenya. *International Journal of Social Sciences Management and Entrepreneurship*, 8(2), 859-870.
- Nkam, F. M., Ngomeseng, B., Njekang, D. N., & Njimanted, G. F. (2025). Effect of project team management strategies on project success in the healthcare sector of the Bamenda Municipalities. *Journal of Entrepreneurship and Project Management*, 10(3), 17-35.
- Ochieng, I. A., & Tumuti, J. (2023). Project team structure and performance of building construction projects in international schools in Nairobi City County, Kenya. *The Strategic Journal of Business & Change Management*, 10(4), 1427–1446.
- Ojiaku, O. C. (2025). Team conflict resolution and employee performance of small and medium enterprises in Abuja Metropolis, Nigeria. *International Journal of Business & Law Research*, 13(1), 296-309.

- Okello, J. F., Bowa, O., & Migosi, J. (2025). Role of project team integration on time, cost, site dispute and quality during the execution of court buildings in Kenya. *International Journal of Professional Business Review*, 10(6), 1-19.
- Pelumi, R. O., Oshin, I. I., & Sunday, A. O. (2020). *Project team management strategies and Project Performance among Selected Construction Companies in Lagos State, Nigeria*. Retrieved From, <https://rsisinternational.org/journals/ijriss/articles/>
- Singirankabo, M., & Wanjiku, C. (2023). Effect of Project Team Communication on Performance of the International Non-Governmental Organizational Projects in Rwanda. *Journal of Entrepreneurship & Project Management*, 7(7), 48-59.
- Waita, M. V., Yusuf, M., & Nambuswa, M. E. (2025). Project team management strategies and performance of roads projects in Mombasa County, Kenya. *International Journal of Management and Business Research*, 7(1), 140-160.



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