

ROLE OF PROJECT COMMUNICATION ON PERFORMANCE OF WATER AND SANITATION PROJECTS IN SIAYA COUNTY, KENYA

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Abstract: Despite the importance of water and sanitation projects in improving public health and overall well-being, many areas in Kenya still face numerous challenges. Siaya County, located in Western Kenya, has been grappling with water and sanitation challenges for years. According to the Ministry of Water and Sanitation, only 41% of Siaya County residents have access to improved water sources, while 17% have access to improved sanitation facilities. This study sought to address this gap by investigating the extent to which project communication influences the success of water and sanitation projects in the county, intending to inform policy and practice in the sector. The following specific objectives guided the study: to examine the role of communication monitoring on performance of water and sanitation projects in Siaya County, Kenya; and to determine the role of communication policy on the performance of water and sanitation projects in Siaya County, Kenya. The study was guided by the following theories: stakeholder theory, theory of constraints, contingency theory, and structuration theory. 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. They are forming a target population of 35 individuals. Due to the small size of the study population, the study used a census sampling approach. The primary data for this analysis was collected via a questionnaire. The data obtained was quantitative as well as qualitative. The Statistical Package for Social Scientists (SPSS) version 25 generated frequencies and descriptive and inferential statistics from the quantitative data; the findings were presented in tables and figures. The study concludes that communication monitoring has a positive and significant effect on performance of water and sanitation projects in Siaya County, Kenya. The study also concludes that communication policy has a positive and significant effect on performance of water and sanitation projects in Siaya County, Kenya. From the findings, this study recommends that projects managers should prioritize timely and accurate dissemination of project information to all relevant stakeholders. Set up a regular communication schedule to ensure that updates, progress reports, and important announcements are shared promptly.

Keywords: Communication Monitoring, Communication Policy, Performance, Water and Sanitation Projects.

I. INTRODUCTION

Access to safe water and proper sanitation facilities is crucial to ensuring public health and preventing the spread of water-borne diseases. In many developing countries, including Kenya, inadequate access to clean water and sanitation facilities remains a significant public health challenge. According to UNICEF, in 2017, approximately 33 million people in Kenya lacked access to safe water, while 37 million lacked access to basic sanitation facilities [1]. In response to this challenge, various water and sanitation projects have been initiated in Kenya to provide clean water and improved sanitation facilities

to communities in need. However, despite these efforts, many projects have faced challenges that have negatively impacted their success. These challenges range from inadequate funding and lack of appropriate technology to inadequate communication and stakeholder engagement [2]. According to research, effective communication is positively associated with project success [3]. Effective communication is essential for the success of any project, including water and sanitation projects. Communication helps project teams to identify and address potential issues and risks, establish expectations, build trust, and manage stakeholder relationships. In the context of water and sanitation projects, effective communication is critical, as these projects involve multiple stakeholders, including government agencies, non-governmental organizations, community groups, and individual households.

In Australia, communication challenges have been identified in implementing water reuse projects aimed at increasing the availability of water resources. These challenges include concerns about the safety and quality of recycled water, lack of trust among stakeholders, and inadequate engagement of local communities in decision-making processes (Mankad et al., 2019) [4]. In Canada, communication challenges have been identified in water and sanitation projects to improve access to clean water and sanitation facilities in Indigenous communities. These challenges include inadequate funding, lack of trust between Indigenous communities and project implementers, and inadequate engagement of Indigenous communities in project planning and decision-making processes [5]. In Europe, communication challenges have been identified in water and sanitation projects and the need to improve water quality and protect the environment. These challenges include inadequate stakeholder engagement, lack of transparency in decision-making processes, and the need for more communication about project risks and benefits [6].

In developing countries, inadequate access to clean water and sanitation facilities has significant economic, social, and health implications. For example, in sub-Saharan Africa, waterborne diseases are responsible for approximately 4% of deaths and 5% of disability-adjusted life years (DALYs) [7]. Also, communication challenges in water and sanitation projects are more complex and varied. These challenges include inadequate funding, appropriate technology, and stakeholder engagement. In South Africa, communication challenges have been identified in water and sanitation projects to improve access to basic services in poor and marginalized communities. These challenges include inadequate stakeholder engagement, lack of transparency in decision-making processes, and insufficient communication about project risks and benefits [8]. In Uganda, communication challenges have been identified in water and sanitation projects to improve access to clean water and sanitation facilities in rural areas. These challenges include inadequate funding, lack of trust between stakeholders, and inadequate engagement of local communities in project planning and decision-making processes [9]. In Kenya, communication challenges have been identified in water and sanitation projects aimed at improving access to clean water and sanitation facilities in rural and peri-urban areas. These challenges include inadequate stakeholder engagement, lack of trust between stakeholders, and insufficient communication about project risks and benefits [10]. For example, the Kenya Rural Water and Sanitation Program failed to involve local communities in project planning and decision-making processes, resulting in poor project outcomes [11]. Lake Victoria South Water Services Board faced trust issues with local communities during the implementation of a water project, leading to delays and disputes [12]. Nairobi City Water and Sewerage Company failed to communicate effectively with local communities during the implementation of a water project, leading to protests and delays [13].

Several studies have investigated the role of project communication in the performance of water and sanitation projects in Kenya. For example, [10] conducted a systematic review of communication challenges and prospects for the water, sanitation, and hygiene (WASH) sector in Kenya. The review identified several communication challenges, including inadequate stakeholder engagement, lack of trust between stakeholders, and insufficient communication about project risks and benefits. The authors emphasized the importance of involving all relevant stakeholders, including community members, in project planning and decision-making processes and using appropriate communication channels and strategies to build trust and understanding. Another study by [14] examined the role of community participation in the sustainability of water and sanitation projects in rural Kenya. The authors found that effective communication between the community and project implementers was critical to the success of the projects. They recommended the use of participatory approaches that involve community members in all stages of the project, from planning to implementation and monitoring. In a study on the implementation of the Kenya Rural Water and Sanitation Program (KRWSP), [15] identified communication as a critical factor in the success of the program. The authors emphasized the importance of involving all stakeholders, including local communities, government officials, and non-governmental organizations, in project planning and decision-making processes. They recommended the use of appropriate communication channels and strategies, such as community meetings and radio broadcasts, to disseminate project information and build trust and understanding among stakeholders.

A. Statement of the Problem

Despite the importance of water and sanitation projects in improving public health and overall wellbeing, many areas in Kenya still face numerous challenges in this regard [15]. Siaya County, located in Western Kenya, faces significant challenges in providing access to clean water and improved sanitation facilities to its residents. According to a study conducted by the Kenya National Bureau of Statistics (KNBS) in 2019, only 46% of households in Siaya County have access to clean drinking water, which is significantly lower than the national average of 58%. Moreover, the same study found that only 23% of households in the county have access to improved sanitation facilities such as flush toilets or ventilated improved pit latrines (VIPs), which is also lower than the national average of 30%. The lack of access to these basic needs has resulted in a high incidence of waterborne diseases in Siaya County. For instance, the Siaya County Government reported 4,652 cases of cholera in the county between January and December 2019. In Siaya County, water and sanitation projects have been hampered by communication challenges among stakeholders, as identified by a study by the Water Governance Institute (WGI) in 2018. The study highlighted the lack of effective communication channels, coordination, and collaboration as key challenges. To address this, a communication framework that ensures regular and effective communication among stakeholders is recommended, as effective communication and stakeholder engagement are critical to the success of development projects, according to a report by the United Nations Development Programme [16].

[17] found that the lack of access to clean water and improved sanitation facilities contributed significantly to the prevalence of waterborne diseases in Siaya County. Poor communication and community participation were also identified as barriers to the success of water and sanitation projects in the county. Given the importance of communication in enabling stakeholders to collaborate towards achieving project goals, it is considered an essential component of water and sanitation projects. As per the previous studies that include [18] who examined the impact of infrastructure and funding on the implementation of water and sanitation projects in Kisumu County. [19] investigated the role of management in the implementation of water and sanitation projects in rural Kenya. [20] examined the impact of funding and institutional arrangements on the implementation of water and sanitation projects in urban Kenya. This study will bridge a gap from previous studies by assessing the role of project communication on performance of water and sanitation projects in Siaya County, Kenya.

B. Specific Objectives

- i) To examine the role of communication monitoring on performance of water and sanitation projects in Siaya County, Kenya.
- ii) To determine the role of communication policy on performance of water and sanitation projects in Siaya County, Kenya.

II. LITERATURE REVIEW

A. Theoretical Review

1) The Contingency Theory

Fred Fiedler proposed contingency theories in 1958. Organizational structure contingency theory offers a significant basis for the analysis of organizational design [21]. "At the structural level of study in organizational theory, it holds that the most efficient organizational structural design is where the framework matches the contingencies; the contingency approach is considered a dominant, theoretical, logical, open system model" [22]. Most projects are difficult to handle, according to [23], since they require complexity and three separate and conflicting commitments: due date, budget, and material. In project management, the triple constraints criteria (time, scope, and cost) have been recognized as a measure of project performance. The TOC-based management theory emphasizes improvement on three levels: the organization's mindset, the measures that guide the organization, and the approaches used within the organization [24]. Needs and constraints in a multi-party working situation, which is needed for construction projects, complicate project management [25], so constraints must be controlled for successful project management. This research is focused on the triple constraint theory, which states that most communication management practices from an organizational standpoint may work well or fail, resulting in delays if the theory is not well understood. Project delays are a common issue in the health industry, not just because of the immeasurable cost to society, but also because of the crippling impact on the contracting parties [26]. Cost, quality and communication criteria are three other considerations that are used to evaluate project success [27].

2) *Structuration Theory*

Structuration theory is a 1970s organizational communication model founded by Anthony Giddens that looked at structures and social processes as inseparable. Over the last century, the relevance of human communication has been a major research topic [28]. According to Giddens, the term structure in social analysis refers to "interaction rules and resources," and more specifically to the structure's properties that enable the 'binding' of time and space in social structures. The structure of expectations can be symbolically incorporated as long as the communication codes are ordered hierarchically [29]. Structuration is a method based on structural properties that are "both the medium and the product of the activities they recursively organize." Agents in the set-up of an organization are governed by structures in society's "constitution." Structures can also shift, either gradually or dramatically, as a result of structuration. When it comes to group decision-making, this ensures that the decision is influenced not only by the group's mechanisms, but also by the same rules and tools. The organization's structure represents the interdependence between input and output in any implementation phase. Organizations and other social actors are related to a social system, which is a network that organizes their actions [30]. This theory is relevant to this study, as it deposits that communication structures are an important entity in terms of project performance; thus, being relevant to the ongoing study.

C. *Conceptual Framework*

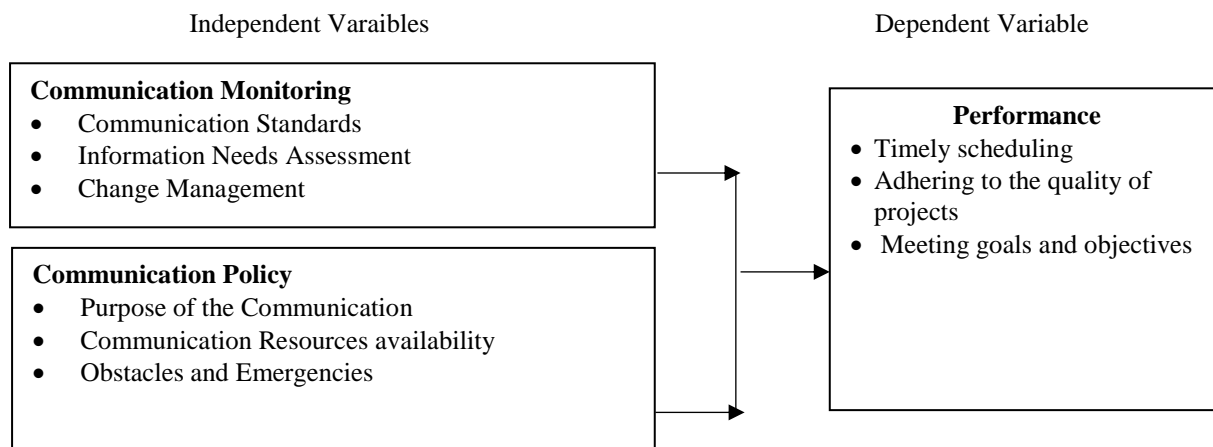


Figure 1: Conceptual Framework

D. *Empirical Review Related to the study*

According to [31], good quality communication improves participation in public, private, and non-profit organizations. Bad communication, according to, [31], is an obstacle to employee performance. According to [32], recurrent themes in the literature on communication include sufficient knowledge flow about key change issues, supervisory communication as a preferred communication source, communication as a pillar of collaboration and positive employee attitudes, and face-to-face communication as the primary method of information transmission, as well as the advantages of seeing opposition as a source of valuable feedback. They do, however, come to the conclusion that there is a significant disconnect between theory and reality. Communication is primarily concerned with informing subordinates about the company's objectives, strategies, and procedures, as well as supervisors' directives, orders, and guidance. The value of good communication for project performance has been illustrated in numerous studies [33]. According to a study, the top 30 possible problems leading to poor project results can be grouped into five categories, with communication problems being the third category [34]. All five categories, to some degree, include communications. Bad coordination, for example, can be traced back to inadequate, incomplete, inappropriate, unreliable, inconsistent, late information or a combination of them. [35] conducted research at the African Virtual University (AVU) in Kenya on how communication monitoring affects project results. The Multinational Project (MNP) and the Virtual University for Cancer Control Network (VUCCnet), both successfully implemented by AVU, were investigated using a mixed research design of ex-post facto and survey to establish a potential communication monitoring-project performance relationship. The Spearman correlation between communication monitoring and project success was 0.6, indicating a favorable relationship. In order to affect project success, the study concluded that communication monitoring must be implemented fully and systematically. Given that projects are undertaken by organizations with frameworks, it is suggested that an M&E unit be included in the project.

[36] conducted a study in Ghana to examine the relationship between communication policy and project performance in public construction projects. The study used a survey research design and collected data from 120 respondents comprising of project managers, project coordinators, and communication officers of the Ghanaian government. A structured questionnaire was used to gather data on communication policy and project performance, and data was analyzed using descriptive statistics, correlation analysis, and regression analysis. The study found that the development and implementation of effective communication policies positively influence project performance. The study further revealed that effective communication policies lead to better project planning, collaboration, stakeholder involvement, and problem-solving. [37] investigated the impact of communication policy on the performance of construction projects in Nigeria. The study used a cross-sectional survey research design to collect data from 152 respondents from different public and private organizations involved in water supply and sanitation projects in Nigeria. A structured questionnaire was used to gather data on communication policy and project performance, and data was analyzed using descriptive statistics and multiple regression analysis. The study found that communication policies significantly affect project performance, particularly in terms of project delivery, cost, and quality. The study also revealed that communication policies improve stakeholder involvement, risk management, and decision-making. [38] examined the relationship between communication policy and project performance in the Nigerian construction industry. The study used a mixed-methods research design that involved both quantitative and qualitative data collection and analysis. Data was collected from 10 purposively selected water supply and sanitation projects in Lagos state, Nigeria. A structured questionnaire was used to gather quantitative data on communication policy and project performance, and semi-structured interviews were conducted to gather qualitative data. Data was analyzed using descriptive statistics and content analysis. The study found that effective communication policies significantly improve project performance, particularly in terms of time, cost, and quality. The study also revealed that communication policies lead to better stakeholder engagement, problem-solving, and decision-making. [39] investigated the impact of communication policy on project success in the Nigerian construction industry. The study used a cross-sectional survey research design to collect data from 174 respondents involved in water supply and sanitation projects in Nigeria. A structured questionnaire was used to gather data on communication policy, project performance, and project success factors, and data was analyzed using descriptive statistics and multiple regression analysis. The study found that effective communication policies have a positive impact on project success, particularly in terms of stakeholder involvement, project planning, problem-solving, and decision-making. The study also revealed that communication policies lead to better collaboration and coordination among project stakeholders.

III. METHODOLOGY

A descriptive design was used in this research. The study observed five key projects in Siaya County as annexed. The target population consisted of 10 project managers, 20 Multistakeholders forum community representatives selected from the five project areas, two donors and five government officials. This forms a target population of 37 individuals. By targeting these individuals, the study was able to gather relevant data on the communication policies and strategies that guide water and sanitation project implementation in Siaya County, Kenya. Due to the small size of the study population, the study used census sampling approach. The primary data for this analysis was collected via a questionnaire. The data obtained was quantitative as well as qualitative. The Statistical Package for Social Scientists (SPSS) version 25 was used to generate frequencies, descriptive and inferential statistics, as well as to draw conclusions and make recommendations based on the results of the analysis. Frequencies, mean scores, and standard deviation were among the descriptive statistics used. Regression and correlation analysis was used to calculate the inferential statistic. The overall model significance was determined using analysis of variance (ANOVA).

IV. FINDINGS AND DISCUSSIONS

A. Response Rate

In this study, the sampling frame was 37 respondents comprising of project managers, Multistakeholders and government officials. The researcher administered each respondent with a questionnaire. From the 37 questionnaires 35 were completely filled and returned hence a response rate of 94.5%. The response rate was considered as suitable for making inferences from the data collected. As indicated by Metsamuuronen (2017) [40], a response rate that is above fifty percent is considered adequate for data analysis and reporting while a response rate that is above 70% is classified as excellent. Hence, the response rate of this study was within the acceptable limits for drawing conclusions and making recommendations.

B. Descriptive Statistics Analysis

1) Communication Monitoring and Project Performance

The respondents were requested to indicate their level of agreement on various statements relating to communication monitoring and performance of water and sanitation projects in Siaya County, Kenya. A 5-point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 1. From the results, the respondents agreed that the communication channels utilized for sharing project updates and information have been effective in keeping stakeholders informed. This is supported by a mean of 3.936 (std. dv = 0.708). In addition, as shown by a mean of 3.928 (std. dv = 0.921), the respondents agreed that the frequency of communication regarding project progress and milestones has met their expectations. Further, the respondents agreed that timely notifications about changes, challenges, or delays in project implementation have been consistently provided. This is shown by a mean of 3.842 (std. dv = 0.821). The respondents also agreed that stakeholders are well-informed about the project's goals, objectives, and anticipated outcomes. This is shown by a mean of 3.838 (std. dv = 0.809). The respondents agreed that certain communication content and context have proven particularly valuable for staying updated about the project. This is supported by a mean of 3.810 (std. dv = 0.981). In addition, as shown by a mean of 3.767 (std. dv = 0.786), the respondents agreed that stakeholder engagement and participation have played a significant role in shaping project planning and decision-making processes. Further, the respondents agreed that feedback and suggestions from stakeholders have been actively sought and considered in project design and implementation. This is shown by a mean of 3.751 (std. dv = 0.861).

Table 1: Communication Monitoring and Project Performance

	Mean	Std. Deviation
The communication channels utilized for sharing project updates and information have been effective in keeping stakeholders informed.	3.936	0.708
The frequency of communication regarding project progress and milestones has met our expectations.	3.928	0.921
Timely notifications about changes, challenges, or delays in project implementation have been consistently provided.	3.842	0.821
Stakeholders are well-informed about the project's goals, objectives, and anticipated outcomes.	3.838	0.809
Certain communication content and context have proven particularly valuable for staying updated about the project.	3.810	0.981
Stakeholder engagement and participation have played a significant role in shaping project planning and decision-making processes.	3.767	0.786
Feedback and suggestions from stakeholders have been actively sought and considered in project design and implementation.	3.751	0.865
Aggregate	3.842	0.861

2) Communication Policy and Project Performance

The respondents were requested to indicate their level of agreement on various statements relating to communication policy and performance of water and sanitation projects in Siaya County, Kenya. A 5-point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 2. From the results, the respondents agreed that the communication policy is clearly defined. This is supported by a mean of 4.168 (std. dv = 0.905). In addition, as shown by a mean of 3.959 (std. dv = 0.885), the respondents agreed that the communication policy is effectively communicated to all stakeholders. Further, the respondents agreed that the communication policy is regularly reviewed and updated. This is shown by a mean of 3.920 (std. dv = 0.605). The respondents also agreed that the communication policy aligns with project goals and objectives. This is shown by a mean of 3.915 (std. dv = 0.981).

Table 2: Communication Policy and Project Performance

	Mean	Std. Deviation
The communication policy is clearly defined	4.168	0.905
The communication policy is effectively communicated to all stakeholders	3.959	0.885
The communication policy is regularly reviewed and updated	3.920	0.605
The communication policy aligns with project goals and objectives	3.915	0.981
The communication policy addresses cultural and linguistic diversity among stakeholders	3.911	0.873
The communication policy includes mechanisms for feedback and evaluation	3.897	0.786
Am satisfied with the effectiveness of the adopted communication policy	3.789	0.896
Aggregate	3.890	0.867

The respondents agreed that the communication policy addresses cultural and linguistic diversity among stakeholders. This is supported by a mean of 3.911 (std. dv = 0.873). In addition, as shown by a mean of 3.897 (std. dv = 0.786), the respondents agreed that the communication policy includes mechanisms for feedback and evaluation. Further, the respondents agreed that they are satisfied with the effectiveness of the adopted communication policy. This is shown by a mean of 3.789 (std. dv = 0.896).

3) Performance of Water and Sanitation Projects

The respondents were requested to indicate their level of agreement on various statements relating to performance of water and sanitation projects in Siaya County, Kenya. A 5-point Likert scale was used where 1 symbolized strongly disagree, 2 symbolized disagree, 3 symbolized neutral, 4 symbolized agree and 5 symbolized strongly agree. The results were as presented in Table 3. From the results, the respondents agreed that Water and sanitization projects are delivered within budget. This is supported by a mean of 4.084 (std. dv = 0.997). In addition, as shown by a mean of 3.917 (std. dv = 0.831), the respondents agreed that water and sanitization projects are implemented as per the specified quality standards. Further, the respondents agreed that the level of stakeholder satisfaction on implemented water and sanitization projects is high. This is shown by a mean of 3.858 (std. dv = 0.563). The respondents also agreed that water and sanitization projects are implemented within specified timeline. This is shown by a mean of 3.831 (std. dv = 0.851). Further, the respondents agreed that there are few complaints on the quality of completed projects. This is shown by a mean of 3.822 (std. dv = 0.832).

Table 3: Performance of Water and Sanitation Projects

	Mean	Std. Deviation
Water and sanitization Projects are delivered within budget	4.084	0.997
Water and sanitization projects are implemented as per the specified quality standards	3.917	0.831
The level of stakeholder satisfaction on implemented water and sanitization projects is high	3.858	0.563
Water and sanitization projects are implemented within specified timeline	3.831	0.851
There are few complaints on the quality of completed projects	3.822	0.832
Aggregate	3.836	0.818

C. Inferential Statistics

Inferential statistics in the current study focused on correlation and regression analysis. Correlation analysis was used to determine the strength of the relationship while regression analysis was used to determine the relationship between dependent variable (performance of water and sanitation projects in Siaya County, Kenya) and independent variables (communication planning, communication implementation, communication monitoring and communication policy).

1) Correlation Analysis

The present study used Pearson correlation analysis to determine the strength of association between independent variables (communication monitoring and communication policy) and the dependent variable (performance of water and sanitation projects in Siaya County, Kenya).

Table 4: Correlation Coefficients

		Project Performance
Communication Monitoring	Pearson Correlation	.840
	Sig. (2-tailed)	.002
	N	35
Communication Policy	Pearson Correlation	.859
	Sig. (2-tailed)	.000
	N	35

The results revealed that there is a very strong relationship between communication monitoring and performance of water and sanitation projects in Siaya County, Kenya ($r = 0.840$, 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 [31] that there is a very strong relationship between communication monitoring and project performance. The results also revealed that there was a very strong relationship between communication policy and performance of water and sanitation projects in Siaya County, Kenya ($r = 0.859$, p value = 0.000). The relationship was significant since the p value 0.000 was less than 0.05 (significant level). The findings are in line with the results of [36] who revealed that there is a very strong relationship between communication policy and project performance.

2) Regression Analysis

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.921	.848	.849	.10120

a. Predictors: (Constant), communication monitoring and communication policy

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 0.848. This implied that 84.8% of the variation in the dependent variable (performance of water and sanitation projects in Siaya County, Kenya) could be explained by independent variables (communication monitoring and communication policy).

Table 6: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	6.036	2	3.018	58.038	.000 ^b
1 Residual	1.664	32	.052		
Total	7.7	34			

The ANOVA was used to determine whether the model was a good fit for the data. F calculated was 58.038 while the F critical was 2.690. The p value was 0.000. Since the F -calculated was greater than the F -critical and the p value 0.000 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 communication planning, communication implementation, communication monitoring and communication policy on the performance of water and sanitation projects in Siaya County, Kenya.

Table 7: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.341	0.089		3.831	0.000
	Communication monitoring	0.381	0.096	0.382	3.969	0.001
	Communication policy	0.398	0.102	0.399	3.902	0.001

a Dependent Variable: Project Performance

According to the results, communication monitoring has significant effect on performance of water and sanitation projects in Siaya County, Kenya ($\beta_1 = 0.381$, 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 [31] that there is a very strong relationship

between communication monitoring and project performance. In addition, the results revealed that communication policy has significant effect on performance of water and sanitation projects in Siaya County, Kenya ($\beta_1=0.398$, p value= 0.002). The relationship was considered significant since the p value 0.002 was less than the significant level of 0.05. The findings are in line with the results of [36] who revealed that there is a very strong relationship between communication policy and project performance.

The regression model was as follows:

$$Y = 0.341 + 0.381X_3 + 0.398X_4$$

V. CONCLUSIONS

The study concludes that communication monitoring has a positive and significant effect on performance of water and sanitation projects in Siaya County, Kenya. The study revealed that communication standards, information needs assessment and change management influence performance of water and sanitation projects in Siaya County, Kenya. The study also concludes that communication policy has a positive and significant effect on performance of water and sanitation projects in Siaya County, Kenya. The study revealed that participatory approach, clear objectives, availability of resources, obstacles and emergency plan and feedback reporting influence performance of water and sanitation projects in Siaya County, Kenya.

VI. RECOMMENDATIONS

Prioritize timely and accurate dissemination of project information to all relevant stakeholders. Set up a regular communication schedule to ensure that updates, progress reports, and important announcements are shared promptly. Develop a robust stakeholder engagement strategy that identifies key stakeholders and outlines their roles, interests, and communication preferences. Maintain open channels of communication with stakeholders to address concerns, gather feedback, and keep them informed about project developments.

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