

# Stakeholder Participation and Performance of Road Construction Projects in Kisii County, Kenya

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**Abstract:** Road projects have a crucial part to play in the economic advancement and progress of any nation as they facilitate wealth generation and creation of job opportunities. Their performance must be achieved to meet the expected goals by the project stakeholder. However, some projects bring disappointment after investment. County Government of Kisii has previously had heavily invested in road construction projects, aimed to enhance transportation and improve the economy. In analyzing of its project success rate, many have experienced quality complaints, over budget and overtime. So as a result, this research targeted to determine the impact of stakeholder participation against progression of Kisii county's construction projects on roads. Further, the research, aimed to provide feedback that can be useful to improve project performance. This research was rooted on three theories including; Diffusion Innovation Theory, Stakeholder Theory and Resource Based View Theory. A research design in the form of descriptive was utilized where population targeted included 45 road construction projects, and 65 project managers, road engineers, contractors, technical auditors, surveyors, consultants and community representatives as the unit of analysis respectively. The instrument for data collection was a semi-structured questionnaire in nature. Data was then analyzed using SPSS and MS Excel, where inferential statistics as well as descriptive were performed. The Cronbach's Alpha values of all variables above 0.7 indicated excellent applicability of the research instrument. The R-square value in multi-regression analysis shows a significant correlation of 78.6% level of variability in the dependent variable as determined by the independent variables in the model. Descriptive statistical analysis of stakeholder participation in Kisii road projects showed mean ratings that were consistently high on project identification, project implementation, and project monitoring. However, the project planning stage depicted that stakeholders were engaged only up to an extent after which they were ignored. As per the correlation and regression analysis, stakeholder engagement in project identification, project monitoring, project implementation, and project planning exhibited the strong correlation with project performance. The study therefore, recommends project to be aligned with the needs of the stakeholders, who in turn help in the determination of risks that would otherwise affect every other stage of the project cycle. Project team should implement a project portfolio management strategy that would allow systematic evaluation, ranking, and selection of projects based on their strategic fit, resource requirements, and expected returns. The study advised that risk assessment and mitigation strategies must be devised to proactively address potential challenges, and a realistic project timeline with achievable milestones should be set. More so, to develop strategies, and have a detailed facilitation schedule and a budget to be utilized throughout the project cycle. Also, develop a well-structured project management framework that defines roles, responsibilities, and communication channels among team members. Additionally, implement a comprehensive project plan that includes detailed task assignments, timelines, and dependencies, along with contingency plans for potential setbacks. Foster a collaborative and inclusive work culture that encourages open dialogue, knowledge sharing, and problem-solving. The study also recommends a real-time project management tracking mechanisms to capture and analyze data regularly to enable quick identification of deviations from the plan. Lastly, the study recommends to foster a culture of open communication and transparency among team members to encourage them report concerns promptly.

**Keywords:** Stakeholder Participation, Project Performance

## 1. Introduction

Road projects have a crucial part to play in the economic advancement and progress of any nation as they facilitate wealth generation and creation of job opportunities as revealed by [9]. Globally, many countries in various continents have invested heavily in road network to reduce traffic congestion. For instance, countries such as UK and France in Europe have invested \$263 billion and \$167 billion respectively on road construction [24]. In the year 2017, 15 Europe countries had over 73 percent road project worth \$1.05 trillion. According to [24], a major reason for the investment in road construction projects is to drive the economies through transportation link between Eastern and Western Europe. According to [25], Asian countries such as Laos, China and Thailand have also objectively decided to improve transport logistics to enable cross-border trade with the neighboring countries. High performance within certain

radius have very good connections providing fast access to other areas 120 km away. High performance rate are as a result of collaborative partnership between various countries and intensive use of modern technology in construction industry [4].

Many countries in Africa have concentrated on education and transportation as means of national economic development [23]. [9] study finding revealed that Nigeria, Ghana, Namibia and Kenya countries, owe much of their economic investments in road construction network. Many projects stakeholder, however, are dissatisfied with the results of these road development plan initiatives. One in two road building projects is deemed a failure according to [23]. This leave a big gap that needs to be investigated to analyze the status of these initiatives and the essential steps to take to ensure their success. However, [7] project failure can be attributed by lack of risks identification and mitigation, scope management, adherence to the estimated budget, lack

proper project activity schedule, and lack of full stakeholder participation which ultimately results into poor performance. In Kenya, under the Vision 2030, Kenya Economic Recovery Strategy (KERS) and Millennium Development Goals (MDG) vision is to establish a well-connected country through an extensive network of roads and other infrastructure. Additionally, there is a strong emphasis on harnessing science-oriented, technological and innovative strategies to boost performance and efficiency in road construction sector and its amenities. The state has expressed a clear commitment to prioritizing investment in the nation's road infrastructure [3]. County Government of Kisii particularly, is among top counties in Kenya that is leading the charge to realize Vision 2030's goal of creating more road network and increased employment under Employment Creation Strategy (ERS) [12]. Among many counties in Kenya, Kisii include use road as the key mode of transport. They have allocated higher budget on road infrastructure, although quite a number have faced numerous difficulties such budgetary constraints, scope deviation, supply of substandard construction materials and completion delay. However, despite the challenges encountered in the process, County Government of Kisii have consistently focused to open and gravel county roads to easier transportation of firm commodities and people movement [5].

### 1.1 Statement of the problem

Project stakeholders always hope to see the project they're working on getting completed on time, on budget, and within the specified scope [20]. The reality, on the other hand, is rather different. Many projects have fallen short of their deadlines, finances, and quality concerns. For instance, in Kisii, many road construction projects have stalled, others dilapidated, delayed in completion, experienced budget overrun and quality issues. Road construction projects were allocated approximate budget of Ksh. 450 million, however, as per the County Government of Kisii 2022/2023 annual report, only 90 percent has been achieved. The state had planned to open and construct 500 KMs of roads in total but as per the report only 450 KMs has been completed. The question is, does the County government of Kisii actively involve all stakeholders throughout the various stages of project implementation?

The road construction project in Kisii County exhibits various problems. [21] discovered potholes and deteriorating road surfaces due to insufficient maintenance and quality control in Kisii County, and delays in project completion leading to congestion and traffic jams, highlighting the need for improved road design. Poor road signage and inadequate pedestrian infrastructure compromises pedestrian safety and accessibility in Kisii County [1]. The use of substandard construction materials, limited road connectivity in remote areas was also reported. The challenges restrict access to vital services and economic opportunities.

Several studies have been done to check out stakeholder participation in risk definition, project planning as well the communication, project implementation, top management, and M&E on the implementation and success of project in

various sectors such as hospitality, infrastructure, banking, and state corporate. However, some studies lacked detailed empirical review of key variables [6] [11], others didn't provide details about theories in which the research were anchored or neither the model to reveal the level of influence between the study variables [16]; [6], others also, had a wide scope but the research findings presented were little that brings a challenge to conclude, and some others focused much on one variable than the other in the study [2]; [13]; [18]. So as a result, the researcher aimed to bridge these gaps by investigating how participation of the stakeholder related with success of Kisii County's projects involving road works.

### 1.2 Specific Objectives of the Study

- 1) To find out impact of project identification on the performance of road construction projects in Kisii County, Kenya
- 2) To Determine influence of project planning on the performance of road construction projects in Kisii County, Kenya
- 3) To evaluate the relationship between project implementation and performance of road construction projects in Kisii County, Kenya
- 4) To Examine role of project monitoring on performance of road construction projects in Kisii County, Kenya

### 1.3 Significance of the Study

The research directly impacts project management as well the stakeholders involved in road construction projects, including local communities, businesses, and organizations. By highlighting the significance of stakeholder participation, the research encourages more inclusive and collaborative project processes. This fosters positive relationships, address community concerns, and result in projects that better meet the needs of stakeholders.

Policy makers within infrastructure development and road construction sectors benefits from research findings at its guide on development of policies that promote stakeholder participation in road construction projects.

The findings further add to the pool of existing literature a basis for referencing by the upcoming researchers, hence providing a foundation that can be used for more exploration on the role of stakeholder participation on enterprise performance. This research helps advance academic comprehension in addition to steering more explorative studies on the same subject.

## 2. Theoretical Review

This research was rooted on three theories including; Diffusion Innovation Theory, Stakeholder Theory and Resource Based View Theory.

## 2.1 Stakeholder Theory

In the year 1984, Freeman claimed that everyone within a group, organization, or initiative is there solely to protect their own interests. As a result, the theory considers how to manage stakeholder relationships in projects in order to achieve desired outcomes. The theory examines stakeholders' particular wants, interests, and preferences, as well as the actions they take to meet these requirements, interests, and preferences. In line with this theory, project managers ensure satisfaction of all the stakeholders, pertaining project implementation process and that stakeholder interests and relationships are effectively protected to ensure the project's success in the long run. Later years saw the theory evolve to its current state, with Freeman's contribution serving as a foundation for the development of the theory that is tied to Donaldson and Preston. They propose that, while stakeholder theory is descriptive and instrumental, it is ultimately normative since stakeholders are defined by their interests and all stakeholders are regarded intrinsically valued. This assertion is supported by Freeman's belief that managers should be actively involved in development and implementation of initiatives that satisfy all and only the groups involved in the project.

Jones after two decades supported this theory by stating that the organization should be viewed as a stakeholder grouping, with the organization's goal being to manage its interests, requirements, and opinions. The importance of stakeholder involvement is emphasized in this theory. Managers opt to understand that stakeholders impact greatly on project success. Since effective stakeholder participation depends on administration of many project functions, project managers are tasked with maintenance of order and directing other team members in their actions. The theory therefore, agrees with this study based on its contribution to how stakeholder involvement impact identification of the project, execution and oversight.

## 2.2 Resource Based View Theory

Here, in the year 1984, Wernerfert stated that when the firm's specific resources are exploited, the firm can generate value. Organizational resources include partnerships, managers' and employees' competencies and talents, as well as discoveries and inventions that can be exploited to boost the firm's profits prospects. The resources can then reflect human-related competences and capacities based on their skills, experiences, and knowledge, which can be leveraged to boost an organization's revenues and competitive advantages. This theory is popularly used in explaining the link between the elements and how they can be handled to create value to the company. Resources of a firm significantly determine its success prospects in attaining a competitive advantage within marketplace.

The theory's proponents argue that a firm's resources are what it employs to increase performance and gain competitiveness, and that the environment has little impact. As a result, the managers and team members of the project will benefit from stakeholders' abundance of information,

skills, and experiences required in boosting project's success. The theory has been criticized by Campbell and Park, because it assumes that all firms in a given market, sector, or industry are heterogeneous and have complete control over collective resources that can improve the firm's results and performance. Consequently, the firm can be configured in a variety of ways and yet produce the same value. These resources, in conjunction with the environment, operate together to deliver company value, resulting in enhanced performance and a competitive advantage. It demonstrates how project managers and owners can manipulate the resources at their disposal and discover creative methods to use them, including financial and human resources, to achieve project objectives. The theory was evidently in line with this study as it revealed how the inherent competencies and capabilities of stakeholders in the project planning can be used as resources in influencing the performance of a project.

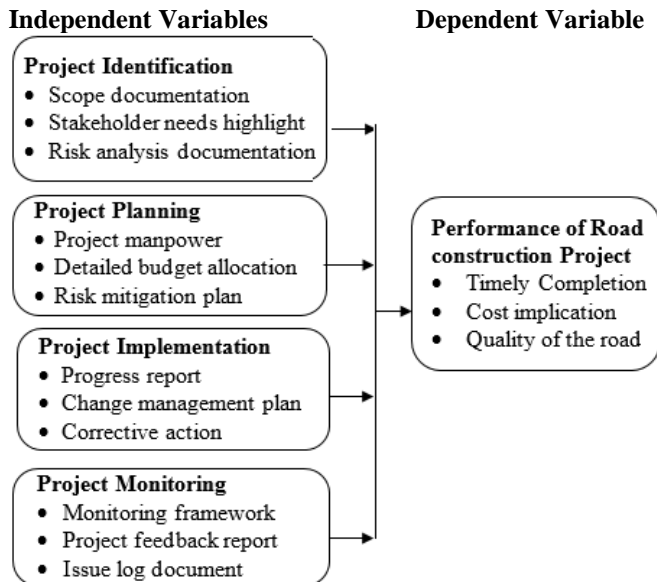
## 2.3 Principal-Agency Theory

This foundation theory model employed in this study Jensen and Mecklin developed in 1976 addresses issues related to principals and agents. The Principal-Agency Theory (PAT) focuses on the relationship between an individual or entity (agent) acting on behalf of another (principal) [22]. PAT aligns well with the concerns of stakeholders, project teams, and project performance.

For example, in this case, stakeholders act as the principals who select project management teams as their agents to act on their behalf. The project management team is granted decision-making power on behalf of the stakeholders [14]. Throughout the project management process, potential risks related to supplier quality may arise. [17] observed buyers expect high-quality goods and services from suppliers, while suppliers remain hesitant to significant investment on quality. This misalignment of interests between buyers and suppliers can lead to conflicts. The theory confirms that if the relationship between the principal and agent is poor, it can negatively influence how stakeholders and project management team relate. In this research, the Agency Theory was utilized in examining how involvement of stakeholders affects the success of Kisii County's roadwork projects. By utilizing this model, the research aims to understand how stakeholder engagement impacts project outcomes.

## 2.4 Conceptual Framework

Conceptual framework offers a representation, in diagrams, on how the research variables relate. It describes the critical concept, factors, and the relationships between them. Conceptual framework highlighted how predictor factors (identifying projects, preparing them, carrying them out, and monitoring them) associated with experimental variables (project success)



**Figure 1:** Conceptual Framework  
Source: Researcher (2023)

### 3. Research Methodology

The research applied a descriptive design. The method helps in giving direct views and opinions of the study respondent as per [19]. The suitability of this design in the description of behavior without any influence. The target population for this study included 45 county road projects (see appendix v) and the unit of observation comprised project managers, road engineers, contractors, technical auditors, surveyors, consultants, and community representatives drawn from 45 county road project in Kisii County. A stratified technique combined with random sampling was utilized in selecting respondents from the 45 county road projects. The total target respondents were 211 as presented in Table 3.1. However, 30 percent of the sample size used (65 respondents) was sourced from the Ministry of Road, Kisii County. The sampling criteria agree with [19], who stated, a sample size of 30 percent is enough to represent the interest of the entire population. The researcher divided the target respondents into strata based on different job levels (e.g., project managers, road engineers, technical auditors, surveyors, contractors, consultants, and community representatives). Later, using a simple random sampling technique, the researcher selected participants randomly from each stratum.

#### 3.1 Data Collection Instrument

A questionnaire that is semi-structured in nature applied to this study because it helped to collect real-time data, and was free from biases and errors. The tool also allowed respondents to share their views freely. The instrument had five sections; section A represented demographic information, section B project identification, section C project planning, section D project implementation, section E project monitoring, and Section F project performance variable. Some sections, however, had opened ended questions and Likert scale statements in which participants were expected to share their views and tick in boxes where necessary respectively. The questionnaire was administered

to each participant. The data collection process involved the use of a questionnaire designed to gather both qualitative and quantitative data. The questionnaire was presented to the participants on a drop-and-pick later approach after which a maximum of two days was allowed to fill the questionnaire.

#### 3.2. Data Analysis

Analysis of the quantitative data utilized descriptive as well as inferential statistics that involve parameters including; means, percentages, standard deviations, and frequencies to present the findings where the SPSS software (Version 23.0) was utilized for computations. Qualitative data was analyzed utilized content analysis for the identification of themes and narratives emerging from the data. The response patterns were derived. To examined the degree of influence and association between stakeholder participation in identifying a project, planning, executing, and overseeing, and the success of roadwork projects in Kisii County, Kenya, Pearson correlation and regression model analyses were conducted. These analyses helped assess the relationships and dependencies among the variables of interest.

The regression model used was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: -

Y = Road Projects Performance

X<sub>1</sub> = Project Identification

X<sub>2</sub> = Project Planning

X<sub>3</sub> = Project Implementation

X<sub>4</sub> = Project Monitoring

β<sub>0</sub> = Intercept,

β<sub>1</sub>, β<sub>2</sub>, β<sub>3</sub>, β<sub>4</sub> = Regression Coefficients

ε = error term.

In addition, before inferential analysis, diagnostic tests which included multi-collinearity and normality tests to check for multi-collinearity symptom and data distribution respectively were performed. The analysis results were presented in tables with percentages, frequency, standard deviation and mean, and charts.

#### 3.3 Ethical Consideration

The research prioritized important ethical considerations; including obtaining informed consent from participants and ensuring confidentiality. Before data collection, participants were provided with clear information about the study and asked to provide their voluntary consent to participate. Only those who agreed to participate were involved in the survey. The researcher reassured participants that the information given was solely for educational purposes and will remain confidential. In addition, the researcher sourced the necessary authorization and approval before commencing the research. This included obtaining approval from the Graduate School and seeking approval from the National Commission for Science, Technology, and Innovation (NACOSTI) to ensure the survey adheres to ethical guidelines and regulations.

4. Research Findings

4.1. Response Rate

Sixty-five questionnaires were administered to the study respondents, however, only 55 were fully filled and returned translating to 84.6%. The achievement was a result of high emphasis by the researcher on the importance of the research study. According to [19], a response rate above 50% is enough to conclude.

4.2 Test for reliability

Table 1: Reliability test

Variable	Cronbach's Alpha	N of Items
Project identification	.930	7
Project planning	.971	7
Project implementation	.911	7
Project monitoring	.889	12

Source: Research (2023)

The discovery of the analysis as shown in Table 3.2, revealed that the instrument has met the threshold of 0.7 Cronbach's Alpha value, thus indicating excellent applicability of the research instrument.

4.3 Descriptive Analysis

Table 2: Project initiation descriptive analysis

	N	Statistic
We involve our community in the scope analysis of roadwork projects in the county	N	55
	Minimum	2
	Maximum	5
	Mean	4.73
	Std. Deviation	.592
We ask the community to suggest roads within the county of Kisii that require graveling/grading	N	55
	Minimum	1
	Maximum	5
	Mean	4.51
	Std. Deviation	.900
Community members provide useful information for successful road construction projects	N	55
	Minimum	1
	Maximum	5
	Mean	4.36
	Std. Deviation	1.112
We involve the community in identifying the need for roads to be constructed	N	55
	Minimum	1
	Maximum	5
	Mean	4.22
	Std. Deviation	1.228
We involve all stakeholders in documenting the project scope	N	55
	Minimum	1
	Maximum	5
	Mean	4.44
	Std. Deviation	.958
We involve the community in risk identification attached to the road project scope	N	55
	Minimum	1
	Maximum	5
	Mean	4.67
	Std. Deviation	.747
Project stakeholders participate in identifying the goals of all our road projects to be constructed	N	55
	Minimum	1
	Maximum	5
	Mean	4.69

	Std. Deviation	.742
Valid N (listwise)	N	55

Source: Researcher (2023)

The findings in Table 2, indicate that all statements such as involving the community in suggesting roads for graveling/grading, providing useful information for successful road projects, identifying the need for road construction, documenting project scope, identifying risks, and participating in goal identification for road projects, the mean ratings range from approximately 4.22 to 4.73. These consistently positive mean ratings suggest a general trend of community involvement and collaboration across various aspects of roadwork projects. The bootstrap analysis indicates that the means of these ratings are relatively stable, as evidenced by the narrow confidence intervals. This indicates a reasonable level of confidence in the reported mean values. In summary, the descriptive statistics and bootstrap analysis suggest that the community is actively engaged positively in the project identification stage of roadwork projects in Kisii County, which can potentially lead to well-informed and successful project outcomes. The findings are in agreement with [15] who revealed that participation in all project lifecycle increases the success rate of a project.

Table 3: Project planning

	N	Statistic
We evaluate the skills possessed by all our stakeholders and how they can promote road construction projects in the county	N	55
	Minimum	1
	Maximum	5
	Mean	3.18
	Std. Deviation	1.623
We engage community members with appropriate planning skills to aid in the construction of roads in the county	N	55
	Minimum	1
	Maximum	5
	Mean	2.89
	Std. Deviation	1.583
We hire technical consultants to train our project team for the efficient completion of road projects in the county	N	55
	Minimum	1
	Maximum	5
	Mean	3.40
	Std. Deviation	1.547
Stakeholders are involved in the decision-making of selecting top management officials to steer project implementation	N	55
	Minimum	1
	Maximum	5
	Mean	3.44
	Std. Deviation	1.463
Stakeholders are involved in structuring the project budget	N	55
	Minimum	1
	Maximum	5
	Mean	3.49
	Std. Deviation	1.562
Our county arranges special training for its staff in areas where they are not competent	N	55
	Minimum	1
	Maximum	5
	Mean	3.58
	Std. Deviation	1.548
Stakeholders are involved in developing a risk mitigation plan document	N	55
	Minimum	1
	Maximum	5
	Mean	3.47
	Std. Deviation	1.574
Valid N (listwise)	N	55

Source: Researcher (2023)

The analysis result in Table 3 reveals that stakeholders are actively involved in various aspects of project planning and implementation, such as evaluating stakeholder skills (mean rating 3.18), engaging community members with planning skills (mean rating 2.89), hiring technical consultants for training (mean rating 3.40), involving stakeholders in selecting top management officials (mean rating 3.44), structuring project budgets (mean rating 3.49), arranging training for staff competence (mean rating 3.58), and developing risk mitigation plans (mean rating 3.47). These mean ratings suggest a moderate level of stakeholder involvement in these areas. The findings align with [16] study that emphasizes the significance of stakeholder engagement and collaboration in project planning to enhance project success. However, the moderate mean ratings indicate that stakeholders are engaged to a certain extent in various project-related activities, which potentially leads to less informed decision-making in project planning.

**Table 4:** Project implementation

	N	Statistic
We involve our community in implementing road construction projects in our county	N	55
	Minimum	1
	Maximum	5
	Mean	4.76
	Std. Deviation	.860
Our community supplies some of the materials used in the construction of roads in our county	N	55
	Minimum	1
	Maximum	5
	Mean	4.78
	Std. Deviation	.738
We task some of our community members performing some tasks in the construction of roads in the county	N	55
	Minimum	2
	Maximum	5
	Mean	4.73
	Std. Deviation	.592
We engage some of our community members to share their corrective action views on road construction projects in the county	N	55
	Minimum	1
	Maximum	5
	Mean	4.51
	Std. Deviation	.900
Our community members provide timely information on the areas that need rectification during the construction of road projects	N	55
	Minimum	1
	Maximum	5
	Mean	4.36
	Std. Deviation	1.112
We involve our stakeholders in procurement processes for road construction works in the county	N	55
	Minimum	1
	Maximum	5
	Mean	4.22
	Std. Deviation	1.228
We involve our stakeholders in preparing progress reports on implementing road projects in the county	N	55
	Minimum	1
	Maximum	5
	Mean	4.44
	Std. Deviation	.958
Valid N (listwise)	N	55

Source: Researcher (2023)

The analysis finding in Table 4 demonstrates significant community engagement across various dimensions of road construction projects, with high mean ratings ranging between 4.22 to 4.78 indicating active participation. This

involvement encompasses implementing road projects, contributing materials, performing tasks, sharing corrective action views, providing timely information on rectification areas, involving stakeholders in procurement processes, and engaging stakeholders in progress report preparation. This collaborative approach suggests a comprehensive and inclusive strategy, fostering effective project implementation and accountability. The consistently high mean ratings across these statements on project implementation suggest a strong and active partnership in Kisii road construction projects. [10] reiterated emphasized the importance of efficient project implementation in achieving successful project outcomes.

**Table 5:** Project monitoring

	N	Statistic
We task some of our community members with overseeing roadwork programs within the county	N	55
	Minimum	1
	Maximum	5
	Mean	4.67
	Std. Deviation	.747
We have entrusted some of our community members in evaluating the quality of road construction in the county	N	55
	Minimum	1
	Maximum	5
	Mean	4.69
	Std. Deviation	.742
We involve the community in setting performance indicators for our road work projects in the county	N	55
	Minimum	1
	Maximum	5
	Mean	4.75
	Std. Deviation	.751
We have developed quality standards for all construction works on our roads in the county	N	55
	Minimum	2
	Maximum	5
	Mean	4.64
	Std. Deviation	.802
Material usage for roads is monitored closely by our stakeholders	N	55
	Minimum	1
	Maximum	5
	Mean	4.71
	Std. Deviation	.854
We involve our community in the collection of regular information on the progress of road construction projects in the county	N	55
	Minimum	1
	Maximum	5
	Mean	4.45
	Std. Deviation	.997
We involve our stakeholders in the analysis of data collected on road construction projects in the county	N	55
	Minimum	1
	Maximum	5
	Mean	4.64
	Std. Deviation	.847
We involve our stakeholders in the development of work schedules	N	55
	Minimum	1
	Maximum	5
	Mean	3.24
	Std. Deviation	1.140
Regular information provided by stakeholders on the progress of construction projects has been acted upon	N	55
	Minimum	1
	Maximum	5
	Mean	3.28
	Std. Deviation	1.393
We involve our stakeholders in determining whether roads constructed in the county are having the desired impact	N	55
	Minimum	1
	Maximum	5
	Mean	4.57
	Std. Deviation	.958

	Std. Deviation	.719
We involve our stakeholders in fostering transparency and public trust	N	55
	Minimum	1
	Maximum	5
	Mean	4.64
	Std. Deviation	.719
We involve our stakeholders in continuously assessing design timelines for inputs	N	55
	Minimum	2
	Maximum	5
	Mean	4.89
	Std. Deviation	.458
Valid N (listwise)	N	55

Source: Researcher (2023)

The analysis results in 5 reveals that community members are actively engaged in overseeing roadwork projects (mean rating 4.67), evaluating the quality of road constructions (mean rating 4.69), setting performance indicators (mean rating 4.75), and collecting regular progress information (mean rating 4.45). Stakeholders are similarly involved in analyzing data (mean rating of 4.64), assessing the impact of constructed roads (mean rating of 4.57), fostering transparency and public trust (mean rating of 4.64), and continuously assessing design timelines (mean rating of 4.89). However, stakeholder involvement in the development of work schedules (mean rating of 3.24) and the act on progress information (mean rating of 3.28) seems relatively lower. The implications of these findings are substantial. The high mean reflects a positive trend of community and stakeholder collaboration in enhancing project quality, transparency, and accountability.

**4.4 Correlation Analysis**

The following section presents the details of correlation analysis among the study variables. The degree of bivariate correlation of relationship existing among the dependent and independent variables was determined using the Pearson correlation analysis. However, correlation analysis can't reveal the degree of effect only reveals the sense and degree of association between the study variables. This result to further conduction of regression analysis to establish the degree of effect in which the predictor variables has on dependent variable.

**Table 6:** Pearson correlation matrix

		PI	PP2	PI2	PM	
PP	Pearson Correlation	.760**	.508**	.766**	.830**	
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	55	55	55	55	
	Bias	-.016	.001	-.016	-.004	
	Std. Error	.089	.092	.086	.057	
	95% Confidence Interval	Lower	.521	.322	.525	.710
		Upper	.883	.672	.884	.928

Project performance (PP), Project identification (PI), Project planning (PP2), Project implementation (PI2), Project monitoring (PM)

Source: Researcher (2023)

The analysis result in Table 6 reveals significant positive correlations between project performance and various stages of project management, as indicated by the Pearson Correlation coefficients. Notably, project implementation

and monitoring exhibit the strongest correlations with project performance, followed by project planning and project identification. The strong correlations between project implementation, monitoring, and project performance suggest that a well-executed and closely monitored implementation phase is crucial for achieving successful project outcomes. Additionally, effective project planning plays a vital role in contributing to project performance. These correlations imply that attention to detail and diligent monitoring throughout the project lifecycle can lead to improved overall project success. These findings are consistent with [15] research finding that emphasized the participation of stakeholders in all project lifecycle stages increases project success rate appropriately as per the set goals.

**4.5 Diagnostic Test Analysis**

This analysis helps to ensure the accuracy and robustness of regression models, enabling researchers to make informed decisions and draw reliable conclusions from their analyses. If multicollinearity or normality violations are detected, appropriate steps must be taken to address these issues. These steps include variable transformations, removal of problematic variables, or exploring alternative modeling techniques.

**Table 1:** Homoscedasticity analysis

	Model	Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Project identification	.035	28.495
	Project planning	.906	1.103
	Project implementation	.034	29.700
	Project monitoring	.294	3.396

Source: Researcher (2023)

The result findings from the collinearity statistics highlight the presence of multicollinearity among the independent variables within the model, which includes project identification, project planning, project implementation, and project monitoring, all with respect to the dependent variable, project performance. The tolerance values indicate that project identification and project implementation exhibit extremely low tolerance, suggesting a high degree of multicollinearity. In contrast, project planning and project monitoring demonstrate higher tolerance values, implying relatively lower multicollinearity. The variance inflation factor (VIF) values further corroborate this observation, indicating that project identification and project implementation have exceptionally high VIFs, while project planning and project monitoring have more moderate VIFs. The identified multicollinearity among the independent variables has important implications for the model's interpretability and stability.

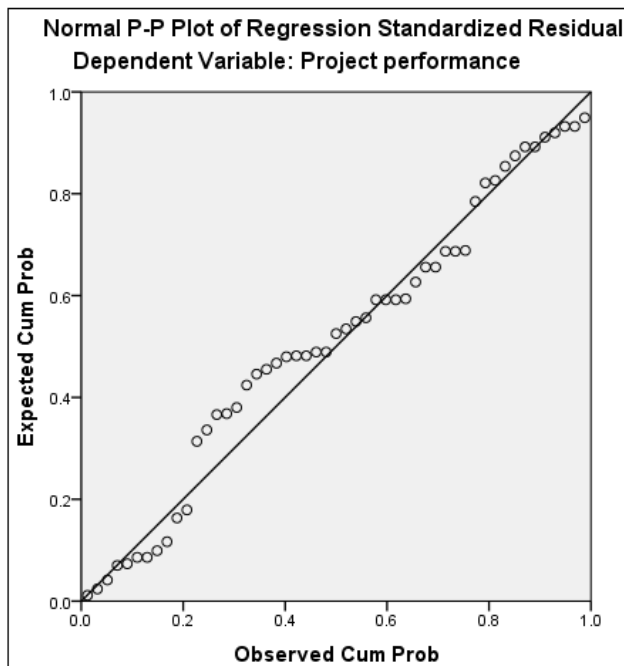


Figure 2: Normal distribution

Source: Researcher (2023)

Normal P-P Plot of Regression Standardized Residuals involves examining the plotted points on a graph as presented in Figure 2. Each point on the plot represents a standardized residual (the difference between observed and predicted values, scaled by the standard deviation of the residuals) from a regression model. The close residual points on a straight line suggest that the data is approximately normally distributed.

#### 4.6 Multi-regression Analysis

This analysis examines the relationship between independent variables (project identification, planning, implementation, and monitoring) and dependent variable (project performance). In multiple regression analysis, the goal is to model and quantify how changes in the independent variables are associated with changes in the dependent variable.

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate
1	.886 <sup>a</sup>	.786	.769	.16236
a. Predictors: (Constant), Project identification, Project planning, Project implementation, Project monitoring				
b. Dependent Variable: Project performance				

Source: Researcher (2023)

The model summary indicates that the coefficient of determination (R Square) stands at .786, suggesting that approximately 78.6% of the variance in project performance can be explained by the variation in the combined effects of the predictors. The adjusted R Square of .769, accounting for the number of predictors and sample size, further reinforces this relationship. The model's predictive power is highlighted by an impressive coefficient of determination, indicating that a significant proportion of the variability in project performance is captured by the predictor variables.

Table 9: ANOVA Analysis

Model	Sum of Squares	Mean Square	F	Sig.	
1	Regression	4.831	1.208	45.818	.000 <sup>b</sup>
	Residual	1.318	.026		
	Total	6.149			
a. Dependent Variable: Project performance					
b. Predictors: (Constant), Project identification, Project planning, Project implementation, Project monitoring					

Source: Researcher (2023)

The analysis of variance (ANOVA) results for the regression model reveal a statistically significant F value of 45.818 ( $p < .001$ ). The statistical significance F value underscores the model's acceptance.

Table 10: Regression Coefficients

Model	Unstandardized Coefficients		t	Sig.	
	B	Std. Error			
1	(Constant)	1.795	.169	10.613	.000
	Project identification	.078	.153	.508	.614
	Project planning	.070	.016	4.311	.000
	Project implementation	.003	.160	.019	.985
	Project monitoring	.342	.069	4.942	.000

Source: Researcher (2023)

As depicted in Table 10, the analysis reveals that when all predictors are zero, the estimated project performance score is approximately 1.795. Among the predictor variables, project planning emerges as a significant driver of project performance, with a standardized coefficient (Beta) of .296 ( $p < .001$ ). This implies that unit improvements in project planning result in a project performance increase by 0.296, and the strong t-value (4.311) confirms the statistical significance of this relationship as [8] agrees with the findings. Moreover, project monitoring also plays a significant role, with a Beta of .596 ( $p < .001$ ) and a t-value of 4.942. However, project identification and project implementation do not demonstrate statistically significant relationships with project performance, as indicated by their p-values (0.614 and 0.985, respectively). This is due to high multicollinearity between predictor variables which makes it difficult to isolate the individual impact of each variable.

#### 4.7 Content Analysis

In regard to pattern derived, respondents agree to enhance the alignment of potential projects with organizational goals and objectives by adopting a multifaceted approach. Firstly, 40% agree a rigorous needs assessment should be conducted, involving key stakeholders from different departments to identify gaps and prioritize areas of improvement. Secondly, data-driven decision-making, based on historical performance, customer insights, and market trends, can guide project identification as 56% agree. Forty-six percent agree, implementing a project portfolio management strategy would allow systematic evaluation, ranking, and selection of projects based on their strategic fit, resource requirements, and expected returns. Seventy-one percent agree regular reviews, feedback loops, and post-project assessments enable continuous alignment adjustments. Additionally, 67% agree fostering a culture of innovation and cross-functional



collaboration encourages creative solutions that cater to both short-term and long-term organizational aspirations.

Additionally, during the planning phase, 66% reveal a well-defined scope and clear project objectives must be established to provide a focused direction for the project team. Fifty-two depicted that resource allocation, including human, financial, and technological resources, should be meticulously planned to prevent bottlenecks and ensure smooth execution. Sixty-four advised that risk assessment and mitigation strategies must be devised to proactively address potential challenges, and a realistic project timeline with achievable milestones should be set. Effective communication strategies among team members and stakeholders, along with a robust change management plan, are vital to manage expectations and maintain alignment as 64% of the respondents agree. Lastly, 72% agree continuous monitoring and evaluation mechanisms should be established to track progress, enabling agile adjustments when needed, ultimately contributing to the project's ultimate success and alignment with organizational goals.

More so, following content analysis to ensure a smoother and more efficient project implementation process, 51% of the respondents advised establishing a well-structured project management framework that defines roles, responsibilities, and communication channels among team members, (44%) implementing a comprehensive project plan that includes detailed task assignments, timelines, and dependencies, along with contingency plans for potential setbacks, and lastly, foster a collaborative and inclusive work culture that encourages open dialogue, knowledge sharing, and problem-solving as 66% of the respondents agree.

Consequently, based on the project monitoring process, 88% revealed that the establishment of a comprehensive monitoring plan that outlines specific key performance indicators (KPIs) aligned with project objectives is crucial. Forty-three agree that implementing real-time tracking mechanisms and project management software to capture and analyze data regularly is important in enabling quick identification of deviations from the plan. Sixty-four agree that fostering a culture of open communication and transparency among team members encourages them to report concerns promptly. Is also important to conduct regular project status meetings to review progress, discuss emerging challenges, and brainstorm potential solutions collaboratively as 74% of the respondents agree.

### **5.1 Recommendations**

The study depicts a significant positive Pearson correlation between stakeholder participation in various stages of the project cycle and the success of a project. The performance of a project is highly dependent on how the stakeholders are involved in project identification. Authorization and commissioning of project ideas and analysis in terms of their scope and targeted objectives are critical decisions to the project cycle. In this cycle, the study recommends project to be aligned with the needs of the stakeholders, who in turn help in the determination of risks that would otherwise affect every other stage of the project cycle. Study also

recommends implementation of a project portfolio management strategy that would allow systematic evaluation, ranking, and selection of projects based on their strategic fit, resource requirements, and expected returns. Additionally, project team should foster a culture of innovation and cross-functional collaboration that encourages creative solutions to both cater for short-term and long-term organizational project aspirations.

Secondly, projects should develop strategies, a detailed facilitation schedule and a budget to be utilized throughout the project cycle. Through such detailed planning, the stakeholders can unveil project assumptions and oversights that were otherwise made during the initial stage of identification. A risk mitigation plan is also an essential aspect of involving the stakeholders in this stage of the project cycle. By involving stakeholders throughout the process of project planning, the success of a project has been evident. The study therefore, recommends resource allocation, including human, financial, and technological resources, should be meticulously planned to prevent bottlenecks and ensure smooth execution.

Moreover, stakeholder involvement in project implementation is a key to the performance of a project. In this stage, progress reports, deliverables, and communications are made to the stakeholders to ensure project activities are well coordinated through relevant actions and resource mobilization to achieve the project's success. It is through the implementation of project activities that management plans are set up and corrective measures put in place. This study depicts a significant Pearson correlation between project implementation and project success. However, the process of project implementation remains complex and requires the incorporation of many facets including resource management, effective communication, good corporate culture leadership, and well-executed operational systems to ensure better performance on cost implications, timeliness, intended quality, and the general success of a project. Despite, the study advised establishment of a well-structured project management framework that defines roles, responsibilities, and communication channels among team members. Also, implement a comprehensive project plan that includes detailed task assignments, timelines, and dependencies, along with contingency plans for potential setbacks, and lastly, foster a collaborative and inclusive work culture that encourages open dialogue, knowledge sharing, and problem-solving.

Lastly, the Pearson correlation depicted in this study between project monitoring and project performance is the strongest positive. This means that for any project to succeed, full stakeholders' attention to project control should be top-notch. This stage of the project evaluates and tracks deliverables and deviations while taking corrective actions to ensure project success. Here, the stakeholders should be actively involved in ensuring the availability of a monitoring framework, and an activity log document, and provide feedback reports. Through this, project completeness and success will be realized within the scope of the budget, existing forecasts, and timeliness.

Ultimately, the role of stakeholder involvement in all stages of the project lifecycle cannot be underrated, if the project success is to be realized. It is also key to note that project identification, planning, implementation, and monitoring stages are complementary and the successful execution of one stage leads to the success of the other and hence the overall performance of the project. Thus, implementing real-time tracking mechanisms and project management software to capture and analyze data regularly is important in enabling quick identification of deviations from the plan. Also, project team should foster a culture of open communication and transparency among team members to encourage them report their concerns promptly.

## 5.2 Areas for Further Studies

This study aimed at determining the role of stakeholder participation in the performance of road projects in Kisii County. Therefore, there is a need for further studies on different sectors such as health, sports, and service delivery. Moreover, there are also suggestions for future studies to gauge the level of stakeholder involvement in projects and major hurdles that hinder comprehensive incorporation of the same throughout the project cycle. Additionally, other factors not captured in this study can be studied in the future.

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