



## **COMMUNITY ENGAGEMENT AND IMPLEMENTATION OF RURAL ELECTRIFICATION PROJECTS KWALE COUNTY, KENYA**

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### **ABSTRACT**

Implementation of rural electricity programmes has been a challenge to the government with only 36% of the rural population having access to electricity. The current state of rural electrification in Kwale County, Kenya is a significant concern, with data from the Energy Regulatory Commission (ERC) indicating that only 18.5% of rural households in Kwale County have access to electricity. This lack of access to electricity in rural areas has significant implications for socio-economic development and poverty reduction. There is a growing body of literature on the importance of stakeholder involvement in the implementation of projects. There is however limited research on the specific role of stakeholder involvement in rural electrification projects in Kwale County, Kenya. The present study aimed to fill gaps in the literature by providing an in-depth examination of the influence of stakeholder involvement on the implementation of rural electrification projects in Kwale County, Kenya. The study was guided by the following specific objectives; to determine influence of community engagement on implementation of rural electrification projects Kwale County, Kenya. This study was guided by Theory of Change. This study adopted a descriptive research design. The study targeted 137 county employees including county secretary, deputy county secretary, CECs, Chief officers, directors, deputy directors, assistant directors and office secretaries. Due to the small size of the study population, the census sampling approach was used. Therefore, the sample size for the study was 137 respondents. This research used a questionnaire to collect primary data. Fourteen questionnaires were piloted that represented 10% of the target population. The pilot group was selected from Kilifi County because they share similar characteristics with its neighbor, Kwale County. The study collected quantitative data which was analysed using descriptive and inferential statistics using the Statistical Package for Social Sciences (SPSS) version 24. Multivariate linear regression was used to determine the relationship between the dependent and independent variables. The study found that community engagement positively and significantly relates with implementation of rural electrification projects Kwale County, Kenya. Based on the findings, the study recommends emphasize on community engagement and involvement of community leaders, community-based organizations, and government. Encourage informed participation from local residents to increase community ownership and improve outcomes.

**Key Words:** stakeholder involvement, rural electrification projects, stakeholder involvement

## INTRODUCTION

Successful project implementation is a complex process that requires a commitment from all parties involved, including clients and contractors. One crucial aspect of project success is the commitment of clients to project financing obligations, which in turn motivates contractors to commit themselves to project plans (Kareithi & Muhua, 2018). This highlights the importance of aligning the interests and goals of all stakeholders in order to achieve successful project implementation. Additionally, it is important to note that the best implementation strategy for any specific project should be selected through a systematic process of gathering input from a wide range of stakeholders with expertise in project implementation practice (Mwihaki, 2015). This approach allows for the consideration of multiple perspectives and ensures that the chosen strategy is tailored to the specific needs and context of the project.

Owing to the important contribution of development projects to countries' development, participation of different stakeholders is fundamental to ensure their success (Mitchell et al., 2017). Project stakeholders are individuals and organizations actively involved in the project, or whose interest may be affected as a result of the project execution or completion (Oleanders & Landin, 2017). Due to the interest of stakeholders on the project, they may exert influence on the project's objective and outcomes. To ensure a successful project, the project team must identify and engage all stakeholders, determine their requirements and expectation and manage their influence in relation to their requirements (Irvin & John, 2015).

Stakeholder involvement is the process used by an organization to engage relevant stakeholders for a purpose to achieve accepted outcomes (Edelenbos & Klijn, 2016). Edelenbos and Klijn (2016) further indicate that effective involvement helps translate stakeholder needs into organizational goals and creates the basis of effective strategy development. A well-managed stakeholder involvement process helps the project stakeholder to work together to increase comfort and quality of life, while decreasing negative environmental impacts while boosting the economic sustainability of the project. In this study stakeholder involvement is measured in terms of community engagement, informed participation, feedback, and disclosed information.

Community engagement refers to the process of actively involving and engaging members of a community in a project or initiative. This can include seeking input and feedback from community members, as well as providing them with information about the project and its progress (Meyer & Turner, 2019). Informed participation refers to the process of providing stakeholders with the necessary information and resources to actively participate in a project or initiative. This can include providing information about the project goals, objectives, and timelines, as well as the expected outcomes and potential benefits (Bryson & Crosby, 2018).

In rural electrification, a development projects, stakeholder involvement and implementation are closely intertwined. Effective stakeholder engagement can facilitate the successful implementation of a project by ensuring that the needs and concerns of the community are taken into account and by building support for the project among key stakeholders (Cooper & Turner, 2020). Conversely, poor implementation can undermine stakeholder engagement by creating dissatisfaction and mistrust among community members (Mueni, 2021). This study on stakeholder involvement and implementation in rural electrification project in Kwale County, Kenya is important because it will provide insights on how to improve the participation of stakeholders and increase community ownership of the project. Also, it will inform the decision-making processes of how to improve the implementation of the project and ensure its sustainability.

### Statement of the Problem

Implementation of rural electricity programmes has been a challenge to the government with only 36% of the rural population having access to electricity (Republic of Kenya, 2013). Electrification

in Kenya is below the SSA average with 15.8% overall access and only 3.8% access in rural areas. This is despite the establishment of the REA and the significant financing it receives, and other initiatives such as the Umeme Pamoja, a programme launched in 2006/07 with the aim of getting groups of rural households collectively connected to the grid.

The current state of rural electrification in Kwale County, Kenya is a significant concern, with data from the Energy Regulatory Commission (ERC) indicating that only a small percentage of households in rural areas have access to electricity. For example, in 2020, the ERC reported that only 18.5% of rural households in Kwale County had access to electricity. This lack of access to electricity in rural areas has significant implications for socio-economic development and poverty reduction.

There is a growing body of literature on the importance of stakeholder involvement in the implementation of projects. Stakeholder involvement, including community engagement, informed participation, feedback, and disclosed information, can play a crucial role in the successful implementation of rural electrification projects. Makau and Kithiia (2017) emphasized the need for community engagement and informed participation in the implementation of rural electrification projects to ensure the successful implementation of the projects and the satisfaction of the community. Similarly, Wamukonya and Kithiia (2018) emphasized the importance of feedback and disclosed information in the implementation of rural electrification projects to ensure transparency and accountability in the project implementation process. The study conducted by Njogu (2016) on the influence of stakeholders' involvement on project implementation in the automobile emission control projects in Nairobi County showed that stakeholder involvement plays a crucial role in the successful implementation of development projects.

There is however limited research on the specific role of stakeholder involvement in rural electrification projects in Kwale County, Kenya. The present study aimed to fill gaps in the literature by providing an in-depth examination of the influence of stakeholder involvement on the implementation of rural electrification projects in Kwale County, Kenya. Specifically, the study focused on the following aspects of stakeholder involvement: community engagement, informed participation, feedback, and disclosed information. The study used statistical evidence to provide a comprehensive understanding of the current state of rural electrification projects in Kwale County and the level of stakeholder involvement.

## **Research Questions**

- i. How does community engagement influence the implementation of rural electrification projects Kwale County, Kenya?

## **LITERATURE REVIEW**

### **Theoretical Review**

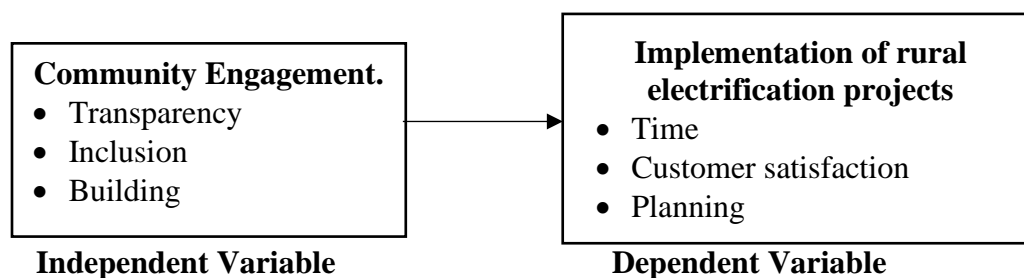
#### **Theory of Change**

The theory of change was proposed by Beisser (1970); when applied to social change processes, represents a thinking action alternative to other more rigid planning approaches and logics. The theory of change also describes the types of interventions that bring about results hoped to or expected (Perls, 2005). According to the theory of social change, the abstract ideologies held by stakeholders could shape the attainment of the future goals of a project. The assumptions held by the community in the monitoring and evaluations could prove to be critical in enhancing the self-capabilities which would be instrumental in enhancing the success of a project. (Rogers, 2008).

According to a study by Kania and Kramer (2011), ToC is a systematic and visual approach to understanding the logic of how a particular change is expected to happen in a particular context, and it helps to identify the key components of a program and track progress towards achieving desired outcomes. This theory helps to describe how alterations may occur at different stages of a project without any sure prediction being made. It further highlights how these changes can be altered through strategic intervention measures. ToC can be used to identify the key steps and intermediate results required to achieve the objective of implementing rural electrification projects in Kwale County, Kenya. For example, the theory can be used to identify the necessary steps to engage the community and obtain their consent, as well as the intermediate results that must be achieved in order to successfully implement the project (Kania & Kramer, 2011). This theory is important to the study as it highlights a conscious and clear visualization that enables the project stakeholders to focus on the key aspects that support better project performance. This theory anchored community engagement in implementation of rural electrification projects Kwale County, Kenya.

### Conceptual framework

A conceptual framework is a logically developed, described and elaborated network of interrelationships among variables integral in the dynamics of a situation being investigated (Mugenda & Mugenda, 2014). It explains the theory underlying these relationships and describes the nature and direction of these relationships. A variable is a measurable characteristic that assumes different values among the subject. It is therefore a logical way of expressing a particular attribute in a subject (Mugenda & Mugenda, 2014). The conceptual framework shows the interrelationships among the independent variables and dependent variable. Figure 2.1 presents the conceptual framework for this study



**Figure 1: Conceptual Framework**

### Community Engagement

Community engagement is a broad term that refers to the involvement of community members in decision-making processes that affect their lives (Delli Priscoli & Wutich, 2017). It generally involves a process of consultation, participation, and collaboration between community members and project stakeholders (Arnstein, 2019). Community engagement can take many forms, including public meetings, surveys, focus groups, and community-based organizations. Community engagement is a critical variable in the implementation of rural electrification projects, as it is essential for gaining the support and cooperation of local communities. This variable can be measured through various indicators, such as transparency, inclusion, and building. Transparency refers to the degree to which information about the project is shared with the community, and how easily accessible it is to them (Fung & Wright, 2017). Inclusion refers to the degree to which community members are involved in the decision-making process, and how their views and concerns are taken into account while, building refers to the degree to which the

community is involved in the implementation of the project, and how they can benefit from it (Christensen & Laegreid, 2018).

According to the work of Charmes (2015), transparency, inclusion, and building are key indicators of effective community engagement. They have been found to be positively associated with increased trust, cooperation and support for rural electrification projects. In their study of community engagement in rural electrification projects in Africa, they found that project teams that engaged communities through transparency, inclusion and building were more likely to have successful projects. In addition, Smith and Smith (2018) found that community engagement that includes transparency, inclusion, and building can lead to increased ownership of the project by the community, which can result in better maintenance and sustainability of the project.

Research on community engagement has found that it can have a positive impact on the implementation of projects (Delli Priscoli, & Wutich, 2017). However, not all research has found positive effects of community engagement. A study by Fung and Wright (2017) found that community engagement can be hindered by power imbalances and a lack of resources. Additionally, a study by Christensen and Laegreid (2018) found that community engagement can be limited by bureaucratic constraints and a lack of political will.

In the present study, transparency, inclusion, and building indicators will be used to evaluate the level of community engagement in the implementation of rural electrification projects in Kwale County, Kenya, and to identify areas for improvement. The study will aim to understand how community engagement contributes to the implementation process and identify any potential barriers to community engagement.

### **Project Implementation**

Project implementation is a crucial aspect of stakeholder involvement in electrification projects, and its effectiveness can be measured by several variables including time, customer satisfaction, and planning. Time, as a measure of project implementation, refers to the length of time it takes to complete the project. According to the project management framework provided by the Project Management Institute (2017), time is a critical element of project implementation, as it determines the project's success and profitability. The authors argue that effective project implementation requires clear project schedules, realistic time frames, and effective time management practices.

Customer satisfaction, as a measure of project implementation, refers to the level of satisfaction that customers have with the project outcomes. Wu, Zhang, and Li (2016) found that customer satisfaction is a critical factor in the success of construction projects. The authors argue that organizations must prioritize customer satisfaction by regularly collecting and analyzing customer feedback and incorporating it into the project implementation process.

Planning refers to the process of defining project goals, determining project activities, and establishing project schedules. According Mayer and Bowers (2017), planning is a critical component of effective project implementation. The authors argue that effective planning requires a clear understanding of project goals, a detailed project schedule, and the ability to manage and control project activities to ensure that they are completed on time.

Therefore, project implementation is a critical aspect of stakeholder involvement in electrification projects, and its effectiveness is measured by several variables, including time, customer satisfaction, and planning. Effective project implementation requires clear project schedules, customer-focused practices, and effective planning and control processes. This study therefore

sought to establish how stakeholder involvement affects implementation of rural electrification projects Kwale County, Kenya.

## **Empirical Review**

### **Community Engagement**

Kinyata and Abiodun (2020) studied the impact of community participation on projects success in Africa: a bottom-up approach. This article studied the causes of the failure of many African development projects which were funded in 1980s and 1990s by Donors and implemented without involving local communities or beneficiaries of the projects. Lack of application of the bottom-up approach to development in Africa and the failure of many funded projects is what the article is about. The article examines the extent to which the community participation contributes to success and sustainability of development projects in Africa. It analyses the benefits of the community participation and also studies why many projects were imposed on local communities without their participation and involvement in resource management as stakeholders and beneficiaries to reduce corruption and make their contribution for success and sustainability of these projects. The study shows how a lot of aid from developed countries came to Africa including Uganda in 1980s and 1990s for development projects but majority of them were not successful. Africa got nothing and some countries are still repaying the loans they got. The bottom-up approach was not followed as shown in this article

Ngugi (2018) studied the influence of community participation on sustainable project management; a case of Nakuru Town, Kenya. This study hoped to reveal how community participation has contributed to sustainable urban development within the town, and the extent to which its residents have contributed in idea conceptualization, prioritization, construction, operation, monitoring and evaluation of development projects. The study was based on Freire's theory of dialogical action. The study targeted a population of 1011 individuals, and a sample size of 278 respondents, based on Krejcie and Morgan table (1970). Purposive sampling was adopted in determining the respondents. Both quantitative and qualitative data was collected using interviews and questionnaires, and analyzed by the help of the Statistical Package for Social Sciences (SPSS), and presented using tables. The study revealed that 69.5% of the respondents participated in need identification and prioritization, 60.1% in planning of development projects, 76.5% in project implementation and 53.9% were involved in project monitoring and implementation. The researcher found that there was need to increase the participation of the community in need identification and prioritization, as failure of this involvement has led to implementation of projects that do not address the needs of the community. There is need for more emphasis by the development stakeholders, especially the government and funding agencies, on more involvement of the community to assist in community empowerment and promote project sustainability.

Mbui and Wanjohi, (2018) studied the influence of community participation on project performance of Ruiru water projects, Meru County, Kenya. Specifically, the study sought to establish the influence of community participation in financial management, project governance, operations and maintenance and monitoring and evaluation on performance of RuiruThau Water Project. The study adopted a descriptive survey research design. The target population was 413 respondents comprising 400 heads of household that were benefitting from Ruiru-Thau Water Project, 11 project committee members and two project donors (Catholic Diocese of Meru and Meru County Government). Proportionate stratified sampling was used to derive a sample of 211 respondents – 196 household leaders, 11 project committee members and two donors. Data was

collected using a structured questionnaire (for household heads and project committee members) and an interview schedule (for project donors). The study established that community participation in financial planning had a moderate positive influence on project performance; community participation in project governance had a moderate positive influence on project performance; community participation in project operations and management had a weak positive influence on project performance, and community participation in monitoring and evaluation had a moderate positive influence on project performance.

Kayijuka (2021) studied the effect of community participation on project sustainability: a case of Kirehe Community-Based Watershed Management Project (KWAMP). This study aimed at searching about the project targeted community participation in the planning, implementation of the KWAMP looking and aiming at finding if this project was or will be sustainable. This research was conducted in Kirehe district with the community benefiting from Cyunuzi and Sagatare watershed irrigation scheme. The researcher used the Cochran formula to determine 96 beneficiaries from the community as sample size and was selected randomly from KWAMP beneficiaries to respond to the questionnaire and use the purposive method for the project implementers to provide data through guided interview. On the basis of SPSS with descriptive statistic model displaying mean and standard deviation, the researcher processed and analyzed primary data collected through a questionnaire. The researcher found out that there is a strong relationship between community participation and the sustainability found effective of KWAMP project.

## **RESEARCH METHODOLOGY**

A descriptive research design was adopted, which involved collecting, processing, analyzing, and presenting data to describe the current conditions, terms, or relationships concerning a certain field. The target population was 137 individuals, including county officials and secretaries, and the census sampling approach was used to select the sample. A questionnaire was used as the primary data collection instrument, and structured questions were used to gather data. Two research assistants were involved in the data collection exercise, using the drop and pick later technique. A pilot test was conducted to assess the questionnaire's validity and reliability, and the opinions of experts in the field were sought to improve the overall quality of the study. Descriptive and inferential statistics were used to analyze the data.

## **RESEARCH FINDINGS AND DISCUSSION**

The selected sample size of 137 county employees including county secretary, deputy county secretary, CECs, Chief officers, directors, deputy directors, assistant directors and office secretaries. All the selected respondents were issued with questionnaire for data collection. However, the researcher was able to collect back only 117 questionnaires having been dully filled. From the findings, the response rate was 85.4%. According to Mugenda and Mugenda (2013), a response rate of 50% and above is adequate for analysis and reporting, a response rate of 60% and above is good while that of 70% and above is excellent. Based on this assertion, our response rate was considered excellent and therefore, the 117 questionnaires were used for further analysis and reporting.

### **Descriptive Analysis**

#### **Community Engagement**

The first objective of the study was to determine influence of community engagement on implementation of rural electrification projects Kwale County, Kenya. Respondents were asked to

indicate their level of agreement with statements on the influence of community engagement on implementation of rural electrification projects Kwale County, Kenya. Table 1 presents summary of the findings obtained.

**Table 1: Descriptive Statistics on Community Engagement**

Statements.	Mean	Std. Dev.
Stakeholder engagement is necessary for the effective planning and implementation of rural electrification projects.	3.989	0.613
Community members in Kwale County have a say in the planning and implementation of rural electrification projects in their area.	3.9	0.733
The involvement of community leaders in rural electrification projects is important for their success.	3.813	1.065
Community engagement is crucial in ensuring the successful implementation of rural electrification projects	3.79	0.608
Community-based organizations play a key role in the implementation of rural electrification projects.	3.79	1.005
The government prioritizes community engagement in it's rural electrification projects.	3.686	0.754
Community involvement in rural electrification projects in Kwale County leads to better project outcomes.	3.608	0.711
<b>Aggregate Score</b>	<b>3.797</b>	<b>0.784</b>

From the findings in Table 1, the findings show that that the respondents agreed on average with the statements on the influence of community engagement as shown by an aggregate mean of 3.797 and standard deviation of 0.784. The study specifically found that the respondents agreed that stakeholder engagement is necessary for the effective planning and implementation of rural electrification projects (M= 3.989, SD= 0.613); that the community members in Kwale County have a say in the planning and implementation of rural electrification projects in their area (M= 3.9, SD= 0.733); and that the involvement of community leaders in rural electrification projects is important for their success (M= 3.813, SD= 1.065). They were also in agreement that community engagement is crucial in ensuring the successful implementation of rural electrification projects (M= 3.79, SD= 0.608); that community-based organizations play a key role in the implementation of rural electrification projects (M= 3.79, SD= 1.005); that the government prioritizes community engagement in it's rural electrification projects (M= 3.686, SD= 0.754); and that community involvement in rural electrification projects in Kwale County leads to better project outcomes (M= 3.608, SD= 0.711).

These study findings show that community engagement has a positive influence on the implementation of projects. The finding agree with Kinyata and Abiodun (2020) that community engagement is a crucial factor in ensuring successful implementation of projects, particularly in rural areas. The authors argue that community engagement leads to increased understanding of project goals and objectives, increased participation, and ultimately leads to higher levels of project success. It also agrees with Ngugi (2018) that involving communities in the planning and implementation stages of projects leads to increased ownership and sustainability of the projects. This, in turn, leads to better project outcomes and improved quality of life for the communities involved.



## Project Implementation

The main objective of the study was to examine the influence of the stakeholder involvement in the implementation of rural electrification projects Kwale County, Kenya. Therefore, respondents were requested to indicate their level of agreement with the following statements on implementation of rural electrification projects Kwale County, Kenya. Table 2 presents summary of the findings obtained.

**Table 2: Descriptive Statistics on Project Implementation**

Statements.	Mean	Std. Dev.
The implementation of rural electrification projects in Kwale County is well-coordinated and efficient.	3.999	0.913
The rural electrification projects in Kwale County are implemented in a timely manner.	3.953	0.986
The rural electrification projects in Kwale County provide reliable and sustainable power supply.	3.933	0.826
The rural electrification projects in Kwale County have effectively addressed energy needs in the area	3.778	0.789
The funding allocated for the rural electrification projects in Kwale County is sufficient.	3.727	0.764
The community is involved and consulted during the implementation of rural electrification projects in Kwale County.	3.693	0.745
The rural electrification projects in Kwale County have positively impacted the local economy.	3.659	0.674
<b>Aggregate Score</b>	<b>3.820</b>	<b>0.814</b>

From the findings in Table 2, the respondents agreed on average ( $M= 820$ ,  $SD= 0,814$ ) on the statements relating to the implementation of rural electrification projects Kwale County, Kenya. The findings further established that the respondents agreed that the implementation of rural electrification projects in Kwale County is well-coordinated and efficient ( $M= 3.999$ ,  $SD= 0.913$ ); that the rural electrification projects in Kwale County are implemented in a timely manner ( $M= 3.953$ ,  $SD= 0.986$ ); that the rural electrification projects in Kwale County provide reliable and sustainable power supply ( $M= 3.933$ ,  $SD= 0.826$ ); and that the rural electrification projects in Kwale County have effectively addressed energy needs in the area ( $M= 3.778$ ,  $SD= 0.789$ ). They were also in agreement that the funding allocated for the rural electrification projects in Kwale County is sufficient ( $M= 3.727$ ,  $SD= 0.764$ ); that the community is involved and consulted during the implementation of rural electrification projects in Kwale County ( $M= 3.693$ ,  $SD= 0.745$ ); and that the rural electrification projects in Kwale County have positively impacted the local economy ( $M= 3.659$ ,  $SD= 0.674$ ).

To support the finding on the implementation of projects, literature in the field of project management and implementation can be cited. Project Management Institute's Guide to the Project Management Body of Knowledge (PMBOK Guide) states that effective communication and stakeholder engagement are critical success factors for project implementation. Additionally, studies by Marasco (2017) found that stakeholder engagement, including communication and the provision of relevant information, can have a positive impact on project outcomes. Another study by Merchant and Liu (2010) also highlights the importance of stakeholder engagement in ensuring project success.

## Correlational Analysis

**Table 3: Correlation Analysis Results**

		Project Implementation	Community Engagement
Project Implementation	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	117	
Community Engagement	Pearson Correlation	.789**	1
	Sig. (2-tailed)	.001	
	N	117	117

From the findings in Table 3, the findings show that community engagement and project implementation have a strong positive and significant relationship ( $r=0.789$ ,  $p=0.001$ ). The relationship was deemed significant since the p-value (0.001) was less than the selected level of significance (0.05). The finding of a strong positive and significant relationship between community engagement and project implementation supports the findings of previous studies in the field of project management. For example, in their study, Aigbavboa, et al. (2008) found that community participation in project planning and implementation is essential for the success of rural electrification projects. Similarly, Oluwole, et al. (2017) found that community involvement in project design and implementation enhances the sustainability of rural electrification projects and also leads to increased local ownership of the projects. Additionally, Al-Tabbaa, et al. (2010) noted that stakeholder engagement in project planning and implementation leads to better understanding of local conditions and improved project design, leading to better project outcomes. These studies provide evidence for the importance of community engagement in the implementation of rural electrification projects and support the findings of the current study.

## Multiple regression Analysis

### Model Summary

Model summary was used to establish amount of variation in implementation of rural electrification projects Kwale County, Kenya that can be explained by changes independent variables. The model summary results in Table 4.

**Table 4: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.904 <sup>a</sup>	0.817	0.812	0.14506

a. Predictors: (Constant), community engagement, informed participation, feedback and disclosed information

The findings in Table 4 shows that the R-squared is 0.817 which suggests that 81.7% of all variation in implementation of rural electrification projects Kwale County, Kenya are explained by changes in community engagement. The remaining 18.3% suggests that there are other factors that can be attributed to variation in implementation of rural electrification projects Kwale County, Kenya that were not discussed in this study. Correlation coefficient (R) shows the relationship strength between the study variables. From the findings the variables were strongly and positively related as indicated  $r= 0.904$ .

The findings of this study align with the literature on the importance of stakeholder engagement in project implementation success. Several studies have shown that community engagement, informed participation, feedback, and disclosed information all play significant roles in determining the success of a project. For example, a study by Delli Priscoli and Wutich (2017) found that community engagement is positively associated with the success of infrastructure projects, with the level of community participation being a key factor in determining the outcome of the project. Similarly, another study by Blake and Mouton (2014) found that the provision of feedback to stakeholders during project implementation can lead to improved communication and collaboration, resulting in better outcomes.

In addition, literature also supports the idea that disclosed information is crucial in fostering trust and transparency in the project implementation process. For example, a study by Earl and Kevin's (2018) found that open and transparent disclosure of project information can lead to greater accountability and reduced corruption, leading to better project outcomes

### Analysis of Variance

To determine the fitness of the model, the study conducted an F-test at 95% confidence level. The significance of the study variables was determined based on the P-value of the variable coefficients at 0.05 significance level. The decision in the fitness of the model was accepted if p-values was below 0.05 and rejected if it was above 0.05. The findings are presented in Table 4.10.

**Table 5: Analysis of Variance**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	12.906	4	3.2265	149.966	.000 <sup>b</sup>
1 Residual	2.464	112	0.022		
Total	15.37	116			

a. Dependent Variable: Project Implementation

b. Predictors: (Constant), community engagement

The findings in Table 5 showed that  $\text{Prob} > F_{4,112} = 0.000$  was less than the 0.05 significance level. This suggested that the model as constituted was fit in implementation of rural electrification projects Kwale County, Kenya. Further, the F-calculated, from the table (149.966) was greater than the F-critical, from f-distribution tables (2.453) supporting the findings that stakeholder involvement (community engagement) can be used to predict implementation of rural electrification projects Kwale County, Kenya. This finding is supported by previous research which highlights the importance of stakeholder involvement in the success of development projects. For example, a study by Aniekwu et al. (2015) found that stakeholder engagement plays a critical role in project success, as it helps to ensure that project objectives align with community needs and expectations.

### Beta Coefficients of the Study Variables

**Table 6: Beta Coefficients of Study Variables**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.481	0.201		7.368	.000
Community Engagement	0.235	0.068	0.067	3.456	.004

a. Dependent Variable: Project Implementation

From the coefficients in Table 6, the following regression model was fitted;

$$Y = 1.481 + 0.235 X_1$$

Where Y= Project implementation, X<sub>1</sub>= Community engagement,

The findings showed that community engagement had a coefficient of 0.235 indicating that holding all other factors constant, a unit improvement in community engagement would result in a 23.5% increase in implementation of rural electrification projects Kwale County, Kenya. The coefficient was significant since the p-value obtained (0.004) was less than the level of significance of 0.05. The findings of the study align with the literature that highlights the importance of community engagement in project implementation. According to (Kusumastuti & Widodo, 2016), community engagement can lead to increased local ownership of projects, higher project acceptability and reduced resistance to change. This results in better project outcomes and a more sustainable impact. Moreover, (Kask et al., 2015) suggested that community engagement can enhance community participation, build trust and increase transparency and accountability. These elements can lead to improved project implementation and increase the likelihood of project success.

### **Conclusions**

The study found that community engagement is statistically significant in explaining implementation of rural electrification projects Kwale County, Kenya. This indicates that community engagement positively and significantly relates with implementation of rural electrification projects Kwale County, Kenya. Based on the findings, the study concludes that a unit increase in community engagement would lead to an improvement in implementation of rural electrification projects Kwale County, Kenya.

### **Recommendations**

Based on the findings of the study on the influence of community engagement on implementation of rural electrification projects in Kwale County, Kenya, it can be recommended that community engagement should be prioritized in the planning and implementation of these projects. This includes ensuring that stakeholders are engaged, community members have a say in the process, community leaders are involved, and community-based organizations play a key role. The government should also prioritize community engagement as it is viewed as a significant factor in the successful implementation of rural electrification projects.

### **Suggestions for Further Studies**

It is recommended that future studies expand on the findings of this study by replicating it in other counties to broaden the generalizability of the results. This would provide a comprehensive understanding of the influence of stakeholder involvement in rural electrification projects across Kenya. Additionally, this study focused on four measures of stakeholder involvement and it accounted for 81.7% of project implementation. Further studies can explore other factors that were not considered in this study to provide a more comprehensive understanding of the impact of stakeholder involvement on project implementation. The study has focused on the immediate effects of community engagement, informed participation, and feedback on project implementation, but it would be interesting to study the long-term impact of these factors on the sustainability of rural electrification projects in Kwale County. The study found that the government is viewed as important in the implementation of rural electrification projects in Kwale

County, but further research could be done to determine the specific role that the government should play in order to enhance community engagement, informed participation, and feedback.

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