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Stakeholder Participation and Performance of Water Projects in Kirinyaga County, Kenya

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Abstract

Performance of a water project largely depend on how stakeholders are involved in the project. Stakeholder participation collaborate all inputs which are important in the project implementation especially providing solutions to various challenges based on their shared experiences. The aim of this research was to investigate the influence of stakeholder participation on performance of water projects in Kirinyaga County, Kenya. The study targeted to evaluate role of involving stakeholder in identification, planning, monitoring and evaluation and implementation on performance of projects pertaining water on county of Kirinyaga. General system hypothesis was used together in conjunction with descriptive research design and cross-sectional in the process of data collection. The total target population were 29 water projects in Kirinyaga County, Kenya. The researcher purposively picked 3 respondents that include managers, assistant project managers and project supervisors giving a total purposive sample of 87 respondents. The questionnaire was used in collecting primary data. Questionnaire were distributed by drop and pick strategy. Analysis of data employed various forms statistics ranging from regression, correlation, standard deviation, mean, percentages and frequencies. The descriptive finding of the study indicated enjoining stakeholders on process of planning, identification, and execution during implementation and supervisory of monitoring and evaluation of projects have been moderately adopted in water projects. Inferential finding indicated that collaborating stakeholders' initiatives in these following stage of planning, identification, monitoring and evaluation, planning and implementation significantly contributed to performance. The study recommend that proper feasibility study should involve all the stakeholders comprehensively. In addition, adequate sensitization is supposed to be undertaken to equip the community with information that is necessary. The project implementers should involve the community in tracking projects progress. There is need for project and community to work together during assessment so that elaborate assessment is undertaken and all gaps that might hamper project implementation are identified. The study recommends strengthening of public

participation in all processes of a project. Public participation promotes accountability in the process thus improving efficiency.

Keywords: *Stakeholder engagement, project planning, project implementation, KIRIWASCO*

1.0 Introduction

In most public and private sector space performance of projects have not been on the right trajectory. Successful projects require creation a well-coordinated plan that is anchored on key success parameters (Albtoush *et al.,* 2022). This will guide management and stakeholders in making rational decision in order to achieve desired performance as indicated in objectives and goals (Lamprou & Vagiona, 2022). The most common determinants of project performance include; level of acceptance by the local community, management team work, project plans, technology, manpower, customer consultation, feedback and monitoring, communication channels and troubleshooting expertise (Wuni & Shen, 2020).

Performance of any construction project largely depends on how stakeholders are involved in the project (Di Maddaloni & Davis, 2018). Stakeholders' perception is very vital, for instance if stakeholders develop negative perception and as a result, they become dissatisfied and this in longer periods can hamper performance a project. Additionally, it can result in cost overrun and exceeding time schedules attributed by conflict and compromised positions taken by parties (Narayanan, Kure & Palaniappan, 2019). Stakeholders' contribution to project performance cannot be underestimated, they are endowed with diverse knowledge and experience to implementation and if effectively and efficiently executed then success of the project becomes inevitable (Ika, & Pinto, 2022). The success and failures of constructions projects have been associated with stakeholders' degree of inclusion in the project cycle.

Water management is a systemic process that involve plan drawing, initiating and execution of water projects. It is done to enhance efficiency and effectiveness of water consumption in the society. The process is normally participatory drawing all the stakeholders together as empowerment process is geared on and locals are made custodians of water projects (Eaton et al., 2021). UNICEF and WHO (2018), recorded that about 62% of the African inhabitants can access better quality water supply. Rural people experience the worst conditions because their water coverage stands at a mere 47%. There is also low sanitation coverage unlike other areas. Once more, the condition is worse for countryside populaces, as only 45% of the village areas have the coverage. Towns of SSA, private connections continue to be short as there are only two to seven connections per a hundred people.

Worldwide over a one and half billion human beings are not exposed to adequate safe water for drinking (UNICEF, 2023). About 122 million Europeans have no access to the same. This mostly affects developing countries and especially people living in villages and informal settlements of urban areas. Out of 49 countries in Asian region, around 37 of them have water shortages. Around ¾ of them face water crisis most of the time (WHO, 2018). Inadequate access to safe drinking water prompted global leadership to initiate a discussion on the possible solutions through sustainable development goals agenda in Addis Ababa in 2019. The summit reached a resolution that there is need to increase the number of people accessing safe drinking water and also enhancing hygiene level through creating clean and affordable environment through making it a top agenda globally.

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There are over 3.3 billion people equivalent to 42% of global population where 8% is drawn from the American region who find it extremely difficult to access safe drinking water denying them a fundamental right (UNICEF, 2018). Moreover, more indications showed that many communities across the globe have not fulfilled the MDGs requirement of attaining high level of hygiene standards and safe drinking water. Notably, countries in Latin America and south East Asia are still faced with challenges associated with lack of adequate access to water resource. Sabastian and Nathan (2017) opined that inadequate clean drinking water make life become most unbearable on the inhabitants of these areas. However, strides made in actualizing the dream of having a society enjoying safe drinking water is slowed by infrastructural development done hurriedly interfering with other mechanisms that would have guarantee the process.

In the sub-Saharan Africa many countries have peri-urban population structure especially Tanzania. The urban centers are characterized by growth of urban designated places merging with external areas. This has made several areas within these kind of cities to experience water rationing. It is considered a temporarily solution to cure government failure of inadequate investment on water development projects (Sigalla, Tumbo & Joseph, 2021). Several development partners such as African Development Bank have heavily invested in upgrading water projects in Tanzania across all major cities. Stacey *et al.* (2018) observed that an estimate of a third urban population in Tanzania lack piped water.

Success of water project is normally gauged based on its performance (Kumar *et al.,* 2021). The project performance is determined by array of factors that include nature of the project, arrangements in contracting, relationship of respective parties, the skills and competencies of the management and capabilities of those other stakeholders (de Oliveira & Rabechini, 2019). Performance indicators are in various forms and include money spend, time taken, overall quality and whether it addresses user needs (Wyrwoll *et al.,* 2022). These methods are commonly used to retrieve and disseminate information related to how inputs in a project execution is made effective and efficient.

Participation of stakeholders in running projects is viewed by many scholars as the sustainable way of keeping project cycles. Stakeholder is a cluster of individuals and institutions who are involved in way or another in running projects given their indispensable needs, therefore, their needs are required. Participation of stakeholder is considered a core component of sustainability in management of a projects. Professional bodies dealing with matters related with stakeholder participation knowledge have put more attention on the idea of stakeholder participation. Several researchers including Klaus-Rosińska and Iwko (2021) and Moreno-Monsalve *et al*. (2023) concluded that stakeholder participation especially involvement of all parties that have expressed interest lead to improved sustainability of projects.

In Kenya, 87% of the water projects are completed behind schedule and 57% are completed when it is already late (Annual water report review, 2020). This is attributed to poor stakeholder participation in these projects (Ochieng & Onyango, 2019). Kenya water act of 2002 incorporate policies that guide stakeholders' participation and this is also enshrined in the Kenyan Constitution (2010) which lay emphasize on the importance of public participation on the conceptualization, planning, execution and evaluation of any government funded project. Mbui (2018) noted that it is therefore out of the existing laws that slum dwellers are involved in all water projects from conceptualization to completion.

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Stakeholder's involvement in implementation, identification, M&E and planning in projects is significant in ensuring excellent performance of a project, which results to project sustainability (Matu *et al*. 2020). Local participation is considered among the ways of solving the challenge of project sustainability. Omar and Moi (2020) argue that participatory methods make projects more effective and efficient hence leading to sustainability. Stakeholder participation has been an antinode failure in the development sector, however, in the 1990's development agencies for example World Bank emphasized on stakeholder participation as a strategy of achieving sustainable development (Baba *et al.,* 2021).

Performance of water projects in Kirinyaga County has been a concern to everyone. Complaints about stalled projects and other projects taking long to complete has been reported. According to World Bank report of (2015) on Kirinyaga County water projects indicate that only 20% ongoing projects have been efficiently and effectively finished, 48% near completion while remaining experienced major delays. This depicted that water projects are facing enormous challenges in terms of performance. Additionally, the number of failed projects reported in 2017 were 38%, 2018 were 48% and 2019 were 52%. This poses a serious concern on the performance related to ongoing water projects schemes, stakeholder participation has been attributed as cause of undesirable performance.

Most of the projects in Kirinyaga County are done without stakeholder involvement. This has resulted to lesser benefit to the locals since many of these projects initiated have not been completed. Wamuri water projected initiated five decades ago has not been completed despite construction ongoing on and off within this period. There is need for an investigation to be undertaken to establish effectiveness of stakeholder involvement in projects. Scholars are in consensus that stakeholder role in project implementation is crucial to performance. Vernon *et al.,* (2015) opined that there is no success in project implementation without inclusion of all interested stakeholders. It is with this scenario that this study sought to determine influence of stakeholder participation on performance of water projects in Kenya with special interest to Kirinyaga County.

1.1 Statement of the Problem

Water sector is one of those functions that was devolved and is being managed by county government. It was the expectation of everyone that since this function has been devolved, most of the areas within the county will access piped water and all water projects initiated are not executed on time frame. However, completion of water development projects are still an elusive issue that is of concern to stakeholders. The introduction of devolved governments in 2013 by the constitution of Kenya (2010) has brought tremendous changes within the governance structure in all parts of Kenya. The paradigm shift was expected to increase efficiency of government projects implementation across the country.

Complaints about stalled projects and other projects taking long to complete has been reported. According to World Bank report of (2015) on Kirinyaga County water projects show that only 20% have been successfully finished, 48% are ongoing but past its cycle. From this account, it's clear that projects relating to water provision is faced with many challenges and is becoming a concern. Additionally, the number of failed projects reported in 2017 were 38%, 2018 were 48% and 2019 were 52%. This poses a serious concern on the performance of water projects, stakeholder participation has been attributed as cause of poor performance of water projects.

According to Onyango (2017), most of the projects in Kirinyaga County are done without stakeholder involvement. This has resulted to lesser benefit to the locals since many of these

projects initiated have not been completed. Wamuri water projected initiated five decades ago has not been completed despite construction ongoing on and off within this period. There is need for an investigation to be undertaken to establish effectiveness of stakeholder involvement in projects. Scholars are in consensus that stakeholder role in project implementation is crucial to performance. Vernon *et al.,* (2015) opined that there is no success in project implementation without inclusion of all interested stakeholders. It is with this scenario that this study investigated how involvement of all interested parties affected performance of water projects in Kenya with special interest to Kirinyaga County.

In order to realize the significance of water projects in their locality, community involvement is crucial in aspects starting from conceptualization to implementation. This process is termed as the most challenging process that need every player to take up their respective role. Failure to involve stakeholder might result to losses attributed to inadequate oversight and management challenges occasioned by not making all the members part of the team. Thus this research explores the significance of integrating stakeholders to be active in all processes of water projects in county of Kirinyaga, Kenya.

1.2 Objectives of the Study

i. To determine how stakeholder participation in project identification influence the performance of water projects in Kirinyaga County, Kenya
ii. To examine how stakeholder participation in project planning influence the performance of water projects in Kirinyaga County, Kenya
iii. To assess how stakeholder participation in project implementation influence the performance of water projects in Kirinyaga County, Kenya
iv. To establish how stakeholder participation in project monitoring and evaluation influence the performance of water projects in Kirinyaga County, Kenya

1.3 Research Questions

i. How does stakeholder participation in project identification influence the performance of water projects in Kirinyaga County, Kenya?
ii. How does stakeholder participation in project planning influence the performance of water projects in Kirinyaga County, Kenya?
iii. How does stakeholder participation in project implementation influence the performance of water projects in Kirinyaga County, Kenya?
iv. How does stakeholder participation in project monitoring and evaluation influence the performance of water projects in Kirinyaga County, Kenya?

2.1 Theoretical Review

2.1.1 General Systems Theory

The GST theory was hypothesized by Von Bertalanffy's (1972) and it places an emphasis on the importance of a system, its overall stability and binderies (Caw, 2015; Von Bertalanffy, 1972). The argument by Von Bertalanffy (1972) is that organizational leaders may improve their knowledge on interrelationships amongst various stakeholders as well as department to develop strategies that are appropriate for organizational improvement. Caw (2015) notes that General System theorists encourage unity, precisely by give emphasis to the interrelationships of mechanisms and system stability. In addition, General System Theory can be utilized to examine the nuances of group or individual behavior as organizational members; therefore, this theory can

be applied by leaders in organizations while considering the dynamics and intricacy of an association where the condition of a segment can impact another, prompting effect for the general strength of the framework (Von Bertalanffy, 1972).

General Systems Theory is suitable for the conceptualizing stakeholder participation and performance of water projects; it can also be extended to predict or explain the behaviors of organizational stakeholders. The theory further provides guidance to leaders of non-profit organizations in understanding the stakeholders' interactions and behaviors.

2.1.2 Stakeholder Theory

Stakeholder theory was developed by Freeman (1984) and was premised on an influence of an individual or a group which might positively or negatively execution or delivery of an outcome of a project. The theory asserts that stakeholders can be from the internal team or external group who as cultivated interest on the project deliverables. Aid (2008) noted that stakeholders have significant influence on the final outcome of any organization. This has always been a rampant case in several organizations that are faced with externalities which affect stakeholders differently. Gray (2001) observed that externalities occasion pressure to most stakeholders in an organization by reducing negative outcome and induce positive trajectory of results. Freedman (1994) modified the theory further as a suggestion of organization venturing into decision that affect decision of other groups and opt to minimize cost and maximize revenues. This theory advises public institutions to have a strategic thinking on how sustain itself financially in a longer periods of time (Jones, 1995).

It significant to use this theory because it hypothesizes on inclusion of all parties to make their valuable contribution to the project execution that the organization intends to pursue. Stakeholder participation allows other groups of interested parties to contribute their ideas on how the project is going to be managed. It is through stakeholder participation that best experiences and ideas are shared on how the project should be managed efficiently especially those members that are not in the management team. In most cases the beneficiaries of such projects are not given a chance because of their considered lesser position in the society of not having much influence yet they have progressive ideas that can increase efficiency in execution of entire process.

2.1.3 Arnstein's Participatory Theory

This theory was formulated by Arnstein (1969) where it was hypothesized on various forms of participation of empowerment. It is centered on the idea of redistribution of power where underprivileged are considered more. The participation was categorized on privilege and ranked from the lowest point to higher rank. Social programs are tailored on the degree of participation equated to a ladder. The ladder is divided into eight ranks based on power asserted by each category from the lesser to more influential. The lower rank represented those with less power and could not make decision easily. The next level constituted a rank where consultation, informing and placation was possible and it represented manipulation.

Stakeholders that assert power had an opportunity to make key decisions while those with lesser decision making are not given priority. The top rank was crucial and most of their opinions formed the policies of the organization. However, partnership create more space to those stakeholders consider lesser to negotiate their position. This gives the exclude stakeholders' role to play in a lesser way of delegated duties (Arnstein, 1969).

Further Wilcox (2003) advanced this theory by themed ideas into five important concepts. This theory is premised on participation of all stakeholders' in decision making especially those members who are not part of the management. In water project contractor and consultant may be the key decision makers because of their technical and financial capacity. There is need to include other stakeholders' in decision making especially the users because their proposals are critical in the performance of the project. Participation of other stakeholders in decision making incorporates progressive ideas that can help to enhance performance of the project.

2.1.4 Growth of the Firm Theory

The theory was developed by Penrose (1959) and was premised on the idea that firms are people's product created to serve certain purpose. The firm survival is kept by motivation of managers drawn from achieving more as planned through innovative and adaptive processes where combination of resources is crucial. Managers and entrepreneurs are driven by desires to make a difference by working diligently to grow their firm into a huge one geographically and financially.

In this study, the theory was considered significant in explaining the performance of water projects in Kirinyaga. Water project require competent management to be completed on time and quality works is achieved. The motivation of common good and the desire to earn profits allowed the contractor to deliver on time. Most of the contacts are awarded based on performance and for any water project entrepreneur to win the next contact and sustain profitability there is need to do a good work that gave a positive score.

2.2 Empirical Review

2.2.1 Project Identification and Performance

While investigating process of identifying and prioritization of key performance indicators for projects in Turkey Budayan *et al.* (2020) used focus group discussions. The study established that project planning need comprehensive technical feasibility. Technical feasibility is important for project in averting cost overrun, delays and high maintenance. The internal value can be prolonged when comprehensive technical feasibility is conducted. Identification of critical components progressively and assesse to enhance performance. The study did not highlight various identification processes that is followed leading to conceptual gap.

Analyzing key performance indicators Cruz Villazón *et al*. (2020) employed lean approach. Projects are made of several phases that are complex making it hard to determine success. These projects are multidimensional where different people make various contributions. Thus project success may vary from time to time. The current status of a project can only be known if properly identified and the input needed from each stakeholder. This helped in knowing the next course of action and strategic decision required for optimal results to be realized. The study adopted lean approach and the proposed study employed explanatory research design and this result to conceptual gap.

While investigating progress of projects at local level in South Africa Erevbenagie and Caldwel (2016) employed appraisal tool as methodology technique. Research was tasked to identify appraisal goals of projects at local level. Involvement of stakeholders was investigated to enlighten the locals on the importance of being involved in local projects are their defined roles. Secondary documents were reviewed to give insights on how stakeholder involvement is key in project management. It was clear that relationship of various stakeholders involved in projects are

important. A conceptual gap was identified in the effect of project identification on performance was not analyzed.

Erevbenagie and Caldwel (2016) both established that processes of how projects are identified has a positive attribute to its success but failed to quantify the actual effect so that one can establish whether it's a strong or a weak relationship. Moreover, such determination would have presented mixed findings and hence creating a conceptual gap.

2.2.2 Stakeholder Participation in Project Planning and Performance

Investigating impact of project planning on execution of state programs Musau and Kirui (2018) where the government Machakos was contextualized in the study. Planning of projects made significant improvement on its execution. It is always ideal for stakeholders to share their view on projects should be run and managed effectively. Stakeholders are part of project decision making are supposed to have technical competency to inform a better decision making. This is critical because experience impart necessary skills required for decision making. This study focused on implementation leaving a gap on performance. Thus, it presented conceptual gap.

Investigating influence of stakeholder participation in development programs Magassouba *et al.* (2020) examined literature in Guinea to have more insights. Definition of project is well captured in planning stage of many projects, various processes such as establishing quality and goals, specifics needed in a project both in implementation and quality, and assessment of various risks that require determination. Involvement of stakeholders in this stage strengthen management processes that is crucial in project implementation. Involvement of stakeholder in planning process is important in realizing goals and performance. This is because it affects allocation of resources, assignment of tasks and overall outcome of the project. It is essential in knowing place and roles of stakeholders on how to prioritize tasks, getting deliverables correctly, developing a roadmap on how specific task is easily finished within a certain period, planning risk, and following laid down protocols. The study only reviewed literature and the study relied on primary data and this resulted in methodological gap.

2.2.3 Stakeholder Participation in Project Implementation and Performance

While evaluating level of stakeholder participation in Rwanda Kobusingye, Kyalo and Mulyungi (2017) examined how stakeholder involvement project cycle management process. Descriptive research design was employed. People working in programs related with WASH where 409 people from Rwanda were involved. Stakeholder taking part in implementation of this initiative influenced outcome of the process. Despite acknowledging on the importance of stakeholder involvement in tracking performance but failed to address the role M&E and project planning has on performance. Therefore, this resulted to conceptual gap.

Assessing the influence of stakeholder involvement on completion of projects related with water Otieno and Makori (2017) employed descriptive research design. Data collection was done using structured questionnaire. It was concluded that independent variables affected performance of water projects. Communication is an essential in ensuring that management of water projects. Communication and finance is crucial in management of water projects and ineffective communication is likely to adversely affect performance. This study only targeted population in the informal settlement and a failure to include population in other settlements could present different findings because population characteristics in formal and informal settlement could be different.

Investigating the success factors that determine performance Ogwueleka (2018) employed explanatory research design. The study considered 20 success factors that influenced performance. Research selected 188 professionals that formed the sample size. It revealed that management, technical aspect, management at the echelon and management of risk are most essential critical factors that influence performance. This investigation took place in Nigeria that possible could be different from Kenyan setup thus cannot be concluded to mirror Kenyan case. Moreover, previous investigation put more emphasize on success factors that essential which this study is not a priority resulting to conceptual gap.

2.2.4 Stakeholder Participation in Project Monitoring and Evaluation and Performance

Investigating level of involvement in evaluation and supervision Sulemana *et al*. (2018) adopted descriptive research design. Research involved a mock up population where 160 individuals were targeted. Instituting M&E in management of district assemblies enhanced planning and coordination in execution of projects that significantly affected performance. In section where M&E is not adopted adequately implementation of projects was adversely affected. Lack of involvement of M&E in project execution adversely affected performance. This negatively influenced execution of projects. Lack of aspects such as transparency and accountability hampered how an organization is run because this involve the cultivation of M&E. The investigation was undertaken in different geographical location that could have unique features as compared to the current location and previous investigation did not link PM&E on project performance.

Examining how performance is affected by monitoring and evaluation Mueni (2018) using descriptive research design. Secondary schools in Mutomo Sub County were involved where 33 were selected as sample. Purposive sampling was employed. Schools have not adequately employed M&E in management of schools. Institutions require strengthening through various platforms such as forums, open seminars, meetings, where stakeholders are accorded an opportunity to share their view to better performance. The study failed to determine the effect of stakeholder participation on performance of projects thus resulting to conceptual gap. Furthermore, the study did not explicitly highlight the importance of entrenching monitoring and evaluation on performance whether positive or negative.

Investigating importance of stakeholder role in supervision and evaluation of projects Ndonga (2017) adopted descriptive research design. The research involved 100 respondents selected by use of questionnaire. Piloting was conducted to test research instruments. Collection of data was executed using expressive figures where percentages and frequencies are expressed. Inadequate level of education and qualification among employees was common among NGOs and this affected performance adversely. Inadequate resources limited the recruitment of M&E experts to track progress of work in the organization. There was no clear quantification on the effect of involving interested individuals on monitoring and assessment process on performance as either positive or negative.

2.3 Conceptual Framework

The conceptual framework in Figure 1 shows how explanatory variables related with dependent variable.

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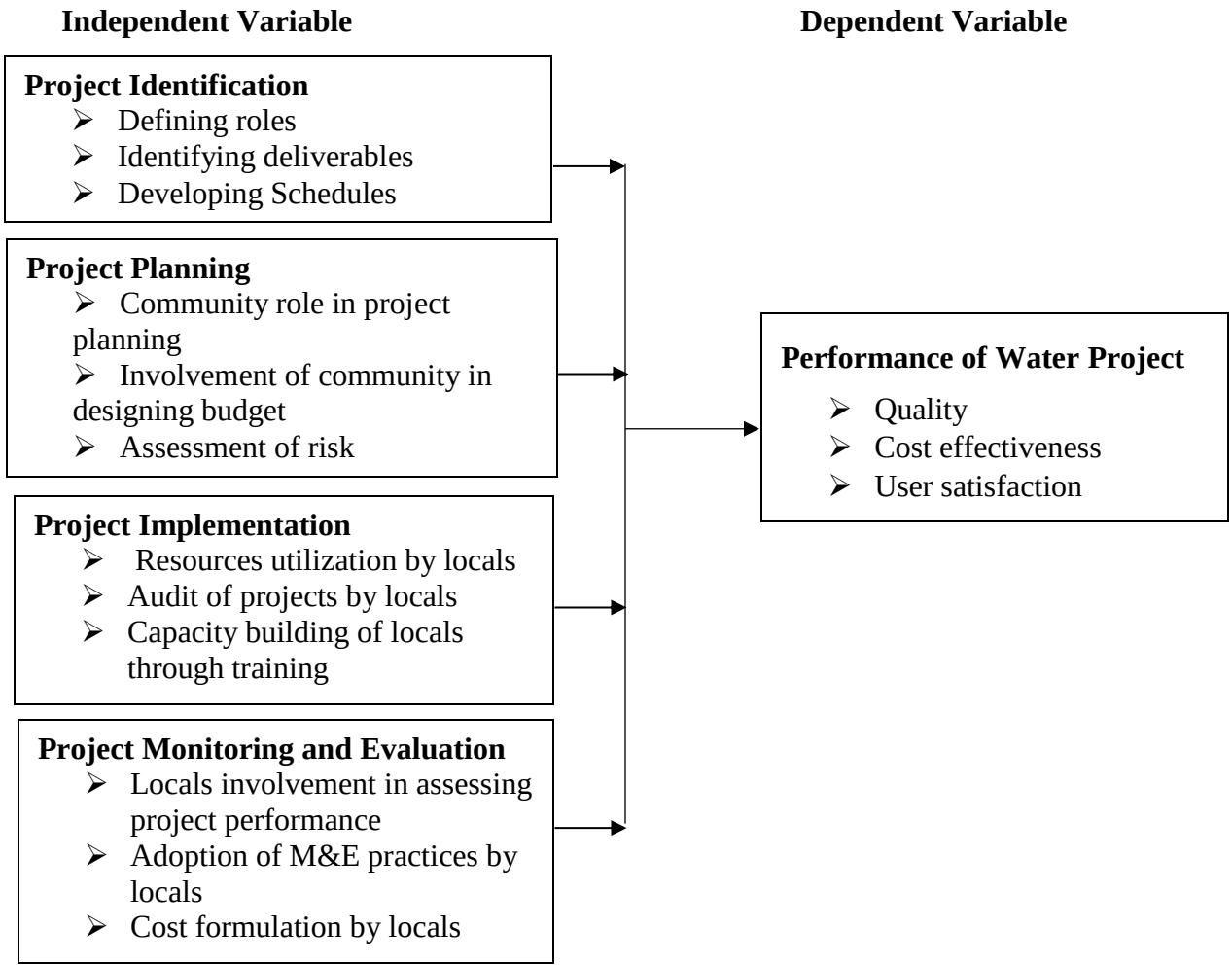

Figure 1: Conceptual Framework

3.0 Research Methodology

Explanatory research design anchored this research. This research design is considered appropriate when relating variables that have causal relationship and deeply examine what occasioned the phenomena (Sunders *et al*., 2007; Sekaran, 2003). The universe of interest in this study consisted of the completed water supply projects undertaken by KIRIWASCO within the last five years. As at December 2022, 29 water projects had been completed. A total of this 29 water projects were therefore studied. The study investigated 29 water programs that were formulated to be unit of analysis in this investigation. In these water projects they have managers, assistants and supervisors who are the custodians of the institutions information, they formed the unit of observation since the study relied on them in receiving information. Census was employed by the study where all the 29 water projects in Kirinyaga County were studied. This is because the number is small and can be studied in totality. The study picked 29 managers, 29 assistant managers and 29 supervisors of water projects and this aggregated to 87 and used semi-structured questionnaire for data collection.

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Survey opted to use data from the source directly commonly known as primary data. Technique of gathering information in a study is essential and this study adopted questionnaire. According to Burns and Burns (2008) this tool is aggregate of questions prepared formally to obtain outcome that answered questions raised in research. The format varies from structured to open ended questions depending on the degree of the information sought and for this purpose was structured mainly with restricted questions. The research tool was self-administered to the respective respondents in their specific locations. This is because allowing respondents to do it independently provided them adequate time to answer the questions.

The analyzed data was made up of descriptive and inferential. Descriptive is made up of standard deviation and mean. Inferential statistics was made up of Pearson correlation and multiple regression. On the other hand, regression model determined the relationship of study variables.

The model of the investigation appeared as follows;

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

Where:
Y represents 'Project performance'
$\mathbf{B_0}$ represents 'Constant'
$\mathbf{X_1}$ represents 'Stakeholder participation in project identification'
$\mathbf{X_2}$ represents 'Stakeholder participation in project planning'
$\mathbf{X_3}$ represents 'Stakeholder participation in project implementation'
$\mathbf{X_4}$ represents 'Stakeholder participation in project M&E'
$\boldsymbol{\varepsilon}$ represents 'Error Term'
$\boldsymbol{\beta_1}$, $\boldsymbol{\beta 2}$, $\boldsymbol{\beta_3}$, $\boldsymbol{\beta_4}$represent 'Regression Coefficients of Predictor Variables

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4.0 Findings and Discussion

The study sought demographic features of the population and finding are presented in Table 1.

Table 1: Demographic Finding

Variable	Category	Frequency	Percentage
Gender	Male	35	43.75
	Female	45	56.25
	Total	**80**	**100**
Duration of residing in this area	0-6 years	12	15.0
	6-10 years	24	30.0
	10-15 years	25	31.25
	15-20 years	11	13.75
	More than 20 years	8	10.0
	Total	**80**	**100**
Level of Education	Certificate	36	45
	Diploma	24	30
	Degree	15	18.75
	Master	5	6.25
	Total	**80**	**100**
Number of Households	1-10	6	7.5
	11-20	31	38.75
	Above	43	53.75
	Total	**80**	**100**

Given the demographic results in Table 1, the study found that 31.25% of the residents have been in the area for 10-15 years while 30% of the people have been residents in the area for a period of 6-10 years and 15% of the people have been in the same location for a period not exceeding 6 years. Additionally, 13.75% of the people have been in similar location for a period of 15-20 years and 10% of residents have stayed in the area for over 20 years. Majority of the people have been in the area for a duration of 10 to 15 years. This imply that the residents interviewed are conversant with all projects that have been undertaken pertaining water project.

On education level, 45% of respondents have certificate as the maximum academic qualification, 30% are diploma holders and 18.75% of the residents have degree certificates. In addition, 10% of the residents have master's degree as the maximum academic qualification. Majority of the residents have certificate as the maximum education qualification. Education is crucial in management of water project and its inadequacy is likely to hamper the process project implementation. It was noted that 53.75% of the water project served more than 20 households, 38.75% of water projects served 11-20 households and 7.5% of the water projects served less 10 households. Majority of the water projects served more than 20 households. Sustainable water projects are supposed to serve more households since projects that serve few households might not attract funding since they do not have value for money.

4.1 Descriptive Findings

Stakeholder Participation in Project Identification

This investigation sought the opinion of various water project implementers on how stakeholder participation in project identification and finding illustrated in Table 2.

Table 2: Stakeholder Participation in Project Identification Descriptive Results

Statement	Mean	Standard Deviation
How frequent is the community involved in conceptualization of projects.	3.27	1.32
The community is involved in appraisal reports relation to performance of projects.	3.00	1.41
The community has been involved comprehensively in feasibility study of projects.	2.91	1.42
The community is involved in stakeholder analysis in many of the projects.	2.72	1.31
Most of the ideas from the community is integrated into the project during the identification processes.	2.63	1.44
Is the community involved more often in identification of projects?	2.86	1.46
Community needs are prioritized during identification of projects.	2.85	1.42
Community ideas are collaborated in creating solutions to water problem prevailing in the area	3.23	1.37
The community are part of discussions pertaining problems facing projects	3.04	1.55
Community is part and parcel of solutions to the water challenges that are rampant in this region	2.96	1.50

Based on the study findings, communities are active players in conceptualization of projects to a moderate extent as depicted by mean of 3.27 and standard deviation of 1.32. The standard deviation of 1.32 indicated that many of the responses are clustered around the mean. Community involvement in conceptualization of projects is important since it was tailored based on circumstantial challenges. It was noted that many of interviewees agreed that community are active players in feasibility intended works to a moderate extent as depicted by mean of 3.00 and standard deviation of 1. 41. Full involvement of stakeholder in feasibility study incorporates robust ideas and possible propose better remedies of dealing with challenges. It was noted that community involvement in stakeholder analysis of projects is by moderate extent as shown by an average of 2.72 and deviation from the mean of 1.31 and this deviation depicted that many of the responses are clustered around the mean. Involvement of community in analysis of community projects is critical in identifying possible gaps and reconciling errors of omission and commission. Most of the ideas from the community are integrated into the project moderately during the identification processes (Average= 2.63, Std= 1.44).

Moreover, it was noted that community is moderately involved in identification of water projects in the area of study as shown by mean of 2.86 and standard deviation of 1.46. Respondents agreed that community needs are prioritized during identification of projects to a moderate extent (Average= 2.85, Std= 1.41). It was noted that community ideas are collaborated creating solutions to water problem prevailing in the area (Average= 3.23, Std= 1.37). Likewise, it was established that communities are part of discussions relating to problems facing projects by a moderate extent (m=3.23, SD=1.37). The standard deviation depicted that opinions of the respondents were

clustered around the mean. Community have been experiencing problems for years and engaging them on what exactly ails them could be a good gesture of acknowledging their challenges and proposing mitigation measures that can address the challenge. Finally, it was noted that community participates in designing solutions to water problems by moderate extent (mean=2.96, SD=1.50). The standard deviation indicated that responses are clustered around the mean. Community involvement in proposing solutions is important in getting a robust solution based on challenge experiences.

Stakeholder Participation in Project Planning

The study sought opinions regarding stakeholder participation in project planning estimated using mean and standard deviation and outcome is examined in Table 3.

Table 3: Stakeholder Participation in Project Planning Descriptive Results

Statement	Mean	Standard Deviation
Community members attend all planning meetings of their projects	3.12	1.39
The design of project collaborates ideas and contribution of members	3.14	1.38
Most of the proposed plans of community projects are agreed by all members.	2.95	1.50
Budgeting and cost estimation involve community members in all projects	2.98	1.52
Community are involved in resources mobilization to aid implementation of projects	3.26	1.42
Community develop performance indicators of projects	3.06	1.43
The community are part of the team that developed implementation plan	3.36	1.47
Community developed a plan on measuring performance on the impact of project.	3.01	1.48
Community select their own leaders to represent them in project	2.98	1.47
The community are aware of the objectives of the water project	2.93	1.38

The study findings show that the majority of the respondents agreed that by moderate extent community members attend all planning meetings of their projects (mean=3.12, SD=1.39). It was noted that design of project collaborates ideas and contribution of members by moderate extent as indicated by mean of 3.14 and standard deviation of 1.38. Most of the proposed plans of community projects are agreed by all members to a moderate extent (mean=2.95, SD=1.50). Deviation from the mean imply that some of the responses had divergent views. Building consensus in proposal stage of projects is critical in ensuring that there was no disagreement that can derail the project progress. Additionally, involvement of community in budgeting and cost estimation in all projects is to a moderate extent (mean=2.98, SD=1.52). Moreover, it was noted that community engage in resources mobilization to aid implementation of projects to a moderate extent (Average=3.26, SD=1.42).

Additionally, community are involved in developing performance indicators of projects by a moderate extent (mean=3.06, SD=1.43). The standard deviation signified that some of the responses are divergent. Performance indicators are critical in ensuring that budgeted resources

are utilized well and goals are achieved thus need be tracked down using performance indicators. Moreover, community are part of the team that developed implementation plan by a moderate extent (Average=3.36, SD=1.47). Standard deviation implied that some of the responses are divergent. Implementation plan is important since it gives the framework of how plan is executed and followed strictly.

Further, community is involved in developing a plan on measuring performance on the impact of project by a moderate extent (mean=3.01, SD=1.48). It was noted that community involvement in selecting their own leaders to represent them in project is by moderate extent (mean=2.98, SD=1.47). Standard deviation indicated that some responses are not clustered around the mean. Communities are at the better position of knowing the kind of leaders who can lead and their selection is very important. Moreover, community are aware of the objectives of initiated plan targeting water programs to a moderate extent (mean=2.93, SD=1.38).

Stakeholder Participation in Project Implementation

The study assessed stakeholder participation in project implementation using standard deviation and mean. The results are presented in Table 4.

Table 4: Stakeholder Participation in Project Implementation Descriptive Results

Statement	Mean	Standard Deviation
Project implementation involve community members.	2.94	1.54
Tracking of projects involve community members.	2.83	1.46
Project updates are normally disseminated to the community.	3.15	1.41
Community have set aside resources to enhance sustainability of projects.	2.95	1.48
Projects sustainability has been supported by resources contributed by community.	3.06	1.43
Community is empowered and can implement decisions easily pertaining projects.	3.02	1.31
Communication of needed information is divulged to community timely.	2.93	1.42
Resources contribution has hampered community implementation of projects.	2.79	1.47
Roles are well defined for community members involved in implementation of projects.	3.17	1.44
The community are technically empowered and they can manage water projects with ease.	3.02	1.12

The study established that project implementation involves community members to a moderate extent (mean=2.94, SD=1.54). The study noted that tracking of projects involves community members by a moderate extent (mean=2.83, SD=1.46). Project updates are normally disseminated to the community moderately (mean=3.15, SD=1.41). Information is critical especially in ensuring smooth flow of work during implementation process. Communities are involved in setting aside resources to enhance sustainability of projects by moderate extent (mean=2.95, SD=1.48). The standard deviation indicates that some of the responses are not clustered around the mean. Resources are critical ingredients in sustaining performance of projects in a longer period as it serves the purpose.

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The study revealed that the Community is empowered and implement decisions easily pertaining projects to a moderate extent (Average=3.02, SD=1.31). The standard deviation indicated that some responses are not clustered around the mean. Empowerment of community in implementing projects in enhancing efficiency. Communication of needed information is divulged to community timely to moderate extent (mean=3.02, SD=1.31). The standard deviation indicated that some responses are clustered around the mean. Communication is critical in management of project progress thus effective means enhance efficiency in management. Resources contribution has hampered community implementation of projects to a moderate extent (mean=2.79, SD=1.47). Roles are well defined among local players involved in implementation of projects moderately (Average=3.17, SD=1.44). The standard deviation indicated that some responses are divergent. Defining roles in project implementation ensures that everyone devote energy in areas where they have strength and produce desired result. The community are technically empowered and they can manage water projects with ease to a moderately (mean=3.02, SD=1.12). This implied that most responses are clustered around the mean as shown by standard deviation. Technically empowerment of community enhance capacity that improve efficiency in project implementation.

Stakeholder Participation in Monitoring and Evaluation

The study sought to investigate level of monitoring and evaluation using mean and standard deviation and finding assessed in Table 5.

Table 5: Stakeholder Participation in Monitoring and Evaluation Descriptive Results

Statement	Mean	Standard Deviation
Assessment of projects involve community.	2.94	1.44
Water projects have implemented M&E and the community have been at forefront.	3.04	1.52
The benefits of the project reaches all community members.	3.15	1.47
Experienced learned from the project have improved implementation of the project.	3.01	1.37
Audit of projects have involved community to enhance accountability	3.10	1.45
Involving community in M&E of water projects have enhanced performance.	3.06	1.40
Community has been sensitized on the methods of monitoring and evaluation.	2.85	1.44
Review of community project procedures on evaluation has been common.	3.09	1.34
Involvement of community in developing strategies to enhance performance has been a common practice.	3.07	1.48
Management of financial resources during project cycle has been successfully.	2.88	1.38

Based on the finding in Table 5, the study found that the assessment of projects involve community by a moderate extent (mean=2.94, SD=1.44). This imply that some responses are divergent as indicated by standard deviation. It can be observed that benefits of the project reach all community members by a moderate extent (average=3.15, SD=1.57). The standard deviation indicated that some responses are not clustered around the mean. Initiated projects are supposed to benefit the

community for ownership and acceptability. Water projects have implemented M&E and the community have been at forefront by a moderate extent (mean=3.04, SD=1.52). The deviation imply that some respondents gave divergent views regarding this remark. Projects need M&E to track progress and identify possible areas that have gaps. Experienced learned from the project have improved implementation of programs by a moderate extent (mean=3.01, SD=1.37). This imply that some responses are not clustered around the mean as indicated by standard deviation. Experiences always exhibit challenges to a project thus progressive solutions are needed in its implementation. Audit of projects have involved community to enhance accountability by a moderate extent (Average=3.10, SD=1.45). Involving community in M&E of water projects have enhanced performance by a moderate extent (mean=3.06, SD=1.40). M&E is made up of indicators that guide project implementation thus it is easier to execute projects as per the plan.

Additionally, community has been sensitized on the methods of monitoring and evaluation by a moderate extent (mean=2.85, SD=1.44). Review of community project procedures on evaluation has been common to a moderate extent (mean=3.09, SD=1.340). Review of projects is critical in identifying challenges and how to mitigate them. Involvement of community in developing strategies to enhance performance has been a common practice by a moderate extent (average=3.07, SD=1.48). Management of financial resources during project cycle has been successfully by a moderate extent (mean=2.88, SD=1.38). The standard deviation indicated that some responses are not clustered around the mean. Efficiency in resources management is crucial in making project attain its goals and objectives.

Performance of Water Projects

Investigation examined how performance of projects attained it is goals using a mean and deviation are examined in Table 6.

Table 6: Project Performance Descriptive Results

Statement	Mean	Standard Deviation
The project was acceptable to the clients	3.02	1.42
The project met the expectations of the stakeholders	2.91	1.46
Projects are completed in an agreed period.	3.06	1.44

It can be noted from results in Table 6 that project enjoys level of acceptability among clients by moderate extent (mean=3.02, SD=1.42). Deviation from average indicated that some responses are divergent. Users are critical in rating a project and meeting their expectations as considered a success. It was noted that project met the expectations of the stakeholders by moderate extent (mean=2.91, SD=1.46). The standard deviation indicated that some of the responses are not clustered around the mean. Stakeholder interest in a project is important since they play critical role in financing and sustainability. The project was completed in an agreed period (mean=3.06, SD=1.44). The standard deviation indicated that some responses are not clustered around the mean. It is important for a project be fin aced within the budgeted resources since deficits slow down work progress.

4.2 Correlation Analysis

The study investigated association of study variables using Pearson correlation. Weakness and strength of variable association was determined coefficient correlation (Danacica, (2017). The outcomes of the correlation analysis are presented in Table 7.

Table 7: Correlation Results

Variable		Project performance	Project identification	Project planning	Project Implementation	Project Monitoring evaluation
Project performance	Pearson Correlation	1.000				
	Sig. (2-tailed)					
Project identification	Pearson Correlation	.494**	1.000			
	Sig. (2-tailed)	0.000				
Project planning	Pearson Correlation	.449**	0.186	1.000		
	Sig. (2-tailed)	0.000	0.097			
Project Implementation	Pearson Correlation	.452**	.456**	.396**	1.000	
	Sig. (2-tailed)	0.000	0.000	0.000		
Project Monitoring evaluation	Pearson Correlation	.417**	.301**	.328**	.506**	1.000
	Sig. (2-tailed)	0.000	0.006	0.003	0.000	

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

The finding of the study indicated that involvement of interested parties in identification process of projects has a critical role in its performance (r=0.494, 0000<0.05). This conceptualization involves technical feasibility that establishes the viability of the project. It agreed with a study by Budayan *et al.* (2020) which established that project planning require a comprehensive feasibility study for it to be successful.

From the results of the study, stakeholder participation in project planning has a positive and significant association with performance of water projects in Kirinyaga County, Kenya (r=0.449, 0000<0.05). This implied that there is moderate association between water project planning and performance of water projects in Kirinyaga County. Planning stage involve various stages that are critical in project management. These processes help in defining and formulating quality projects in an organization through aligning activities and goals that are essential. It concurred with a study by Musau and Kirui (2018) that found out that planning of projects made significant improvement on its execution.

The study deduced that involvement of interested parties in monitoring and evaluation associated positively and significantly with the desired outcome (r=0.452, 0000<0.05). The finding agreed with a study by Mueni (2018) that found out that M&E strengthens management system of organization that improve performance of projects significantly. Finally, the finding of the study

revealed that involvement of interested parties in project implementation had a positive and significant association with performance of water projects in Kirinyaga County, Kenya (r=0.517, 0000<0.05). It implied that the association between the two variables are strong and significant. Involvement of stakeholders in running projects implementation is sustainable way of keeping project cycles. Stakeholder running projects are given indispensable needs, therefore, their needs are required. Participation of stakeholder is considered a core component of sustainability in management of a projects.

4.3 Regression Analysis

The study investigated the relationship of study variables using multiple regression model and findings are presented in Table 8.

Table 8: Regression Model Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.845a	0.716	0.686	0.68987

a Predictors: (Constant), Project Monitoring evaluation, Project identification, Project planning, Project Implementation

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.72	4	6.43	13.482	.000[b]
	Residual	36.248	76	0.477		
	Total	61.967	80			

a Dependent Variable: Project performance

b Predictors: (Constant), Project Monitoring evaluation, Project identification, Project planning, Project Implementation

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.915	0.549		1.669	0.099
	Project identification	0.459	0.131	0.346	3.494	0.001
	Project planning	0.461	0.153	0.292	3.019	0.003
	Project Implementation	0.356	0.155	0.093	2.28	0.017
	Project Monitoring evaluation	0.345	0.149	0.17	2.32	0.014

a Dependent Variable: Project performance

Based on the finding in Table 8, regression summary model of involvement stakeholders and performance of projects related with water resulted to a coefficient of determination of $r^2 = 0.716$ (p=0.000<0.05). This signified that 71.6% of performance of water projects in Kirinyaga County, Kenya is influenced by stakeholder participation that was significant. The adjusted R^2 implied that 68.6% of the performance of water projects in Kirinyaga County, Kenya variation is explained by involvement of stakeholders in identification, planning, monitoring and evaluation and

implementation of activities of water project and the rest is explained by other factors that are not included in the model.

Regression ANOVA model of stakeholder participation and performance of water projects in Kirinyaga County, Kenya (F= 13.482, p = .000<0.05) involvement of stakeholder is a critical predictor of performance of water projects in the county of Kirinyaga. The finding of this research indicated that involvement of stakeholders in identification, planning, monitoring and evaluation and implementation positively and significantly affected performance (r=0.459, p=0.001<0.05; r=0.461, p=0.003<0.05: r=0.356, p=0.017<0.05 & r=0.345, p=0.014<0.05). The p value of (0.001<0.05) indicated that all the four factors of projects have significant influence in performance.

The first objective of the study was to determine how stakeholder participation in project identification influence the performance of water projects in Kirinyaga County, Kenya. The descriptive finding established that stakeholder participation in project identification process is moderately adopted in the organization as depicted by average mean of 2.947. The correlation finding noted that the association of stakeholder participation in project identification and performance of water projects is positive and significant association but moderate. The regression finding noted that project identification significantly influenced performance of water projects.

Project is a complex component that involve several processes.

The findings of this study agreed with a study by Musau and Kirui (2018) that found out that planning of projects made significant improvement on its execution. It also concurred with a study finding by Magassouba *et al.* (2020) which showed that involvement of stakeholders in planning strengthen management processes that is crucial in project implementation. It also agreed with a study by Heravi, Coffey and Trigunarsyah (2019) that found out that stakeholder engagement is crucial in developing a course that shape performance.

In addition, this study examined involvement of partners and users of project in implementation process on its influence on performance. Based on the descriptive analysis it was evident that this process moderately affected performance. On the other hand, correlation findings showed that involvement of all interested parties in implementation of projects is crucial in its performance. Likewise, regression results affirmed a significant relationship between the two variables.

The finding of this study agreed with a study by Kobusingye, Kyalo and Mulyungi (2017) that concluded that stakeholder taking part in project implementation influenced outcome of a project positively by improving performance. Moreover, it agreed with a study by Otieno and Makori (2017) which found out that communication is an essential component of project monitoring and evaluation and its adoption significantly improve performance. Further, it also agreed with a study by Ogwueleka (2018) that noted that management, technical aspect, management at the echelon and management of risk are most essential critical factors that influence performance.

Finally, the study investigated the role of monitoring and evaluation in performance of a water project. The descriptive finding showed that many of the stakeholder agreed by a moderate extent that involvement of stakeholders in monitoring and evaluation is critical in performance. Involvement of partners and users of projects in monitoring and evaluation appears to be important in achieving target performance. Moreover, this process is crucial in identifying gaps in implementation and offering mitigation measures thus fostering performance.

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The finding of this study agreed with a study by Sulemana *et al*. (2018) that concluded that instituting M&E in management of district assemblies enhanced planning and coordination in execution of projects that significantly affected performance. It also concurred with a study by Mueni (2018) that found out that M&E strengthen management system of organization that improve performance of projects significantly. It further agreed with a study by Ndonga (2017) that concluded that lack of adequate M&E has hampered performance of projects.

5.0 Conclusion

The study concludes that the process of involving stakeholders in various crucial processes such as identification, planning, monitoring and evaluation and implementation is essential in achieving desired performance since all these factors have positive contributions. Identification of projects, involvement of stakeholders in planning and having other team assisting in monitoring and valuation and also holistically involving them in implementation is essential in improving performance of projects.

6.0 Recommendations

The study made recommendations based on practices, policy and areas for further research. The recommendations of the study were inferred from descriptive findings which raised concerns. Feasibility study is critical ensuring a proper road map of a project is designed. It is therefore recommended that proper feasibility study should involve all the stakeholders comprehensively. Comprehensive feasibility study is key in prolonging the internal value of the project. The internal value can be prolonged when comprehensive technical feasibility is conducted. Identification of critical components progressively and assess to enhance performance.

Creating awareness across the community on importance of a project is very important. Most of the community members especially users deserve to know how the project may impact their lives. It is recommended that adequate sensitization is undertaken to equip the community with information that is necessary. Information regarding the project might empower the community and can help in identifying possible challenges that project might be coupling with.

Tracking of projects is crucial in its implementation. It enables one to know the progress of a project and possible identify challenges. The project implementers should involve the community in tracking projects progress. It is from tracking progress of a project one can identify challenges and execute mitigation measures that may put the project on course.

Assessment of any project is crucial in establishing the correct situation. Assessment is essential in identifying gaps that might derail project implementation. There is need for project and community to work together during assessment so that elaborate assessment is undertaken and all gaps that might hamper project implementation are identified. Diagnosis of gaps comprehensively is important developing mitigation measures that are likely to address the problem comprehensively.

There is need to involve stakeholders in all processes of project starting from identification, planning, monitoring and evaluation and project implementation. One of the robust ways of involving stakeholders is initiating an inclusive process that allow fair participation of all stakeholders so that project performance can leverage from divergent opinions of stakeholders. The study recommends strengthening of public participation in all processes of a project. Public participation promotes accountability in the process thus improving efficiency.

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