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COMMUNITY WATER PROJECTS IN KAKAMEGA COUNTY**

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**ABSTRACT**

*This study investigated the influence of project governance and resource mobilization on sustainability of community water projects in Kakamega County. The specific objectives were to establish influence of Resource mobilization and project governance on sustainability of community based water projects. Descriptive survey design was used to explain hypothesized relationships. The study targeted 410 respondents from 103 registered community water projects in Kakamega County, Kenya. Primary data was collected by means of self-administered structured questionnaires and for purposes of validity and reliability checks, pretested in a registered and established community water projects was conducted in Vihiga County, Kenya. Descriptive and inferential statistics with the aid of specialized Statistical Package for Social Sciences, version 24 were conducted. Descriptive analysis such as frequencies, means, standard deviation were utilized whereas analyzed data were presented in tables. Further, inferential statistics assessed nature and the strength of variable relationships and SPSS version 24 was used for analysis. The study established that there is significant relationship between independent variables (Resource mobilization and project governance) and dependent variable (sustainability of water projects). Regression analysis further revealed that project management approaches (Resource mobilization and project governance) have significant positive influence on the sustainability of community water projects in Kakamega County. The study concluded that resource mobilization and project governance have significant effect on sustainability of community water projects. The study recommended that community water project officers must acquire relevant resource mobilization skills necessary to attract both financial and non-financial resources from within or without the local community so as to guarantee sustainability of community water projects. There is need for project managers to establish departmental roles, responsibilities and authority of project managers, project teams, technical managers, technical leaders, and team members and to strengthen the project manager's level of authority hence enhance project governance*

**Key Words:** Resource Mobilization, Project Governance, Sustainability

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## INTRODUCTION

The sustainability of community based projects and the efficacy of aid are two of the most pressing concerns for all grassroots, national, and global development organizations, particularly amid the Covid-19 social and economic turmoil (Oladele & Vieyra-Mifsud, 2021). A lot of money has been spent in communities throughout the world to enhance living standards and alert people about the hazards of Covid-19. The change from project-based techniques to sector-wide methods, structural change measures, economic recovery papers, program-based guidelines, direct budget assistance, and medium-term spending structures reflects a way to eliminate fracturing in development systems and modify how support is conveyed by shifting the power balance (Gathege & Yusuf, 2019). While donor funding may operate as a temporary accelerator for social change, achieving and sustaining such change is challenging owing to unforeseeable variables like Covid19, which may endanger the early acceptance of innovative project design features (Fenner & Cernev, 2021). Brief financing cycles collide with the length of time required to affect social change, and potentially helpful healthy programs may no longer be economically viable after donor support runs out.

The aspect observed by Beyene (2006) is physical resources: This is generally associated with community members providing material resources for the project to be implemented for instance, providing material for construction like bricks, hay, trees or construction tools like spades. Lastly, Beyene (2006) observed that community participation could also be in monetary resources/donations which is generally most demanded by development initiatives and is considered by many to be a less active form of community participation because relatively little time is involved. Depending on the level of poverty of a community, if there is proper mobilization community members can participate in community initiatives through monetary support. None of these forms of community participation can be assigned

priority over the other, though it is evident that each form of participation can yield a varying degree of quality and impact on the project implemented.

Further, Binder (2008) asserted that globally, water is the most important natural resource, indispensable for life and at the same time the backbone for growth and prosperity for mankind. The General Assembly of the United Nations drew critical attention to the importance of water to sustainable development and poverty alleviation by declaring 2003 The International year of Fresh water with one of its aims being to reassert the Millennium Development Goals target for water of reducing by half the proportion of people without the access to safe drinking water and stop the unsustainable exploitation of water resources (United Nations Development Program –Water and Sanitation Program -UNDP-WSP, 2006).

Most reports have shown that Kenya is a water scarce country with a per capita of 647cubic meter, which is below the world recommended per capita of 1000cubic meters (Mogaka, 2013)). There is unequal distribution of water in the country with some areas having excess and others having less than they require, which on average makes the country water scarce. Due to the unequal distribution, water sources are often far from the village, and women must walk for hours to fetch water on a daily basis. Some families even keep their daughters out of school so that they can help collect water. These girls follow their mothers and walk, on average, 10 miles every day.

While walking to get water, particularly when they must walk alone before or after daylight hours, women are vulnerable to rape and other violent attacks. Carrying heavy load over long distances from wells or neighborhoods has detrimental health effects, including back and chest pains, developmental deformities, arthritic disease, and miscarriages (WHO and UNICEF, 2013). In an effort to reduce these distances, communities come together and form community water projects. These community water projects improve the

quality of life for families by reducing the daily burden of water collection and incidences of water related diseases (WHO and UNICEF, 2013). The community water projects also enable farmers to increase crop production and nutrition levels for their families. They also give communities water maintenance and conservation skills training to reduce soil erosion and depletion.

Despite the government and non-governmental organizations making good efforts to supply water to citizens, it has not been able to cover all areas especially rural areas. Consequently, it has become necessary for communities to organize themselves and launch community water projects to ensure they bring water closer to their homes (WHO and UNICEF, 2013). Many community water projects are started, but fail to realize the intended objectives with a good number of these community water projects collapsing before completion. Other water projects run for one or two years after completion and then collapse thereafter, thus, they fail to meet the intended objectives; a problem that necessitated this study to examine the influence of resource mobilization and project governance on the sustainability of community water projects in Kakamega County, Kenya.

### **Statement of the Problem**

Globally, water is a basic need but access to clean water in both rural and urban setting in Kenya has been a perennial problem because rural dwellers are brainwashed with the free water service from community wells and rivers while urban dwellers expect efficient water service from urban water service providers. In this regard, most NGOs or development partners have initiated water projects in both rural and urban settings with minimal success because most of these water projects fall short of sustainability. However, in Kakamega County, sustainability of community projects remains a challenge with only 29.5 per cent of the community based water projects remain operational for more than 10 years since project initiation (GoK, 2020). According to Kakamega County Government (2021), only 5.9 per cent of the

population has access to piped water. Further, water pollution in the county has led to an increase in waterborne diseases therefore, sustainability of community based water projects is paramount.

Therefore, few researches on sustainability of water projects especially community water projects have yielded inconceivable results due to little empirical data or lack of identification of significant community related factors that can enable sustainability of community water projects. For instance researchers such as; Khwaja (2004); Norton (2006); Mala (2009); Cole (2009); Thompson (2010); Schwartz (2010); Akumu (2011); Mulwa (2012) among others suggested the need for resource mobilization in successful implementation of community projects because past studies had little empirical data on this factor that could significantly influence sustainability of community water projects.

Secondly another stream of researchers; Kasiaka (2004); Baiya (2005); Mbugua (2008); Mathenge (2014) recommended the need for monitoring and evaluation of community water projects while; World vision (2002); Garin (2002); Fry (2003); Arku (2011); Diy (2015) among others showed little empirical data on the need of community participation in community projects, thus recommended an intensive research on this important factor. Lastly, other scholars; WSP (2002); Allouche (2011); Kipkeny (2014); Kitur (2015); Mutonga (2015) among others have also shown inconsistent assertions on what constitutes project governance in community projects, thus recommended empirical inquiries on influence of project governance on community development projects.

Therefore lack of sufficient empirical data on significant factors that influence sustainability of community water projects motivated this research to investigate the influence of project governance and resource mobilization on sustainability of community water projects in Kakamega County.

## Objectives of the study

The general objective of the study was to investigate the Influence of project governance and resource mobilization on sustainability of community water projects in Kakamega County. The specific objectives were;

- To determine the influence of resource mobilization on sustainability of community water projects in Kakamega County.
- To evaluate the influence of project governance on sustainability of community-based water projects in Kakamega County in Kenya

The was guided by the following research hypotheses;

- **H<sub>01</sub>:** Resource mobilization does not significantly influence sustainability of community water projects in Kakamega County.
- **H<sub>04</sub>:** Project governance does not significantly influence sustainability of community water projects in Kakamega County.

## LITERATURE REVIEW

### Theoretical Review

#### Resource dependency theory

Pfeffer and Salancik in their study established the resource dependency hypothesis in 1978, that explains how companies externally generated the resources affect their behavior. The theory is arguably more elaborate when we look at the depth and the way in which it deals with organizations, and also how it combines power within organizations with a structure of how organizations aim to govern their surroundings.

The past immediate scholars were advocating for the importance of inter-organizational power to the strategy and the structure (Thompson, 1967), whereas resource dependency theory offered extensive inventory of an institutional reactions to interconnectedness that can be used to inform empirical research. "Choose the least restricting method to govern ties with your exchange partners that will allow you to minimize unpredictability and reliance while maximizing your autonomy," says

one piece of advice to top executives. The theory's description of a variety of procedures results in a continuous succession of feasible choices, ranging from least to most restrictive. If your organization relies on a single sole-source provider, the best option is to select and retain other source vendors in order to limit exposure to the risk.

According to Oliver-Smith, 1996; Gill and Picou 1998, resource dependency theory emphasizes on cultural and economic ties rather than life cape assumptions and as a result, indigenous subsistence cultures' traditional knowledge creates an alternative discourse narrative. Within the context of impact assessment, such a concept widens resource management considerations to encompass elements of the traditional culture.

Resource-dependency theory recognizes other epistemological viewpoints as acceptable members in case of a mutually beneficial discourse network and it does not oppose scientific experts' speech. Risks to cultural and economic resources are the subject of resource dependency theory. According to Picou and Gill, 1996; Gill and Picou, 1997 the economic and cultural linkages that "renewable resource communities" have to the biophysical environment add another layer of complexity to resource dependency theory.

Also, Picou and Arata, 1997 study revealed that pollution of natural resources undermines both quality of life and economic stability thus resulting in "resource loss spirals" to victims who rely on harvesting the renewable natural resources. This theory of resource dependence broadens definition of the resource management to encompass the economic harvesters' and the traditional ethnic expertise as stakeholders in a modern-day discussion of environmental deterioration.

#### Agency theory

An agency is a contract between a number of individuals being engaged to undertake some tasks for the other. A central theme in any agency relationship is the separation of power between the agent and the principal. Berle and Means (1932)

identified a central problem that affects agency relationships as being caused by misalignment of interests between the agent and the principal. In a normal relationship, the agent is supposed to pursue the interest of the principal. Any departure from this constitutes the agency problem. According to Pratt and Zeckhauser (1985) both parties to an agency relationship must participate in defining a monitoring-and-incentive structure that ensures mutual beneficial results thus ensuring optimal organizational performance.

Agency theory was developed by Jensen & Meckling (1976). They documented that management of organizations is undertaken by agents who serve the interest of principals. An agent elect's representative to run the day to day activities of their organization. Due to this relationship, there are agency costs which have to be incurred due to separation of power. In project implementation, though the locals are the end beneficiaries they have representative such as elected leaders, public servants and community-based leaders who are mandated to propel developmental agendas for respective counties. The Jensen and Meckling (1976) model combines constructs from agency and other theories such as the property rights and finance theories to develop a theory of the ownership structure of the firm. Agency costs include the economic bonding, the monitoring and the residual economic loss costs. This theory advances the view that where an agency relationship exists, the agency costs cannot be entirely eliminated (Alchian & Demsetz, 1972), but also with creditors, customers, suppliers and so on.

Ownership & control separation leads to agency and monitoring costs which may differ due to levels of risk exposure among the stakeholders mandated in management of resources. In a community-based project there are clearly designated duties for all parties such as locals, elected leaders, public servants etc. Failure to perform project roles in transparent manner may lead to escalation of the conflict that may trigger hostility. Consequently,

there is need to embrace transparency during project implementation (Jensen & Meckling, 1976).

The theory is necessary for the study because there is need for good project governance structure. Governance structure should guide on roles of different parties, leadership structure, organization culture, monitoring and evaluation criterion and measures to adopt during conflict management. Community members should be allowed to participate in election of project leaders so as to optimize on quality of skills they have.

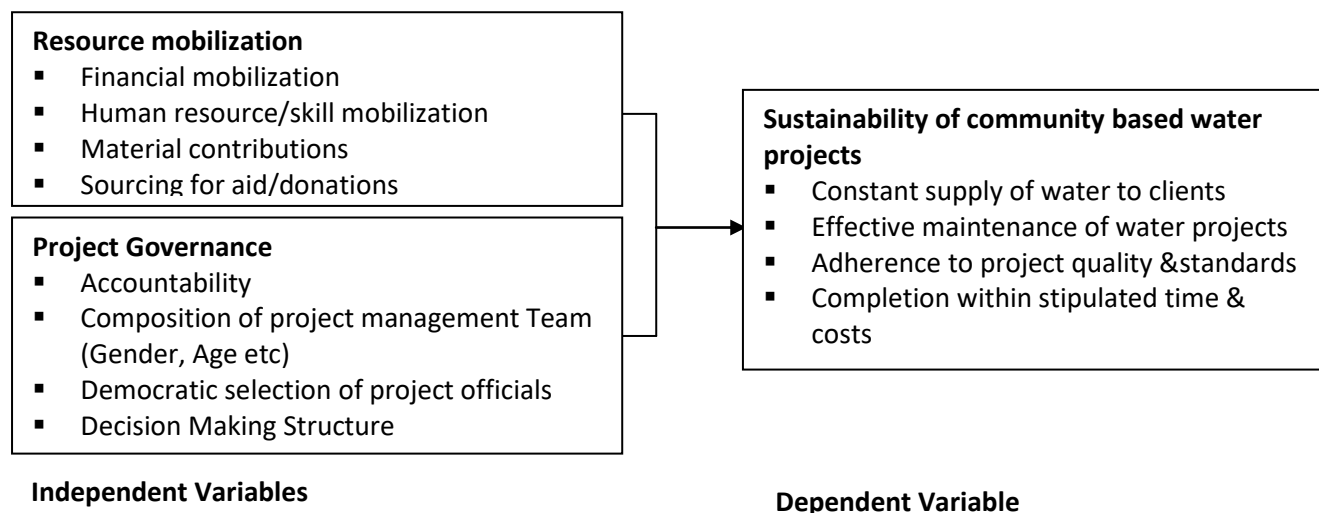
### **Conceptual Review of Study Variables**

**Resource mobilization and sustainability of community water projects:** Resource mobilization is really necessary for successful implementation of any community project because of the need for both financial and non-financial support. In this regard, Norton (2006) asserted that effectively mobilizing local community resources requires creativity, persistence and flexibility and Schwartz (2010) identified various techniques that were employed in Nepal to avail the required resources. These included: holding regular communication meetings with representatives of local government, businesses, institutions, other NGOs, media and other social leaders or by attending their meetings and informing them about the CBO's activities and objectives, thus need for their engagement in mobilizing resources for the project's success. In this regard, this study will examine the influence of resource mobilization on sustainability of community water projects in Kakamega County, Kenya.

**Project governance and sustainability of community water projects:** Role of governance in success and sustainability of projects has been well documented in literature. Project governance provide for how the project will be run and how decision making will be carried out. According to Eyong (2009), good governance would mean ensuring that there is effective management of resources in a manner that is open, accountable,

transparent, equitable and responsive to people's needs. The idea of good governance is vital to the successful donor funded projects although it is important to all organizations including for profit,

private, public and not for profit where resources must be managed in a manner that is accountable, equitable transparent and responsive to the needs of the people (Lekorwe & Mpabanga, 2007).



**Figure 1: Conceptual Framework**

**Empirical review**

First and foremost, according to Mala (2009) in Switzerland for instance, the first major strategic decision that NGOs make in soliciting for resources is to focus on human resources, material resources or financial resources. Since NGOs are usually dependent on external funding, the mobilization of financial resources tends to dominate but mobilizing volunteer and community resources is also a strategy that keeps an NGO close to its community-based roots. In mobilizing financial resources, an organization faces two immediate decisions namely: the organization to generate its own financial resources which leaves it in greater control and the threat to autonomy is reduced. Having autonomy also means less vulnerability to outsiders, less sensitivity, and the ability to replace critical resources because the organization can decide where to put the surplus it produces. Sources of resources for CBOs include members' contributions, loans from financial institutions, selling assets, volunteering of individual skills, expertise, gifts and talents; members' donation of

natural resources such as land, water and minerals among others (Edwar and Hulm, 2007).

But according to Cole (2009) the other relatively unexplored area of source of resource mobilization is for Non-Governmental Organizations to actively pursue non-financial resources. Non-monetary contributions such as volunteer work from Community Based Organizations and linkages with other organizations should be explored and fully utilized. Often these options receive little attention in resource mobilization because they do not increase the organization's income.

According to a study done by Irfan & Hassan, (2019) to examine influence of project governance & sustainability on project success of the public sector organizations in Pakistan revealed reported that project governance and sustainability depicted positive impact on project success of the public sector organizations explaining roughly 64% of variance in project success. In the absence of effective governance, malpractices, budget overruns and poor service delivery will abound thus

dealing a blow to the project (Kakabadse, et al, 2005).

Abed, (2017) focused on analyzing the impact of project governance on the success of projects implemented by 13 of the United Nations Organizations operating in the Gaza strip. This study follows the quantitative analytical approach and adopting the questionnaire technique as a data collection tool. Data were collected from a random cluster sample of 200 employees who works in project-related positions in the targeted organizations. The study results revealed the followings: First, there is a positive impact of project governance on project success. Second, the contractual governance is the most important type of governance where this criterion got the highest weight among the other criteria with a weight of 71.42. Third, the governance of project orientation is a highly positive criterion, which affects the success of any project with a weight of 69.25. Fourth, the other types of governance; governance of project management and relational governance, have a medium effect on projects governance where their effect is relatively lower than the previous kinds of governance with a weight of 66.79 and 67.07, respectively.

## **METHODOLOGY**

This study deployed descriptive research design which Sekaran and Bougie (2013) defined as consolidation of information and data to respond to questions on why, what, when and how. The study targeted 410 respondents comprising of mainly the chairpersons, few secretaries and treasurers plus selected project officers of 103 registered community water projects in Kakamega County, Kenya. Sampling frame comprised of chairpersons, secretaries, treasurers and project officers of 103 registered community water projects in Kakamega County, Kenya. The list was obtained from the Ministry of Environment, Water, Natural Resources & Climate Change, Kakamega County.

Primary data was collected by means of self-administered structured questionnaires. All collected data were coded, cleaned, tabulated and analyzed using descriptive and inferential statistics with the aid of specialized Statistical Package for Social Sciences, version 24. Descriptive analysis such as frequencies, means, standard deviation were utilized whereas analyzed data presented in tables and graphs. Further, inferential statistics assessed the nature and the strength of the relationships.

## **FINDINGS AND DISCUSSION**

### **Descriptive statistics**

Descriptive statistics are summations of responses on the independent variables (resource mobilization and project governance). The statements were based on likert scale where; 1. strongly disagree, 2. disagree, 3. uncertain, 4. agree, 5. strongly agree.

### **Resource Mobilization and sustainability of community water projects**

This assessed objective one of the study, that is, the influence of resource mobilization on sustainability of community water projects in Kakamega County, Kenya. The respondents were asked five questions based on liker scale; that is, (i) There are finance mobilization activities to raise finances of community water projects; (ii) The management team sources for technical personnel to maintain community water projects (iii) The management mobilizes for material resources from the community to support community water projects (iv) The management and local leadership mobilizes for both material and financial aid and donations from well-wishers, donors to aid community water projects and (v) Generally resource mobilization activities influence sustainability of community water projects. The responses were summated in table 1 which showed each statement, the corresponding frequencies and percentages plus the summated responses mean and standard deviation.



**Table 1: Descriptive statistics: Resource Mobilization**

Statement	Mean	Std. Dev
There are finance mobilization activities to raise finances of community water projects	3.54	.0876
The management team sources for technical personnel to maintain community water projects	3.28	0.811
The management mobilizes for material resources from the community to support community water projects	3.29	0.906
The management and local leadership mobilizes for both material and financial aid and donations from well-wishers, donors to aid community water projects	3.53	0.884
Resources are mobilized and realized through different channels	3.64	0.953
<b>Valid N (listwise) 131</b>		
<b>Grand mean = 3.456</b>		

From table 1, 52.5 % and 13.0% of respondents agreed and strongly agreed that there were finance mobilization activities to raise finances of community water projects. This implied that most official of community water projects are engaged resource mobilization strategies to ensure that the community water projects gat both financial and non-financial resources so as to make them sustainable. Secondly, there were mixed responses about the management team sourcing for technical personnel to maintain community water projects. That is 44.3% agreed, 20.6% disagreed to this statement, implying that there are certain community water projects in Kakamega County whose officials do not source for technical personnel, thus could impact negatively on sustainability of community water projects.

More, so, 41.3% agreed while 22.5% disagreed that the management mobilizes for material resources from the community to support community water projects. This implies that possibly management that does not properly engage local communities in community water projects will find it hard to mobilize for material resources from the community to support community water projects. However, most respondents agreed (51.9%) and strongly agreed (13.0%) that the management and local leadership mobilizes for both material and financial aid and donations from well-wishers,

donors to aid community water projects. this implies that most community water officials go for financial aid and donations from well-wishers and donors to assist in sustainable running of community water project especially in case where resource mobilization from the local community does not bear much fruit.

In summary most respondents agreed (54.2%) and strongly agreed (16.0%) that resources are mobilized and realized through different channels. This is supported by the grand mean of 3.456 rounded to 4 which correspondents to agree in the likert scale used to measure resource mobilization variable. This summarily means that most respondents support use of resource mobilization as a viable strategy to foster sustainability of community water projects. This is supported by Norton (2006) who asserted that mobilization of local community resources require persistence and flexibility so as to attract the local community in supporting community projects.

#### **Project governance and sustainability of community water projects**

This assessed objective two of the study, that is, the influence of project governance on sustainability of community water projects in Kakamega County, Kenya. The respondents were asked five questions based on 5 point liker scale and their responses are summarized in table 2.

**Table 2: Descriptive statistics: Project governance**

Statement	Mean	Std. Dev
The projects adopts mixed leadership style including the authoritative and horizontal leadership styles	3.59	1.227
The local project committees are balanced based on gender, expertise and age	3.54	1.211
Democratic and transparent selection of project officials aid in sustaining of community water projects	3.57	1.241
The project has established shared accountabilities and responsibilities among all the project stakeholders.	3.64	1.197
The project has provided a clear administrative framework of project management	3.79	1.000
<b>Valid N (listwise) 131</b>		
<b>Grand mean =3.626</b>		

From table 2, most respondents agreed (52.6%) and strongly agreed (19.1%) that the projects adopts mixed leadership style including the authoritative and horizontal leadership styles This implies that mixed leadership style which include the authoritative and horizontal leadership styles will improve performance and sustainability of community water projects in Kakamega County. Secondly, 51.9% and 17.6% of respondents agreed and strongly agreed respectively that the local project committees are balanced based on gender. This implied that when The local project committees are balanced based on gender, expertise and age, they will acquire relevant skills and the technical know-how in successfully managing community water projects.

Further, most respondents agreed (49.7%) and strongly agreed (19.8%) that democratic and transparent selection of project officials aid in sustaining of community water projects. That is presence of democratic and transparent selection of project officials' aid in sustaining of community water projects due to transparency and accountability. Similarly, to support of training, most respondents agreed (53.5%) and strongly agreed (20.6%) that the project has established shared accountabilities and responsibilities among all the project stakeholders.

Finally, most respondents agreed (61.1%) and strongly agreed (18.3%) that project has provided a clear administrative framework of project management. The grand mean is 3.626 rounded to

4 which corresponds to agree on the Likert scale. Role of governance in success and sustainability of projects has been well documented in literature. Project governance provide for how the project will be run and how decision making will be carried out. According to Eyong (2019), good governance would mean ensuring that there is effective management of resources in a manner that is open, accountable, transparent, equitable and responsive to people's needs. The idea of good governance is vital to the successful donor funded projects although it is important to all organizations including for profit, private, public and not for profit where resources must be managed in a manner that is accountable, equitable transparent and responsive to the needs of the people (Lekorwe & Mpabanga, 2017).

### **Inferential statistics**

#### **Linear regression results**

Linear regression analyses were computed first to test the direct effect of each independent variable (resource mobilization, monitoring & evaluation, community participation, project governance) on the dependent variable (sustainability of community water projects in Kakamega County, Kenya).

#### **The direct influence of resource mobilization on sustainability of community water projects**

This tested the direct influence of resource mobilization on sustainability of community water projects in Kakamega County, Kenya. The results were presented in table 3.

**Table 3: Direct influence of resource mobilization on sustainability of community water projects**

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	
						F Change	df1	df2		
1	.725 <sup>a</sup>	.526	.522	.72818	.526	142.972	1	129	.000	

ANOVA <sup>b</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	75.811	1	75.811	142.972	.000 <sup>a</sup>
	Residual	68.402	129	.530		
	Total	144.212	130			

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	1.311	.204		6.441	.000
	Resource Mobilization	.716	.060	.725	11.957	.000

a. Dependent Variable: Sustainability of Community water Projects

The model summary in table 3 showed that  $R^2 = 0.526$  which implies that 52.6% of variation in sustainability of community water projects in Kakamega County is explained by resource mobilization while other confounding factors not in the study model accounts for 47.4% variation in sustainability of community water projects in Kakamega County, Kenya. Coefficient analysis also show that there is a positive significant effect of resource mobilization on sustainability of community water projects in Kakamega County; ( $\beta = 0.716$  (0.060); at  $p < .01$ ).

The results therefore indicate that a single increase in resource mobilization activities in community water projects will lead to 0.716 unit improvement in sustainability of community water projects in

Kakamega County, Kenya. Therefore the linear regression model is;

$$y = 1.311 + 0.716X_1$$

where;

y is the sustainability of community water projects in Kakamega County.

$X_1$  is resource mobilization

**The direct influence of project governance on sustainability of community water projects**

This tested the direct influence of project governance on sustainability of community water projects in Kakamega County, Kenya. The results are presented in table 4.

**Table 4: Direct effect of Project governance on sustainability of community water projects**

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.745 <sup>a</sup>	.555	.552	.70515	.555	161.032	1	129	.000

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	80.070	1	80.070	161.032	.000 <sup>a</sup>
	Residual	64.143	129	.497		
	Total	144.212	130			

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.315	.192		6.852	.000
	Project governance	.688	.054	.745	12.690	.000

a. Dependent Variable: Sustainability of Community Water Projects

The model summary in table 4 showed that  $R^2 = 0.555$  which implies that 55.5% of variation in sustainability of community water projects in Kakamega County is explained by project governance while other factors not in the study model accounts for 44.5% variation in sustainability of community water projects in Kakamega County, Kenya. Coefficient analysis also show that there is a positive significant effect of project governance on sustainability of community water projects in Kakamega County; ( $\beta = 0.688$  (0.054); at  $p < .01$ ). The results therefore indicate that a single increase in effective project governance activities in community water projects will lead to 0.688 unit improvement in sustainability of community water projects in Kakamega County, Kenya. Therefore, the linear regression model is;

$$y = 1.315 + 0.688X_4$$

where;

y is the sustainability of community water projects in Kakamega County.

$X_4$  is project governance

#### Hypothesis Testing

Hypothesis one ( $H_{01}$ ) stated that resource mobilization does not significantly influence sustainability of community water projects in Kakamega County. The results show that there exists a positive significant effect of resource mobilization on sustainability of community water projects in Kakamega County ( $\beta = 0.213$  (0.062), at  $p < .01$ ). Hypothesis one was thus rejected. The results therefore indicated that a single increase in resource mobilization activities in community water projects will lead to 0.213 unit improvement in sustainability of community water projects in Kakamega County, Kenya.

The results are supported by Cusworth and Franks (2006) whose study recommended various sources of resource such as requests for funds and solicited gifts, project proposal, correspondences/E-mails, direct contacts through meetings and visits. They further noted that, special events days such organization of research days, conferences, evening dinners, voluntary contributions with new members, CBOs' friends, and sponsors. Further,

Akumu (2011) while studying the contribution of NGOs to the development income generating activities in Kisumu Municipality also found that there is need for the organization or group to mobilize local resources, and coordinate contributions from different sources. Organizations should develop plans to implement, monitor, and evaluate efforts of their work.

Hypothesis four ( $H_{04}$ ) stated that project governance does not significantly influence sustainability of community water projects in Kakamega County. The results showed that there exists a positive significant effect of project governance on sustainability of community water projects in Kakamega County ( $\beta = 0.172$  (0.062), at  $p < .05$ ). Hypothesis four was thus rejected. The results therefore indicated that a single increase in project governance activities in community water projects will lead to 0.172 unit improvement in sustainability of community water projects in Kakamega County, Kenya.

The results are supported by Irfan & Hassan, (2019) who examined influence of project governance & sustainability on project success of the public sector organizations in Pakistan revealed reported that project governance and sustainability depicted positive impact on project success of the public sector organizations explaining roughly 64% of variance in project success. In the absence of effective governance, malpractices, budget overruns and poor service delivery will abound thus dealing a blow to the project

## CONCLUSIONS AND RECOMMENDATIONS

The main objective of this study was to investigate the influence of project governance and resource mobilization on sustainability of community water projects in Kakamega County. The study tested two research hypotheses, that is;  $H_{01}$ : Resource mobilization does not significantly influence sustainability of community water projects in Kakamega County; and  $H_{04}$ : Project governance does not significantly influence sustainability of community water projects in Kakamega County.

Study hypothesis one stated that resource mobilization does not significantly influence sustainability of community water projects in Kakamega County. Descriptive statistics summarily indicated that most respondents agreed and strongly agreed that generally, resource mobilization activities influence sustainability of community water projects.

Study hypothesis two stated that project governance does not significantly influence sustainability of community water projects in Kakamega County. From descriptive statistics, most respondents were in agreement that the local project committees are balanced based on gender, expertise and age as well as the project has provided a clear administrative framework of project management. The results indicated that a single increase in project governance activities in community water projects will lead to a significant improvement in sustainability of community water projects in Kakamega County, Kenya.

First the study concluded that resource mobilization significantly influences sustainability of community water projects in Kakamega County, Kenya; which implies that community resource mobilization skills really facilitates efficient and effective running of community water projects. Therefore, increase in mobilization of financial, human resources and technological resources would enhance sustainability of community water projects.

Lastly, the study concluded that project governance in terms accountability, composition of project management team in regards to gender, age, democratic selection of project officials and decision making structure boosts the sustainability of community water projects. The study established that the project has provided a clear administrative framework of project management. Further, democratic and transparent selection of project officials' aided in sustaining of community water projects.

The study recommended that community water project officers must acquire relevant resource

mobilization skills necessary to attract both financial and non-financial resources from within or without the local community so as to guarantee sustainability of community water projects.

Lastly, there is need for project managers to establish departmental roles, responsibilities, and authority of project managers, project teams, technical managers, technical leaders, and team members and to strengthen the project manager's level of authority hence enhance project governance. In order to strengthen the consistency of project management across the various community project, project management need to

establish consistent project management procedures.

#### **Areas for further research**

The study sought to investigate the influence of project governance and resource mobilization on sustainability of community water projects in Kakamega County. A similar study can be done in purely donor funded community water projects so as to compare the results. Lastly, a longitudinal study can be done on community water projects in any county in Kenya that have existed for more than ten years so as to identify total quality management factors that accounts for their sustainability.

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