

**PROJECT IMPLEMENTATION DRIVERS AND PERFORMANCE OF WATER
PROJECTS IN THARAKA NITHI COUNTY, KENYA**


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**A Research Project Report Submitted in Partial Fulfilment for the Award of Master of
Arts Degree in Project Planning and Management of University of the Nairobi**

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DECLARATION

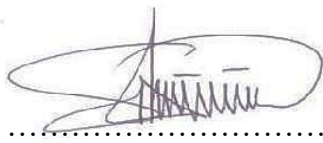
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DEDICATION

I dedicate this project to my family, who have been the main source of strength during the project development. This project is also dedicated to my friends and classmates.

ACKNOWLEDGEMENT

First, I thank God for the gift life and His blessings this far. Secondly, I thank my family for the support they gave, both moral and financial during the development of project. Further, I appreciate the University of Nairobi particularly the department of Management Science and Project Planning for the opportunity they offered me to undertake my master studies.

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LIST OF ABBREVIATIONS AND ACRONYMS

GOK:	Government of Kenya
IFAD	International Fund for Agricultural Development
KESHP:	Kenya Environmental Sanitation and Hygiene Policy
M&E:	Monitoring and Evaluation
MGD:	Millennium Development Goal
PPP:	Public-Private Partnership
RBMP:	River Basin Management Plans
SPSS:	Statistical Package for Social Sciences
UN:	United Nations
UNDP:	United Nations Development Programme
UNICEF:	United Nations Children's Fund
WHO:	World Health Organisation
WRA:	Water Resource Authority
WRUAs:	Water Resource Users Associations

ABSTRACT

Project implementation drivers such as community participation, capacity building, resource mobilization and monitoring and evaluation are critical in water projects. Almost, three-quarters of the population across the world are the poor who reside within the rural areas, and a huge proportion of this populace lack accessibility of safe and clean water facilities. The study purpose was to assess how project implementation drivers influences performance of water projects in Tharaka Nithi County, Kenya. Specifically, the study was founded on four objectives; to examine the influence of community participation on performance of water projects, to establish how capacity building influence performance of water projects, to establish how resource mobilization influence performance of water projects and to examine how monitoring and evaluation influence performance of water projects. The study was founded on Maslow's theory of hierarchy of needs, Arnstein's participatory theory and program theory. This study employed descriptive survey research design. The study targeted 473 project stakeholders including project managers, site agents, water users and members of project committee. The sample size was 217. The study used primary data which was collected by use of questionnaires. The questionnaires were self-administered through drop and pick later method. The analysis of the data was done with assistance of Statistical Package for Social Sciences (SPSS Version 25.0). Every questionnaire that was received was referenced and items in the questionnaire were coded to facilitate entry of data. Cleaning of data that included checking for errors in entry was also done. For quantitative data, descriptive statistics like frequencies, percentages, means and standard deviation was approximated and findings presented in form of tables. The qualitative data from the open-ended questions were analyzed using thematic content analysis and presented in narrative form. Inferential data statistics such multiple regression analysis was used to determine the association amongst the independent and dependent variables. The study established that there is a significant relationship between community participation and performance of water projects in Tharaka Nithi County, Kenya ($\beta=0.724$; $p=0.000$). The study revealed that there is a significant relationship between capacity building and performance of water projects in Tharaka Nithi County, Kenya ($\beta=0.678$; $p=0.004$). The study established that there is a significant relationship between resource mobilization and performance of water projects in Tharaka Nithi County, Kenya ($\beta=0.821$; $p=0.000$). Finally, the study found that there is a significant relationship between monitoring and evaluation and performance of water projects in Tharaka Nithi County, Kenya ($\beta=0.742$; $p=0.001$). The study concluded that resource mobilization had the greatest influence on performance of water projects in Tharaka Nithi County followed by monitoring and evaluation, then community participation while capacity building had the least influence on performance of water projects in Tharaka Nithi County. The study recommends that project managers in Tharaka Nithi county should ensure that there are collaborative partnerships between stakeholders and project management. The study further recommends that the county government should come with training programs for all project stakeholders. The study recommends that project managers should initiate finance mobilization activities to raise finances of water projects. There is also a need for effective mapping of financial and human resources for water projects in the Tharaka Nithi County.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Project performance is commonly determined by the time criterion, budget and deliverables. It refers to the total quality of a project in regards to its impact, the value it provides to recipients, the efficacy, effectiveness, and longevity of its execution (Silvius and Schipper, 2016). Project performance is associated to achievement of goals in meeting technical requirements and beneficiary satisfaction. Efficient management of projects contributes to the project performances over the long period of time including the achievement of competitive advantages, the enhancement of the standing of the organization, the increase in market share, as well as the achievement of specified revenues and profits (Kerzner, 2017). Performance of projects is measured and evaluated using various performance metrics that are related to various aspects like timeliness, client satisfaction, project costs and project quality (Elshaikh, Jiao, and Yang, 2018). The project performance is a major component for any successful government projects. Project management team utilizes management tools for planning and implementing their projects to augment the likelihood of success (Binder, 2017).

Globally, the metrics for performance of water projects include enhanced living conditions, increased income, beneficiary satisfaction and timely completion of projects. The performance of a project is grounded on budget, deliverables, and budget controls. According to a study in the government of Italy by Savoldelli, Azzone and Arnaboldi (2014), putting project management best practices to use in the public sector has been shown to be a highly efficient strategy, as evidenced by the fact that this approach has been shown to help advance management skills while also making it easier for the public sector to successfully finish projects and achieve their development goals. In Pakistan, Haseeb (2018) established that performance of projects is linked to delays majorly as a result of changes in construction designs and accessibility of development financing from concerned government departments. In Panama, Lecoeuvre (2016) argued that performance of water projects has relied on participatory approaches that guarantees representation of affected populations and need demonstrable proof of their acceptance of dam projects starting from the pre-liminary planning stages.

Regionally in Africa, donor agencies in various countries have made significant investments in projects to enhance performance of water projects. Performance of water projects has not been good as they most depend on donors and loans from developed countries to implement the projects. For instance, poor performance of water projects has been witnessed in Nigeria and Ghana according to Bennett (2016) which was brought by the absence of practices for monitoring and evaluating projects. Generally, sustainability of a functional water project without adequate financing has been a challenge especially in Sub-Saharan Africa. In Rwanda, Kobusingye, Mungatu and Mulyungi (2017) established that performance of water projects is significantly affected by financial issues, implementation of project schedule and staff capacity. In Tanzania, despite numerous donor countries and international organizations funding water projects, these projects continue to dismally as they serve for a very short duration due to factors like system failure, shortage of finances, inappropriate maintenance, systems sabotage, accountability problems and challenges in legitimacy and control (Hutton and Chase, 2016). In South Africa, Aiyetan and Das (2021) argues that major issues that surround performance of water projects included poor structuring, management the process of tendering, management of contracts and drafting of contracts, lack of management capacity, failures in stakeholder identification and political interference that contribute to the failures of timely delivery of the projects.

In Kenya, project performance remains an issue of primary concern particularly for the public sector. The idea is intriguing to a diverse group of parties, such as the government, funders, project team members, residents, regulatory agencies, and activists (Muniu, Gakuu and Rambo, 2018). Since the country's independence, the Kenyan government has been working toward the goal of implementing a variety of decentralized project initiatives which are aimed not only at fostering economic growth and development, as well as ensuring that resources are distributed fairly. The performance of the project is significant topic to discuss not only with the project leaders and financiers, but as well with the full league of partners. The project performance has been measured through project cost, quality, customer or stakeholder's satisfaction, timely completion of projects and achieving of project objective (Njogu, 2016). Some of the issues that are linked to performance of water projects in Kenya is the over depending on external financing and technical knowledge which further exacerbates project efficiency issues as any realized delays affect the day-today running of the project. Offering frequent assistance in terms of technical skills and funding resources has an effect on the performance of the project (Omar & Moi, 2020).

In Tharaka Nithi County, the county government has initiated various projects for water that focus on making better lives for the residents of Tharaka Nithi. These include Chogoria water supply project, Gatua-Karimba water project, Kamwene water project and Tunyai-Gakurungu water projects among others. The performance of these projects has not been convincing enough as their sustainability have been low and the time, they have served the residents of Tharaka Nithi county. Among the issues that are linked to performance of these water projects in Tharaka Nithi county include lack of continuity in water projects initiated and the fact that construction of water projects does not assist if they fail after a short time. This prompts the project management committees In Tharaka Nithi to undergo basic training on what the specific project entails, the scope, the cost, bill of quantities and specifications, contractor details and work plan in a bid to enhance the performance. Based on study in Tharaka Nithi county by Onjole (2021) established that the Performance of water projects have shortened distance to nearest water source and improved the beneficiaries' lives as the project management committees are completely engaged in project implementation.

The performance of waters projects relies on various project implementation drivers including community participation, capacity building, resource mobilization and monitoring and evaluation (Kurwi, Demian, Blay and Hassan, 2021). One of the project implementation drivers that affect project performance is community participation which is an active process in which beneficiaries impact the direction and project implementation instead of merely receiving a share of project benefits. Community participation that ensures engagement of people in a community in projects to solve their own problems (Giampiccoli and Saayman, 2018; Bao, Martek, Chen, Wu, and Chan, 2022). Faunt, Sneed, Traum and Brandt (2016) argued that community participation is very crucial especially during the initial stages of a water projects. With clear comprehension on frameworks of their projects, communities will be focused on their undertakings and have a feeling of proprietorship. The community engages in the projects and hence saves the resources of project that could can later be channeled to make projects more beneficial (Dobbie, Brown and Farrelly, 2016).

Moreover, capacity building is another project implementation driver which refers to the mechanism of obtaining and strengthening skills, attitudes and knowledge within individuals and groups of people (Ika & Donnelly, 2017). Capacity building helps the community in accessing

capital, increasing partnership levels and skills acquisition by identifying key barriers and designing interventions on how to overcome them for example, by coming up with workshops for training (Chileshe & Kavishe, 2022). Capacity building is meant to enhance the skills for conducting major functions, solving problems, defining and accomplishing project goals and focuses on augmenting an individual and organization's capabilities of performing core functions, solving problems, and objectively dealing with needs of development. Nyaboke and Rukia (2022) established that capacity building positively and significantly affected the performance of low-cost housing projects in Nairobi County.

The other project implementation driver is resource mobilization which refers to every activity engaged in obtaining new and extra resources for the project and includes making better use of, and maximizing, existing resources. It as well includes making efficient usage of as well as maximization of the existing resources to guarantee project performance (Golhasani and Hosseinirad, 2017). The effective mobilization of resources is essential to the success of any organization, for a variety of reasons that include guaranteeing the continued existence of projects that provide services to beneficiaries, promoting the sustainability of the organization, and continuing to allow for the advancement and scaling up of products and services that the organization already offers (Behnke, *et al*, 2017). Resource mobilization involves acquisition of financial resources, human resources' mapping, acquisition of physical resources, community involvement and participation, accountability and transparency, financial accounting and management (Densford, James and Ngugi, 2018). In China, Chan, Lam, Wen, Ameyaw, Wang and Ke (2016) established that public-private partnership (PPP) water projects require adequate mobilization of resources for their goal of guaranteeing access to water for all Chinese people to be attained. Rugiri and Njangiru (2018) established that availability of resources affects the projects' performance positively and significantly.

Moreover, monitoring and evaluation is another project implementation driver that affect the performance of water projects. Monitoring and evaluation (M&E) is a continuous management function to assess if progress is made in achieving anticipated outcomes, to identify challeges in project execution and to establish existence of any unplanned effects from an investment plan, of project and its activities (Kusters, Buck, de Graaf, Minang, van Oosten, and Zagt, 2018). Monitoring and evaluation (M&E) assist in strengthening the organizations and their human

resource capacity. Applying M&E approaches assist organizations in enhancing their total capability of efficiently and effectively ensuring proposer management and performance of projects (Mgoba, and Kabote, 2020). M&E as well assist organizations in checking progress of projects founded on the set objectives in the initial plan (Kusters, Buck, de Graaf, Minang, van Oosten, and Zagt, 2018). According to Titomet (2017), there is a strong relationship between capacity of conducting monitoring and evaluation among project staff and performance of the water project in Mwala Ward. The study seeks to establish how community participation, capacity building, resource mobilization and monitoring and evaluation influence performance of water projects in Tharaka Nithi County, Kenya.

1.2 Statement of the Problem

Project implementation drivers such as community participation, capacity building, resource mobilization and monitoring and evaluation are critical in water projects. Almost, three-quarters of the population across the world are the poor who reside within the rural areas, and a huge proportion of this populace lack access to clean and safe water facilities (WHO/UNICEF, 2016). Mounting evidence indicates that monitoring and evaluation of centrally managed schemes, among others, tend to be difficult in implementing and operating especially when the communities served are remote, scanty and sparsely distributed and have inadequate resources/ physical social infrastructure and capacity building to support development or to sustain the implemented systems (Akhmouch and Clavreul, 2016). Even though such schemes obviously have a challenge in standardization for all communities, water and sanitation experts concur that integration of various project implementation drivers in water projects appear to be sustainable and have plentiful advantages over other approaches and that the question is no longer whether Project implementation drivers should be promoted, but how.

Poor and insufficient supply of water continues to be a big challenge despite the extensive effort to improve and expand accessibility. Kenya Environmental Sanitation and Hygiene Policy (KESHP) in conjunction with Kenya vision 2030 are working towards attainment of 100% access to improved supply of sufficient water and sanitation services by the year 2030 (KESHP, 2016-2030; Ondigo, Kebwaro and Kavoo, 2018). Kenya is also water-scarce country with donors and financiers becoming an important investor in water projects especially in rural areas. However, this projects often fail because they overlook some Project implementation drivers while

implementing the water projects and many a times failing to involve the community and stakeholders in their project implementation process.

In Tharaka Nithi, various water projects have been initiated and implemented by both County and National government. Some of the projects initiated to enhance access to water include Manyirani farmers water project and Chogoria water supply project among others. Despite the existence of these projects, most people in Tharaka Nithi still cannot access water. This could be attributed to the fact that only 21% of the implemented water projects have satisfied the beneficiaries with most water projects stalling. Moreover, the abandoned and failed water projects were reported to be at 38% in 2018 and 47% in 2019 (Onjole, 2021). The poor project performance could be attributed to insufficient community participation, inadequate mobilized resources and also failure to effectively conduct monitoring and evaluation.

There are limited studies that have looked at project implementation drivers and performance of water projects. Some of the existing studies include Muiruri and Bett (2020) who looked at project management practices and performance of organizations in the water sector in Kenya, Rugiri and Njangiru (2018) who looked at the effect of resource availability on performance of water projects funded by constituency development fund in Nyeri County, Kenya. Moreover, Onjole (2021) assessed the influence of monitoring and evaluation exercises on the performance of water development programs in Tharaka Nithi County, Kenya. However, none of the existing studies explicitly highlighted how community participation, resource mobilization and monitoring and evaluation have affected the performance of water projects in Tharaka Nithi County. Hence, this study sought to fill the gap by examining the influence of project implementation drivers on performance of water projects in Tharaka Nithi County, Kenya.

1.3 Purpose of the Study

The purpose of the study was to examine the influence of project implementation drivers on performance of water projects in Tharaka Nithi County, Kenya.

1.4 Specific Objectives

The study sought to achieve the following objectives:

- i. To examine how community participation influence performance of water projects in Tharaka Nithi County, Kenya.

- ii. To establish how capacity building influence performance of water projects in Tharaka Nithi County, Kenya.
- iii. To determine how resource mobilization influence performance of water projects in Tharaka Nithi County, Kenya.
- iv. To examine how monitoring and evaluation influence performance of water projects in Tharaka Nithi County, Kenya.

1.5 Research Questions

The study sought to answer the following questions:

- v. How does community participation influence performance of water projects in Tharaka Nithi County, Kenya?
 - i. What is the influence of capacity building on performance of water projects in Tharaka Nithi County, Kenya?
 - ii. To what extent does resource mobilization influence performance of water projects in Tharaka Nithi County, Kenya?
 - iii. How does monitoring and evaluation influence performance of water projects in Tharaka Nithi County, Kenya?

1.6 Research hypothesis

The study sought to test the following null hypothesis:

H₀₁: There is no significant relationship between community participation and performance of water projects in Tharaka Nithi County, Kenya.

H₀₂: There is no significant relationship between capacity building and performance of water projects in Tharaka Nithi County, Kenya.

H₀₃: There is no significant relationship between resource mobilization and performance of water projects in Tharaka Nithi County, Kenya.

H₀₄: There is no significant relationship between monitoring and evaluation influence performance of water projects in Tharaka Nithi County, Kenya.

1.7 Significance of the Study

The research may be of benefit to policy makers in government on the benefits derived from project implementation drivers and performance of water projects. The study is expected to make

contributions in the field of project management and to provide input on performance of water projects in other areas. The outcome of the study is also anticipated to provide project managers with crucial feedback on the most successful project implementation drivers in water projects in Kenya. The study is anticipated to deliver clear evidence on the significance of project implementation drivers in water projects by initiating resource mobilization, capacity building and community participation. Community participation in performance of projects may make sure that the communities own the projects and that their needs are met.

1.8 Delimitation of the Study

The study sought to examine the influence of project implementation drivers on performance of water projects. The study focused on Tharaka Nithi County, Kenya. The study specifically assessed the influence of community participation, capacity building, resource mobilization and monitoring and evaluation influence performance of water projects in Tharaka Nithi County, Kenya. The study collected data from the executive committee, staff, stakeholders and water users in Tharaka Nithi County. The study was delimited to a period of eight months.

1.9 Limitation of the Study

The study encountered some limitations that hindered accessibility of data being sought by the researcher. Some of the targeted participants for the study were hesitant to give data fearing that the sought information might be utilised to intimidate them or print a negative image about them. To address this limitation, the researcher assured the respondents that data they give was kept confidential and data was used purely for academic purposes by presenting introduction letter from the University and a research permit from NACOSTI.

Further, the data collected for the study were restricted to the degree to which the respondents were willing to provide accurate, objective and reliable information. To address this limitation, the researcher checked for consistency and test the reliability of the data collected. Finally, the respondents especially executive were not accessible during the data collection activity because of their busy schedules. To address this, the researcher booked appointments with project executives and administer the questionnaires during the appointments.

1.10 Basic Assumptions

The study assumed that respondents answered the questions correctly with the assurance of confidentiality and anonymity. This study also assumes that the respondents were available to respond to the research instruments in time. The study further assumed that findings of the research were generalized to bring to cover the case of Kenya. Finally, the study assumed that the authorities granted the required permission for data collection.

1.11 Definition of Terms

Project performance: This refers to the overall quality of a project in terms of its impact, value to beneficiaries, implementation effectiveness, efficiency and sustainability. This variable is measured in terms of enhanced living conditions, increased income, beneficiary satisfaction and timely completion of projects.

Implementation: This is the process of trying to put whatever has been planned into action. In other words, if something is to happen, there are actions to be taken so that it can come to reality like water project.

Project Implementation Drivers: Refers to the factors that influence how project is implemented including community participation, capacity building, resource mobilization and monitoring and evaluation.

Community participation: This refers to private individuals and stakeholders with an opportunity to influence on development and public choices on resources which impact them. It is a technique by which stakeholders and beneficiaries are able to contribute their views and monitor projects during and after it has been implemented. This is measured in terms of involvement in policy decision, collaborative partnerships, communal project ownership and participation in implementation.

Capacity building: This entails empowerment of individuals, society and organisations by learning new skills, knowledge and innovation to bring about transformational and sustainable change in the institutions and society at large which in turn aids in the achievement of development goal. This variable will be measured in terms of available leadership training, financial management training, project design capacity building and

project implementation training.

Resource mobilization: This refers to a strategy of ensuring programs get funds from the donors or investors. This variable will be measured in terms of lobbying donor fundings, mapping financial resources, mapping human resources and acquisition of financial resources.

Monitoring and evaluation: Refer to the project management tool which assists the project managers to make informed decisions. This is measured in terms of frequency of monitoring, needs assessment, conducting baseline surveys and M&E Planning.

1.12 Organization of the study

Chapter one is the introduction part of the research comprised of different subsections including background of the study, problem statement, questions, objectives, significance, and definition of terms used. Chapter two is the literature review and entails a comprehensive review of relevant literature. Additionally, chapter three covers methodology and entails the research design and methodology and outlining the procedures that to be employed for collecting and analysing data. Chapter four entailed analysis of data. Chapter five covered summary, recommendations and deductions as per what was discovered from the actual research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers relevant literature and the themes that the objectives of this study sought to achieve. They include community participation, resource mobilization, capacity building and monitoring and evaluation all in regard to performance of water projects. The chapter presents theoretical and conceptual frameworks and concludes with research gaps and the summary of literature review.

2.2 Performance of Water Projects

Project performance has been defined differently by various scholars. Chen, Jin, Xia, Wu and Skitmore (2016), asserts that a project is deemed to be functioning if it is finished on time, remains within the allocated budget, and functions according to the requirements that were established. According to Lecoeuvre (2016), performance of projects is evaluated with regard to the project's goals, and the project is considered to be performing so as it meets the goals of a project. Project is considered to have better performance when it has attained the goals of the project, completed within time and costs at the defined level of performance while effectively and efficiently using the assigned resources. As per Amoah and Pretorius (2019), project performance is defined as completion of the project within the set deadlines, within the budget and meeting beneficiaries' expectations.

Project performance is measured using metrics like delivery of the project within time and budget, attaining scope of project, meeting cost targets, meeting project quality requirements, reducing risks of projects and meeting security requirements. Hence, performance of projects implies efficient communications, augmented partnership, and stakeholder engagement (Kerzner, 2017). The utmost significance of project performance is accomplished by preventing the project from failing to keep within its cost budget, from failing to keep within the stipulated timeline for approvals, design, and occupancy, and from not meeting the necessary technical standards for quality, functionality, fitness for purpose, safety, and protection of the environment (Gruden, and Stare, 2018). Project performance guarantees that businesses optimize on profitability, reduce the effects of hazardous and uncertain occurrences in terms of accomplishing the project's objectives,

and take advantage of any opportunities to prevent risky events from occurring in the first place (Sabahi and Parast, 2020).

The criteria of project performance for the project will be cost, time and quality that are common components of a successful project (Radujković and Sjekavica, 2017). When referring to a projects' quality, it is important to consider all of the characteristics that are necessary for it to successfully fulfill its intended function and fulfill the requirements of the beneficiaries. In order to guarantee the efficiency and consistency of the quality performance, the configuration of quality requirements ought to be noted in a way that is both explicit and clear in the documents pertaining to the design and the contract. Performance of project is measured in this study in regard to cost, time, quality and profitability, as small and medium enterprise focus on earning returns over project investment. In Kenya, it has been determined that the cost of the project, the quality of the work, the level of satisfaction felt by customers or other stakeholders, the timeliness of completion, and the accomplishment of the project's goals are effective indicators of project performance (Njogu, 2016).

Water is a fundamental resource for enhancing production which incidentally, is the biggest source of livelihood in majority of societies. According to Omar and Moi (2020), successful implementation of water projects is said to enhance the health of the population. Human capital is therefore negatively impacted when health is affected. When such resources diminish, people are often affected. The significance of water projects as postulated by Radujković and Sjekavica (2017) sustains the living condition in the society whereas poor water sources are linked to conflicts. The performance of water projects is believed to be affected by various project implementation drivers such as community participation, capacity building, resource mobilization monitoring and evaluation.

2.3 Community Participation and Performance of Water Projects

Community participation could be loosely defined as the involvement of people in a community in projects in solving their own problems (Giampiccoli and Saayman, 2018). Community participation in all project implementation phases may be described as representational participation by the community. Cheruiyot (2016), claims that, a relatively small group of persons represents a huge number of people in many development initiatives and agencies. Trainings and skills development as observed by Giampiccoli and Saayman (2018), is highly endorsed since

many people lack the ability to realize their goals. Therefore, communities must improve their skills, which may be done through attendance in meetings and training programmes, this will come up with lasting solutions that leads to better decision making.

Community centered water projects succeed where the communities are given chance to unify their efforts in order to address the concerns that affect the society. To ensure that decisions, activities and benefits are relevant, Kurwi, Demian, Blay and Hassan (2021) recommends that the project implementation activities and verdicts be well accepted and preferably decided upon in conjunction with the project beneficiaries. Community's self-organization is key in project monitoring and evaluation as residents themselves may organize and contribute labour in the entire phases such as site, construction process and also maintenance (Muniu, Gakuu and Rambo, 2018). The technique tends to support equitable distribution of resources, ensuring community motivation and legitimacy is achieved.

Participation in project monitoring and evaluation is a crucial tool in project implementation. Similarly, Mirza and Ehsan (2016) study indicated that project M&E practices resolves many uncertainties. Conversely, M&E practices, as Phillips and Phillips (2016) indicate influences implementation showing that execution can only be done if it is planned and resources are provided. Likewise study on the impact that motivation had on project execution in Nigeria by Adeleke, at al., (2019), showed motivation to contribute to efficient and effective M&E. Kurki and Rosenberg (2020) suggest that by including local people, the project's chances of success are increased because they have the necessary skills and knowledge and understand their requirements better than outsider since new project ideas multiply as a result, they can quickly diffuse to different groups and promote growth.

A study was conducted by Tapatayia (2019) on how community participation affects performance of Namelok water project in Kajiado County, Kenya. The research adopted qualitative and quantitative research design. The target population of the study was 150 beneficiaries from the community and the Management of the Namelok Water Project. The questionnaires were used for collecting data and quantitative and qualitative methods were used for analysis. The study results revealed that participation of community was crucial for the water project's performance. The study recommends that leadership in community needs to be encouraged by engaging every community member to avoid discrepancies on how the beneficiaries can get the water and be

connected to their households. This is an indication that community participation is a substantial determinant of performance of water projects.

Another study was conducted by Mbui (2018) who looked at how community participation influences the project performance based on a case of Ruiru water projects, Meru County, Kenya. The study used a descriptive survey research design. The study targeted 413 participants in which 400 beneficiary families. The study used structured questionnaires and key informant interviews for collecting data. The analysis of the data and presentation was done with descriptive statistics with the assistance of IBM Statistical Package of Social Sciences (SPSS). The study found that community participation in financial planning had a moderate positive affects performance of projects; community participation in project governance had a moderate positive affect performance of project; community participation in project operations and management had a weak positive influence on project performance, and community participation in monitoring and evaluation had a moderate positive influence on performance of projects.

Ndungu and Karugu (2019) also conducted a study on community participation and performance of donor funded youth projects in Korogocho, Nairobi City County, Kenya. The research used descriptive and targeted 1650 members of Youth initiative Kenya (YIKE) and 3 managers of project from Oxfam Kenya. The questionnaires were utilised for collecting primary data and published reports to source secondary data. The analysis of the collected quantitative data was done using SPSS and Microsoft excel and used mean, percentage, standard deviations and regression models for presenting the data. The study used content analysis for analyzing qualitative data and was presented in narratives. The findings from correlation analysis showed that there is strong positive influence of community participation in identification and planning on the performance of projects whereas the regression findings showed that community participation on the project performance have a statistically significant relationship. The study concluded that donor agencies needs to reinforce the participation of the community in the planning, identification and implementation of the project.

Arieko and Kisimbii (2020) examined the local community participation in planning and implementation of borehole water projects in Migori County, Kenya. The study used descriptive survey research design to achieve its purpose. Data was collected using two instruments namely; questionnaire and Focus Group Guide. For quantitative data, questionnaires were used while for

qualitative data, the Focus Group Guide was used. Based on the findings, the study concludes that county integrated development plan, literacy levels, socio-cultural issues and community awareness have significant influence on local community participation in planning and implementation of borehole water projects in Migori County. The respondents cited socio cultural issues such as discrimination based on age, gender and physical disability to bear significant hindrance to local community participation in planning and implementation of borehole water projects in the study area. The study thus among other recommendations, calls for integrated local community mobilization to build local community interest in participating in development projects' activities.

2.4 Capacity building and Performance of Water Projects

Capacity building is the mechanism of obtaining and strengthening skills, attitudes and knowledge within individuals and groups of people. As stated by Ika and Donnelly (2017), capacity building is required in all stages of project implementation, that is, the development process, design and maintenance in order to attain sustainable results. Capacity building helps the community in accessing capital, increasing partnership levels and skills acquisition by identifying key barriers and designing interventions on how to overcome them for example, by coming up with workshops for training. According to Chileshe and Kavishe (2022), it is important for communities to undergo diverse training opportunities previously denied to them as it plays a key role when it comes to improving their income levels. Media input is very essential these days when it comes to hosting mass media campaigns and programs to raise awareness.

Training can assist community in running projects that are income generating and market-oriented as well as becoming competent leaders. Romano (2019) did an experiment focusing on increasing the income capacity of the poor through business grants, vocational training and micro-finance which is widespread in the developing nations. According to the study, nearly all of the households in disadvantaged rural villages in Nicaragua participated in a unique experiment in which business grants and occupational skills training were randomly distributed to nearly all. During the research, it was discovered that the interventions led to an increase in non-agricultural employment and greater income earned from comparative activities. These outcomes were generally perceptible among communities in station that confines themselves with social norms, suggesting that the rural people were picked from their peer network.

The communities especially in rural areas are illiterate, poor and they lack confidence in their ability to run and implement projects. They need capacity building, revolving funds and training in functional areas such as technology, monitoring and evaluation financial skills, literacy skills, marketing, production and managerial skills to achieve sustainable, inclusive and equitable economic growth (Montanari and Bergh, 2019). In order to ensure that the community own the process of capacity building, they should not be reduced to just being participants but should participate in identifying their capacity needs by holding focused groups discussions and house hold questioners on their preferred thematic areas. Development and literacy in the community will come to reality only by motivation, providing training and technical assistance.

Omondi (2016) looked at how capacity building programs influence project performance in non-governmental organizations in Kenya based on a case of the Danish refugee council. The descriptive survey design was used in this study. The sample was selected using stratified sampling, simple random sampling and purposive sampling. Data editing and analysis of the data was done using SPSS. Quantitative data was analysed using frequencies, percentages, themes and cross tabulation. The results found that training methodology was a key contributor to performance of projects. Lastly, the study established that performance of projects is influenced by the curriculum content of a capacity building program. The study concluded that performance of projected financed by NGO conduct specific aspects and prospects over staff capabilities and, for this reason, building capacity to enhance staff expertise is indispensable.

A study was conducted Koonyo (2017) on effect of capacity building on performance of projects by looking at Maasai HIV/Aids awareness and preventive projects, Kajiado South Sub-County, Kenya. The descriptive survey research design was utilised in this study. The target population comprised of 13 accessible community groups working in HIV/AIDS projects. The questionnaires and interviews were utilised for collecting data. Data was analyzed using descriptive statistics, document analysis and the inferential statistics was done using Pearson Correlation and regression analysis. The question that did capacity building influence performance of Masaai HIV AIDS awareness and preventive project is answered in the affirmative with project implementation capacity building influencing performance of Masaai HIV AIDS awareness and preventive project whereas; project leadership, project design, financial management and M&E did not influence the project performance.

Another study was done by Kibe (2017) on the effect of capacity development on project performance in nongovernmental water projects in Kenya. The study employed a descriptive survey research design. The study utilised stratified sampling to choose a sample size of 66 participants who included 6 project managers and 60 project team members. The study collected data from members of project team using questionnaires and interviewed the project managers. It was revealed that training, sensitization of community, support by management and growth of careers positively and significantly affected performance of projects among non-governmental water projects in Kenya. The research as well deduced that managers are engaged in development of efficient programs of training for their staff to prepare them with the anticipated facts, skills and capabilities to attain goals of the organizations. The community members who benefit directly from the project affected the direction and implementation of the development projects.

Another study was done by Ubah (2016) on influence of project management skills of staff on performance of government funded projects in Kenya. The research adopted Descriptive survey research design with a view of collecting information through administering questionnaires and interviews to the sampled respondents. The study employed stratified and simple random sampling technique. Data collected was analysed using SPSS to generate both descriptive and inferential statistics. The study found out that employees at KKV were not recruited based on experience from similar projects, training of employees was not done on a regular basis and that employees did not transfer knowledge gained from the training to the work place. The study also established that there was no internal financial control system at KKV and that each task was not well budgeted.

2.5 Resource Mobilization and Performance of Water Projects

Resource mobilization is the process of obtaining resources from the resource provider, using various approaches to execute the pre-determined goals of the organization (Golhasani and Hosseinirad, 2017). It as well includes making efficient usage of as well as maximization of existing resources. It is concerned with acquiring the necessary resources in an expedient and cost-efficient way. Resource mobilization support obtaining the right type of resources at the right time and at the right price through use of acquired resources hence guaranteeing optimal use of the same. Water management systems, purposes at achieving impartial distribution and allocation of water resources among users while protecting them from lessening supplies and governing the sharing of limited water supplies to meet needs of the users (Behnke, *et al*, 2017).

The allocation of water resources requires funding hence. It is possible to raise finance for a project in a variety of methods, including through bank loans, grants, and other means. In this case, project debt and equity used to finance the projects will be repaid by the cash flow generated by that project or cash generated from assets (Oyinlola, Adedeji, Bolarinwa and Olabisi, 2020) which is a long-term lending technique and payback duration required for a steady financing solution. M& E reports come in handy for informing each and everyone involved in accomplishing the project as stated by Alotaibi and Mafimisebi (2016), in order to achieve the set goals, managers should have targets prior to commencement and handle properly their projects as well as. Therefore, funding helps cure all of these difficulties, such as poor work performance, a loss of interest at the workplace, frequent absenteeism and workplace corruption. Expectations of facilitators of the particular project might frustrate or offend community members, especially when they arrive with lots of promises and persuade the community that money won't be an issue or disable the initiative. To give an example, initiatives that are supported by the government and donors do not have initiative or life span. This technique follows a sequence from commencement time until completion (Behnke, *et al*, 2017).

In the first place, land as both a resource and a production factor represent all the natural resources that are made available by nature and contribute to supply. As stated by Canter (2018), the exploitation of the resources leads to an increase in overall motivation as well as an increase in living standards. It refers to both renewable and non-renewable resources, including raw materials, minerals, and everything else that comes from the ground. It is possible to generate income by working on the land because it produces capital commodities that may then be (Canter, 2018). Having land as a resource is essential because it is where humans not only live, but also carry out all of their economic endeavor. Out of all of this, it also provides support for the natural vegetation, wildlife, and communication and it's a fact that land is a valuable resource that, if properly utilized in conjunction with effective government regulations, can lead to a first step, the government should ensure that there are processes in place for legitimate property ownership, such as titling deeds and the protection of certain regions, such as water catchment areas. Labor being a factor of production and also a resource leads to increased income which motivates the community.

When mentioning about capital as a resource, it refers to man-made commodities and a tool to generate other wealth. Capital is rewarded by interest. Different sources of capital are available,

such as the government, donors, and loans from the banks. As a result, financial institutions have stepped in to fill the void and offer financial support to those with business-oriented or common-good-oriented ideas, which in turn motivates the poor. In 1976 in Bangladesh, Prof Muhammad Yunus supplied loans as capital to people who had created Self-Help groups (SHGs), whereby the group utilised and repaid, but without collateral. Farmer capital was made available by the Agricultural Development Bank of Nepal (ADB) in Nepal in 1975, allowing them to fully utilize local resources and develop their abilities through community involvement. Many non-fee strategies exist according to Behnke Klug Cronk Shields Lee Kelley and Bartram (2017). These include mobilization of personal, communal and institutional assets as well as labor. It was designed in Kenya in 2005 by the Republic of Kenya to address concerns of micro and small companies as a means of income development as well as poverty alleviation. According to GOK (2016), the Water Resource Authority (WRA) may support Water Resource Users Associations (WRUAs) to raise resources, offer conditional or unconditional grants via Water Services Trust Fund to execute their intervention plans. Though, WRUAs might not qualify for funding due to some reasons such as poor proposals and misplaced priorities.

Riziki, Atera and Juma (2019) did study on how resource mobilization influences sustainability of community water projects in Kakamega County. The study used explanatory survey design for explaining hypothesized associations. The target population was 474 participants from 237 registered community water projects (registered community boreholes) in Kakamega County, Kenya. The questionnaires were utilised for collecting primary data. Data coding, cleaning and entry of the collected was done and analysis was done using descriptive and inferential statistics with the help of Statistical Package for Social Sciences. From the values of unstandardized regression coefficients with standard errors in parenthesis, the independent variable; resource mobilization was substantial determinants of sustainability of community water projects. The study concluded that resource mobilization has a significant influence on sustainability of community water projects in Kakamega County.

Another study was conducted by Collins and James (2018) on influence of resource mobilization on sustainability of women group projects in Vihiga County, Kenya. The study used on descriptive and explanatory research designs. The targeted population was 491 women group projects in Vihiga County. The study used questionnaires for collecting data. The analysis of the

collected data was done through descriptive and inferential statistics. The variables included financial resources' acquisition, mapping human resources, acquisition of physical resources and community participation were regressed and the study findings showed that all independent variable significantly and positively influenced the sustainability of women group projects in Vihiga County, Kenya.

Musundi (2015) did a study on how resource mobilization strategies influences performance of total war against aids youth projects in Turbo sub-county, Kenya. The study used descriptive research design. The population targeted was 10 groups under TOWA as unit of analysis while the unit of observation for the study was 159 members. The analysis of the data was conducted through descriptive and inferential analysis. Descriptive statistics included frequencies, mean and standard deviations to give general data trends. Inferential statistics included Pearson correlations to reveal the association amongst the variables. The study results revealed that the organizations generated their resources via special events like Harambees and sports. The research found that the structure of organizations was tailored towards mobilization of resources. It was concluded that in regard to donor outreach resource plan, the organizations had met donor financial requirements. Besides, the organizations had the capacity/skill in proposal writing and applications for funding.

Another study was done by Rugiri and Njangiru (2018) on effect of resource availability on performance of water projects funded by constituency development fund in Nyeri County, Kenya. The study employed a descriptive research design and relied on a target population of 86 water projects identified to have been funded by CDF in Nyeri County as gathered from the National Government Constituency Development Fund Board. Regression analysis results further demonstrated resource availability was a useful predictor of project performance. Pearson correlation analysis results demonstrated that resource availability was positively associated with project performance. The study recommended that the project management teams device ways to improve the schedule performance of water projects which was found to be unsatisfactory.

2.6 Monitoring and Evaluation and Performance of Water Projects

Monitoring refers to describe the continuous process of gathering and analyzing data for the purpose of comparing actual performance to an established baseline. It assists the project

management in identifying patterns and trends and assists the management in making up-to-date decisions (Kusters, Buck, de Graaf, Minang, van Oosten, and Zagt, 2018). Evaluation involves recognizing and thinking critically about the consequences of previous actions, as well as determining whether or not the outcomes were successful. Essentially, evaluation seeks to determine, in as methodical and impartial a manner as is practicable, a project's or service's level of significance, effectiveness, relevance, and sustainability, as well as its impact. As per to Doan, *at al.*, (2017), the purpose of evaluation is to determine the significance and viability of a project by contrasting the results of the project with the goals that were outlined in the plan for the project and how well those goals were accomplished.

Monitoring and evaluation (M&E) assist in strengthening the organizations and their human resource capacity. Applying M&E approaches assist organizations in enhancing their total capability of efficiently and effectively ensuring proposer management and performance of projects. M&E as well assist organizations in checking progress of projects founded on the set objectives in the initial plan (Kusters, Buck, de Graaf, Minang, van Oosten, and Zagt, 2018). When a company implements M&E, it increases its capacity to recognize and respond appropriately to unpredicted opportunities and challenges as they arise. The process of collecting data on a project's performance, compiling that data into a single location, and analyzing its metrics and trends in order to make improvements is known as project evaluation and monitoring. Monitoring is an ongoing process that analyzes what has been accomplished thus far and what aspects of the project plans need to be modified in order to accommodate those accomplishments. The outcome of the monitoring process is the generation of regular reports from the project execution phase (Kusters, Buck, de Graaf, Minang, van Oosten, and Zagt, 2018).

Monitoring assesses if the project is on the right track or if it has taken the wrong turn whose purpose is finding out if the project and activities are effective and how strategies should be adapted to make sure the best possible results. Its purpose is to make a project or organization more effective and efficient in carrying out its goals. As a result, it is necessary to engage in preparatory planning for monitoring and evaluation by defining indicators with the involvement of every relevant stakeholder. An irresolvable decision, scenario, or issue that will have a substantial effect on the project and that the management team is unable to resolve immediately is referred to as an issue. Issues management includes the process of having a system in place to

identify these issues and then managing them up until they are solved (Verbrugge, Ganzevoort, Fliervoet, Panten, and van den Born, 2017).

Monitoring and evaluation are essential in the event of project management. Monitoring and evaluation practices are undertaken to track and analyze progress and performance as a foundation for making decisions at different stages in the process of an initiative or implementation of a project to determine whether goals or objectives have been achieved (Maimula, 2017). When proper M & E approaches are adopted in the implementation of water project it guarantees project sustainability (Mgoba, and Kabote, 2020). Many water projects in Africa are donor funded. The rate of project failure in Africa was over 50% until 2010 (IFAD, 2012). It is therefore crucial for project managers to adopt M & E design as part of the quality assurance process during project implementation. This helps to clarify goals and in preparing realistic approaches which articulates clearly the needed resources and how the said outputs can bolster development change.

Water projects that have malfunctioned may result to huge loss of resources. Projects especially the one on supply of water and sanitation services frequently fails in achieving the desired goals as a result of problems which could arise as a result of not properly utilizing M&E approaches. Researchers, Mgoba and Kabote (2020) advocate that failure is brought precisely by poor stakeholder management, improper allocation of resources, inadequate capacity building and community participation, interruptions during identification phase as well as start-up, imperfect project design, delays during project implementation and organisation failure. Monitoring and evaluation techniques therefore come handy in assisting project managers to gauge if the project objectives are met. They endow the project managers with the valuable information that may be used in collaboration and process of making decisions. Monitoring and evaluation (M&E) therefore demonstrate significance in diverse projects, irrespective of project size as it highlights areas where improvement is needed. The literature has shown that monitoring and evaluation is a significant determinant of performance of water projects.

Titomet (2017) studied how monitoring and evaluation influences the performance of Mwala Water Project, Machakos County, Kenya. The descriptive design was utilised in the study. The study utilised both purposive and simple random sampling to select the participants of the study. The major purpose of the study was establishing the association amongst monitoring and

evaluation and achievement of pre-designed water project goals. The research justified the rationale behind investment in water projects' monitoring and evaluation. The study as well validated why having M&E initiatives in place is very important for any organization. The study concluded that there is a positive relationship between the monitoring and evaluation and performance of water projects in a context of development.

Hussein (2020) looked at how monitoring practices influenced projects performance at the water sector trust fund. The study adopted a descriptive research design and targeted 275 persons drawn from different departments in the organization. The questionnaires were used for collecting data. It was revealed that monitoring planning, monitoring tools, monitoring techniques and adoption of monitoring practices had a positive and significant association with performance of the projects. The research concluded that a well-planned M&E assists the project staff in getting a better comprehension of the needs of the targeted population that assists in defining the project scope and design project goals which are pertinent, quantifiable and attainable. The tools of monitoring assists to know whether the expected outcomes are being attained as planned, which actions are required to attain the envisioned outcomes during the implementation of projects, and if these initiatives are creating a positive impact towards the project.

Ndegwa (2020) further looked at how monitoring and evaluation process influenced implementation of water, sanitation and hygiene projects in Kenya by focusing on UNICEF program, Kajiado county. The study used a descriptive survey research design in solving the research problem. The study targeted staff of UNICEF Kenya working under the WASH program and in human resources, finance and administration departments and program beneficiaries. The findings assisted in showing whether or not UNICEF allocated funds to M&E activities and whether or not it has a completely separate allocation for M&E, as well as whether or not the funds were adequate and if or not the M&E department is self-sufficient. The results as well showed that there is a positive correlation between funding of M&E process and implementation of projects ($r=0.489$).

Another study was done by Onjole (2021) on influence of monitoring and evaluation exercises on the performance of water development programs in Tharaka Nithi County, Kenya. Two theories guided the research: the coordination theory and the stakeholder theory. The number of

participants was 196 members of project committees, who were chosen at random from a population of interest of 391. There were sixteen (16) focus group discussions. The results obtained from the study are expected to be useful in informing the practice on monitoring and evaluation as well as policy makers in project management and water development sector. It is concluded that participation can be on decision making, Participation in M&E activities as well as Participation in Resource mobilization. Further, this is manifested in the Frequency of trainings, technical expertise in M&E, number of officers trained and knowledge and skill. The study concluded that key aspects of M&E planning are important that includes resource allocation, resource mobilization, M&E frameworks, and M&E procedure plans. It is the important to do proper M&E planning which includes allocation of adequate resources.

2.7 Theoretical Framework

The section features theoretical foundation that the study is based on. This study will be grounded on the Maslow's theory of hierarchy of needs, resource-based view theory, Arnstein's participatory theory and program theory.

2.7.1 Resource Based View Theory

The proponents of resource-based view theory are Birger Wernerfelt (1984) who originally proposed it and Jay B. Barney (1991) who later developed and refined it. The RBV deliberate on the project resources as being an essential performance determinant. While resources could be classified in various ways, for example tangible and intangible. In this case, tangible resources facilitate implementation of business processes whereas the intangible resources are the ones that could lead a better performance of projects by permitting organizations to integrate unique and valuable practices (Ruivo, Oliveira and Neto, 2015). According to Hitt, Carnes and Xu (2016), RBV is founded on two assumptions of resources being heterogeneously distributed across organizations and the non-transferability of productive resources from one organization to another without incurring cost.

Within projects, RBV is critical in that Project implementation drivers like community, participation, capacity building, resource mobilization and monitoring and evaluation are taken as invaluable resources needed for projects to succeed. The tangible resources in project management include the use of codified methodologies, templates, tools and techniques that are readily

available across the discipline. On the other hand, intangible resources for project management include things like teamwork and leadership both of which have the potential to contribute to a competitive edge. Therefore, given that effective leadership and collaborative working in a team are valuable resources that are difficult to replicate exactly, it is reasonable to anticipate that these factors will influence the final results of the project. RBV is criticized for its applicability due to a lack of unanimous agreement in the usage of various operational definitions terms including functionality, assets, resources, and key competencies (Ruivo, Oliveira and Neto, 2015). The theory is therefore relevant to this study as it assists in identification of the valuable project implementation drivers for the project.

2.7.2 Program Theory

Program theory was advanced by Bickman (1987). It describes how an action (a project, a scheme, a strategy, or an approach) is comprehended to make a contribution to a chain of outcomes that generate the envisioned or realistic impacts. This can be done by looking at the intended or actual impacts and comparing them to the envisioned impacts. It comprises of most of proclamations that portray a specific program, clarify why, how, and under which circumstances the program impacts happen, anticipate the results of the program, and determine the prerequisites important to achieve the ideal program impacts. The program theory has been used to manage assessment for a long time; it demonstrates the ability of the program to fix an issue by tending to the requirements in the need appraisal and data management. It additionally offers instruments to decide territories of effect in assessment (Shearn, Allmark, Piercy, and Hirst, 2017)

Program theory is used to handle an evaluation by identifying key components of program and explaining how these components are depended upon to recognize with each other (Pawson, 2017). After that, information accumulation plans are created inside the framework so that the level and essence of the event caused by each component can be evaluated. As such, program theory is defined in assessment practice today as the advancement of an imaginable and acceptable model of the way a maternal health program would need to function or as a large number of recommendations regarding what happens operating at a profit box during the change on ability to contribute to yield, that is, the way of course in which a poor sequence of events is altered into a better one through rehabilitation inputs. It is also taken into consideration as the method by which

different parts of the program are allowed to have an effect on the outcomes (Mertens & Wilson, 2018).

In this way, hypothesis-founded evaluation authorizes the evaluator to describe why and how the program is functioning. Monitoring and evaluation information should be obtained in a cost-efficient way. Monitoring and evaluation data gives a foundation to feedback into the projects, enhance policy analysis and policy development and assist in project and managerial activities. Data use and demand is a key practice of monitoring and evaluation. This theory assumed a few crucial jobs in data management for monitoring and evaluation (Shearn, Allmark, Piercy and Hirst, 2017). This theory thus is applicable to the study in relation to how monitoring and evaluation and community participation influence performance of water projects in Tharaka Nithi County, Kenya.

2.8 Conceptual Framework

The conceptual framework intends to show the degree to which dependent variable depends on independent variables. The conceptual framework is commonly used for illustrating how the system of concepts, expectations, beliefs, assumptions and theories informs and support the research and forms a crucial component of the research design. In this study, the dependent variable is the performance of water projects whereas the independent variables include community participation, resource mobilization, capacity building and monitoring and evaluation. The conceptual framework shows diagrammatically how these variables depend on each other. The conceptual framework is shown in Figure 2.1.

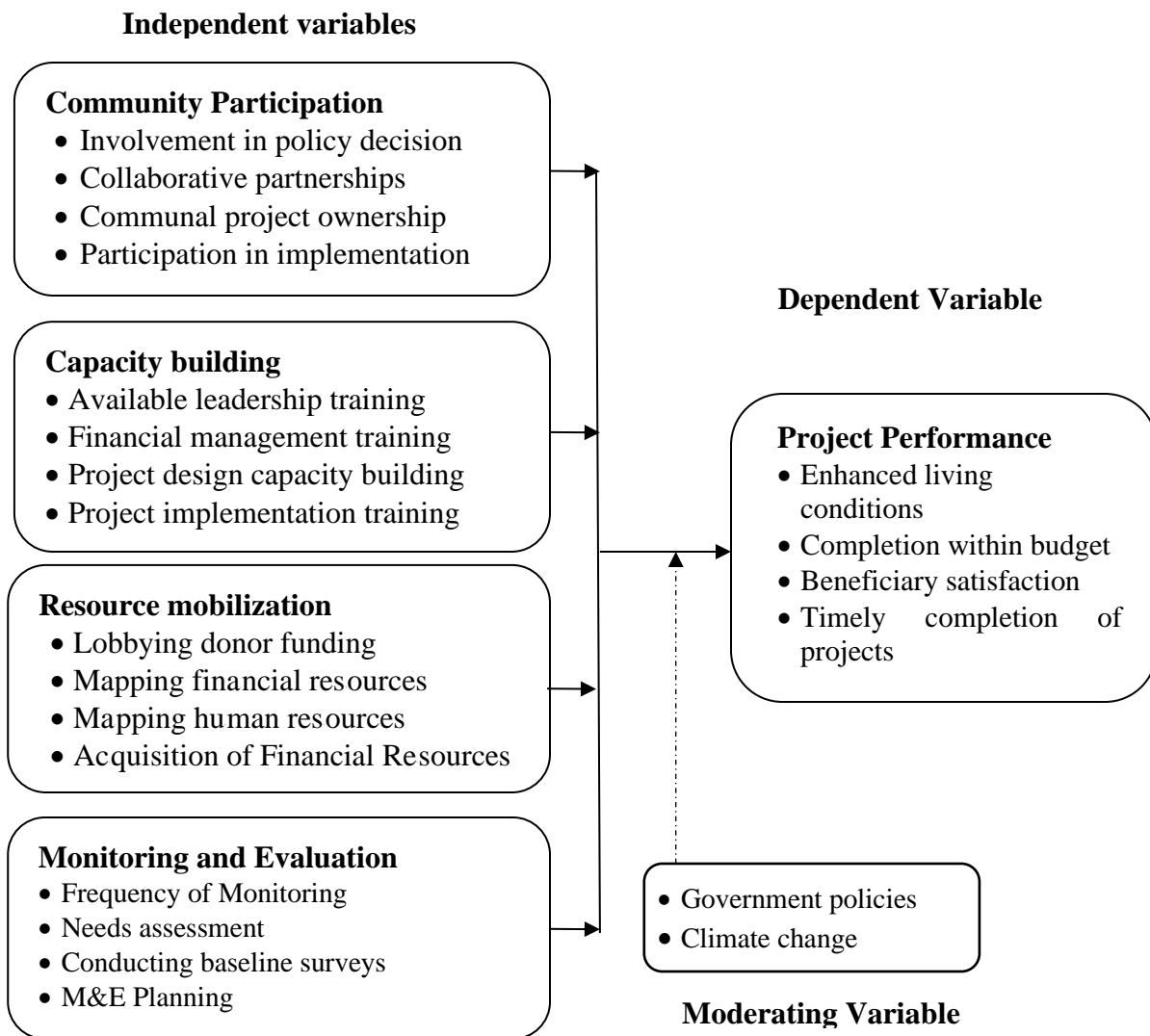


Figure 2. 1: Conceptual Framework

2.9 Gaps in Literature Reviewed

The following presents a summary of gaps.

Table 2. 1: Summary Gaps in Literature

Variable	Author	Area of study	Research Methodology	Findings	Gaps	Filling the research gaps
Community participation (Independent Variable)	Ngondo, M. (2016)	Influence of Community participation (CP) on timely completion of Community development fund - projects in Kanyekini in Kirinyaga county.	Descriptive statistic	An analysis of CDF projects design and implementation indicated that beneficiaries were not solicited directly to join any of the CDF project activity teams. However, where engagement did occur, it was deemed valuable and also managed to beat deadlines, stay within budget and credibility was achieved during implementation	Study focused on CDF projects undertaken in Kanyekini, Kirinyaga county.	The study will focus on community participation and performance of water projects in Tharaka Nithi County
Capacity building (Independent Variable)	Macours, Premand and Vakis (2013)	Targeting of grants and vocational skills training for the poor people during project implementation.	Descriptive survey	The poor managed to increase their income capacity through offering them with trainings or business grants, in Nicaragua.	The study was limited to Nicaragua.	The study will focus on capacity building and performance of water projects in Tharaka Nithi County

Resource mobilization. (Independent Variable)	Behnke, Klug, Cronk, Shields, Lee, Kelly and Bartram (2017)	Resource mobilization in a community-managed rural water systems.	Descriptive statistic	A number of factors give rise to community making decisions on resource mobilization such as season, economic characteristics, and institutions available to the community.	Study was limited to regions in Ghana, Kenya and Zambia.	The study will address resource mobilization and performance of water projects in Tharaka Nithi County
Community participation (Independent Variable)	Kobusingye, Mungatu and Mulyungi (2017)	The link between stakeholders involvement and project outcomes with a focus on the Wash Project in Rwanda	Descriptive survey design	Stakeholders' involvement in project phases e.g project initiation, planning, implementation and review bolstered the outcomes of the project.	Emphasis was put on Rwanda and thus the findings may not be generalized to Kenya.	This study will focus on stakeholder involvement and performance of water projects in Tharaka Nithi County in Kenya.
Monitoring and Evaluation (Independent Variable)	Titomet (2017)	Monitoring and evaluation influences the performance of Mwala Water Project, Machakos County, Kenya.	Descriptive survey	The study justified the rationale behind investment in water projects' monitoring and evaluation	Done in a different county other than Tharaka Nithi county	This study will focus on M&E and performance of water projects in Tharaka Nithi County

2.10 Summary of Literature Review

Project is considered to have better performance when it has attained the goals of the project, completed within time and costs at the defined level of performance while effectively and efficiently using the assigned resources. Project performance is measured using metrics like delivery of the project within time and budget, attaining scope of project, meeting cost targets, meeting project quality requirements, reducing risks of projects and meeting security requirements. The performance of water projects is believed to be affected by various project implementation drivers such as community participation, capacity building, resource mobilization and monitoring and evaluation.

Community participation could be loosely defined as the involvement of people in a community in projects in solving their own problems. Community participation in all project implementation phases may be described as representational participation by the community. On the other hand, capacity building is the mechanism of obtaining and strengthening skills, attitudes and knowledge within individuals and groups of people. Capacity building is required in all stages of project implementation, that is, the development process, design and maintenance in order to attain sustainable results

Resource mobilization is key in successful water project implementation. Project monitoring and evaluation as suggested by Joslin and Müller (2015), influences the engagement by stakeholder and the resources needed to achieve designated project where the focus is the implementation. However, to deliver project results. Monitoring refers to describe the continuous process of gathering and analyzing data for the purpose of comparing actual performance to an established baseline. It assists the project management in identifying patterns and trends and assists the management in making up-to-date decisions. Monitoring and evaluation (M&E) assist in strengthening the organizations and their human resource capacity. Applying M&E approaches assist organizations in enhancing their total capability of efficiently and effectively ensuring proposer management and performance of projects. This study seeks to establish how these project implementation drivers affect performance of water projects in Tharaka Nithi county.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter describes the methodology of the study such as the data to be utilised, the data sources and the instruments to be utilised in collecting data, population, the sample size and sampling procedure. It as well explains the approaches that was utilized in data management, data analysis and presentation.

3.2 Research Design

This study adopted a descriptive survey research design. This specific research design is perfect because it involved collecting and making comparisons from the phenomenon being investigated at the same time. Dannels (2018) noted that descriptive survey designs are suitable when the overarching goal is to determine whether or not there were strong relationship between variables at a certain point in time. The design was perfect because it intends to generate forecasts, approximate the proportion of people groups who had certain characteristics, and describe the features of particular groups. This design included collecting quantitative data for conducting descriptive analysis and qualitative data for describing the mes regarding the influence of project implementation drivers on performance of water projects in Tharaka Nithi County, Kenya.

3.3 Target Population

As a general rule, a population is the totality of all studied objects, while a sample is a subset of the population. Whitehead and Whitehead (2016), assert that the tar`get popul`ation is a set of elements on which the researcher concentrates, and for whom data received from testing the sample. The study targeted all 43 water projects within Tharaka Nithi county. Each project is managed by a project manager, a site agent, two (2) water users and a committee of seven (7) community members for a total of eleven (11) people. Hence the personnel for 53 water projects in the county was 473 from Tharaka Nithi County.

Table 3. 1: Target Population

Category	Target population	Percent
Project managers	43	9.1
Site agents	43	9.1
Project committee	86	18.2
Water users	301	63.6
Total	473	100

3.4 Sample size and Sampling Procedures

Sampling is a thoughtful choice of a smaller group of people who are to give information from which research would deduce conclusions regarding the entire population represented by the sample. The section focuses on the sampling size and sampling procedures.

3.4.1 Sampling Size

A sample is a representative portion of the population of interest that is randomly selected (Whitehead and Whitehead, 2016). The sample size was computed at 95 percent level of confidence and an error of 0.05 using the Slovin's formula as shown

$$n = \frac{N}{\{1 + N(e^2)\}}$$

Where n = sample size

N = population (473)

e = Margin error (0.05)

$$n = \frac{473}{\{1 + 473 * 0.05^2\}} = 216.72 \text{ (Rounded off to 217)}$$

The sample size was 217. To determine how the sample is distributed among the targeted respondents including project executive committee, staff, stakeholders and water users, the ratio of sampling was computed and then multiplied with target population for targeted group. The ratio was $217/473=0.459$, which was utilised as illustrated in Table 3.2.

Table 3. 2: Sampling Frame

Category	Target population	Ratio	Sample size
Project managers	43	0.459	20
Site agents	43	0.459	20
Project committee	86	0.459	39
Water users	301	0.459	138
Total	473		217

3.4.2 Sampling Procedures

Sampling involves selecting a subset of individuals from an entire population in order to make inferences about the attributes of the overall population. The research chose participants using stratified proportionate random sampling technique. Stratified random sampling is an objective method of sampling that consists of first sorting a diverse population into separate subsets of similar members, and then selecting members from within each of those subsets to make sure that the samples were representative of the whole population. Subjects in a stratified random sample are chosen in such a way as to ensure that the established subgroups in the

population are represented in the sample to a greater or lesser degree (Lanz, Fischer and Abegg, 2019). The goal of stratified random sampling was to achieve the desired representation from various sub-groups in the population. The population was divided into sub groups such as project executive committee, staff, stakeholders and water users. The study utilised simple random sampling to select the respondents in each stratum.

3.5 Data Collection Instrument

The study used both primary and secondary data. Qualitative and quantitative methods were also employed. Primary data was collected using questionnaires. Questionnaires according to Clark and Vealé (2018) are instruments used to collect information from the subject which is of significance to the researcher. Questionnaire contained both open and closed ended questions which acted as yardstick to prompt for more information on various project implementation drivers and performance of water projects in Tharaka Nithi County.

3.6 Pilot Testing

Pilot study is a small sized study used to assist the researcher in preparing and planning for the main study. Its goal is to make sure that everything in the instrument is clear and that every participant understands what it means. In this study this included checking if the questions are meaningful and rescinding any positive or negative responses (Dikko, 2016). The study conducted pilot testing in Meru County in which the researcher distributed 22 questionnaires to the respondents targeted for piloting who were selected at random. This represented 10 percent of the sample size that is appropriate for conducting pilot study according to Dikko (2016) recommendations. After one day, the same individuals were asked to respond to the identical questions, but without prior notice, so as to determine whether or not there was a difference between their replies on the initial and subsequent tests. This is very significant in conducting studies since it helps in identifying and making corrections on unclear questions and instructions. It is as well an excellent chance to record the participants' insightful remarks and valuable recommendations during this time. This assisted in enhancing the effectiveness of the research tools. There was a repetition of the process is until the researcher was satisfied that the research tools do not have variations or vagueness.

3.7 Validity of Research Instruments

As per Mohajan (2017), validity is the accuracy and meaningfulness of inferences, based on the research results. Validity is the degree by which the sample of test items represents the content the test is designed to measure. Content validity that was utilized by this research is a

assess of the level to which data collected using a certain research tool represented a particular theme or content of a certain notion. The researcher also sought expert opinion from supervisors and lecturers to comment on the representativeness and suitability of questions in the research tools and recommend the corrections that needs to be done of the questionnaires. This assist in enhancing the content validity of the data that was collected.

3.8 Reliability of Research Instruments

Reliability of a measure indicates the extent to which it is without bias and hence make sure consistent measurement across time and across the various items in the instrument (Ovan and Saputra, 2020). It is a measure of the questionnaires' stability and consistency in terms of how it measures the idea, and it contributes to the evaluation of how well the concept is measured. The reliability of the data collection instrument tool was determined using the split-half approach, and then the results were analyzed with the Spearman Brown correlation formulas. It anticipated that the two halves have a perfect correlation when the sum scale is perfectly reliable. A construct composite reliability co-efficient of 0.7 or above, for all the constructs, is considered to be adequate for this study (Ovan and Saputra, 2020).

3.9 Data Collection Procedures

The primary data in this study was collected using questionnaires based on the fact that they are appropriate for a descriptive study given that they could be administered easily and the participants could fill them conveniently. The researcher obtained the relevant permission from relevant authorities and also applied for research permit from NACOSTI. The researcher administered the questionnaires using drop and pick later method where the participants were given at least 3 days to fill in the questionnaires before they were collected back for analysis. The participants were assured by the researcher that the information given was strictly kept confidential. The questionnaires were administered through the designated officers who coordinated with the researcher to ensure the respondents fully filled the questionnaires. There was a schedule prepared and was strictly followed when administering questionnaires.

3.10 Data Analysis

Data was analyzed using Statistical Package for Social Sciences (SPSS Version 25.0). Every questionnaire received was referenced and coding of the items in the questionnaire was done to make it easy in entering the data. There was also cleaning of data by checking for errors in data entry. For quantitative data, descriptive statistics like frequencies, percentages, mean scores and standard deviation was approximated and findings illustrated tables. The qualitative

data from the open-ended questions were analyzed using thematic content analysis and presented in narrative form. Inferential data statistics such multiple regression analysis was utilised to determine the relationship between the independent and dependent variables and test for hypothesis. This study the multiple regression model for testing the hypothesis generally assumed the following equation;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where: -

Y= Performance of water projects

β_0 =constant

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 = regression coefficients

X_1 = Community participation

X_2 = Capacity building

X_3 = Resource mobilization

X_4 = Monitoring and evaluation

ε =Error Term

3.11 Ethical Considerations

Prior to data collection, permission was sought from office of National Council for Science and Technology and also the County government authority. Confidentiality of the gathered information was strictly observed and respondents will also be notified of the same via a letter included in the appendix I.

3.12 Operationalization of Variables

The operationalization of variables was illustrated in Table 3.3.

Table 3. 3: Operationalization of variables

Objectives	Type of Variable	Name of the Variable	Measuring of Indicators	Scale used	Tools of analysis	Type of analysis
To examine how community participation influence performance of water projects in Tharaka Nithi County, Kenya.	Independent	Community participation	<ul style="list-style-type: none"> • Involvement in policy decision • Attending of management meetings • Communal project ownership • Participation in implementation 	Ordinal	Percentages Mean score	Descriptive statistics Regression analysis
To establish how capacity building influence performance of water projects in Tharaka Nithi County, Kenya.	Independent	Capacity building	<ul style="list-style-type: none"> • Available leadership training • Financial management training • Project design capacity building • Project implementation training 	Ordinal	Percentages Mean score	Descriptive statistics Regression analysis
To determine how resource mobilization influence performance of water projects in Tharaka Nithi County, Kenya.	Independent	Resource mobilization	<ul style="list-style-type: none"> • Lobbying donor fundings • Mapping financial resources • Mapping human resources • Acquisition of Financial Resources 	Ordinal	Percentages Mean score	Descriptive statistics Regression analysis
To examine how monitoring and evaluation influence performance of water projects in Tharaka Nithi County, Kenya	Independent	Monitoring and evaluation	<ul style="list-style-type: none"> • Frequency of Monitoring • Needs assessment • Conducting baseline surveys • M&E Planning 	Ordinal	Percentages Mean score	Descriptive statistics Regression analysis
	Dependent	Performance of water projects	<ul style="list-style-type: none"> • Enhanced living conditions • Increased income • Beneficiary satisfaction • Timely completion of projects 	Ordinal	Percentages Mean score	Descriptive statistics Regression analysis

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATIONS

4.1 Introduction

The study collected data in an attempt to establish the influence of community participation, capacity building, resource mobilization and monitoring and evaluation on performance of water projects in Tharaka Nithi County, Kenya. The chapter highlights the response rate, reliability analysis, findings on demographic information, on community participation, on capacity building, on resource mobilization, on monitoring and evaluation and on performance of water projects. Lastly, the chapter presents multiple regression analysis for testing the research hypothesis.

4.2 Response Rate

The study targeted 217 respondents for data collection. After administering the questionnaires, there were 162 respondents who returned fully filled questionnaires. This gave a response rate of 74.7% which was above 50% and was a significant response rate for statistical analysis as per Mohajan (2017) recommendations.

Table 4. 1: Response Rate

		Response Rate
Response	162	74.7%
Non-response	55	25.3%
Total	217	100

4.3 Reliability Analysis

Reliability analysis was subsequently done using Cronbach's Alpha that assesses the internal consistency by establishing if certain items within a scale measure the same construct. The findings are illustrated in Table 4.2.

Table 4. 2: Reliability Analysis

	Alpha value	Comments
Community participation	0.736	Reliable
Capacity building	0.809	Reliable
Resource mobilization	0.711	Reliable
Monitoring and evaluation	0.727	Reliable
Performance of water projects	0.784	Reliable

The findings in Table 4.2 shows that community participation had a Cronbach’s Alpha of 0.736, that capacity building had a Cronbach’s Alpha of 0.809, that resource mobilization had a Cronbach’s Alpha of 0.711, that monitoring and evaluation had a Cronbach’s Alpha of 0.727 and that performance of water projects had a Cronbach’s Alpha of 0.784. This implies that all the five variables were reliable as their reliability values exceeded the prescribed threshold of 0.7. Hence, this shows that the research instrument was reliable and thus needed no changes.

4.4 Demographic Information

This section presents the demographic information which includes gender, level of professionalism/expertise, highest level of education and how long they have worked in this project.

4.4.1 Gender of the Respondents

The researcher requested the respondents to specify their gender. The findings are illustrated in Table 4.3.

Table 4. 3: Gender of the Respondents

	Frequency	Percent
Male	101	62.3
Female	61	37.7
Total	162	100.0

The result show that most of the respondents were male as illustrated by 62.3% while the rest were female as represented by 37.7%. The findings imply that the researcher was not biased hence obtained relevant information from both male and female respondents regarding the influence of project implementation drivers on performance of water projects in Tharaka Nithi County, Kenya.

4.4.2 Level of Professionalism/Expertise

The respondents were asked to specify the level of professionalism/expertise they have in the water Projects in Tharaka Nithi County. The findings are illustrated in Table 4.4.

Table 4. 4: Level of Professionalism/Expertise

	Frequency	Percent
Project committee member	91	56.2
Staff	34	21.0
Community member	23	14.2
Stakeholder	14	8.6
Total	162	100.0

From the findings in Table 4.4, the respondents specified that they were project committee member as shown by 56.2%, were staff as shown by 21.0%, were community member as shown by 14.2% and were stakeholder as shown by 8.6%. This implies that all the respondents were engaged in projects in one way or the other and hence gave credible information on influence of project implementation drivers on performance of water projects in Tharaka Nithi County, Kenya.

4.4.3 Highest Level of Education

The respondents were asked to specify their highest education level. The results are illustrated in Table 4.5.

Table 4. 5: Highest Level of Education of the Respondents

	Frequency	Percent
Certificate	38	23.5
Diploma	66	40.7
Undergraduate	47	29.0
Post Graduate	11	6.8
Total	162	100.0

From the findings in Table 4.5, the respondents indicated that their highest level of education was diploma as illustrated by 40.7%, certificate as shown by 23.5%, undergraduate as illustrated by 29.0% and post graduate as illustrated by 6.8%. This is an indication that the collection of data cut across all the levels of education of the respondents. In addition, most of respondents were learnt enough to fully participate in the study and give credible information regarding the influence of project implementation drivers on performance of water projects in Tharaka Nithi County, Kenya.

4.4.4 Period working with Projects

The respondents were asked to indicate the how long they have worked in the project. The findings are shown in Table 4.6.

Table 4. 6: Period working with Projects

	Frequency	Percent
1- 2 years	12	7.4
3 – 4 years	30	18.5
5 – 6 years	60	37.0
Above 6 years	60	37.0
Total	162	100.0

From the findings in Table 4.5, the respondents indicated to have worked with projects for 5 – 6 years as shown by 37.0%. for more than 6 years as shown by 37.0%, for 1- 2 years as shown by 7.4% and for 3 – 4 years as shown by 18.5%. This implies that most respondents had worked in projects for long enough to give credible information on influence of project implementation drivers on performance of water projects in Tharaka Nithi County, Kenya.

4.5 Community Participation

The study sought to examine how community participation influence performance of water projects in Tharaka Nithi County, Kenya. The respondents were asked to indicate their level of agreement with various statements on community participation using 1-5 Likert scale where 1 is strongly disagree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree. The findings are illustrated in Table 4.7.

Table 4. 7: Agreement with Statements on Community Participation

	Min.	Max.	Mean	Std. Dev.
Community participated in the entire implementation of the water projects	2.00	5.00	3.852	0.774
There are collaborative partnerships between stakeholders and project management to sustain the water projects	1.00	4.00	2.222	0.804
The community members participate in making policy decisions regarding the water	1.00	4.00	2.185	0.758
The community leaders are given opportunities to attend management meetings for water projects	2.00	5.00	4.105	0.637
The community have a stake in the completed water projects as they are engaged in implementation	2.00	5.00	4.056	0.766
The maintenance of the water projects is conducted by the community members	1.00	5.00	3.790	0.888
Composite Mean			3.368	

From the findings in Table 4.7, the respondents agreed that the community leaders are given opportunities to attend management meetings for water projects as shown by a mean of 4.105 and that the community have a stake in the completed water projects as they take part in implementation as shown by a mean of 4.056. Moreover, the respondents agreed that community participated in the entire implementation of the water projects as shown by a mean of 3.852 and that the maintenance of the water projects is conducted by the community members as shown by a mean of 3.790. The means of the statements were greater than composite mean of 3.368 which implies that the statements were positively related to performance of water projects in Tharaka Nithi County, Kenya.

However, the respondents disagreed that there are collaborative partnerships between stakeholders and project management to sustain the water projects as shown by a mean of 2.222 and that the community members participate in making policy decisions regarding the water projects as shown by a mean of 2.185. The means of the statements were less than composite mean of 3.368 which implies that the statements were negatively related to performance of water projects in Tharaka Nithi County, Kenya.

4.6 Capacity Building

The study further sought to establish how capacity building influence performance of water projects in Tharaka Nithi County, Kenya. The respondents were asked to indicate their level of agreement with various statements on capacity building using 1-5 Likert scale where 1 is strongly disagree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree. The findings are illustrated in Table 4.8.

Table 4. 8: Agreement with Statements on Capacity Building

	Min.	Max.	Mean	Std. Dev.
There are available leadership training programs to ensure water projects are managed effectively	1.00	4.00	2.191	0.800
The stakeholders have financial management skills which reduced cost overruns	2.00	5.00	3.889	0.772
The stakeholders have competence in project design which enhance effective implementation of water projects	2.00	5.00	4.124	0.786
The project stakeholders have received training to enhance their skills in project implementation	1.00	4.00	2.370	0.755
Capacity building have minimized over-reliance on outside project implementation experts	2.00	5.00	3.975	0.819
Capacity building encourages local people to take action on local issues like solving water issues by initiating water projects	2.00	5.00	4.068	0.749
Composite Mean			3.436	

From the findings in Table 4.8, the respondents agreed that the stakeholders have competence in project design which enhance effective implementation of water projects as shown by a mean of 4.124 and that capacity building encourages local people to take action on local issues like solving water issues by initiating water projects as shown by a mean of 4.068. Further, the respondents agreed that capacity building have minimized over-reliance on outside project implementation experts as shown by a mean of 3.975 and that the stakeholders have financial management skills which reduced cost overruns as shown by a mean of 3.889. The means of the statements were greater than composite mean of 3.436 which implies that the statements were positively related to performance of water projects in Tharaka Nithi County, Kenya.

However, the respondents disagreed that the project stakeholders have received training to enhance their skills in project implementation as shown by a mean of 2.370 and that there are available leadership training programs to ensure water projects are managed effectively as shown by a mean of 2.191. The means of the statements were less than composite mean of 3.436 which implies that the statements were negatively related to performance of water projects in Tharaka Nithi County, Kenya.

4.7 Resource Mobilization

The study sought to determine how resource mobilization influence performance of water projects in Tharaka Nithi County, Kenya. The respondents were asked to indicate their level of agreement with various statements on resource mobilization using 1-5 Likert scale where 1 is strongly disagree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree. The findings are illustrated in Table 4.9.

Table 4. 9: Agreement with Statements on Resource Mobilization

	Min.	Max.	Mean	Std. Dev.
Resource mobilization ensures there are adequate resources to completely implement and sustain the water projects	2.00	5.00	4.154	0.646
There are organized finance mobilization activities to raise finances of water projects	1.00	4.00	2.370	0.763
The management team sources for technical personnel to maintain community water projects	2.00	5.00	3.704	0.841
There is lobbying donor fundings to finance the water projects in the county	2.00	5.00	4.080	0.811
Financial and human resources are effectively mapped for water projects in the county	1.00	4.00	2.358	0.745
The project stakeholders acquire the needed financial resources for the project from national and county government	2.00	5.00	3.839	0.695
Composite Mean			3.418	

From the findings in Table 4.9, the respondents agreed that resource mobilization ensures there are adequate resources to completely implement and sustain the water projects as shown by a mean of 4.154 and that there is lobbying donor fundings to finance the water projects in the county as

shown by a mean of 4.080. The respondents also agreed that the project stakeholders acquire the needed financial resources for the project from national and county government as shown by a mean of 3.839 and that the management team sources for technical personnel to maintain community water projects as shown by a mean of 3.704. The means of the statements were greater than composite mean of 3.418 which implies that the statements were positively related to performance of water projects in Tharaka Nithi County, Kenya.

However, the respondents disagreed that there are organized finance mobilization activities to raise finances of water projects as shown by a mean of 2.370 and that financial and human resources are effectively mapped for water projects in the county as shown by a mean of 2.358. The means of the statements were less than composite mean of 3.418 which implies that the statements were negatively related to performance of water projects in Tharaka Nithi County, Kenya.

4.8 Monitoring and Evaluation

The study also sought to examine how monitoring and evaluation influence performance of water projects in Tharaka Nithi County, Kenya. Moreover, the respondents were asked to indicate their level of agreement with various statements on monitoring and evaluation using 1-5 Likert scale where 1 is strongly disagree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree. The findings are illustrated in Table 4.10.

Table 4. 10: Agreement with Statements on Monitoring and Evaluation

	Min.	Max.	Mean	Std. Dev.
The project management ensures baseline surveys are conducted prior are project implementation to ensure the right projects are initiated	1.00	4.00	2.241	0.802
The beneficiary needs that are unmet are identified through monitoring and evaluation	2.00	5.00	4.056	0.689
Monitoring and evaluation are frequently conducted on all water projects in the county	1.00	4.00	2.419	0.861
The M&E planning is conducted to track and improve a monitoring and evaluation strategy within the water projects	2.00	5.00	3.846	0.793
Monitoring and evaluation have ensured the water projects achieves the intended goals	2.00	5.00	4.000	0.780
The project management can advocate changes to the project depending on M&E recommendations	2.00	5.00	4.086	0.752
Composite Mean			3.441	

As per the findings in Table 4.10, the respondents agreed that the project management can advocate changes to the project depending on M&E recommendations as presented by a mean of 4.086 and that the beneficiary needs that are unmet are identified through monitoring and evaluation as presented by a mean of 4.056. The respondents further agreed that monitoring and evaluation have ensured the water projects achieves the intended goals as presented by a mean of 4.000 and that the M&E planning is conducted to track and improve a monitoring and evaluation strategy within the water projects as presented by a mean of 3.846. The means of the statements were greater than composite mean of 3.441 which implies that the statements were positively related to performance of water projects in Tharaka Nithi County, Kenya.

However, the respondents disagreed that monitoring and evaluation are frequently conducted on all water projects in the county as presented by a mean of 2.419 and that the project management ensures baseline surveys are conducted prior are project implementation to ensure the right projects are initiated as presented by a mean of 2.241. The means of the statements were less than composite mean of 3.441 which implies that the statements were negatively related to performance of water projects in Tharaka Nithi County, Kenya

4.9 Performance of Water Projects

The respondents were also asked to indicate their level of agreement with various statements on performance of water projects in Tharaka Nithi County using 1-5 Likert scale where 1 is strongly disagree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree. The findings are illustrated in Table 4.11.

Table 4. 11: Agreement with Statements on Performance of Water Projects

	Min.	Max.	Mean	Std. Dev.
The project was acceptable to the clients	2.00	5.00	4.136	0.735
Water projects have enhanced the living conditions of the county residents	2.00	5.00	4.074	0.719
The beneficiaries are satisfied with the water projects in the county	1.00	4.00	2.395	0.751
The project was delivered within the agreed time lines	1.00	4.00	2.142	0.686
Water projects have improved household as water is accessible at a lower cost	2.00	5.00	3.926	0.785
The project was delivered within the agreed budget.	1.00	4.00	2.148	0.758
Comosite Mean			3.137	

From the findings in Table 4.11, the respondents agreed that the project was acceptable to the clients as presented by a mean of 4.136 and that water projects have enhanced the living conditions of the county residents as presented by a mean of 4.074. The respondents agreed that water projects have improved household as water is accessible at a lower cost as presented by a mean of 3.926. However, the respondents disagreed that the beneficiaries are satisfied with the water projects in the county as presented by a mean of 2.395, that the project was delivered within the agreed budget as presented by a mean of 2.148 and that the project was delivered within the agreed time lines as presented by a mean of 2.142.

4.10 Multiple Regression Analysis

Multiple regression analysis was conducted to determine the relationship between community participation, capacity building, resource mobilization and monitoring and evaluation as the independent variables, and performance of water projects in Tharaka Nithi County as the dependent variable.

Table 4. 12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	.877 ^a	.769	.764	.16405

From the findings in Table 4.12, the R square was 0.769. This showed that 76.9% of the variations in performance of water projects in Tharaka Nithi County are explained by community participation, capacity building, resource mobilization and monitoring and evaluation.

Table 4. 13: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.101	4	3.525	130.990	.000 ^b
	Residual	4.225	157	.027		
	Total	18.326	161			

From the ANOVA Table, p-value was 0.000 and F-calculated was 130.990. Since p-value was less than 0.05 and the F-calculated was greater than F-critical (2.4293), then the regression model was significant. This implies that performance of water projects in Tharaka Nithi County is

significantly predicted by community participation, capacity building, resource mobilization and monitoring and evaluation.

Table 4. 14: Regression Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.973	.187		5.203	.000
Community Participation	.724	.169	.618	4.284	.000
Capacity Building	.678	.230	.539	2.948	.004
Resource Mobilization	.821	.168	.786	4.887	.000
Monitoring and Evaluation	.742	.223	.681	3.327	.001

From the regression coefficients, the equation becomes:

$$Y = 0.973 + 0.724 X_1 + 0.678 X_2 + 0.821 X_3 + 0.742 X_4$$

Where: -

Y= Performance of water projects

X₁= Community participation

X₂= Capacity building

X₃= Resource mobilization

X₄= Monitoring and evaluation

From the findings, the study showed that a unit increase in community participation leads to 0.724 increase in performance of water projects in Tharaka Nithi County. Since the p-value (0.000) was less than 0.05, the study rejected the null hypothesis one (**H₀₁**: *There is no significant relationship between community participation and performance of water projects in Tharaka Nithi County, Kenya*). Hence, the study concluded that there is a significant relationship between community participation and performance of water projects in Tharaka Nithi County, Kenya.

Moreover, the study revealed that a unit change in capacity building leads to 0.678 change in performance of water projects in Tharaka Nithi County. Since the p-value (0.004) was less than 0.05, the study rejected the null hypothesis two (**H₀₂**: *There is no significant relationship between capacity building and performance of water projects in Tharaka Nithi County, Kenya*). Therefore,

the study concluded that there is a significant relationship between capacity building and performance of water projects in Tharaka Nithi County, Kenya.

Further, the study established that a unit change in resource mobilization leads to 0.821 change in performance of water projects in Tharaka Nithi County. Since the p-value (0.000) was less than 0.05, the study rejected the null hypothesis three (*H₀₃: There is no significant relationship between resource mobilization and performance of water projects in Tharaka Nithi County, Kenya*). Thus, the study concluded that there is a significant relationship between resource mobilization and performance of water projects in Tharaka Nithi County, Kenya.

Finally, the study found that a unit change in monitoring and evaluation leads to 0.742 change in performance of water projects in Tharaka Nithi County. Since the p-value (0.001) was less than 0.05, the study rejected the null hypothesis four (*H₀₄: There is no significant relationship between monitoring and evaluation influence performance of water projects in Tharaka Nithi County, Kenya*). Hence, the study concluded that there is a significant relationship between resource mobilization and performance of water projects in Tharaka Nithi County, Kenya.

Overall, the study found that resource mobilization had the greatest influence on performance of water projects in Tharaka Nithi County followed by monitoring and evaluation, then community participation while capacity building had the least influence on performance of water projects in Tharaka Nithi County. All the variables were significant since their p-values were less than 0.05.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The main purpose of the study was to examine the influence of project implementation drivers on performance of water projects in Tharaka Nithi County, Kenya. This chapter presents summary of findings, discussion of findings, conclusions and recommendations as per the objectives of the study.

5.2 Summary of Findings

The study sought to examine how community participation influence performance of water projects in Tharaka Nithi County, Kenya. The study established that the community leaders are given opportunities to attend management meetings for water projects and that the community have a stake in the completed water projects as they take part in implementation. Moreover, the study established that community participated in the entire implementation of the water projects and that the maintenance of the water projects is conducted by the community members. The study also found that there are no collaborative partnerships between stakeholders and project management to sustain the water projects and that the community members do not participate in making policy decisions regarding the water projects.

The study further sought to establish how capacity building influence performance of water projects in Tharaka Nithi County, Kenya. The study revealed that the stakeholders have competence in project design which enhance effective implementation of water projects and that capacity building encourages local people to take action on local issues like solving water issues by initiating water projects. Further, the study established that capacity building has minimized over-reliance on outside project implementation experts and that the stakeholders have financial management skills which reduced cost overruns. The study found that the project stakeholders have not received training to enhance their skills in project implementation and that there are no available leadership training programs to ensure water projects are managed effectively.

The study sought to determine how resource mobilization influence performance of water projects in Tharaka Nithi County, Kenya. The study established that resource mobilization ensures there

are adequate resources to completely implement and sustain the water projects and that there is lobbying donor fundings to finance the water projects in the county. The study found that the project stakeholders acquire the needed financial resources for the project from national and county government and that the management team sources for technical personnel to maintain community water projects. The study revealed that there are no organized finance mobilization activities to raise finances of water projects and that financial and human resources are not effectively mapped for water projects in the county.

The study also sought to examine how monitoring and evaluation influence performance of water projects in Tharaka Nithi County, Kenya. The study established that the project management can advocate changes to the project depending on M&E recommendations and that the beneficiary needs that are unmet are identified through monitoring and evaluation. The study as well established that monitoring and evaluation have ensured the water projects achieve the intended goals and that the M&E planning is conducted to track and improve a monitoring and evaluation strategy within the water projects. The study established that monitoring and evaluation are not frequently conducted on all water projects in the county and that the project management does not ensure baseline surveys are conducted prior to project implementation to ensure the right projects are initiated.

5.3 Discussion of Findings

5.3.1 Community Participation

The study established that the community leaders are given opportunities to attend management meetings for water projects and that the community have a stake in the completed water projects as they take part in implementation. The findings of this study agree with Mbui (2018) who asserts that community participation in financial planning had a moderate positive influence on project performance and community participation in project operations and management had a weak positive influence on project performance. The findings correlate with Ndungu and Karugu (2019) who noted that there is strong positive influence of community participation in identification and planning on the performance of projects whereas the regression findings showed that community participation on the project performance have a statistically significant relationship.

Moreover, the study established that community participated in the entire implementation of the water projects and that the maintenance of the water projects is conducted by the community members. The study also found that there are no collaborative partnerships between stakeholders and project management to sustain the water projects and that the community members do not participate in making policy decisions regarding the water projects. The findings of this study concurs with Tapatayia (2019) who argued that participation of community was crucial for the water project's performance and recommended that leadership in community needs to be encouraged by engaging every community member to avoid discrepancies on how the beneficiaries can get the water and be connected to their households.

5.3.2 Capacity Building

The study revealed that the stakeholders have competence in project design which enhance effective implementation of water projects and that capacity building encourages local people to take action on local issues like solving water issues by initiating water projects. The findings of this study agree with Ika and Donnelly (2017) who noted that capacity building helps the community in accessing capital, increasing partnership levels and skills acquisition by identifying key barriers and designing interventions on how to overcome them for example, by coming up with workshops for training. The findings are also in line with Kibe (2017) who established that training, sensitization of community, support by management and growth of careers positively and significantly affected performance of projects among non-governmental water projects in Kenya.

Further, the study established that capacity building has minimized over-reliance on outside project implementation experts and that the stakeholders have financial management skills which reduced cost overruns. The study found that the project stakeholders have not received training to enhance their skills in project implementation and that there are no available leadership training programs to ensure water projects are managed effectively. The findings correlate with Omondi (2016) who established performance of projected financed by NGO conduct specific aspects and prospects over staff capabilities and, for this reason, building capacity to enhance staff expertise is indispensable.

5.3.3 Resource Mobilization

The study found that resource mobilization ensures there are adequate resources to completely implement and sustain the water projects and that there is lobbying donor fundings to finance the

water projects in the county. This agrees with Golhasani and Hosseinirad, 2017) who noted that Resource mobilization support obtaining the right type of resources at the right time and at the right price through use of acquired resources hence guaranteeing optimal use of the same. Water management systems, purposes at achieving impartial distribution and allocation of water resources among users while protecting them from lessening supplies and governing the sharing of limited water supplies to meet needs of the users.

The study found that the project stakeholders acquire the needed financial resources for the project from national and county government and that the management team sources for technical personnel to maintain community water projects. The study revealed that there are no organized finance mobilization activities to raise finances of water projects and that financial and human resources are not effectively mapped for water projects in the county. The findings agree with Riziki, Atera and Juma (2019) established that resource mobilization was substantial determinants of sustainability of community water projects. Collins and James (2018) found that financial resources' acquisition, mapping human resources, acquisition of physical resources and community participation significantly and positively influenced the sustainability of women group projects in Vihiga County, Kenya.

5.3.4 Monitoring and Evaluation

The study established that the project management can advocate changes to the project depending on M&E recommendations and that the beneficiary needs that are unmet are identified through monitoring and evaluation. The findings of this study agree with Kusters, *et al.* (2018) who noted that Monitoring and evaluation (M&E) assist in strengthening the organizations and their human resource capacity. Applying M&E approaches assist organizations in enhancing their total capability of efficiently and effectively ensuring proposer management and performance of projects. According to Mgoba and Kabote (2020), monitoring and evaluation techniques therefore come handy in assisting project managers to gauge if the project objectives are met.

The study also found that monitoring and evaluation have ensured the water projects achieves the intended goals and that the M&E planning is conducted to track and improve a monitoring and evaluation strategy within the water projects. The study established that found that monitoring and evaluation are not frequently conducted on all water projects in the county and that the project management does not ensure baseline surveys are conducted prior to project implementation to

ensure the right projects are initiated. The findings of this study agree Verbrugge, et al. (2017) who noted that monitoring assesses if the project is on the right track or if it has taken the wrong turn whose purpose is finding out if the project and activities are effective and how strategies should be adapted to make sure the best possible results. Its purpose is to make a project or organization more effective and efficient in carrying out its goals.

5.4 Conclusions

The study concluded that community participation significantly influenced performance of water projects in Tharaka Nithi County, Kenya. Community leaders are given opportunities to attend management meetings for water projects and have a stake in the completed water projects as they take part in implementation. Moreover, community members participated in the entire implementation and maintenance of the water projects. Though, there are no collaborative partnerships between stakeholders and project management to sustain the water projects.

The study further concluded that capacity building significantly influenced performance of water projects in Tharaka Nithi County, Kenya. The stakeholders have competence in project design which enhance effective implementation of water projects and capacity building encourages local people to take action on local issues like solving water issues by initiating water projects. Further, capacity building has minimized over-reliance on outside project implementation experts and stakeholders have financial management skills which reduces cost overruns.

The study also concluded that resource mobilization significantly influenced performance of water projects in Tharaka Nithi County, Kenya. Resource mobilization ensures there are adequate resources to completely implement and sustain the water projects. There is lobbying donor fundings from the from national and county government to finance the water projects in the county. management team sources for technical personnel to maintain community water projects. However, there are no organized finance mobilization activities to raise finances of water projects and financial and human resources are no effectively mapped for water projects in the county.

The study finally concluded that monitoring and evaluation significantly influenced performance of water projects in Tharaka Nithi County, Kenya. The project management can advocate changes to the project depending on M&E recommendations and the beneficiary needs that are unmet are identified through monitoring and evaluation. Monitoring and evaluation have ensured the water

projects achieves the intended goals and the M&E planning is conducted to track and improve a monitoring and evaluation strategy within the water projects.

5.5 Recommendations

The study recommends that project managers in Tharaka Nithi county should ensure that there are collaborative partnerships between stakeholders and project management. This would ensure that every stakeholder takes part in all phases of the project and hence assist in sustaining the water projects. There is also a need for project managers to ensure that the community members take part in formulation of policy regarding the water projects.

The study further recommends that the county government should come with training programs for all project stakeholders. This would equip the stakeholders with skills in project implementation which would guarantee water projects' performance. There is also a need for project managers to ensure that there are enhanced training and development of the leaders for efficiency in water projects.

The study recommends that project managers should initiate finance mobilization activities to raise finances of water projects. There is also a need for effective mapping of financial and human resources for water projects in the Tharaka Nithi County. The study further recommends that project management should perform resource mobilization to acquire physical, human and financial resources that would support implementation of various water projects in Tharaka Nithi county.

The study further study recommends project stakeholders to adopt a wide variety of resource mobilization tools which comprise of project material resources, execution of resource mobilization plans, and mutual capacity building to ensure that the community project can outlive the life of the initial funding cycle.

The study further recommends that project management should ensure that there are baseline surveys conducted prior are project implementation. This would ensure that efficient identification, initiation and implementation of appropriate water projects in Tharaka Nithi County. The study also recommended that project stakeholders should hire individuals who are well trained and have a track record of effectively monitoring and evaluating projects that have delivered beyond preconceptions within the shortest amount of time and with limited resources.

5.6 Recommendations for Further Research

The study confined itself to the water projects in Tharaka Nithi County. This study therefore should be replicated in all counties in Kenya and examine the influence of project implementation drivers on performance of water projects. Future studies should look at challenges facing implementation of water projects in Tharaka Nithi County. The study recommends that future studies should consider other factors like management support and political factors that influence the performance of water projects in Tharaka Nithi County.

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APPENDICES

Appendix I: Letter of Introduction

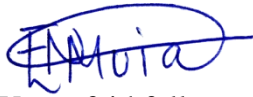
Esther Ngina Muia

Dear Respondent,

You are voluntarily invited to participate in filling this questionnaire that will be administered. The purpose of this questionnaire is to gather data from your Sub County. This information will be used to study Project implementation drivers and performance of water projects in Tharaka Nithi County, Kenya.

The data collected is confidential and will solely be used in this study.

Thank you for participating.



Yours faithfully,

Esther Ngina

MA PPM student -University of Nairobi

Appendix II: Questionnaire for Executive Committee

Introductory Remarks

This questionnaire is meant to collect data on Project implementation drivers and performance of water projects in Tharaka Nithi County, Kenya. Kindly answer the questions below truthfully.

Part I: General Data

1. Kindly specify your gender?

Female

Male

2. Kindly, indicate the title (level of professionalism/expertise) that you hold in the water Projects in Tharaka Nithi County.

Project committee member

Staff

Any other (specify).....

3. What is your highest level of education?

Certificate

Diploma

Undergraduate

Post Graduate

Any other (specify).....

4. How long have you worked in this project?

1- 2 years

3 – 4 years

5 – 6 years

Above 6 years

Part II: Project Implementation Drivers and Performance of Water Projects

Community Participation

5. Please indicate your level of agreement with various statements on community participation using 1-5 Likert scale where 1 is strongly disagree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree.

Statements	1	2	3	4	5
Community participated in the entire implementation of the water projects	[]	[]	[]	[]	[]
There are collaborative partnerships between stakeholders and project management to sustain the water projects	[]	[]	[]	[]	[]
The community members participate in making policy decisions regarding the water projects	[]	[]	[]	[]	[]
The community leaders are given opportunities to attend management meetings for water projects	[]	[]	[]	[]	[]
The community have a stake in the completed water projects as they take part in implementation	[]	[]	[]	[]	[]
The maintenance of the water projects is conducted by the community members	[]	[]	[]	[]	[]

6. In which ways do you think community participation have affected the performance of water projects?.....

Capacity Building

7. Please indicate your level of agreement with various statements on capacity building using 1-5 Likert scale where 1 is strongly disagree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree.

Statement	1	2	3	4	5
There are available leadership training programs to ensure water projects are managed effectively	[]	[]	[]	[]	[]
The stakeholders have financial management skills which reduced cost overruns	[]	[]	[]	[]	[]
The stakeholders have competence in project design which enhance effective implementation of water projects	[]	[]	[]	[]	[]
The projects stakeholders have received training to enhance their skills in project implementation	[]	[]	[]	[]	[]
Capacity building have minimized over-reliance on outside project implementation experts	[]	[]	[]	[]	[]
Capacity building encourages local people to take action on local issues like solving water issues by initiating water projects	[]	[]	[]	[]	[]

8. In which ways do you think capacity building have affected the performance of water projects?.....
.....
.....

Resource Mobilization

9. Please indicate your level of agreement with various statements on resource mobilization using 1-5 Likert scale where 1 is strongly dis`agree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree.

Statement	1	2	3	4	5
Resource mobilization ensures there are adequate resources to completely implement and sustain the water projects	[]	[]	[]	[]	[]
There are organized finance mobilization activities to raise finances of water projects	[]	[]	[]	[]	[]
The management team sources for technical personnel to maintain community water projects	[]	[]	[]	[]	[]

There is lobbying donor fundings to finance the water projects in the county	[]	[]	[]	[]	[]
Financial and human resources are effectively mapped for water projects in the county	[]	[]	[]	[]	[]
The project stakeholders acquire the needed financial resources for the project from national and county government	[]	[]	[]	[]	[]

10. In which ways do you think resource mobilization have affected the performance of water projects?.....
.....
.....

Monitoring and Evaluation

11. Please indicate your level of agreement with various statements on monitoring and evaluation using 1-5 Likert scale where 1 is strongly disagree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree.

Statement	1	2	3	4	5
The project management ensures baseline surveys are conducted prior are project implementation to ensure the right projects are initiated	[]	[]	[]	[]	[]
The beneficiary needs that are unmet are identified through monitoring and evaluation	[]	[]	[]	[]	[]
Monitoring and evaluation are frequently conducted on all water projects in the county	[]	[]	[]	[]	[]
The M&E planning is conducted to track and improve a monitoring and evaluation strategy within the water projects	[]	[]	[]	[]	[]
Monitoring and evaluation have ensured the water projects achieves the intended goals	[]	[]	[]	[]	[]
The project management can advocate changes to the project depending on M&E recommendations	[]	[]	[]	[]	[]

12. In which ways do you think monitoring and evaluation have affected the performance of water projects?.....

.....

.....

Performance of Water Projects

13. Please indicate your level of agreement with various statements on performance of water projects using 1-5 Likert scale where 1 is strongly disagree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree

	1	2	3	4	5
The project was acceptable to the clients	[]	[]	[]	[]	[]
Water projects have enhanced the living conditions of the county residents	[]	[]	[]	[]	[]
The beneficiaries are satisfied with the water projects in the county	[]	[]	[]	[]	[]
The project was delivered within the agreed time lines	[]	[]	[]	[]	[]
Water projects have improved household as water is accessible at a lower cost	[]	[]	[]	[]	[]
The project was delivered within the agreed budget.	[]	[]	[]	[]	[]

14. What do you think can be done to improve performance of water projects in Tharaka Nithi county?

.....

.....

.....

Thank you for your Time and Cooperation.

Appendix III: Questionnaire for Stakeholders and Water users

Introductory Remarks

This questionnaire is meant to collect data on the Project implementation drivers and performance of water projects in Tharaka Nithi County, Kenya. Kindly answer the questions below truthfully.

Part I: General Data

1. Kindly indicate your gender?

Female

Male

2. Kindly, indicate the title (level of professionalism/expertise) that you hold in the water Projects in Tharaka Nithi County.

Community member

Stakeholder

Any other (specify).....

3. What is your highest level of education?

Certificate

Diploma

Undergraduate

Post Graduate

Any other (specify).....

4. How long have you worked in this project?

1- 2 years

3 – 4 years

5 – 6 years

Above 6 years

Part II: Project Implementation Drivers and Performance of Water Projects

Community Participation

1. Please indicate your level of agreement with various statements on community participation using 1-5 Likert scale where 1 is strongly dis`agree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree.

Statements	1	2	3	4	5
Community participated in the entire implementation of the water projects	[]	[]	[]	[]	[]
There are collaborative partnerships between stakeholders and project management to sustain the water projects	[]	[]	[]	[]	[]
The community members participate in making policy decisions regarding the water projects	[]	[]	[]	[]	[]
The community leaders are given opportunities to attend management meetings for water projects	[]	[]	[]	[]	[]
The community have a stake in the completed water projects as they take part in implementation	[]	[]	[]	[]	[]
The maintenance of the water projects is conducted by the community members	[]	[]	[]	[]	[]

2. In which ways do you think community participation have affected the performance of water projects?.....

Capacity Building

3. Please indicate your level of agreement with various statements on capacity building using 1-5 Likert scale where 1 is strongly dis`agree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree.

Statement	1	2	3	4	5
There are available leadership training programs to ensure water projects are managed effectively	[]	[]	[]	[]	[]
The stakeholders have financial management skills which reduced cost overruns	[]	[]	[]	[]	[]
There are stakeholders have competence in project design which enhance effective implementation of water projects	[]	[]	[]	[]	[]
The projects stakeholders have received training to enhance their skills in project implementation	[]	[]	[]	[]	[]
Capacity building have minimized over-reliance on outside project implementation experts	[]	[]	[]	[]	[]
Capacity building encourages local people to take action on local issues like solving water issues by initiating water projects	[]	[]	[]	[]	[]

4. In which ways do you think capacity building have affected the performance of water projects?.....

Resource Mobilization

5. Please indicate your level of agreement with various statements on resource mobilization using 1-5 Likert scale where 1 is strongly dis`agree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree.

Statement	1	2	3	4	5
Resource mobilization ensures there are adequate resources to completely implement and sustain the water projects	[]	[]	[]	[]	[]
There are organized finance mobilization activities to raise finances of water projects	[]	[]	[]	[]	[]
The management team sources for technical personnel to maintain community water projects	[]	[]	[]	[]	[]

There is lobbying donor fundings to finance the water projects in the county	[]	[]	[]	[]	[]
Financial and human resources are effectively mapped for water projects in the county	[]	[]	[]	[]	[]
The project stakeholders acquire the needed financial resources for the project from national and county government	[]	[]	[]	[]	[]

6. In which ways do you think resource mobilization have affected the performance of water projects?.....
.....
.....

Monitoring and Evaluation

7. Please indicate your level of agreement with various statements on monitoring and evaluation using 1-5 Likert scale where 1 is strongly disagree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree.

Statement	1	2	3	4	5
The project management ensures baseline surveys are conducted prior are project implementation to ensure the right projects are initiated	[]	[]	[]	[]	[]
The beneficiary needs that are unmet are identified through monitoring and evaluation	[]	[]	[]	[]	[]
Monitoring and evaluation are frequently conducted on all water projects in the county	[]	[]	[]	[]	[]
The M&E planning is conducted to track and improve a monitoring and evaluation strategy within the water projects	[]	[]	[]	[]	[]
Monitoring and evaluation have ensured the water projects achieves the intended goals	[]	[]	[]	[]	[]
The project management can advocate changes to the project depending on M&E recommendations	[]	[]	[]	[]	[]

8. In which ways do you think monitoring and evaluation have affected the performance of water projects?.....

Performance of Water Projects

9. Please indicate your level of agreement with various statements on performance of water projects using 1-5 Likert scale where 1 is strongly disagree, 2 is disagree, 3 is not sure, 4 is agree and 5 is strongly agree

	1	2	3	4	5
The project was acceptable to the clients	[]	[]	[]	[]	[]
Water projects have enhanced the living conditions of the county residents	[]	[]	[]	[]	[]
The beneficiaries are satisfied with the water projects in the county	[]	[]	[]	[]	[]
The project was delivered within the agreed time lines	[]	[]	[]	[]	[]
Water projects have improved household as water is accessible at a lower cost	[]	[]	[]	[]	[]
The project was delivered within the agreed budget.	[]	[]	[]	[]	[]

10. What do you think can be done to improve performance of water projects in Tharaka Nithi county?

Thank you for your Time and Cooperation.

Appendix IV: Key informant Interview Guide

- 1) In which ways do you think community participation have affected the performance of water projects?
- 2) In which ways do you think capacity building have affected the performance of water projects?
- 3) In which ways do you think resource mobilization have affected the performance of water projects?
- 4) In which ways do you think monitoring and evaluation have affected the performance of water projects?
- 5) What do you think can be done to improve performance of water projects in Tharaka Nithi county?

Appendix V: UON Introductory Letter



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UON/RIE/3/5/Vol.XX /

October 21, 2022

Ms. Esther Ngina Muia
L50/82937/2012
C/O. Faculty of Business & Management Sciences
University of Nairobi
P.O Box 30197 -00100
Nairobi
E-mail: esthernginah@gmail.com

Dear Ms. Muia,

PERMISSION TO COLLECT DATA

I refer to your request to conduct research at the University of Nairobi for your research project titled: "Project implementation drivers and performance of water projects, Tharaka Nithi County, Kenya".

I write to inform you that your request has been approved.

You are however required to share the findings of your study with the University of Nairobi by depositing a copy of your findings with the Director Library & Information Services on completion of your study.


Yours sincerely,


PROF. M. JESANG HUTCHINSON
ASSOCIATE VICE-CHANCELLOR (AG.)
(RESEARCH, INNOVATION AND ENTERPRISE)
AND
PROFESSOR OF HORTICULTURE

Copy to: Director, Library and Information Services

...../jks


Appendix VI: NACOSTI PERMIT


REPUBLIC OF KENYA


**NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION**

Ref No: **372377** Date of Issue: **23/September/2022**


RESEARCH LICENSE




This is to Certify that Ms.. Esther Ngina Muia of University of Nairobi, has been licensed to conduct research in Tharaka-Nithi on the topic: PROJECT IMPLEMENTATION DRIVERS AND PERFORMANCE OF WATER PROJECTS IN THARAKA NITHI COUNTY, KENYA for the period ending : 23/September/2023.

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