

**THE INFLUENCE OF PARTICIPATORY PROJECT PRACTICES ON THE  
PERFORMANCE OF RUWASA WATER PROJECTS IN USHETU  
DISTRICT**

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**CERTIFICATION**

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania, a dissertation entitled: *“The influence of participatory project practices on the performance of RUWASA water projects in USHETU District.”* in partial fulfilment of the Degree of Master of Project Management of the Open University of Tanzania.

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**DEDICATION**

I dedicate this dissertation to my parents, Mr. Paul Norbeth Ndabamelanye and Mrs. Felista Kagina Kasisi, as well as my beloved wife Lucy I. Mathayo and our children Claudia Cyprian, Joshua Cyprian, Jonathan Cyprian, and Gabriel Cyprian. Their unwavering support in both moral and material aspects has been instrumental in helping me succeed in reaching this important achievement. I pray that the Almighty God continues to guide and bless us in all aspects of our lives.

## ABSTRACT

The study examined the influence of participatory project practices on the performance of rural water projects implemented by RUWASA in Ushetu District. Specifically, it focused on the effects of participatory project planning, implementation, monitoring, and communication on project performance. The research utilized a causal research design and a Likert-rated questionnaire to gather quantitative primary data from 171 respondents, including 143 water users and 28 RUWASA staff. Multiple linear regression was used to analyze data. The findings reveal that participatory project planning and implementation have a significant positive impact on the performance of RUWASA projects. Additionally, the findings reveal that participatory project monitoring has a significant positive effect on project performance. Similarly, participatory project communication has a significant positive influence on project performance. Based on the study findings, the study concludes that community participation in project planning, implementation, monitoring, and project communication would improve the performance of RUWASA projects in terms of cost-effective and sustainable clean water supply. The study recommends that community members must participate in all processes of project planning, implementation, and monitoring. Also, the study recommends that participatory communication be prioritized because it facilitates the sharing of knowledge and information between project implementers and community members, which promotes a more informed decision-making process.

**Keywords:** *Participatory Project Planning and Implementation, Participatory Project Monitoring, Participatory Project Communication*

## TABLE OF CONTENTS

<b>CERTIFICATION .....</b>	<b>ii</b>
<b>DECLARATION AND COPYRIGHT .....</b>	<b>iii</b>
<b>ACKNOWLEDGEMENTS.....</b>	<b>iv</b>
<b>DEDICATION.....</b>	<b>v</b>
<b>ABSTRACT.....</b>	<b>vi</b>
<b>TABLE OF CONTENTS.....</b>	<b>vii</b>
<b>LIST OF TABLES .....</b>	<b>xii</b>
<b>LIST OF FIGURES .....</b>	<b>xiii</b>
<b>LIST OF ABBREVIATIONS .....</b>	<b>xiv</b>
<b>CHAPTER ONE.....</b>	<b>1</b>
<b>INTRODUCTION.....</b>	<b>1</b>
1.0 Chapter Overview .....	1
1.1 Background to the Problem.....	1
1.2 Statement of the Problem .....	5
1.3 The Study Objectives .....	6
1.3.1 General Objective .....	6
1.3.2 Specific objectives .....	6
1.4 Research Questions .....	6
1.5 Significance of the Study .....	7
1.6 Delimitation of the Study .....	8
1.7 The Scope of the Study .....	9
1.8 Limitation of the Study .....	9
1.9 Organization of the Study .....	10
<b>CHAPTER TWO.....</b>	<b>11</b>
<b>LITERATURE REVIEW.....</b>	<b>11</b>
2.0 Chapter Overview .....	11

2.1	Definition of Key Terms .....	11
2.1.1	Participatory Project Planning and Implementation .....	11
2.1.2	Participatory Project Monitoring .....	12
2.1.3	Participatory Project Communication.....	12
2.1.4	Performance of Rural Water Project.....	13
2.2	Theoretical Literature Review .....	13
2.2.1	Participatory Development Theory.....	14
2.3	Empirical Literature Review.....	18
2.3.1	The Influence of Participatory Project Planning and Implementation on the Performance of Projects.....	18
2.3.2	The Influence of Participatory Project Monitoring on the Performance of Project .....	22
2.3.3	The Influence of Participatory Project Communication on the Performance of Projects .....	24
2.4	Knowledge Gap .....	27
2.5	Conceptual Framework.....	27
<b>CHAPTER THREE.....</b>		<b>29</b>
<b>RESEARCH METHODOLOGY .....</b>		<b>29</b>
3.0	Chapter Overview .....	29
3.1	Research Philosophy.....	29
3.2	Research Approach .....	30
3.3	Research Design.....	30
3.4	Areas of the Study.....	31
3.5	Target Population.....	32

3.6	Sampling Design and Procedure .....	32
3.6.1	Sampling technique.....	32
3.6.2	Sample Size.....	33
3.7	Data Collection Instruments .....	34
3.8	Variables and Measurement.....	34
3.8.1	Dependent Variables Measurement .....	34
3.8.2	Independent Variables Measurement.....	34
3.9	Data Processing and Analysis .....	35
3.9.1	Data Processing.....	35
3.9.2	Data Analysis .....	35
3.9.2.1	Descriptive Statistical Analysis .....	35
3.9.2.2	Inferential Statistical Analysis .....	36
3.9.2.2.1	Model Specification .....	36
3.10	Validity and Reliability of Measurements .....	37
3.11	Ethical Considerations .....	38
	<b>CHAPTER FOUR.....</b>	<b>39</b>
	<b>RESEARCH FINDINGS.....</b>	<b>39</b>
4.0	Chapter Overview .....	39
4.1	Response Rate of Questionnaire .....	39
4.2	Reliability Results .....	40
4.3	Descriptive Statistics.....	41
4.3.1	Characteristics of the Respondents .....	41
4.3.1.1	Category of Respondents .....	41
4.3.1.2	Gender of the Respondents .....	42

4.3.1.3	Age Category of the Respondents.....	43
4.3.1.4	Level of Education.....	44
4.3.1.5	Participation in Project Planning and Implementation .....	45
4.4	Results of Inferential Statistics .....	46
4.4.1	Correlation analysis .....	46
4.4.2	Multiple Linear Regression Analysis.....	47
4.4.2.1	Multicollinearity Test.....	47
4.4.2.3	Heteroscedasticity .....	49
4.4.3	Regression Model Estimation .....	50
4.4.3.1	Model Summary.....	50
4.4.3.2	Regression Model Goodness of Fit.....	51
4.4.3.3	Multiple Regression Analysis Parameter (Beta Coefficients) Estimation...	51
<b>CHAPTER FIVE: DISCUSSION OF FINDINGS.....</b>		<b>54</b>
5.1	Introduction.....	54
5.1.1	The Influence of Participatory Project Planning and Implementation on the Performance of Projects .....	54
5.1.2	The Influence of Participatory Project Monitoring on the Performance of Project .....	55
5.1.3	The Influence of Participatory Project Communication on the Performance of Projects .....	56
<b>CHAPTER SIX.....</b>		<b>58</b>
<b>SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS</b>		<b>58</b>
5.1	Chapter Overview .....	58
5.2	Summary of Findings.....	58

5.3	Conclusion .....	59
5.3.1	The Influence of Participatory Project Planning and Implementation on the Performance of Projects .....	59
5.3.2	The Influence of Participatory Project Monitoring on the Performance of Project .....	60
5.3.3	The Influence of Participatory Project Communication on the Performance of Projects .....	60
5.4	Implication of the Study Findings.....	61
5.5	Recommendations .....	62
5.5.1	The Influence of Participatory Project Planning and Implementation on the Performance of Projects .....	62
5.5.2	The Influence of Participatory Project Monitoring on the Performance of Project .....	63
5.5.3	The Influence of Participatory Project Communication on the Performance of Projects .....	63
5.6	Suggestions for Further Study.....	63
	<b>REFERENCES .....</b>	<b>65</b>
	<b>APPENDICES .....</b>	<b>80</b>

**LIST OF TABLES**

Table 4. 1: The Response Rate.....	40
Table 4. 2: Reliability Results.....	41
Table 4. 3: Category of Respondents .....	42
Table 4. 4: Gender of the Respondents .....	43
Table 4. 5: Age of the Respondents .....	43
Table 4. 6: Level of Education.....	44
Table 4. 7: Participation in Project Planning and Implementation .....	45
Table 4. 8: Correlation Analysis .....	46
Table 4. 9 Multicollinearity test result.....	48
Table 4. 10: Skewness and Kurtosis Test for Normality .....	49
Table 4. 11: Breusch-Pagan/Cook-Wisberg Test for Heteroscedasticity.....	50
Table 4. 12: Model Summary.....	50
Table 4. 13: ANOVA for Testing Multiple Regression Model .....	51
Table 4. 14: Multiple Regression Analysis Parameter Estimation Results.....	52

**LIST OF FIGURES**

Figure 2. 1: Conceptual Framework..... 28

**LIST OF ABBREVIATIONS**

CBWSOs	Community Based Water Supply Organizations
COWSOs	Community Owned Water Supply Organizations
MDGs	Millennium Development Goals
MoW	Ministry of Water
RUWASA	Rural Water Supply and Sanitation Agency
SDG	Sustainable Development Goal
UNICEF	United Nations International Children Emergency Fund
URT	United Republic of Tanzania
WHO	World Health Organization

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Chapter Overview**

In this chapter, details about the background of the problem, problem statement, objectives of the study, proposed research questions, the scope of study, and significance of the study are presented.

#### **1.1 Background to the Problem**

Having a sufficient water supply is crucial for both socio-economic development and preserving the health of ecosystems worldwide (Beard & Mitlin, 2021). Water serves numerous purposes including domestic use, irrigation, transportation, livestock maintenance, fishing, wildlife preservation, hydroelectric power generation, environmental balance, and recreation (World Health Organization & United Nations Children's Fund, 2019). However, despite of being a key objective of the United Nations 2030 agenda for sustainable global development (United Nations, 2015), the issue of water scarcity is increasingly becoming a global concern (Mishra *et al.*, 2021).

According to World Health Organization and United Nations Children's Fund (2019), approximately 2.2 billion people lack access to clean drinking water globally. Developing nations such as South Asia and sub-Saharan Africa are most affected, particularly people living in rural areas (van Vliet, Jones, & Florke, 2021). According to National Geographic (2024), the water crisis is also affected rural areas of some developed countries such as Alaska in the United States, Russia, and Greenland.

In Tanzania as well, even though the country has abundant water sources compared to other countries in Sub-Saharan Africa, the water supply and sanitation situation in rural areas has long been marked by declining access to improved water sources, sporadic water supply, and subpar service quality (Beard & Mitlin, 2021; Kamara, Galukande, Maeda, & Luboga., 2017).

National Geographic (2024) stated that, infrastructure failures, poor system maintenance, aging infrastructure, and natural disasters are among the causes of poor water supply and sanitation in Tanzania. The aforementioned challenges largely contributed by, among other things, inadequate community participation in project practices (United Nations, 2015). In a study conducted by Kaboyo (2017), it was proposed that engaging beneficiaries in project activities could offer a viable approach to effectively managing water resources in rural areas. By involving beneficiaries, sustainability, ownership, legitimacy, and infrastructure protection of water resources can be enhanced (Kaboyo, 2017). According to Maniu and Rambo (2018), participatory project practices through involving community in project planning and implementation, monitoring, and effective communication helps to increase the project performance.

According to Rushagika (2015), involving the community in project planning and implementation can lead to increased project acceptability, a fairer distribution of benefits, the mobilization of local resources, proper project allocation, and improved project sustainability. Conversely, Oduor and Murei (2020) argue that community participation in project monitoring can help identify issues and find solutions to

ensure the project reaches its goals. Furthermore, Luhombo, Mukanzi and Senaji (2019) suggest that effective communication channels are essential for maximizing community participation in project implementation. Riaz (2017) claim that providing information can build trust, foster community ownership, and encourage feedback and involvement in projects.

In 2002, the government of Tanzania recognized the importance of community participation in project practices, especially in the rural water supply and sanitation sector. To address this, the government established the National Water Policy of 2002, which decentralized rural water management to communities. This policy empowered communities to operate, maintain, and sustain their water supply infrastructure. As part of this policy, District water engineers and managers were mandated to support Community Owned Water Supply Organizations (COWSOs). They assisted COWSOs with registration, provided them with operation and maintenance guidelines, and monitored and reported on their progress. As a result, over 3,000 COWSOs were established to manage newly developed rural water schemes (Lemmens *et al.*, 2017).

The government of Tanzania through Water Supply and Sanitation Act No.5 of 2019 transformed COWSOs to Community Based Water Supply Organizations (CBWSOs). To strengthen the functionality of CBWSOs, the government also through Act No.5 of 2019 established Rural Water Supply and Sanitation Agency (RUWASA) which introduced to supervise the operation of CBWSOs. Also, RUWASA, play major role in facilitating participation of communities in the

identification, planning, designing, construction and management of rural water supply and sanitation projects in the rural parts of Tanzania mainland.

Even though the government has made efforts to establish RUWASA to ensure safe drinking water and basic sanitation for its people in alignment with Millennium Development Goals (MDGs), the sustainability of water supply and sanitation in rural areas remains uncertain due to the non-functioning of some water points. The World Bank (2023) reports that only 61% of households in Tanzania have access to basic water supply and 32% have access to basic sanitation in rural areas, with numbers as low as 39% and 68% respectively. Specifically, in Ushetu District, according to United Republic of Tanzania (2024), access to water services has currently reached approximately 47%, with 53% of people left behind without access to clean water and sanitation. Also, a Ushetu parliamentarian, during the launch of the Busenda water project on 9<sup>th</sup> January 2024, stated, “11 out of 20 wards in Ushetu District do not have access to clean and safe water” (Mmbanga, 2024).

However, despite the lack of accessibility to clean water for some households in Ushetu District, little has been done to assess the influence of participatory project practices on the performance of RUWASA. Most of the studies conducted in Tanzania have just focused on other factors such as accountability, transparency, capacity building, budgetary allocation, staff technical skills in Monitoring and Evaluation, organizational capacity and left behind the contribution of participatory project practices on the performance of projects (Eliamringi & Kazumba, 2017; Juma, 2019; Kirenga, Mung’ong’o, & Mbwette, 2018; Mandara, Butijn, & Niehof,

2018; Tonya, 2015). This gap in knowledge hinders the understanding of the influence of participatory project practices on the performance of rural water supply in Ushetu District. With this backdrop, this study seeks to fill the gap by shedding more light on the contribution of participatory approach based on participatory project planning and implementation, participatory project monitoring, and communication toward the performance of rural water projects implemented by RUWASA in Ushetu District.

## **1.2 Statement of the Problem**

Despite the significance of RUWASA it has toward providing sustainable water supply services to communities, its effectiveness in ensuring access to safe water remains a challenge, with many rural areas facing issues of water scarcity, poor quality water, and inadequate infrastructure (Chowdavarapu & Manikandan, 2016; Ministry of Water, 2020; National Audit Office of Tanzania, 2020).

According to Shayo (2020), one potential solution to improve the performance of rural water supply services is through participatory project practices in project planning, implementation, monitoring, and communication. Participatory project practices in aforementioned components helps to identify proper project allocation, manage project constraints, facilitates coordination among team members, and enables effective operations and control of project progress (Kimisha, 2015).

However, despite the potential benefits of participatory project practices, limited studies have attempted to assess their influence on project performance. For example,

a study conducted by Eliamringi and Kazumba (2017), Juma (2019), Kirenga *et al.* (2018), Mandara *et al.* (2018), and Tonya (2015) did not focus on the participatory project practice and the performance of RUWASA's water projects, specifically in Ushetu District. Thus to fill this gap, the current study sought to examine the influence of participatory project practices based on participatory project planning and implementation, monitoring, and communication toward the performance of rural water supply projects implemented by RUWASA in Ushetu District.

### **1.3 The Study Objectives**

#### **1.3.1 General Objective**

The main objective of this study is to examine the influence of participatory project practices on the performance of rural water projects implemented by RUWASA in Ushetu District.

#### **1.3.2 Specific objectives**

- i. To determine the influence of participatory project planning and implementation on the performance of RUWASA's projects in Ushetu District.
- ii. To examine the influence of participatory project monitoring on the performance of RUWASA's projects in Ushetu District.
- iii. To examine the influence of participatory project communication on the performance of RUWASA's projects in Ushetu District.

### **1.4 Research Questions**

- i. What is the influence of participatory planning and implementation on the

performance of RUWASA's projects in Ushetu District?

- ii. What is the influence of participatory monitoring on the performance of RUWASA's projects in Ushetu District?
- iii. What is the influence of participatory project communication on the performance of RUWASA's projects in Ushetu District?

### **1.5 Significance of the Study**

The influence of participatory project practices on the performance of Rural Water Supply and Sanitation Agency (RUWASA) projects in Ushetu district holds significant theoretical, methodological, and practical implications.

From a theoretical standpoint, participatory project practices are grounded in the principles of community engagement, empowerment, and ownership. By involving local communities in the planning, implementation, and monitoring of water supply projects, RUWASA aims to increase sustainability and effectiveness. This approach aligns with theories of participatory development, which emphasize the importance of local knowledge, capacities, and priorities in achieving successful project outcomes. Therefore, understanding how participatory practices impact RUWASA project performance in Ushetu district can contribute to refining theoretical frameworks on community-led development.

In terms of methodological significance, studying the influence of participatory practices on RUWASA project performance involves evaluating the effectiveness of community participation mechanisms, such as Water User Associations and

Community Water Committees. This research employed a quantitative method which enabled the study to identify best practices and recommendations for improving participatory approaches in rural water supply projects.

Moreover, the practical significance of this study lies in informing policy and practice. Specifically, the study is beneficial to RUWASA in Shinyanga region, ministry of water, Community Based Water Supply Organizations (CBWSOs), policymakers, and other stakeholders. RUWASA in cooperation with the Ministry of water may use the results of the study to design strategies for involving communities in planning and implementation of water projects. The findings are also useful to scholars as a reference material when carrying out further research in related areas. Also, the findings add knowledge to the existing literature.

### **1.6 Delimitation of the Study**

Research delimitations refer to the constraints that a researcher establishes for their study, which are within their control (Simon & Goes, 2018). Akanle *et al.* (2020) note that outlining the delimitations helps clarify what activities the researcher will not be engaging in, such as reviewing certain literature, studying specific populations, or using particular methodologies. For this study, the researcher concentrated exclusively on RUWASA projects in the Ushetu District of the Shinyanga region in Tanzania, deliberately excluding other regions or countries from consideration. Also, the study only examined water projects implemented by RUWASA in Ushetu District while excluding other water projects implemented by other organizations. In the same vein, the study only focused on the influence of

participatory practices (participatory project planning and implementation, project monitoring, and participatory project communication) on the performance of water projects while excluding other factors that may impact project performance, such as funding or government policies. Moreover, the research was conducted within a specific time frame, and past or future data beyond this period were not included in the study.

### **1.7 The Scope of the Study**

The scope of the study refers to the areas that the study covers. It is the depth and breadth of the investigation (Akanle, Ademuson, & Shittu, 2020). It defines the subject matter, the geographical location, the time frame, and the issues that the study explore (Akanle *et al.*, 2020). The scope of this research involved assessing the influence of participatory project practices on the performance of RUWASA's project in Ushetu District. Geographically, the study covered five villages from Ushetu District. These villages included Busenda, Iramba, Igwamanoni, Mbika, and Ulowa. Also, through a quantitative research design, the researcher employed questionnaire to collect data from key stakeholders, including RUWASA officials and Household Water Users.

### **1.8 Limitation of the Study**

The study was faced with the inaccessibility of some respondents due to the vastness of the Districts and the poor terrain of the target area. However, all of these limitations were mitigated by involving the residents who understood the targeted Districts to volunteer and assist in data collection.

### **1.9 Organization of the Study**

In Chapter One, a background to the problem, the problem statement, research objectives, significance of the study, and scope of the study are presented. Chapter Two delves into a literature review, focusing on the definition of key terms, theoretical and empirical literature, conceptual frameworks, and the research gap. Chapter Three outlines the research methodology, including the target population, sample and sampling techniques, data collection techniques, data analysis methods, and ethical considerations. Chapter Four presents the study findings, while Chapter Five discusses the study findings. The final chapter provides the conclusion and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Chapter Overview**

This chapter presents literature reviewed related to participatory project practice and the performance of rural water project. This chapter is presented in form of definition of key terms, theoretical and empirical reviews, research gaps and conceptual framework.

#### **2.1 Definition of Key Terms**

##### **2.1.1 Participatory Project Planning and Implementation**

Dhakal (2023) defined participatory project planning and implementation as an approach to project management that involves actively engaging stakeholders, including community members, in the design, decision-making, project operation and maintenance. Dhakal (2023) asserts that participatory project planning and implementation involves a collaborative approach that recognizes the importance of utilizing the knowledge and expertise of all stakeholders, including community members, in the development and execution of a project. Furthermore, according to Sugul (2017), participatory project planning and implementation involves a community identifying its social and economic goals through diagnosing problems and devising a plan of action to address them. In this current study, participatory project planning and implementation covers participatory resources allocation, project operation and control.

### **2.1.2 Participatory Project Monitoring**

As stated by Kananura, Ekirapa-Kiracho, Paina, and Bumba (2017), participatory project monitoring is a process in which stakeholders actively participate in the monitoring of a project. According to Otieno (2016), participatory project monitoring is the active involvement of stakeholders in the monitoring and evaluation of a project, ensuring that their perspectives and feedback are considered in decision-making processes. Also, Mutiso and Omwenga (2020) stated that participatory project monitoring is the active engaging stakeholders throughout the life of a project, enabling them to provide input, feedback, and suggestions for improvement. This study defined participatory project monitoring as an approach that engage project beneficiaries in data collection, project inputs, and decision-making processes.

### **2.1.3 Participatory Project Communication**

Participatory project communications refer to the active involvement of project stakeholders in all aspects of project communication, from planning and strategy development to execution and evaluation (Anani-Bossman & Blankson, 2024). Servaes and Servaes (2021) defined project communications as an inclusive and collaborative communication process that empowers stakeholders to actively participate in project decision-making and planning. According to Anani-Bossman and Blankson (2024), participatory project communications is an open dialogue between project managers and stakeholders to ensure that all voices are heard and considered. In the context of this study, participatory project communications refer to the effective flow of information between RUWASA employees and project

beneficiaries during project planning and implementation. Participatory project communications seek to build trust and foster relationships between project employees and other stakeholders by encouraging feedback (Nyandongo, 2017). It also helps to identify and address any issues or challenges in the implementation of the projects (Kiradoo, 2017).

#### **2.1.4 Performance of Rural Water Project**

Mvongo and Defo (2021) defined rural water project performance as the effective and efficiency provision of safe, reliable, and sustainable water services to rural communities. This includes ensuring access to clean water for domestic use, agricultural activities, and livestock, as well as proper sanitation facilities (Machado *et al.*, 2019). In this study performance of rural water project covers the key indicators including water quantity and quality, functionality and maintenance of infrastructure, affordability and accessibility of services, community participation, and sustainability of water sources.

## **2.2 Theoretical Literature Review**

This research was informed by participatory development theory, initially proposed by Freire in 1970 (Freire, 1970) and further elaborated upon by Robert Chambers in 1983 (Chambers, 1983). The following section provides a brief overview of the theory and its relevance to the present study.

### **2.2.1 Participatory Development Theory**

The concept of Participatory Development Theory arose in the 1970s in reaction to the shortcomings of traditional top-down development methods, which perceived local communities as passive beneficiaries of development projects (Freire, 1970). The theory was influenced by the work of Robert Chambers who argued for a more inclusive and participatory approach to development that actively involves local communities in decision-making processes (Chambers, 1983).

The rise of Participatory development theory can be linked to the increasing critique of modernization theory, which advocates for a top-down ethnocentric and paternalistic approach to development as opposed to a bottom-up approach (Penderis, 2012). Top-down approach often ignored the knowledge and expertise of local people and instead relied on experts and external agencies to design and implement development projects (Cyper & Dietz, 1997).

According to Rahim (1994), participatory development theory advocates for a shift towards more bottom-up and participatory approaches that empower local communities to take control of their own development processes. This includes involving local communities in the identification of development priorities, decision-making, and implementation of projects (Thomas, 1994). Generally, the origins of Participatory development theory can be seen as a response to the shortcomings of top-down development approaches and a recognition of the importance of empowering local communities to drive their own development processes (Penderis, 2012).

Today, the theory is popular because it empowers individuals and communities to define and control their own development, rather than being passive subjects of technological processes (Thomas, 1994).

Despite the significance of the participatory development theory in project performance, the approach still faces operational critics or challenges. According to Long (1992), the theory often criticised due to time-consuming and costly, as decisions may be delayed or altered based on feedback from community members which consequently may result in projects taking longer to complete and potentially running over budget. Also, Granovetter (1992) point out that participatory development may not always be appropriate in all contexts, as some communities may not have the capacity or willingness to actively participate in decision-making processes. Additionally, Nelson and Wright (1995), argue that participatory development theory can sometimes overlook the importance of technical expertise and skills in project planning and implementation. They suggest that a balance between participatory processes and expert knowledge is necessary for successful development outcomes (Nelson & Wright, 1995).

Moreover, McAbee (2022) point out that, in participatory development, the level of participation may vary among different segments of the community, leading to power imbalances and marginalized voices being ignored. For instance, Inagaki (2007) conducted a study on a community partnership project aimed at enhancing healthcare services in South Africa. The findings highlighted that certain groups,

such as youth, individuals with low income, the elderly, and community members with low education, were not adequately involved in the decision-making process (Inagaki, 2007). Instead, inputs from academics, elites, and formal agencies dominated the discussions. As a result, different participants in the project experienced varying levels of ownership and commitment, leading to disparities in coalition building efforts (Inagaki, 2007).

Although there may be potential shortcomings, recent empirical literature indicates that participatory development theory has become increasingly accepted in mainstream discourse (Campbell & MacPhail, 2002; Inagaki, 2007). In the analysis of development projects thus far, a greater number of participatory projects have been observed compared to those based on modernization or diffusion theories (Campbell & MacPhail, 2002; Inagaki, 2007). Hence, the selection of this theory in this study is based on the above argument.

In relation to this study, participatory development theory is a critical aspect of project planning and implementation (AlWaer, Sibley, & Lewis, 2008). In project planning, participatory development theory advocates for a bottom-up approach where community members are actively engaged in the identification of problems, setting goals, and developing strategies to address these issues (Korir, Kyalo, & Mbugua, 2021). This process ensures that projects are relevant, sustainable, and responsive to the unique needs of the community. In addition, involving community members in the planning stage helps to build ownership and support for the project, increasing the likelihood of its success (Menoka, Bryde, Fearon, & Ochieng, 2013).

During project implementation, participatory development theory promotes the active participation of community members in decision-making, resource allocation, and monitoring and evaluation processes (Dhakal, 2023). This ensures that projects are implemented in a transparent and accountable manner, with the involvement of those who are directly affected by the project.

Also, according to Oduor and Murei (2020), participatory development theory is an important model when it comes to project monitoring because it advocates for the inclusion of community members in the monitoring process toward data collection, assessing progress, and identify challenges or opportunities for improvement. By involving community members in monitoring activities, development projects can benefit from local knowledge, expertise, and perspectives, leading to more effective and sustainable outcomes (Luhombo, Mukanzi, & Senaji, 2019). Also, participatory monitoring can help build trust and collaboration between project implementers and community members, as it demonstrates a commitment to transparency, accountability, and shared responsibility (Miseda & Nyonje, 2014). Ultimately, this approach to project monitoring can lead to more inclusive, responsive, and impactful development interventions that better meet the needs and aspirations of the communities they aim to support.

Moreover, when it comes to project communication, participatory development theory highlights the need for open and inclusive communication channels among all stakeholders involved in the project (Mwanyalo & Mberia, 2017). This means that project communication should not only flow from project leaders to the community,

but also include opportunities for community members to voice their opinions, concerns, and ideas (Anaeto & Solo-Anaeto, 2010). According to Luhombo *et al.* (2019), participatory communication not only involves providing information about the project goals, activities, and progress but also creating spaces for dialogue, feedback, and collaboration. Riaz (2017) stated that, participatory communication help fostering a feeling of ownership and empowerment within the community members, resulting in improved and long-lasting development results (Riaz, 2017).

### **2.3 Empirical Literature Review**

This section presents the empirical studies and their findings. The empirical studies are presented in line with the study's objectives, which are largely associated with dependent and independent variables.

#### **2.3.1 Participatory Project Planning and Implementation, and Performance of Projects**

In their study, Mukamana and Kalimba (2022) investigated the impact of stakeholder participation on the performance of the Speak Out project led by FVA in Karongi, Nyanza, Gisagara, Nyaruguru Districts in Rwanda. The study specifically aimed to assess how stakeholder participation in project identification, planning, resource mobilization, and evaluation affected the project's performance. The study focused on 562 stakeholders, including 62 employees of the Speak Out project, 100 club representatives, and 400 survivors of VAWG. Questionnaires were used to gather data from employees and beneficiaries of the Speak Out project, with documentation

serving as secondary data. Descriptive and inferential statistics, such as correlation and multiple linear regression analysis, were employed to analyze the data.

The results showed that stakeholder participation in project identification significantly influences the performance of the Speak Out Project, with an increase in participation leading to increased performance. Similarly, stakeholder involvement in project planning, monitoring and evaluation, as well as resource mobilization, all had positive and significant effects on the project's performance. Based on these findings, it was concluded that stakeholders' participation in various aspects of the project positively contributes to the overall performance of the Speak Out Project.

The research conducted by Mkutano (2018) aimed to investigate the impact of project management practices on the effectiveness of projects carried out by non-governmental organizations in Nairobi City County, Kenya. Specifically, the study focused on the influence of communication, project planning, stakeholder engagement, and monitoring and evaluation on project performance. The research adopted a descriptive research design and targeted 201 NGOs operating within Nairobi County. Through stratified and simple random sampling, 100 NGOs were selected for the study. Primary data was collected using questionnaires, and both descriptive and inferential statistics were applied to analyze the quantitative data. The results were presented in tables and graphs, while qualitative data was coded thematically and evaluated through content analysis.

The findings of the study revealed that the implementation of effective project management practices, such as communication, planning, stakeholder engagement, and monitoring and evaluation, led to improved project performance. The study emphasized the importance of project communication in influencing project outcomes, emphasizing the need for clear communication structures to be established and managed by team leaders and management from the outset of every project. Additionally, the study concluded that planning, stakeholder engagement, and monitoring and evaluation significantly contributed to enhancing project performance.

In the study conducted by Sam (2018), the focus was on exploring the impact of stakeholder participation on the performance of public projects. The study delved into the concept of community participation across three key phases of the project cycle: identification, planning, and execution. The research objectives were centered around investigating how stakeholder participation during project identification, planning, and execution affects project performance specifically in Musanze District. The study honed in on the Water, Sanitation, and Hygiene (WASH) project in Rwanda under the purview of MINIFRA, which was a collaborative effort between the Government of Rwanda, the Government of Netherlands, and UNICEF Rwanda, with implementation taking place in Musanze District. The research involved engaging with project representatives from the three main donors, representatives from the implementing agency, as well as the Project Implementation Committee (PIC) and project beneficiaries. The sampling methodology included purposive

sampling for the first three categories of respondents and simple random sampling for project beneficiaries.

Data collection from the initial three groups of respondents was carried out using questionnaires, with a total sample size of 43 participants being utilized. Data analysis was conducted using SPSS software within a descriptive design framework. The findings revealed that a significant proportion (80.5%) of respondents acknowledged the positive involvement of beneficiaries in the project, while a smaller percentage (19.5%) held a differing viewpoint. Regarding the influence of planning on project performance, the majority of respondents perceived it to be either high or very high, with similar findings for the impact of execution on project performance. The general consensus among respondents was that stakeholder participation across all phases of the project cycle played a pivotal role in influencing project performance positively.

In a study conducted Sabrie (2022), investigated the impact of participatory project implementation on the effectiveness of WASH projects within the Banaadir region of Somalia, with a specific focus on the projects conducted by Polish Humanitarian Action. The study honed in on two key aspects: participatory resource allocation and participatory project control. Results showed that both variables had a positive and significant influence on the overall performance of the Polish Humanitarian Action projects. Ultimately, the study concluded that there is a strong connection between participatory project implementation and the success of Polish Humanitarian Action projects.

### **2.3.2 Participatory Project Monitoring and Project Performance**

In their study, Mutiso and Omwenga (2020) examined the impact of participatory monitoring on the long-term viability of the Samburu Vigurungani Water Project (SVWP) in Kenya. Their findings from the regression analysis revealed that participatory monitoring accounts for 71.9% of the variability in the sustainability of the SVWP. Additionally, the ANOVA results indicated a significant connection between all the independent factors and the project's longevity, with the p-value confirming a statistically meaningful association between participatory monitoring and the sustainability of the SVWP.

In their study, Kirongo and Andala (2021) aimed to investigate the impact of community participatory monitoring and evaluation on the sustainability of the Savings for Transformation project in Mbazi Sector of Huye District, Rwanda. The study had three specific objectives focusing on the influence of community participation at different stages of the project - planning, implementation, and monitoring and evaluation. The research utilized a descriptive design and had a study population of 747 individuals, including project members, community monitors, and World Vision staff. A sample size of 266 was calculated using the Krjcie & Morgan Table (1970) and sampling techniques such as stratified, census, and random sampling were employed.

Primary data was collected through questionnaires and interviews, which were then analyzed using IBM SPSS version 21.0. Both descriptive and inferential findings

were presented through tables and graphs, showing that a high percentage of respondents agreed that community participation significantly influenced the sustainability of the Savings for Transformation Project. The correlation findings revealed a strong positive association, with Pearson correlation coefficients above 0.8 and a significance level of 0.000 in all cases. The regression coefficients also showed a positive and significant influence of community participation on the project.

Otieno (2016) conducted a study to explore the perceived impacts of participatory monitoring and evaluation on the implementation of the LASDAP project in the former Bondo County Council, now known as Bondo Sub County under the new county government structure in Kenya. The research utilized an ex-post facto design to assess the effects of participatory monitoring and evaluation since its initiation in 2008. The target population consisted of beneficiaries of the LASDAP projects, while the accessible population included 1260 LASDAP project committee members in Bondo Sub-County.

A multi-stage sampling method was employed to select seven out of the 14 wards, and 42 projects were chosen using purposive and simple random sampling methods from eight wards. Seven respondents were then selected from each of the 42 projects, resulting in a study sample of 294 individuals. Questionnaires were utilized to collect data, and the instruments were validated by a group of experts from the department of Applied Community Development Studies. The questionnaires were pilot tested in

Gem Sub County (formerly Siaya County Council) to confirm reliability, with a coefficient of 0.78 obtained.

Data analysis was performed using Statistical Package for Social Sciences (SPSS) V.20, employing descriptive statistics such as frequencies, means, percentages, and standard deviations to detect associations and trends in variable interactions. The findings indicated that participatory monitoring and evaluation had positive effects on the LASDAP process and stakeholder relationships, although opinions were divided on cost efficiency in project implementation. Consequently, it was recommended that the county government adopt monitoring structures utilized by the previous local authorities for current and future projects.

Sugal (2017) conducted research to determine the impact of participatory monitoring and evaluation on the successful implementation of the CDF in Balambala Constituency. Through a descriptive design, he concluded that participatory M&E is crucial for project implementation. Jeremiah (2021) similarly studied the effects of participatory M&E on NG-CDF project performance in Samburu County. Using a multiple regression model, he discovered a significant positive correlation between participatory M&E practices and project performance.

### **2.3.3 Participatory Project Communication and Projects Performance**

In his study, Nyandongo (2017) focuses on examining the correlation between communication and project management performance. The study investigates the necessary tools for effective communication management in projects and the impact

of communication on project outcomes. A quantitative research method was employed, involving a survey distributed as a questionnaire to project management professionals. Analysis of the responses using an e-survey creator online tool and SPSS revealed a strong positive relationship between communication and project success, indicating that effective communication enhances project performance. The study emphasizes the crucial role of communication in project success, identifying key tools and techniques, including Information Communication Technology (ICT) support tools. Project managers who prioritize communication have shown higher success rates, attributing their achievements to effective communication. This research contributes empirical evidence on the influence of communication on project performance, recommending the best communication management practices and highlighting the potential of social media tools in improving project communication. Further exploration on the use of social media in project communication is suggested, as it presents both risks and controversies.

Uwamahoro and Ogbe (2021) conducted a study on the relationship between effective communication and the capacity factor of hydropower projects in Musanze District, Rwanda. The results of their regression analysis showed an R squared value of 0.391, indicating that effective communication led to a 39.1% increase in the capacity factor. This supports the idea that effective communication significantly impacts the capacity factor of projects.

In a study conducted by Kiradoo (2017), the focus was on determining effective means of communication between project managers and stakeholders to enhance

project quality and meet deadlines. The analysis consisted of a qualitative review of literature such as books and journals by previous researchers. The study utilized existing databases to gather relevant information. Results showed that communication plays a crucial role in optimizing project outcomes and ensuring timely completion. It was concluded that both formal and informal communication tools are essential for comprehending project details and increasing success rates. This approach is vital for achieving project goals in a productive and efficient manner.

Furthermore, Zulch (2014) conducted a study to explore the role of communication in project management. The study aimed to examine whether communication could be considered a foundational aspect of project management, alongside other key areas identified in previous research. A questionnaire was distributed to professionals in the construction industry, focusing on the importance of effective communication for successful project management. The results of the survey indicated that project managers' communication skills play a significant role in various aspects of project management, including cost, scope, time, and quality. Effective communication was found to be crucial for integrating these key elements and achieving a high-quality end product. The study concluded that communication is essential for coordinating project activities and supporting the overall success of a project. It was recommended that project managers prioritize communication to ensure the seamless integration of cost, scope, time, and quality in their projects.

## **2.4 Knowledge Gap**

Majority of reviewed literature in this work on the issue of participatory project practices came from other nations, and Tanzanian literature on the subject seems to be scarce (Jeremiah, 2021; Kiradoo, 2017; Kirongo & Andala, 2021; Mkutano, 2018; Mukamana & Kalimba, 2022; Nyandongo, 2017; Otieno, 2016; Sabrie, 2022; Sam, 2018; Sugal, 2017; Uwamahoro & Ogbe, 2021; Zulch, 2014). Most studies conducted in Tanzania were focused on other factors such as accountability, transparency, capacity building, budgetary allocation, and staff technical skills while forgetting about the influence of participatory project practices on the performance of projects (Eliamringi & Kazumba, 2017; Juma, 2019; Kirenga *et al.*, 2018; Mandara *et al.*, 2018; Tonya, 2015). This study therefore sought to close the existed knowledge gap by establishing the relationship between participatory project practices based on participatory project planning and implementation, monitoring, and communication toward the performance of RUWASA's projects in Ushetu District.

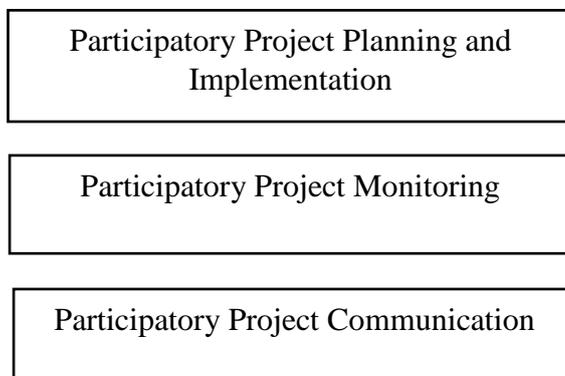
## **2.5 Conceptual Framework**

A conceptual framework is the ideal framework designed by a researcher just to show how dependent and independent variables of the study depend on or connect to each other. It is a conceptual framework that helps a researcher better understand his or her data presentations. In the same view, Mugenda and Mugenda (2003) argues that a researcher constructs a conceptual framework that act as study guidance during data presentation and discussion. Thus, the conceptual framework for the study is visually represented in Figure 2.1. The diagram illustrates the connection between

the dependent variable (performance of RUWASA's projects) and independent variables (participatory project practices), outlining their potential impact on one another. The direction of the arrows indicates the interconnections among the main variables under investigation.

### **Independent Variables**

#### **Participatory Project Practices**



### **Dependent Variable**

#### **Project Performance**

- Reliability of water supply
- Accessibility of clean and safe water
- Proper maintenance of water supply infrastructure
- Affordability in the cost of accessing water for all members of the community

Figure 2. 1: **Conceptual Framework**

Source: Researcher (2024).

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Chapter Overview**

In this chapter, the methodology utilized to carry out the study is discussed. It includes details on the research philosophy, approach, design, study area, population, sample size, sampling technique, data collection methods, pilot study, data analysis, data presentation, validity and reliability of data, and ethical considerations.

#### **3.1 Research Philosophy**

Research philosophy is a fundamental framework that guides the researcher's approach to conducting research, including the methods and techniques used, the types of data collected, and the interpretations made (Žukauskas, Vveinhardt, & Andriukaitienė, 2018). There are three main types of research philosophy, which are Positivism, Interpretivism, and Pragmatism. Positivism is based on the belief that knowledge can be gained through objective observation and measurement that often rely on quantitative data collection methods and seek to establish causal relationships between variables (Tamminen & Poucher, 2020). Also, Interpretivism is a research philosophy that focus on subjective experiences of an individual and often using qualitative methods such as interviews, observations, and content analysis to explore complex social processes and relationships (Mbanaso, Abrahams, & Okafor, 2023). Lastly, pragmatism is a research philosophy that values the use of multiple research methods and usually take a flexible and problem-focused approach, drawing on both

quantitative and qualitative data to address research questions and solve practical problems (McLachlan & Garcia, 2015).

This study employed positivism research philosophy. This philosophy was chosen because it enables the researcher to test the cause-and-effect relationship between dependent and independent variables. This philosophy is suitable for this study because it encourages the use of systematic and objective methods for collecting and analysing numerical data, which can help project managers make informed decisions based on evidence rather than subjective opinions. Also, by applying positivist research methods, project teams can gather reliable and valid numerical data identify root causes of operational issues, devising solutions based on empirical evidence, and measuring the impact of implemented changes.

### **3.2 Research Approach**

Being positivist paradigm, analytical and statistical research, the research approach for this study is quantitative in nature. It involved the collection of numerical data pertaining to a number of variables (Black, 1999) and the intent is to establish, confirm, or validate relationships and to develop generalizations that contribute to theory (Hoffman, Woehr, Maldagen-Youngjohn, & Lyons, 2011).

### **3.3 Research Design**

According to Mbanaso *et al.* (2023), research design is a conceptual framework that outlines the structure of a study, providing a systematic order and direction to the design. Turner (2020) defines research design as a blueprint for the collection,

measurement, and analysis of data. Leavy (2017) identifies three main research designs: descriptive research, exploratory research, and causal research. Descriptive research involves tabulating raw data into a usable format to describe a phenomenon (Mugenda & Mugenda, 2009). Exploratory research, as described by (Kothari, 2004), helps researchers maintain control over variables affecting experiment results (Kothari, 2003). Causal research, as defined by Pace (2019), aims to identify cause-and-effect relationships between variables.

This study employed a casual research design to establish the influence of participatory project practices on the performance of RUWASA's projects in Ushetu District. This design was deemed to be appropriate for this study because it enable the researcher to establish the casual relationship between participatory project practices and the performance of rural water projects implemented by RUWASA in Ushetu District.

### **3.4 Areas of the Study**

This study was conducted in five villages, namely Busenda, Iramba, Igwamanoni, Mbika, and Ulowa, which are found in Ushetu District, Tanzania. The choice of these villages was due to the fact that there are ongoing large water projects operated by RUWASA. In addition to that, the District has been chosen because of the inadequate water supply to the community, despite the presence of many water projects. According to (URT, 2024), 47% of the people living in Ushetu District do not have access to clean and safe water (Maduhu, 2024).

### **3.5 The Study Population**

Population refers to all possible participants who have certain characteristics that fit a study criterion (Englander, 2016). This study employed 253 people comprising 223 registered household water users and 30 RUWASA employees.

### **3.6 Sampling Design and Procedure**

#### **3.6.1 Sampling technique**

Sampling design refers to the method used to select a subset of the population to be included in a research study (Guetterman, 2015). There are two types of sampling design namely probability and non-probability sampling (Taherdoost, 2016). This study was used probability sampling design where every individual in the population has an equal chance of being selected.

On the other hand, the sampling procedure involves the researcher utilizing a specific sampling technique to select a sample that aligns with the chosen sampling design (Bartlett, Kotrlik, & Higgins, 2015). Various types of probability sampling techniques include simple random sampling, systematic sampling, stratified sampling, and cluster sampling (Memon & Ting, 2020). For this study, data was collected from both household water users and RUWASA employees using a simple random sampling technique. In simple random sampling, each member of the population is assigned a number and selected at random through a lottery method.

### 3.6.2 Sample Size

Sample size is the process of obtaining information about the entire population by examining only part of it (Andrade, 2020). According to Blaikie (2018), calculated formula is one of the approach that can be used to determine a study sample size. In this study, Yamane (1967) formula with a 95% level of confidence (0.05 level of precision) was used to calculate a sample size.

$$n = \frac{N}{1 + Ne^2}$$

Where:

n is the required sample size

N is known population of the study

e is the margin of error tolerated

$$\text{Sample size for household water users} = \frac{223}{1 + 223(0.05)^2} = \frac{223}{1.5575}$$

$$\text{Household water users} = 143$$

$$\text{Sample size for RUWASA employees} = \frac{30}{1 + 30(0.05)^2} = \frac{30}{1.075}$$

$$\text{RUWASA employees} = 28$$

Table 3. 1: **Sample Size**

Description	Study Population	Sample Size
Household Water Users	223	143
RUWASA employees	30	28
<b>Total</b>	<b>253</b>	<b>171</b>

### **3.7 Data Collection Instruments**

The researcher employed a positivist approach to the study, utilizing a questionnaire to gather data from respondents. The questionnaire consisted of closed-ended questions on a five-point Likert scale, allowing participants to indicate their responses based on their perceptions of the research questions. This method was chosen for its ability to collect a significant amount of data. The questionnaire was structured into five sections, including demographic information, the dependent variable, and the three independent variables related to the study objectives.

### **3.8 Variables and Measurement**

#### **3.8.1 Dependent Variables Measurement**

The dependent variable was the project's performance. The measurement of the dependent variable is considered to be a ratio scale obtained by converting a Likert scale into a continuous variable so as to support the manipulation of linear regression analysis.

#### **3.8.2 Independent Variables Measurement**

In this study, the independent variables are presented by participatory project planning and implementation, participatory Project monitoring, and participatory project communication. Also, the dependent variable is measured on a ratio scale by converting a Likert scale into a continuous variable to facilitate the use of linear regression analysis.

## **3.9 Data Processing and Analysis**

### **3.9.1 Data Processing**

Data processing involves a series of operations that are carried out on data in order to transform, analyze, and organize it into a format that is useful for further use. In this research, the data processing steps included cleaning and coding the collected data to make it suitable for analysis (Kothari, 2004). Data cleaning refers to the process of sorting and filtering raw data to eliminate unnecessary and inaccurate information (Kabir, 2016). During this study, the raw data was carefully examined for errors, duplication, miscalculations, or missing data, and then prepared in a format that was appropriate for analysis. Data coding transformed the raw data into a readable format for machines. Following the coding process, the data was analyzed using the Statistical Package for Social Science (SPSS) software through inputting the data.

### **3.9.2 Data Analysis**

Data analysis involves assessing data through analytical and logical reasoning to scrutinize every aspect of the information at hand (Kothari, 2004). The primary goal of data analysis is to determine whether the observations align with the research questions posed. In this investigation, the researcher utilized both descriptive and inferential statistical analyses to examine the gathered data.

#### **3.9.2.1 Descriptive Statistical Analysis**

Descriptive statistical analysis is a technique used to summarize data in a clear and concise format. It involves calculating central tendency (mean, median, mode), dispersion (range, variance, standard deviation), and frequencies (counts,

percentages). In this study, frequency and percentage was used to identify patterns and trends in the sample population based on their age group, education, and gender. Frequency distribution refers to the number of respondents falling into each category of a particular demographic variable whereas percentage distribution, on the other hand, represents the proportion of respondents in each category of a demographic variable relative to the total number of respondents.

### **3.9.2.2 Inferential Statistical Analysis**

Inferential statistical analysis involves analyzing and drawing conclusions about a population based on a sample of collected data. In this particular study, the researcher utilized Pearson correlation and multiple linear regression to examine the relationships between the performance of water projects (dependent variable) and participatory project practices (independent variables). Pearson correlation measures the strength and direction of a linear relationship between two continuous variables, with values ranging from -1 to 1. A value of 0 signifies no correlation, 1 represents a perfect positive correlation, and -1 indicates a perfect negative correlation. In contrast, multiple linear regression is a mathematical method used to model the causal relationships between multiple independent predictor variables and a single dependent outcome variable.

#### **3.9.2.2.1 Model Specification**

The Regression model that was used to establish the relationship between dependent variable and independent variables is presented as follows:



the pilot study was then tested for reliability using Cronbach's alpha. According to Amirrudin *et al.* (2020), a reliability coefficient of at least 0.7 is typically considered acceptable, while a coefficient below 0.7 may indicate the need for further instrument revision.

### **3.11 Ethical Considerations**

The researcher diligently ensured that this study is conducted with integrity, honesty and truthfulness. To ensure ethical standards of this study, the researcher obtained an introductory letter from the university that introduce him to RUWASA and other relevant authorities before conducting the research. Also, before distributing the questionnaires, the researcher asked for consent from respondents, explaining the purpose of the study and assured them of confidentiality. In the same vein, the researcher discussed the intended data collection period with respondents before giving them questionnaires. Only respondents who indicated readiness to participate in the study were given questionnaires to fill.

Meanwhile, assurance was given to the respondents that the study finding is for only academic purposes and that their responses were treated with utmost confidentiality and anonymity. The research also followed strict confidentiality and no information was given to any unauthorized person. Moreover, to enhance the anonymity of the respondents, the respondents were not required to give their names or sign the questionnaire.

## **CHAPTER FOUR**

### **RESEARCH FINDINGS**

#### **4.0 Chapter Overview**

The chapter presents the results of the study, which align with the objectives outlined in Chapter 1. The study focused on the influence of participatory project planning and implementation, participatory project monitoring, and participatory project communication on the performance of RUWASA's projects in Ushetu District. The findings included the questionnaire response rate, reliability results, descriptive statistics showing demographic characteristics, and inferential statistics such as correlation and multiple linear regression analyses.

#### **4.1 Response Rate of Questionnaire**

The study distributed questionnaires to 171 participants, including 143 water users and 28 RUWASA employees in Ushetu District. Participants were instructed to rate their agreement using a 5-point Likert scale. 159 out of the 171 surveys were filled out and returned, equating to a high return rate of 92.98%. Mugenda and Mugenda (2003) propose that a response rate of 50% is adequate, 60% is satisfactory, and 70% is excellent. Weisberg (1996) also suggest a minimum response rate of 70% for drawing reliable conclusions. In line with these recommendations, the response rate in this study is considered excellent for drawing reliable conclusions. See Table 4.1 below for a summary of the questionnaire response rate.

**Table 4. 1: The Response Rate**

Respondent category	No. of questionnaires distributed	of returned	Percentage (%)
RUWASA employee	28	26	16.4
Household Water User	143	133	83.6
<b>Total</b>	<b>171</b>	<b>159</b>	<b>100.0</b>

Source: Field Data (2024)

#### 4.2 Reliability Results

The reliability of the questionnaire was assessed using Cronbach's alpha, a coefficient that measures how well the items in the scale are measuring a single underlying construct (Taber, 2018). Typically, a reliability score of 0.7 to 1.0 is considered acceptable, with values below 0.6 being poor and those above 0.8 being good ( Amirrudin, Nasution, & Supahar, 2020). A higher Cronbach's alpha indicates better reliability. The findings from the internal reliability test in Table 4.2 show a Cronbach value of each variable is higher than 0.7, which is considered good. At the same time, the overall alpha score was 0.920, confirming the reliability of all the research data, whether analysed individually or collectively.

**Table 4. 2: Reliability Results**

<b>Variable</b>	<b>Cronbach alpha (<math>\alpha</math>)</b>	<b>Number of items</b>
Participatory Project Planning & Implementation	0.884	4
Participatory Project Monitoring	0.734	6
Participatory Project Communication	0.705	4
Performance of RUWASA Projects	0.911	6
Overall	0.920	20

### **4.3 Descriptive Statistics**

#### **4.3.1 Characteristics of the Respondents**

This section describes the demographic characteristics of sampled respondents, focusing on gender, age, level of education, and their participation in planning, implementation, and monitoring.

##### **4.3.1.1 Category of Respondents**

According to the results presented in Table 4.3, 16.4% of the participants were identified as RUWASA employees, with the remaining 83.6% categorized as household water users. This implies that the study took into consideration both project beneficiaries and project staff. According to Sabrie (2022), including both project beneficiary and project staff respondents in a research study is crucial for obtaining a comprehensive and balanced perspective on the project's impact and effectiveness because project staff are responsible for defining and implementing the project's goals and objectives, while beneficiaries are the individuals who are directly affected by the project outcomes. Therefore, by including both types of respondents

in this study, researchers can gain a better understanding of how well participatory project practices influence the performance of rural water projects implemented by RUWASA in Ushetu District.

**Table 4. 3: Category of Respondents**

<b>Category of Respondents</b>	<b>Frequency</b>	<b>Percentage</b>
RUWASA Employees	26	16.4
Household Water Users	133	83.6
<b>Total</b>	<b>159</b>	<b>100.0</b>

Source: Research Findings (2024)

This inclusion of diverse perspectives enhances the reliability of the responses collected in the study, as it allows researchers to gather insights from different stakeholders involved in the project. This, in turn, increases the validity of the study's overall findings, as researchers can draw more accurate and comprehensive conclusions about the impact of participatory project practices on rural water projects. Ultimately, the data presented in Table 4.3 underscores the importance of considering various perspectives in research studies to ensure the reliability and validity of the findings.

#### **4.3.1.2 Gender of the Respondents**

The study aimed to determine the gender of the participants. According to the results in Table 4.4, the majority (50.9%) of respondents were female, while the remaining (49.1%) were male. However, the gap between female and male was very small. This implies that the study was gender sensitive.

**Table 4. 4: Gender of the Respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	78	49.1
Female	81	50.9
<b>Total</b>	<b>159</b>	<b>100.0</b>

Source: Research Findings (2024)

The gender balance observed in the study's data has important implications for both the reliability of the responses and the validity of the overall findings. By being gender-sensitive in its approach, the study ensures a more comprehensive and accurate understanding of the research topic, ultimately strengthening the quality and impact of the research.

#### **4.3.1.3 Age Category of the Respondents**

Table 4.5 show that a bigger percentage of respondents were aged above 45 years (40.9%), followed by 37.7% who were aged 36-45 years. Other respondents were aged 26-35 years (16.4%), and 18-25 years (5.0%). This implies that majority of the respondents were aged above 36 years and so were mature enough to understand issues that were being investigated.

**Table 4. 5: Age of the Respondents**

<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>
18-25 years	08	5.0
26-35 years	26	16.4
36-45 years	60	37.7
Above 45 years	65	40.9
<b>Total</b>	<b>159</b>	<b>100.0</b>

Source: Research Findings (2024)

The age distribution of the respondents in the study indicates that the data collected is likely to be reliable and valid, as it is based on the responses of mature individuals who are capable of providing informed and insightful opinions.

#### 4.3.1.4 Level of Education

It was considered important to know the education level of the respondent in order to obtain accurate results for the study. This is because having knowledge is believed to be important for understanding the questions related to the topic. As a result, respondents were asked to provide information about their educational history, which is displayed in Table 4.6.

**Table 4. 6: Level of Education**

<b>Education Level</b>	<b>Frequency</b>	<b>Percentage</b>
Primary	79	49.7
Secondary	50	31.4
Certificate	04	2.5
Diploma	08	5.0
Bachelor Degree	15	9.5
Master's Degree	03	1.9
<b>Total</b>	<b>159</b>	<b>100.0</b>

Source: Research Findings (2024)

The findings in Table 4.6 show that the majority of the respondents have at least a primary-level education. This implies that respondents had a basic knowledge of reading and writing; hence, they can fill out the questionnaire accordingly.

The educational background of the respondents in this study plays a crucial role in ensuring the reliability and validity of the findings. Their basic literacy skills, critical thinking abilities, and diverse backgrounds all contribute to the richness and depth of the data collected, ultimately enhancing the credibility of the study's results.

#### **4.3.1.5 Participation in Project Planning and Implementation**

The results presented in Table 4.7 demonstrate that a significant proportion of the participants (88.1%) have taken part in the project implementation, suggesting that they are well-acquainted with the factors that may influence project performance. Given their high level of engagement and knowledge of project implementation, researchers can anticipate receiving precise responses from the participants in the questionnaires.

**Table 4. 7: Participation in Project Planning and Implementation**

Participation in Project Planning and Implementation	Frequency	Percentage
Yes	140	88.1
No	19	11.9
<b>Total</b>	<b>159</b>	<b>100.0</b>

Source: Research Findings (2024)

The high level of participant engagement and knowledge of project implementation demonstrated in Table 4.7 suggests that the responses gathered from the respondents are likely to be reliable and precise. This, in turn, enhances the validity of the study's findings and increases the confidence in the conclusions drawn from the research.

## 4.4 Results of Inferential Statistics

### 4.4.1 Correlation analysis

Pearson Correlation Analysis was utilized to evaluate the relationship between the dependent and independent variables. According to Schober, Boer, and Schwarte (2018), Pearson's correlation ranges from -1 to +1. A correlation of 0 to 0.09 is considered to have a positive but negligible correlation, 0.10 to 0.39 indicates a weak positive correlation, 0.40 to 0.69 suggests a moderately positive correlation, and 0.70 to 0.89 demonstrates a strong positive correlation. A correlation of 0.9 to 1.00 signifies a very strong positive correlation. Conversely, a correlation of -0.10 to -0.39 indicates a weak negative correlation, -0.40 to -0.69 shows a moderately negative correlation, -0.70 to -0.89 represents a strong negative correlation, and -0.9 to -1.00 depicts a very strong negative correlation (Schober *et al.*, 2018). The outcomes of the correlation analysis can be seen in Table 4.8 below.

**Table 4. 8: Correlation Analysis**

<b>Variable</b>		<b>Performance of RUWASA Projects</b>
Participatory Project Planning and Implementation	Pearson Correlation	0.817**
	Sig. (2-tailed)	0.000
Participatory Project Monitoring	Pearson Correlation	0.659**
	Sig. (2-tailed)	0.000
Participatory Project Communication	Pearson Correlation	0.774**
	Sig. (2-tailed)	0.000

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

The correlation analysis in Table 4.8 shows that Participatory Project Planning and Implementation, Participatory Project Monitoring, and Participatory Project Communication are positively correlated with the Performance of RUWASA Projects, with correlation coefficients of 0.817, 0.659, and 0.774, respectively. Furthermore, all three independent variables have p-values below 0.05, indicating a significant relationship with the dependent variable. Based on these findings, it can be inferred that Participatory Project Planning and Implementation, Participatory Project Monitoring, and Participatory Project Communication are reliable indicators of RUWASA Project performance in Ushetu District.

#### **4.4.2 Multiple Linear Regression Analysis**

In this study, multiple linear regression was conducted to establish the impact of independent variables on dependent variable. However, according to Ernst and Albers (2017), before estimating the model's parameters, the researcher needs to test key assumptions of linear regression, which include multicollinearity, normal distribution, linearity, and homoscedasticity.

##### **4.4.2.1 Multicollinearity Test**

The researcher conducted Variance Inflation Factor (VIF) and tolerance analysis to assess multicollinearity within the regression model. Multicollinearity is defined as the level of correlation between predictor variables (Kim, 2019). In regression models, it is generally recommended that predictor variables are not highly correlated with each other (Vatcheva, Lee, McCormick, & Rahbar, 2016).

Multicollinearity occurs when independent variables are strongly correlated. When VIFs exceed 10, it suggests that coefficients may be inaccurately estimated, indicating an issue with multicollinearity in the regression model (Yoo & Mayberry, 2014). Conversely, according to Arturs (2018), multicollinearity might exist when the tolerance value is below 0.1. Analysis in Table 4.9 revealed that all independent variables had a tolerance greater than 0.1 and a VIF less than 10, indicating that multicollinearity is likely not a problem among the predictor variables. Therefore, all predictor variables were included in the model.

**Table 4. 9 Multicollinearity test result**

Model	Collinearity Statistics	
	Tolerance	VIF
Participatory Project Planning & Implementation	0.553	1.809
Participatory Project Monitoring	0.674	1.484
Participatory Project Communication	0.551	1.815

Dependent Variable: Performance of RUWASA Projects

#### **4.4.2.2 Normality Distribution Test**

The study investigated the normal distribution of the samples drawn from the population using Kurtosis and skewness tests. Skewness measures how the distribution deviates from symmetry, while kurtosis measures the peak of the distribution ( Mishra, Kumar, Saraswat, 2019). A skewness and kurtosis value of 0 indicates perfect symmetry. If skewness and kurtosis values are above -1 or +1, the distribution is considered outside the normal range (Orcan, 2020). In Table 4.10,

both skewness and kurtosis test results are close to zero, suggesting that all variables are normally distributed. (Mishra *et al.*, 2019; Orcan, 2020).

**Table 4. 10: Skewness and Kurtosis Test for Normality**

Independent Variables	N	Skewness	Kurtosis
		Statistic	Statistic
Participatory Project Planning & Implementation	159	-0.552	0.917
Participatory Project Monitoring	159	0.042	-0.047
Participatory Project Communication	159	-0.558	0.012

#### 4.4.2.3 Heteroscedasticity

According to Jung, Baek, Chung, Kwon, and Kang (2023), one of the fundamental assumptions in linear regression is that the residuals exhibit equal variance across all levels of the predictor variable, known as homoscedasticity. The presence of heteroscedasticity, as noted by Daryanto (2020), indicates that this assumption has been violated, leading to unreliable regression results (Astivia & Zumbo, 2019). In this study, the researcher employed the Breusch-Pagan test to examine heteroscedasticity in the residuals. This test is designed to identify fluctuations in variance within the regression residuals (Gelfand, 2015). If the p-value from the test exceeds the significance level of 0.05, we do not reject the null hypothesis, indicating that homoscedasticity is evident in the model (Jung *et al.*, 2023). Table 4.11 reveals that the p-value exceeds 0.05, indicating that the null hypothesis stands, and thus heteroscedasticity is not present in the residuals.

**Table 4. 11: Breusch-Pagan/Cook-Wisberg Test for Heteroscedasticity**

Null Hypothesis (H0)	: Homoscedasticity exist (Constant Variance)
Chi2(1)	= 0.90
Prob > chi2	= 0.075

#### 4.4.3 Regression Model Estimation

The research employed multiple regression analysis to establish the linear statistical relationship between Participatory Project Planning & Implementation, Participatory Project Monitoring, Participatory Project Communication, and Performance of RUWASA Projects.

##### 4.4.3.1 Model Summary

Based on the model summary in table 4.12, the correlation coefficient (R) of 0.903 indicates a strong relationship between Participatory Project Implementation, Participatory Project Monitoring, Participatory Project Communication, and the Performance of RUWASA Projects. The regression coefficient ( $R^2$ ) of 0.811 signifies that Participatory Project Implementation, Participatory Project Monitoring, and Participatory Project Communication collectively contribute 81.1% to the performance of RUWASA projects. It is possible that other factors, not addressed in this study, account for the remaining 18.9% variation in the performance of RUWASA Projects.

**Table 4. 12: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.903 <sup>a</sup>	.815	.811	.28069

a. **Predictors:**(Constant), Participatory Project Planning & Implementation, Participatory Project Monitoring, Participatory Project Communication

#### 4.4.3.2 Regression Model Goodness of Fit

The study utilized Analysis of Variance (ANOVA) to assess the suitability of the multiple regression model for the data, determining whether project performance could be accurately predicted without the need for participatory project implementation, monitoring, and communication. Results from the ANOVA were presented in Table 4.13, revealing an F test that assessed the overall significance of the regression model. The F value indicated that all variables in the equation were statistically significant, confirming the overall significance of the regression model. With an F-statistic of 227.394, significant at  $p < 0.05$ , the results affirmed the model's adequacy and established a statistically significant relationship between participatory project planning, implementation, monitoring, communication, and RUWASA project performance. Thus, the regression model was considered to be a good predictor of the dependent variable and a suitable fit for the data.

**Table 4. 13: ANOVA for Testing Multiple Regression Model**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	53.748	3	17.916	227.394	.000 <sup>b</sup>
Residual	12.212	155	.079		
Total	65.960	158			

a. **Dependent Variable:** Performance of RUWASA Projects

b. **Predictors:**(Constant), Participatory Project Planning & Implementation, Participatory Project Monitoring, Participatory Project Communication

#### 4.4.3.3 Multiple Regression Analysis Parameter (Beta Coefficients) Estimation

The beta coefficients in multiple linear regression analysis show the change in the dependent variable (Y) for a one-unit change in the independent variable (X), with

all other variables held constant ( Yu, Sevilimedu, Vogel, & Samawi, 2019). A positive beta coefficient indicates a positive relationship, while a negative coefficient indicates a negative relationship (Vatcheva *et al.*, 2016). The significance value (sig) for each beta coefficient determines if the relationship is statistically significant (Ernst & Albers, 2017). A sig value less than 0.05 is considered significant (Nair & Ganapathy, 2023). The t-test is used to evaluate the significance of each beta coefficient. A t-value greater than 2 or less than -2 suggests a significant impact of the independent variable on the dependent variable (Göktaş, Akkuş, & Kuvat, 2021).

In this study, the t-test results in Table 4.14 indicate that the independent variables (participatory project planning, participatory project monitoring, and participatory project communication) have a significant impact on the dependent variable (performance of RUWASA projects), as shown by t-values greater than 2. Additionally, the sig values for each beta coefficient are less than 0.05, confirming a statistically significant relationship between the independent and dependent variables.

**Table 4. 14: Multiple Regression Analysis Parameter Estimation Results**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	.279	.153		1.82	.070
Participatory Project Planning & Implementation = X <sub>1</sub>	.365	.036	.474	10.1	.000
Participatory Project Monitoring = X <sub>2</sub>	.242	.044	.231	5.49	.000
Participatory Project	.332	.044	.355	7.62	.000

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Communication =  $X_3$

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Dependent Variable: Performance of RUWASA Projects = Y

The equation for the multiple regression model was derived from the coefficients presented in equation 4.1;

$$Y = .279 + .365X_1 + .242X_2 + .332X_3 \dots \dots \dots 4.1$$

Where Y refers to the dependent variable (performance of RUWASA projects),  $X_1$  is the participatory project planning and implementation,  $X_2$  is the participatory project monitoring, and  $X_3$  is the participatory project communication.

The results of the regression coefficients suggest that even if all variables were at zero, there would still be a positive change in RUWASA Projects performance of 0.279. Additionally, increasing participatory project planning and implementation by one unit would result in a significant increase of 0.365 in the performance of RUWASA Projects, holding all other variables constant. Similarly, a one-unit increase in participatory project monitoring would lead to a significant increase of 0.242 in performance, while a one-unit increase in participatory project communication would result in a significant increase of 0.332 in performance, with all other variables held constant.

## **CHAPTER FIVE**

### **DISCUSSION OF THE FINDINGS**

#### **5.1 Introduction**

This chapter presents a discussion of the findings based on the study objectives. It explained more about what was obtained from the research findings. Meanwhile, the discussion connects this study's findings with those of other studies.

##### **5.1.1 The Influence of Participatory Project Planning and Implementation on the Performance of Projects**

The positive beta coefficient for participatory planning and implementation suggests that engaging in these practices within the RUWASA in Ushetu District could have a beneficial impact on water project performance. Specifically, an increase in participatory project planning and implementation could enhance the performance of water projects in the District by 36.5%. In supporting this finding, Wachaiyu (2019) noted that involving participants in project planning can enhance a project's success and aid in resource allocation. Mkutano (2018) also found that planning fosters collaboration among employees and stakeholders towards achieving a common goal of successful project performance. Similarly, Kirongo and Andala (2021) emphasized the importance of involving local communities in all stages of development projects for their sustainability. Furthermore, Njogu and Wanjohi (2018) highlighted the positive impact of community participation in financial planning, project governance, and management on project performance. Maina (2018) and Abdi (2018) further supported these findings by demonstrating that stakeholder involvement in project planning and implementation can improve project

performance and foster a sense of ownership, while their absence may lead to sustainability challenges.

This finding aligns with the principles of participatory development theory, which emphasize the importance of local knowledge, participation, and empowerment in project planning and implementation. By involving community members in project planning and implementation, projects are more likely to meet the needs and priorities of the community and have a greater impact on their lives.

### **5.1.2 The Influence of Participatory Project Monitoring on the Performance of Project**

The study discovered that involving the community in monitoring projects could improve the performance of water projects implemented by RUWASA in Ushetu District. This aligns with previous research by Mutiso and Omwenga (2020), who found a positive relationship between community participation in project monitoring and project success. Similarly, Ali and Gitonga (2019) found that engaging stakeholders in monitoring and evaluation led to timely error correction, prompt reporting, and enhanced project performance. Dhakal (2023) also emphasized the benefits of community involvement in project planning, including project continuity, maintenance, conflict management, ownership, service delivery, and expansion. Otieno (2016) further supported this by showing how participatory monitoring improved stakeholder relationships in Bondo sub-county, Kenya. Jamaal (2018) found that involving stakeholders in monitoring resulted in successful project completion. Furthermore, Kadurira and Nyagah (2021) highlighted the importance of

stakeholder involvement in monitoring and evaluation for error correction, cost justification, response controls, identifying challenges, and promoting project sustainability. Aupe and Sagwa (2020) recommended enhancing stakeholder participation in project monitoring and evaluation for the sustainability of water projects, based on their study in Kwanza Sub-County, Kenya.

The findings also align with the participatory development theory, which emphasizes the importance of involving local communities and stakeholders in decision-making processes and project implementation. Participatory development theory acknowledges that local communities and stakeholders have valuable knowledge, experience, and perspectives that can contribute to the success and sustainability of development projects. By actively involving the community in monitoring and evaluation activities, as shown in the various studies cited, projects can benefit from increased accountability, transparency, and responsiveness to local needs and concerns. This ultimately leads to more successful, sustainable, and impactful development outcomes.

### **5.1.3 The Influence of Participatory Project Communication on the Performance of Projects**

The study revealed a positive correlation between participatory project communication and the performance of RUWASA projects in Ushetu District. The findings indicated a strong link between communication and project outcomes, echoing the beliefs of Nyandongo (2017) who emphasized the impact of communication on project success. Mwanyalo and Mberia (2017) also supported this

idea by highlighting the significance of communication in project management. Zulch (2014) highlighted the role of communication in sharing vital project information, such as quality, time, scope, and costs. Sabrie (2022) further emphasized the importance of internal communication in facilitating the flow of information and coordination of activities during project implementation. The presence of relevant communication systems allowed for effective engagement with stakeholders throughout the project. Kiradoo (2017) stressed the importance of both formal and informal communication tools in ensuring a thorough understanding of project information and success rate. Additionally, Alsulaimi and Abdullah (2020) noted how the smooth flow of information within a project can enhance coordination and ultimately contribute to its success.

The findings from the study align with the principles of participatory development theory, which emphasize the importance of involving all stakeholders in decision-making processes and promoting open communication channels. Participatory project communication, as highlighted in the study, plays a vital role in ensuring that stakeholders are actively engaged, informed, and empowered throughout the project lifecycle. By employing both formal and informal communication tools, project managers can effectively communicate project goals, progress, and outcomes to all relevant parties, fostering a sense of ownership and collaboration among stakeholders.

## **CHAPTER SIX**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Chapter Overview**

In this chapter, a summary of the study is presented along with conclusions and recommendations. The researcher reflects on the findings to draw conclusions and offers recommendations and suggestions for future studies that can enhance the understanding of participatory project practice.

#### **5.2 Summary of Findings**

The study aimed to investigate how participatory project practices impact the effectiveness of rural water projects carried out by RUWASA in Ushetu District. Specifically, the research focused on analyzing the effects of participatory project planning, implementation, monitoring, and communication on the performance of water projects in the area. By utilizing a causal research design, the study sought to establish the relationship between participatory project practices and project performance. A total of 171 respondents, including 143 households and 28 RUWASA employees, were involved in the study. Primary data was collected through a questionnaire, which was then analyzed using descriptive and inferential statistics. Descriptive statistics were used to examine the demographic characteristics of the participants, while inferential statistics such as Pearson correlation and multiple linear regression were employed to determine the relationships between project performance and participatory project practices. The results from correlation analysis revealed that the performance of RUWASA projects had a positive relationship with each of the three independent variables, namely participatory

project planning and implementation, participatory project monitoring, and participatory project communication.

Meanwhile, the results of the multiple linear regression analysis showed that participatory project planning and implementation had a significant positive impact on the performance of RUWASA projects ( $\beta = .365$ , P-value = 0.000). This suggests that involving the community in project planning and implementation could have increased the performance of RUWASA projects by 36.5%. Additionally, the study revealed that participatory project monitoring also had a significant positive effect on RUWASA project performance ( $\beta = .242$ , P-value = 0.000). This implies that community involvement in monitoring could increase the performance of RUWASA projects by 24.2%. Similarly, participatory project communication was shown to positively influence RUWASA project performance ( $\beta = .332$ , P-value = 0.000), indicating that better information sharing could lead to a 33.2% increase in project performance.

### **5.3 Conclusion**

The researcher drew conclusions regarding the three objectives based on the results obtained.

#### **5.3.1 The Influence of Participatory Project Planning and Implementation on the Performance of Projects**

After discovering that involving communities in the planning and execution of water projects can enhance the success of RUWASA projects in Ushetu District, the study

concluded that increased community participation in water facility allocation, active engagement in project operation, inclusion in decision-making processes, and soliciting input and feedback during planning would lead to more cost-effective and sustainable clean water supply from RUWASA projects.

### **5.3.2 The Influence of Participatory Project Monitoring on the Performance of Project**

With reference to the positive impact of participatory project monitoring on the performance of RUWASA projects, the study concluded that community participation in monitoring of water projects could help to identify and address any issues or challenges in the implementation of rural water supply projects in a timely manner. Also, community participation in the monitoring of water projects could help build trust and cooperation between residents and project implementers. Similarly, community participation in monitoring water projects could lead to better decision-making and problem-solving in the implementation of rural water supply projects. Moreover, community participation in monitoring water projects could help increase the accountability and transparency of water projects.

### **5.3.3 The Influence of Participatory Project Communication on the Performance of Projects**

About the positive impact of participatory project communication on the performance of RUWASA projects, the study concluded that the effective flow of information between employees and project beneficiaries could help to identify and address any issues or challenges in the implementation of rural water supply projects

in a timely manner. Meanwhile, the study concluded that establishing feedback mechanisms, such as community meetings, suggestion boxes, or hotlines, can help ensure that community members have a voice in the monitoring process and can provide input on the project's progress. Also, regular and transparent communication between employees and community members could increase trust and cooperation in water projects. Moreover, effective communication strategies between community members and project stakeholders could lead to better project outcomes in rural water supply.

#### **5.4 Implication of the Study Findings**

Community involvement in all stages of water project development is crucial for ensuring project performance and sustainability. In Ushetu District, despite having numerous water projects, approximately 47% of the population still lack access to clean and safe water (Maduhu, 2024). A significant number of water points in the District are not functioning properly, which may be attributed to inadequate maintenance efforts from rural communities, as they were not effectively engaged in the initial phases of project establishment. When community members actively participate in all stages of water project construction, they are more likely to take ownership and responsibility for maintaining the infrastructure. By involving the community from the project's inception, they can acquire the necessary skills to manage and maintain the project effectively.

## **5.5 Recommendations**

The recommendations of this study are based on the conclusions drawn from the research findings.

### **5.5.1 The Influence of Participatory Project Planning and Implementation on the Performance of Projects**

To enhance the performance of water projects implemented by RUWASA in Ushetu District, the study recommends that the community participate in all processes of project planning and implementation. Involving the community in project planning and implementation is crucial for several reasons. Firstly, it ensures that the needs and concerns of the community are taken into account, leading to a more successful and sustainable project. By including community input, stakeholders have a sense of ownership and are more likely to be invested in the project's success. Additionally, involving the community can help identify potential challenges or barriers that may arise during implementation. Community members have valuable insights into the local context and can provide knowledge and expertise that may not be readily apparent to project planners. This input can help improve the project design and increase the likelihood of achieving the desired outcomes. Furthermore, engaging with the community can foster trust and build positive relationships between project leaders and beneficiaries. This can lead to increased collaboration, support, and participation from the community, which are essential for the project's success.

### **5.5.2 The Influence of Participatory Project Monitoring on the Performance of Project**

Since this study finds that participatory project monitoring practices positively could affect the performance of RUWASA projects, the study therefore recommends that the community be included in project monitoring as it can help to address any issues or challenges in the implementation of rural water supply projects in a timely manner, thus ensuring the effectiveness, sustainability, and long-term success of water projects.

### **5.5.3 The Influence of Participatory Project Communication on the Performance of Projects**

The study recommends that communication be prioritized in the planning, implementation, and monitoring of RUWASA projects, as participatory communication facilitates the sharing of knowledge and information between project implementers and community members, which promotes a more informed decision-making process. This can also lead to more effective and sustainable water management practices, as well as increased community resilience to challenges. Meanwhile, ensuring the active involvement of community members in the communication process can enhance trust, foster collaboration, and promote local ownership of the project.

## **5.6 Suggestions for Further Study**

Since the value of R-square was 0.815 (81.5%), it means that apart from participatory project practice, there are still other factors affecting the performance of

the water project implemented by RUWASA in Ushetu District that future studies should focus on, such as political, economic, and environmental factors.

Also, this study focused on participatory project practice in rural settings. Other studies can focus on urban settings because, in rural areas, participatory project practices may be more widely accepted and valued as communities are often closely knit and reliant on collective decision-making. People in rural areas may have a stronger sense of community and may be more inclined to participate in development projects that directly benefit them and their neighbors. On the other hand, in urban areas, there may be a higher level of diversity and mobility among residents, making it more challenging to engage the community in participatory project practices. Additionally, urban areas typically have greater access to resources and infrastructure, which may lead to the perception that top-down approaches are more efficient in achieving development goals.

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## **APPENDICES**

### **APPENDIX I: Introduction Letter to the Respondents**

Dear Sir/ Madam,

Dear Madam,

#### **RE: DATA COLLECTION**

I am a student pursuing a post-graduate degree in Project Management at the Open University of Tanzania and I am undertaking a research on the topic of *“The Influence of Participatory Project Practices on the Performance of Rural Water Supply in Tanzania: A Case of RUWASA Projects in Ushetu District”* in partial fulfilment of the degree requirements. I am kindly seeking your assistance in gathering information for my study. Enclosed you will find a questionnaire for you to complete. Please rest assured that all information provided will be kept confidential and used solely for research purposes.

Your assistance and cooperation are greatly appreciated.

Thank you,

Cyprian Ndabavunye

**APPENDIX II: Questionnaire****SECTION A: Basic Information**

Please circle to indicate your opinion on each of the statements

1. Please choose your gender.

Male [ ] Female [ ]

2. Indicate your age category

18-25 years [ ] 26-35 years [ ] 36-55 years [ ] above 45 years [ ]

3. Please indicate your highest level of education attained so far.

Primary [ ] Secondary [ ] Certificate [ ] Diploma [ ] Bachelor Degree [ ]

Master's Degree [ ] PhD [ ] Others [ ] None [ ]

4. Have you participated in project planning and implementation?

Yes [ ] No [ ]

### **SECTION B: Participatory Project Planning and Implementation**

To what extent do you agree with the following statements about the influence of participatory project planning and implementation on the performance of RUWASA's rural water projects in Ushetu District, where: 1=strongly disagree, 2=disagree 3= Neutral, 4= Agree, 5= strongly agree

<b>Code</b>	<b>Statements</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
PPPI1	Community input and feedback during the planning phase result in more cost-effective and sustainable water solutions in rural areas.					
PPPI2	Community involvement in water facilities allocation results in more cost-effective and sustainable clean water supply					
PPPI3	Community engagement in water projects operation increases the sense of ownership and responsibility among residents for maintaining water infrastructure.					
PPPI4	Engaging the community in decision-making processes leads to better understanding of local water needs and challenges					

### SECTION C: Participatory Project Monitoring

To what extent do you agree with the following statements about the influence of participatory project monitoring on the performance of RUWASA's rural water projects in Ushetu District, where: 1=strongly disagree, 2= disagree 3= Neutral, 4= Agree, 5= strongly agree

Code	Statements	1	2	3	4	5
PPM1	Community monitoring helps to identify and address any issues or challenges in the implementation of rural water supply projects in a timely manner					
PPM2	Community monitoring of water projects helps to build trust and cooperation between residents and project implementers.					
PPM3	Community involvement in water projects monitoring leads to better decision-making and problem-solving in the implementation of rural water supply projects					
PPM4	Community involvement in water projects monitoring improves the overall performance of rural water supply					
PPM5	The accountability and transparency of water projects are increased when community members are involved in monitoring					
PPM6	Community members are more likely to use and maintain the water supply facilities when they are actively involved in monitoring the projects					

### SECTION D: Participatory Project Communication

To what extent do you agree with the following statements about the influence of participatory project communication on the performance of RUWASA's rural water projects in Ushetu District, where: 1=strongly disagree, 2= disagree 3= Neutral, 4= Agree, 5= strongly agree

Code	Statements	1	2	3	4	5
PPC1	The effective flow of information between employees and project beneficiaries helps to identify and address any issues or challenges in the implementation of rural water supply projects in a timely manner					
PPC2	Establishing feedback mechanisms, such as community meetings, suggestion boxes, or hotlines, can help ensure that community members have a voice in the monitoring process and can provide input on the project's progress.					
PPC3	Regular and transparent communication between employees and community members leads to increased trust and cooperation in water projects.					
PPC4	Effective communication strategies between community members and project stakeholders lead to better project outcomes in rural water supply.					

### SECTION E: Performance of RUWASA Projects

To what extent do you agree with the following statements on the performance of RUWASA's projects in Ushetu District, where: 1=strongly disagree, 2= disagree 3= Neutral, 4= Agree, 5= strongly agree

Code	Statements	1	2	3	4	5
PerRP1	Participatory project practices enhance RUWASA in Kahama to improve accessibility of clean water services to the community					
PerRP2	Participatory project practices increase the reliability of water supply in rural areas					
PerRP3	Participatory project practices enhance proper maintenance of water supply infrastructure					
PerRP4	Participatory project practices enhance the affordability in the cost of accessing water for all members of the community					
PerRP5	Participatory project practices increase the sustainability of rural water projects					
PerRP6	The success of water projects in rural areas is dependent on the level of engagement and communication between community members and project implementers.					

**Thank you for taking time to fill this questionnaire**

## APPENDIX III: SPSS Output

### A: Reliability Statistics

#### Reliability Statistics for Participatory Project Planning & Implementation

Cronbach's Alpha	N of Items
.881	4

#### Reliability Statistics for Participatory Project Monitoring

Cronbach's Alpha	N of Items
.734	6

#### Reliability Statistics for Participatory Project Communication

Cronbach's Alpha	N of Items
.705	4

#### Reliability Statistics for Performance of RUWASA Projects

Cronbach's Alpha	N of Items
.911	6

#### Reliability Statistics for all Items

Cronbach's Alpha	N of Items
.920	20

**B: Pearson's Correlation Analysis**

		Performance of RUWASA Projects
Participatory Project Planning & Implementation	Pearson Correlation	.817**
	Sig. (2-tailed)	.000
	N	159
Participatory Project Monitoring	Pearson Correlation	.659**
	Sig. (2-tailed)	.000
	N	159
Participatory Project Communication	Pearson Correlation	.774**
	Sig. (2-tailed)	.000
	N	159

**C: Model Diagnostic Results**

## Multicollinearity Statistics

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Participatory Project Planning & Implementation	.553	1.809
Participatory Project Monitoring	.674	1.484
Participatory Project Communication	.551	1.815

## Skewness and Kurtosis Test for Normality

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Participatory Project Planning & Implementation	-.552	.192	.917	.383
Participatory Project Monitoring	.042	.192	-.047	.383
Participatory Project Communication	-.558	.192	.012	.383
Performance of RUWASA Projects	-.080	.192	.485	.383
Valid N (listwise)				

## Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

hetttest
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of Performance of RUWASA Projects
chi2(1) = 0.90
Prob > chi2 = 0.075

**D: Regression Model Estimation****Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.903 <sup>a</sup>	.815	.811	.28069

a. Predictors: (Constant), Participatory Project Communication, Participatory Project Monitoring, Participatory Project Planing & Implementation

b. Dependent Variable: Performance of RUWASA Projects

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.748	3	17.916	227.394	.000 <sup>b</sup>
	Residual	12.212	155	.079		
	Total	65.960	158			

a. Dependent Variable: Performance of RUWASA Projects

b. Predictors: (Constant), Participatory Project Communication, Participatory Project Monitoring, Participatory Project Planing & Implementation

## Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.279	.153		1.822	.070
Participatory Project Planing & Implementation	.365	.036	.474	10.199	.000
Participatory Project Monitoring	.242	.044	.231	5.494	.000
Participatory Project Communication	.332	.044	.355	7.624	.000

## APPENDIX IV: Permission Letter from the Open University of Tanzania

The Open University of Tanzania  
Shinyanga Regional Centre,  
Karena Road,  
P.O. Box 1203,  
SHINYANGA, TANZANIA.



Chuo KikuuHuria cha Tanzania  
Kituo cha MkoawaShinyanga  
BarabarayaKarena,  
S.L.P 1203,  
SHINYANGA, TANZANIA.

28<sup>th</sup> May, 2024

REGIONAL MANAGER,  
RUWASA,  
P. O. Box 160,  
SHINYANGA.

### RE: RESEARCH CLEARENCE

Refer the heading above.

The Open University of Tanzania was established by an Act of Parliament no. 17 of 1992, which became operational on 1<sup>st</sup> March 1993 by Public notice no.55 in the official gazette. The Act was however replaced by OUT charter of 2005 which became operational on 1<sup>st</sup> January 2007. In line with this letter the Open University of Tanzania mission is to generate, apply knowledge through research and to facilitate, simplify research process.

With this background, the purpose of this letter is to introduce Mr. CYPRIAN NDABAVUNYE who is a bonafide student of the Open University of Tanzania, with registration number PG202087604 pursuing Master of Project Management (MPM). The student carrying this letter seeks a permission to conduct a research titled *"Influence of Participatory Project Practices on the Performance of RUWASA WATER PROJECTS in Ushetu District Council,"* from 1<sup>st</sup> June to 1<sup>st</sup> July 2024. I am therefore requesting your esteemed office to consider his request.

Kindly accord the student with the necessary assistance he might require.

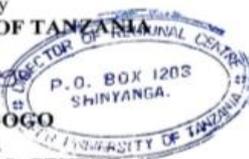
Thank you in advance for your assumed cooperation and facilitation of this research activity.

In case you need any further information don't hesitate to call 0754574864.

Yours sincerely

THE OPEN UNIVERSITY OF TANZANIA

*Mgogo*  
Dr. AGATHA MGOGO  
DIRECTOR  
SHINYANGA REGIONAL CENTRE



**APPENDIX V: PERMISSION LETTER FROM RUWASA IN USHETU  
DISTRICT**



**THE UNITED REPUBLIC OF TANZANIA  
MINISTRY OF WATER  
RURAL WATER SUPPLY AND SANITATION AGENCY**

Old Shinyanga Road. Near KASHWASA Office, P.O. Box 160, Shinyanga,  
Phone : +255 (028) 2762526, Website : www.ruwasa.go.tz,  
Email : shinyangarm@ruwasa.go.tz



In Response, please quote;  
**Ref.No.MA.4/51/01/2A/69**

04<sup>th</sup> June, 2024

The Director of Open University of Tanzania,  
Shinyanga Regional Center,  
P.O.BOX 1203,  
**SHINYANGA.**

**REF: RESEARCH CLEARANCE**

Refer to the captioned subject above

2. RUWASA Regional Manager declare to receive your letter with the subject above with no reference number dated 28<sup>th</sup> May 2024.

3. The Regional Manager Office has accepted Cyprian Ndabavunye to carry out his research titled **"Influence of Participatory Project Practices on the Performance of RUWASA Water Projects in Ushetu District Council,"** from 1<sup>st</sup> June to 1<sup>st</sup> July 2024.

4. The Office of RUWASA Regional Mager assures you that the Student will get all necessary assistance in his studies.

5. Yours Sincerely,

*Johns.*  
Eng. Julieth E. Payovela  
Regional Manager  
Shinyanga

