

**PARTICIPATORY PROJECT PRACTICES AND  
PERFORMANCE OF WATER, SANITATION AND HYGIENE  
PROJECTS: A CASE OF POLISH HUMANITARIAN ACTION  
PROJECT IN BANAADIR REGION, SOMALIA**

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

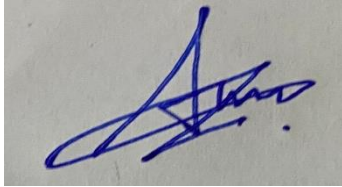
**2022**

**DECLARATION**

This is my original research project and has not been presented for the award of any degree in any other University.

Signature.....

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This research project has been submitted for examination with my approval as the University of Nairobi



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## **DEDICATION**

I dedicate this project to my friends Hersi Hersi for encouragement and support that enabled me to clear it.

## **ACKNOWLEDGEMENT**

I appreciate the lecturers of University of Nairobi, for teaching me various units under PPM that prepared me to handle this project. I appreciate and thank Farhia Moallim Salad, my dad Abdirahman Ahmed Sebrie and my brother Mustafa Abdirahman Ahmed for their enormous support that allowed me to complete this project.

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## ABBREVIATIONS AND ACRONYMS

<b>MDG</b>	Millennium Development Goals
<b>NACOSTI</b>	National Commission for Science Technology and Innovation
<b>PMNCH</b>	Partnership for Maternal, Newborn & Child Health
<b>SDGs</b>	Sustainable Development Goals
<b>SPSS</b>	Statistical Package for Social Sciences
<b>UNICEF</b>	United Nations Children's Fund
<b>UON</b>	University of Nairobi
<b>USA</b>	United States of America
<b>WASH</b>	Water, Sanitation and Hygiene
<b><u>WHO</u></b>	World Health Organization
<b>PAH</b>	Polish Humanitarian Action

## ABSTRACT

The influence of participatory project on performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia was explored in this inquiry. More specifically, the study focused on participatory project resource allocation; participatory project monitoring; participatory project control; and participatory project communication in relation to water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia. The ladder theory of participation provided anchorage to the study. Descriptive correlational survey design was adopted targeting 45 staff from Polish Humanitarian Action project and census was used. Primary data was collected using questionnaire and the analysis was done descriptively and inferentially. The study was expected to contribute to the current academic debate and discourse regarding participatory project implementation practices. The findings were that participatory project resource allocation ( $\beta=0.388$ ,  $p<0.05$ ), participatory project communication ( $\beta=.333$ ,  $p<0.05$ ), participatory project control ( $\beta=0.318$ ,  $p<0.05$ ) and participatory project monitoring ( $\beta=.108$ ,  $p<0.05$ ) were significant. It was concluded that participatory project implementation and performance Polish Humanitarian Action project are connected to each other in significant terms. It was recommended that project managers of the water, sanitation and hygiene projects in Banaadir region Somalia should diversify their sources of finances and invest in talented and qualified project staff to enhance performance of their projects. The monitoring and evaluation officers of the water, sanitation and hygiene projects in Banaadir region Somalia need to undertake a participatory approach to monitoring of their projects. The cost and quality control managers of the water, sanitation and hygiene projects in Banaadir region Somalia should embrace best industry practices when it comes to project control. The public relations officer working for to water, sanitation and hygiene projects in Banaadir region Somalia should establish clear channels of communication to facilitate the flow of information for ease of coordination of activities.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the Study

According to the World Health Organization [WHO] (2019), 2 billion individuals lack basic sanitation facilities like pit latrines or toilets, 673 million practice open defecation and 10 percent of the total population around the world do consume food that has been irrigated by waste water. Poor sanitation facilities have resulted in health challenges including the spread of dysentery, diarrhea and cholera. In fact, it is estimated that inadequate sanitation has resulted into 432,000 deaths due to diarrhea. Worse still, inadequate water, sanitation and hygiene (WASH) account for 827,000 deaths of people both in low and middle income countries around the world (WHO, 2019). Successful implementation of WASH projects would 297,000 deaths of children who are less than 5 years around the world (WHO, 2019). When there is persistent open defecation, the vicious cycle of poverty and disease gets perpetuated (WHO, 2019).

A study was conducted by the WHO (2012) that revealed that every unit US\$ 1.00 that has been invested in sanitation result into a return of US\$ 5.50 in lowering the costs of health, reducing the number of premature deaths and increasing productivity. According to UNICEF, safe hygiene, clean water and good toilets ensure that children have been kept healthy and alive. The estimations from UNICEF and WHO indicate that 2.6 billion people around the world have no access to adequate sanitation while 1.1 billion do not have access to clean water supply (WHO [World Health Organization] & UNICEF [United Nations Children's Fund], 2015). Implementing WASH project would one way of realizing the Sustainable Development Goals (SDGs), that seek to ensure there is universal access to water that is safe and basic sanitation by the year 2030 around the world. Without critical policy change including a participatory approach in project implementation, about 1.4 billion people are forecasted to be without access to sanitation by the year 2050 (OECD, 2012).

Evidence indicates that taking a participatory approach when implementing WASH projects would solve all these global challenges while contributing towards realization of SDGs. Clean water for drinking has continued to attract much of the WASH funding around the world. On the other hand, hygiene include issues like hand washing as well as the management of menstruation that is so

critical for gender equality and public health debates and it has been neglected especially in the MDG framework (Partnership for Maternal, Newborn, & Child Health [PMNCH], 2014).

In Somalia, it is estimated that poor state of sanitation costs a total of USD. 27 billion based on a study by Water and Sanitation Program (WSP-ESI, 2012). Furthermore, 21 million individuals rely on shared pit latrines while 5.6 million people lack such facilities and thus forced to practice open defecation (WSP-ESI, 2012). It is further estimated that this open defecation costs Somalia a total of \$88 million per year (JMP, 2010). It is hoped that encouraging a participatory approach may improve these condition. Most Non-governmental organizations (NGOs) have come up in to address this increasing challenge of WASH, although more need to be done. The available resources for allocating towards WASH projects have always been limited. The success of these WASH interventions initiated by both local and international NGOs in Somalia is informed by existance of sound monitoring and control practices. A participatory approach in communication is also integral as far as performance of the se WASH projects is concerned (Kwena & Moronge, 2015).

Polish Humanitarian Action (PAH) is an international non-governmental organization with operations in Somalia to improve WASH conditions. PAH has been implementing WASH project in Banaadir from March 2021 all the way to June, 2021, that is estimated to benefit 11,584 beneficiaries. The two key donors of the WASH project by PAH in Somalia include UNICEF and KFW. PAH project seeks to enable students from 15 schools in Banaadir region to acquire knowledge on hygienic and safe conditions. Furthermore, the project seeks to enhance access to water and improve sanitation among learning institutions in Banaadir region. Having already been implemented, this study seeks to shed more light on how a participatory approach at the implementation phase may have contribute towards performance of the WASH project with emphasis on Polish Humanitarian Action project in Banaadir region, Somalia.

## **1.2 Statement of Problem**

Access to clean water, poor sanitation and hygiene conditions have remained a challenge in most developing countries especially in the informal settlements. Baanadir region is characterized by scarcity of water which is contaminated and unreliable. There are no permanently installed toilets and latrines are shared by most residents (Mallory, Omoga, Kiogora, Riungu, Kagendi & Parker,

2021). Emptying of these latrines whenever they are full is done either by hands or occasionally by sewerage collection trucks that dump the refuse to the nearby rivers. This is a worrying situation that needs to be addressed through a participatory approach and WASH interventions.

The available studies include Mallory *et al* (2021) who examined the role played by informal pit emptier on sanitation in Kibera. The inquiry shared that no infrastructure is in place for removing wastes from informal settlements. Prokopy (2005) looked at participation and the project based outcomes focusing on rural projects of supplying water in India. Community participation was found to be a driver of success of the project. Sokol-Oxman (2015) looked at the implementation of a participatory M&E approach arguing that engagement and collaboration between beneficiaries and the implementer's enhance the level of sustainability of the project. Njeru and Kimutai (2018) studied used a case of Korokocho slums to link how participatory approach can enhance performance of upgrading projects and a positive relationship was noted.

From the aforementioned studies, it is clear that some of them (Prokopy, 2005) were conducted in other countries like India and not in Somalia hence contextual gap. Other studies focused on other aspects like M&E (Sokol-Oxman, 2015) and not project implementation thus creating conceptual gaps. Thus, in order to fill these gaps, the present study sought to establish the influence of participatory project implementation on performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia.

### **1.3 Purpose of the Study**

The purpose of the study is to establish the influence of participatory project practices and performance of water, sanitation and hygiene projects using a case Of Polish Humanitarian Action Project in Banaadir Region, Somalia

## 1.4 Research Objectives

1. To determine the influence of participatory project resource allocation on performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia.
2. To establish the influence of participatory project monitoring on performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia.
3. To find out the influence of participatory project control on performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia.
4. To examine the influence of participatory project communication on performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia.

## 1.5 Research Questions

The study sought for answers to the following research questions:

1. What is the influence of participatory project resource allocation on performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia?
2. What is the influence of participatory project monitoring on performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia?
3. How does participatory project control influence performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia?
4. Does participatory project communication influence performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia?

## 1.6 Research Hypotheses

The following hypotheses were tested in this study:

**H<sub>01</sub>:** Participatory project resource allocation has no significant influence on performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia.

**H<sub>02</sub>:** Participatory project monitoring has no significant influence on performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia.

**H<sub>03</sub>:** Participatory project control has no significant influence on performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia.

**H<sub>04</sub>:** Participatory project communication has no significant influence on performance of water, sanitation and hygiene projects: a case of a case of Polish Humanitarian Action project in Banaadir region, Somalia.

## 1.7 Significance of the Study

The project managers of the WASH projects in Somalia need a clear understanding and appreciation of the essence of a participatory approach in implementation of future projects. The study would shed more light on this, giving the project managers information on how to enhance performance of theory projects through a participatory approach. Future scholars carrying out related studies would be advantaged with this inquiry.

## 1.8 Basic Assumptions of the Study

The study assumed that respondents would have information and knowledge on participatory project implementation. The study assumed that accurate information would be shared by the respondents of the study on participatory project implementation. It is further assumed that all respondents would be literate with the ability to read and write having understood the research questions on the questionnaire. The study assumed that respondents would have familiarity with the concept of participatory project implementation practices in their project organization.

## **1.9 Limitations of the Study**

Some of the respondents had fear that information shared would end up to intimidate them at their work place. However, the researcher overcame this limitation by having a letter of introduction and providing assurance that any information shared was only to be used for academics.

## **1.10 Delimitations of the Study**

Participatory project implementation and performance was inquired in this investigation. Minimally, the inquiry looked at participatory project resource allocation, participatory project monitoring, participatory project control and participatory project communication as they relate with performance. The study focused on WASH projects in Somalia. The study selected Somalia because it is an emerging economy that is striving to recover from long period of civil war. The study was conducted in the month of July- 2022.

## **1.11 Definition of Significant Terms**

**Participatory project implementation** in this study, it covers participatory resource allocation, participatory project monitoring, participatory project control and participatory project communication of WASH projects by Polish Humanitarian Action in Banaadir region, Somalia

**Participatory project resource allocation** in this study, it include financial resource allocation, technological resource allocation, human resource allocation and time resource allocation among WASH projects by Polish Humanitarian Action in Banaadir region, Somalia

**Participatory project monitoring** in this study, it involves data collection, monitoring team, progress reports and monitoring systems among WASH projects by Polish Humanitarian Action in Banaadir region, Somalia

**Participatory project control** includes project control team, project costs, project schedules and project quality control among WASH projects by Polish Humanitarian Action in Banaadir region, Somalia

**Participatory project communication** as used in this study, this term include information flow, internal communication, external communication and briefings and meetings organized by WASH projects by Polish Humanitarian Action in Banaadir region, Somalia



**Performance of Water, Sanitation and Hygiene Projects** include access to clean water, access to basic sanitation and access to hygiene facilities among WASH projects by Polish Humanitarian Action in Banaadir region, Somalia

### **1.12 Organization of the Study**

The contents of the first chapters include the background issues, the statement of the key concerns, purpose and objectives as well as the queries that guided the inquiry. The hypothetical concerns, essence and premises, limiting and delimiting concerns are also detailed. The second chapters focus on review of literature on WASH performance, participatory project resource allocation, participatory project monitoring, participatory project control and participatory project communication. The theory providing anchorage, conceptual framework and gaps are also indicated in chapter two. The methodologies for attaining stated objectives are in chapter while findings including analysis are outlined in fourth chapter. Summarization and conclusion as well as recommendations are detailed in fifth chapter.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The chapter is set out to review literature on performance of WASH project, participatory project resource allocation, participatory project monitoring, participatory project control and participatory project communication.

#### **2.3 Performance of Water, Sanitation and Hygiene Projects**

WASH projects are designed to meet the water, sanitation and hygiene needs of people in an establishment. There are different indicators that can be used to establish performance of WASH projects. In a study on factors influencing performance of water projects, Maimuna and Kidombo (2017) shared that access to safe and clean water as a key issue that WASH projects seek to promote. The study conducted by Assaad, El-Adaway & Abotaleb (2020) was aimed at bringing out the key indicators of measuring WASH. It was shown that improving the quality of drinking water is linked with reduction in ingestion of pathogens that may have significant health implications. When there is an improvement in sanitation, Trtílek and Hanák (2021) argue that the health conditions also get to improve reflected in reduction in cases of diarrhea. The quality and quantity of water is key in facilitating domestic and personal hygiene like food and hand washing.

Furthermore, an increase in supply in quantity of water can support income generating activities like production of food through irrigation and this may enhance the dietary intake especially among infants (Silva, Warnakulasuriya & Arachchige, 2019). Investing in WASH projects reduces the time utilized by women in search for water and the resultant time saving is utilized in preparing food and ensuring that infants have been fed (Bhuinyan, Gadekar, Agrawal, Basak & Raut, 2019). Hygiene education is an important component of WASH, whose emphasis should be on creation of awareness with regard to hand washing, effective disposal of fecal wastes and the need to protect drinking water against the spread of pathogens. A study was conducted by Gizaw and Addisu (2020) where the indicators of WASH adopted include accessibility to adequate sanitation, access to protected sources of water, home bases water treatment and hand washing practices.

## **2.4 Participatory Project Resource Allocation and Performance of Water, Sanitation and Hygiene Projects**

There are different resources that need to be allocated for optimal performance of the WASH projects, these may include the people, finances, materials and technologies even time aspects. Proper performance of WASH projects requires project managers and other involved stakeholders to allocate these resources to the required units (Cerar, Nell & Decreton, 2020). People are important components of resources that when well allocated can contribute to the overall success of a WASH program. These include the specific competences and knowledge including experience of the personnel responsible for the day to day operations of the WASH projects. The community can allocate human resources by mobilizing and providing the same labor that is required as the WASH activities are conducted (Chepng'eno & Kimutai, 2021).

Finances are heart of any WASH operations and hence require active involvement by all the involved stakeholders during allocation. A participatory approach in allocation of finances in the WASH projects provides a sense of accountability and transparency even funders of these programs (Alpenberg & Karlsson, 2019). Most of the WASH projects are donor funded, and require strict adherence to regulations involving financial reporting. Worthwhile to note is the fact that some of the WASH programs are funded by users through fees and other charges put in place for use of say water. Viability of these finances to the WASH projects is enhanced when there is a participatory approach where the same community is involved in allocation the available funds (Rajarajan & Gajanand, 2021).

New technologies are revolutionizing and transforming the way operations including WASH project activities are conducted. Technology is important when it comes towards success of the WASH project. Technologies are needed to manage the human resources and the funds in place used to run WASH projects (Al-Abdullatif & Gameil, 2021). These include the desktops and computer systems as well as the network facilities that ease the flow of information between external and internal parties to the WASH projects. Technologies reduce the time needed to carry out the various WASH activities in the project organization and thus directly impacting on performance (Huang, Shi, Pena-Mora, Lu & Shen, 2020).

In fact, the time saved from use of technology is used in carrying out other activities that may directly contribute towards performance of the WASH projects. Time resource allocation has significant implication on the success of the project activities in an organization (Tiwari & Suresha, 2021). When there are delays in carrying out WASH activities, the level of efficiency in the operations slows down which has huge implication on costs. Delays in carrying out WASH activities lead to an expansion in overhead costs and this may have far reaching effect on liquidity of the project organization. Inefficiencies in allocation and management of time increases the equipment and labor costs that are incurred as the project organizations carry out the WASH activities (Barbalho, De-Toledo & Da-Silva, 2019).

Jørgensen (2015) looked at HR allocation practices within multi-project entities. The inquiry did share the number of factors that inform allocation of human resources in a project to include the duration and size of the project, availability of resources and the extent which formalization of practiced. Kwesiga and Mulyungi (2018) was keen to establish the role played by allocation of resources as far as performance of Rwandan agricultural projects was concerned. The specific focus of the study was on projects by One Acre Fund. It was shown that allocation of seeds was linked with an improvement in production of maize among farmers. The recommendation raised by the inquiry was the need for the owners and the project managers to ensure that the project team members have been allocated by ensuring that competent and qualified personnel have been placed in their right jobs.

Obegi and Kimutai (2017) carried out an inquiry into scheduling of resources and the link with performance of international NGO projects in Kenya. It was shown that scheduling of resources help the project managers to identify the time and resource constraints so as to control resources in a way that is proper. The budget was regularly monitored so that expenditures are measured in relation to budget. The assignments allocated to the project staff were completed while ensuring that adequate equipment have been allocated to different staff.

## **2.5 Participatory Project Monitoring and Performance of Water, Sanitation and Hygiene Projects**

Project monitoring is an ongoing process within a program that helps in gathering and analysis of project to achieve internal efficiency of the project (Akanbang & Abdallah, 2021).A project

organization usually has a well-established team to carry out the monitoring activities although a participatory approach when conducting these activities is critical for success of the WASH projects (Jamaal, 2018). Participatory project monitoring is evident in a project organization when the community, project managers and all other stakeholders collectively take part in activities aimed at continuously collecting and analyzing data to yield progress reports. A participatory monitoring framework allows the interested parties to the project to systematically and regularly collect analyze and report information with regard to impacts, outcomes, activities and inputs of the WASH project (Sartorius, 2018).

According to Evans, Guariguata and Brancalion (2018), participatory monitoring helps to enhance the effectiveness and efficiency of the project. A participatory monitoring approach is largely done internally where indicators are established, systems for gathering information are put in place while data is collected and analyzed to generate findings for the daily running of the WASH projects. Participatory monitoring is carried out to achieve two key goals, efficiency and effectiveness of the WASH projects (Turreira-García, Lund, Domínguez, Carrillo-Anglés, Brummer, Duenn & Reyes-García, 2018). The key emphasis of the monitoring carried out for efficiency is on the activities of the project covering outputs, means and inputs. When monitoring is conducted for effectiveness, the major emphasis is on the resultant effect of the project in comparison to the initial state of affairs when the project had not been put in place.

Participatory monitoring helps the project organization to identify and solve unique issues within the environment. Continuous participatory monitoring is likely to improve the level of effectiveness and efficiency of the internally established activities conducted within the WASH projects (Evans et al., 2018). This method avails relevant information to the stakeholders that may help in carrying out an analysis of whether the objectives and goals of the project have been attained and whether the resources in place have been optimally used up. Participatory monitoring results into sustainability of the WASH projects (Tiwari & Suresha, 2021).

Al-Jibouri (2003) looked at monitoring system and the level of effectiveness in controlling costs within construction projects. The inquiry shared the factors that have effect on costs of the project to include change in plan of the project and the rate of inflation. Wanjala, Iravo, Odhiambo and Shalle (2017) conducted an inquiry focusing on techniques of monitoring and their link with

performance of Kenyan State Corporation projects. In total, 65 entities were covered by this inquiry. It was shown that the techniques of monitoring and performance of the projects are linked with each other.

## **2.6 Participatory Project Control and Performance of Water, Sanitation and Hygiene Projects**

Projects are established and guided by specific deliverables that cover costs, time and quality specifications. Participatory control ensures that the project activities are carried out within these specified deliverables. When the costs are not controlled, the project may experience cost overruns that may adversely hurt success of the project (Koluksuz, 2020). Cost control aims at ensuring that the project activities are carried out within the specified budget. Quality standards should be attained before a project is said to have been fully implemented or performed. Thus, participatory control seeks to ensure that the project activities are conducted within the quality standards. Any project organization should establish a sound control team and system in the organization to achieve the desired goals (Amjad, 2018).

A study was done by Grau and Abbaszadegan (2015) that focused on control of projects and the link with performance of the schedule of the projects. The inquiry shared that control is important in the project context as it seeks to rectify deviations in schedule and costs. Amjad (2018) looked at control of the project and its link with success of the project where leadership was moderator and governance a mediator. The inquiry was conducted in the context of Pakistan. It was shown that project control is linked with the possibility to enhance success of the project activities. Project controls are processes that help to gather, manage and analyze data so as to shape the costs and time outcomes of a given project. The key emphasis of project control is to mitigate resultant issues revolving around risks, schedules and costs in a project. Project control is key in success of the project, and it is a role that is carried out by a project controller who collaborates with the project managers to provide definition of the goals of the project, come up with the budget of the project.

Ford, Lyneis and Taylor (2007) focused on project control and the need to minimize overruns in schedules and costs. The inquiry focused on three components of cost control; staff overtime, the need to hire additional staff and the ability of staff to work at a faster rate. Yaghootkar and Gil (2012) did a study an inquiry into management philosophy that places emphasis on schedule and

the link with the ability of the organization to attain the milestones of the project. It was noted that an organization should have in place free resource capacity and the ability to hire additional staff so as to enhance performance of the schedule of the project.

## **2.7 Participatory Project Communication and Performance of Water, Sanitation and Hygiene Projects**

Communication is key for success of the project activity in an organization. Poor communication limits the flow of information between different stakeholders in the project. Communication involves coordination and relating with both internal and external parties to the project and this result into overall success of the project. The interested stakeholders should be invited for meetings to deliberate on project progress. Furthermore, the stakeholders should be briefed on the activities of the project as they are executed (Safapour, Kermanshachi & Kamalirad, 2020).

The flow of information in the project make it easier in coordinating the various project activities and this may contribute to overall success. A study was conducted by Alsulaimi and Abdullah (2020) noted that communication is a key component of schedule of the project and ultimately performance. Furthermore, different factors of communication have far reaching consequence on performance of the project activities. Berg (2017) focused on the tools of communication and the role they play towards efficiency of communication in projects. This study was conducted in context of Sweden. It was shown that traditionally established tools of communication support reduction in the level of efficiency while inadequate safety shares shape the attitude towards social media.

Project management require a thorough understanding of quality, costs, time and scope as well as issues related with human resources, risks, procurement and communication with stakeholders. The quality of communication with stakeholders significantly contributes towards success and overall performance of the project activities (Fakhro & Larm, 2019). The study conducted by Zulch (2014) focused on communication as a foundation of management of the project activities. It was noted that the skills of the project manager to communicate information in a way that is effective is an important factor of success in management of the projects. Communication allows the project managers to share information with regard to quality, time, scope and costs within the projects. It was noted that communication combines time, scope and costs so as to achieve quality

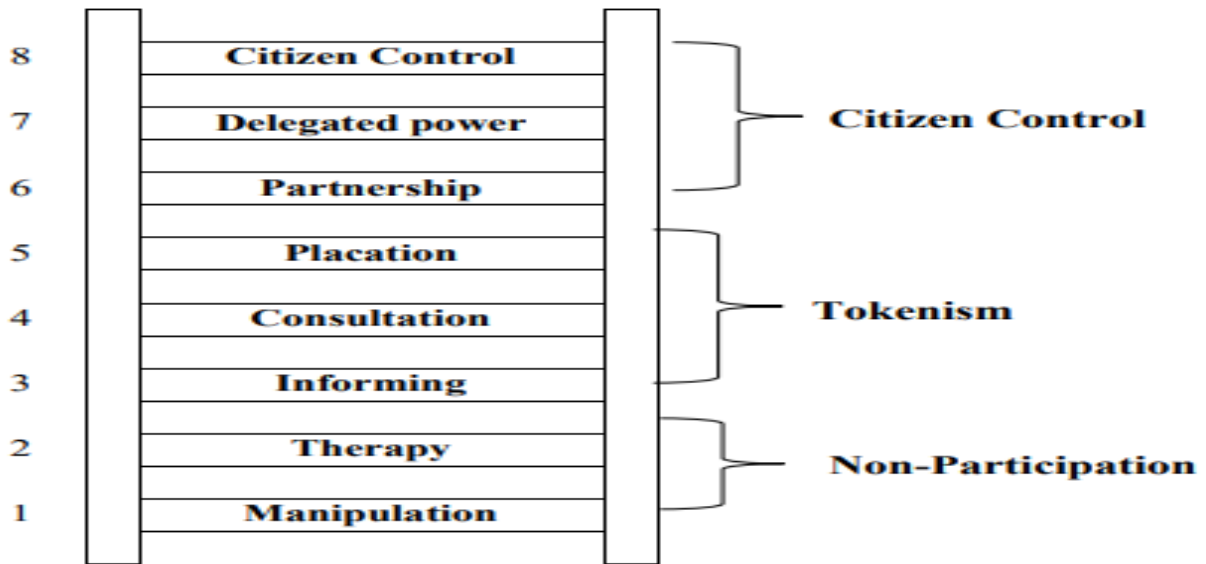
project outcomes. Majeed (2020) looked at communication and the link with success of the project focusing on Pakistan. It was shown that communication within the project is linked with success of the various activities.

Kiradoo (2017) looked at communication and the role it plays in management of quality and timeliness as far as project success is concerned. Desk research was embraced where relevant literature was reviewed by this inquiry. It was noted that formal and informal tools of communication are key for sound comprehension of information of the project as well as the rate of success. Alqaisi (2018) studied the link between engagements of the stakeholders with success of the project activities. The inquiry shared that the need to manage the interests and expectations of the stakeholders is linked with success of the project. It was noted that the need to establish the stakeholders at an initial phase of the project and management of their expectations and needs enhances performance of the projects. To meet these, the study raised the need for the project organizations to have in place timely and appropriate communication that is well aligned with the requirements of the various stakeholders.

## **2.8 Theoretical Framework**

The ladder theory of participation by Arnstein (1969) will be used to support this study. The theory is used to describe the degree of citizen participation in a program as determined through rungs. The theory views participation as the a mechanism that people leverage to bringing about social reforms that enable them to derive benefits from the affluent society. The level of participation in a program is reflected in 8 rungs as depicted in Figure 2.1.





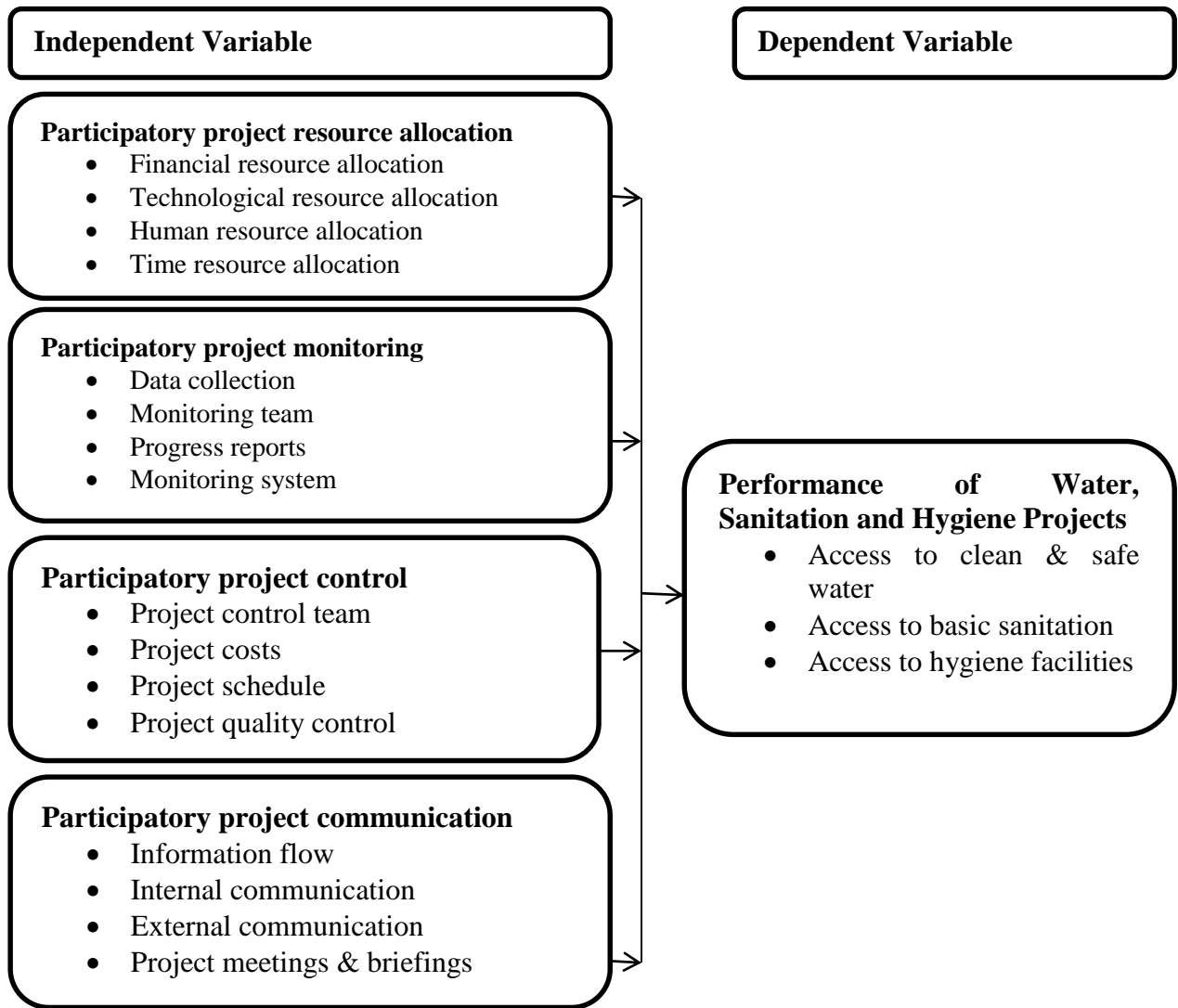
**Figure 2.1: Ladder Theory of Participation**

**Source: adapted participation Ladder from (Arnstein, 1969).**

The rungs and manipulation and therapy generally lead to non-participation level. At this level, propaganda is used to influence the stakeholders. In therapy, the stakeholders are viewed to lack decision making ability and the project managers subject them to limited education. The next three rungs of the ladder include information, consultation and placation. Informing is where there is flow of information from project officials to stakeholders although power for negotiation and feedback is limited. During this phase, posters and pamphlets may be used to create awareness to project stakeholders (Arnstein, 1969). Consultation is the fourth rung within the theory and it also enhances the flow of information through surveys or hearings or even meetings. The only challenge is such information obtained at this rung is not taken into consideration by the project management. Placation is the final rung under tokenism is where the influence of the stakeholders starts being felt through committees or boards although they are still outnumbered, especially when their views diverge with those of the project managers. The last level of this theory covers three rungs, the need to partner, delegate power and allow citizen to control the program. At this level, there is some degree of participation in a project unlike the previous rungs. The stakeholders have been empowered, to demand for accountability in the program. This theory will be used to support the need for participatory project implementation and how it is linked with performance of the WASH projects. The theory shares how the 8 rungs of participation in the implementation phase influence performance of the WASH projects.

## 2.9 Conceptual Framework

Figure 2.1 is the conceptual framework



**Figure 2. 2: Conceptual Framework**

From Figure 2.2, the independent variable is participatory project implementation operationalized into resource allocation, monitoring, control and communication. On the other hand, performance of WASH project is the dependent variable.

## 2.10 Knowledge Gap Matrix

Table 2.1 shows the knowledge gaps to be filled by the suggested study.

**Table 2. 1: Knowledge Gap Matrix**

Variable	Author & Year	Study	Findings	Gaps	Focus of Present study
Participatory Project Resource Allocation	Obegi and Kimutai (2017)	scheduling of resources and the link with performance of international NGO projects in Kenya	Scheduling of resources help the project managers to identify the time and resource constraints so as to control resources in a way that is proper.	The study focused on resource scheduling as the independent variable	Participatory resource allocation as one of the independent variables will be of major focus in the present study
Participatory Project Resource Allocation	Jørgensen (2015)	HR allocation practices within multi-project entities	The number of factors that inform allocation of human resources in a project to include the duration and size of the project, availability of resources and the extent which formalization of practiced.	The study failed to link HR allocation and project performance	The present study will focus on participatory HR allocation and relate this with performance of WASH projects
Participatory Project Monitoring	Wanjala, Iravo, Odhiamboro and Shalle (2017)	Techniques of monitoring and their link with performance of Kenyan State Corporation projects	Techniques of monitoring and performance of the projects are linked with each other.	The focus of this study was on projects by the State Corporations	The present study will focus on WASH of Polish Humanitarian Action project in Banaadir region, Somalia.
Participatory Project Control	Grau and Abbaszadegan (2015)	control of projects and the link with performance of the schedule of the projects	Control is important in the project context as it seeks to rectify deviations in schedule and costs.	The study related control and schedule performance	The present study looks at control and project performance
Participatory Project Communication	Zulch (2014)	communication as a foundation of management of the project activities	The skill of the project manager to communicate information in a way that is effective is an important factor of success in management of the projects.	The inquiry covered project management success as dependent	Project performance is the dependent variable in the present inquiry

## **2.10 Summary of Literature**

The chapter has reviewed literature on the variables of the study covering performance of WASH project, participatory project resource allocation, participatory project monitoring, participatory project control and participatory project communication. Literature on the ladder theory of participation has also been reviewed.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

The chapter details the design, targeted respondents and the means to use for carrying out sampling. The means of gathering data and the associated procedures including piloting, reliability and validity analysis are also detailed. The methods for analysis, operationalization and ethical concerns of the study are also shared in this chapter.

#### 3.2 Research Design

Research design is a framework that covers techniques and methods that the leverage to gather and process the views of the participants or from other auxiliary sources (Wohlin & Aurum, 2015). The essence of the study design is to provide an order in which activities take place so as to provide a conclusion of the inquiry. The study adopted a descriptive correlational survey design. As shared by Tetnowski (2015), descriptive design aims at establish and report the manner which things are without the need to manipulate them and this will bring out the current state of participatory project implementation and performance of WASH projects. The study has formulated some hypotheses and thus the need for correlational design.

#### 3.3 Target Population

Target population is a group of elements that may provide the basis for generalization of the findings (Yin, 2015). This study targeted 45 staff of Polish Humanitarian Action Project drawn from finance, human resource, M&E team, public relations/communication and information and communication technology (ICT) departments. Table 3.1 gives a breakdown of the target population.

**Table 3.1: Target Population**

<b>Department</b>	<b>Target population</b>
Finance	8
Human resource	9
M&E team	20
Public relations/communication	4
Information and communication technology	4
<b>Total</b>	<b>45</b>

**Source: Polish Humanitarian Action Project (2020)**

### **3.4 Sample Size and Sampling Procedure**

Sampling is conducted to reduce the huge population into smaller one that can easily be managed (Yin, 2017). This study adopted census and thus all the 45 finance, human resource, M&E, public relations and ICT staff from the Polish Humanitarian Action Project were included in the study. The reason for use of census was because the population was relatively small and that it was easily accessible. The use of census allowed the researcher to generalize the findings of the study to the entire population of the study.

### **3.5 Research Instruments**

Primary data was gathered with the aid of the questionnaire. Yin (2015) defines primary data as the first hand source of gathering the views from the participants in the inquiry. A five point Likert scale helped in formulating items on the questionnaire with 1 standing for strong disagreement and 5 showing in a strong agreement with the statement.

#### **3.5.1 Piloting of Research Instruments**

A pilot study is a min-inquiry that conducted before the actual study and it aims at rectifying possible flaws on the tool for going to the field (Mugenda & Mugenda, 2003). About 1-10% of the sample size can be selected and used for the purpose of piloting the tools (Mugenda & Mugenda, 2003). This study selected 4 respondents (representing 10% of the target population) for piloting who were not included in the final study. Their exclusion from the actual study was meant to avoid biasness.

#### **3.5.2 Validity of Research Instruments**

Validity is the extent which the study tool is a representation of what is being measure (Csikszentmihalyi & Larson, 2014). Content validity was embraced in this inquiry where the study tool was sent to the supervisor who reviewed the contents to ensure they were adequate.

#### **3.5.3 Reliability of Research Instruments**

The tool of the study is said to be reliable when it provides consistent measurement. There are three key techniques that are relevant in gauging the reliability of the study tools: test-retest, split-half and internal consistency. This study adopted an internal consistency measure of reliability

with the aid of the Cronbach Alpha Coefficient and the value 0.7 was used as the threshold as recommended by Vaske, Beaman and Sponarski (2017).

### 3.6 Data Collection Procedure

An introduction letter from UON was sought before then actual is undertaken. The permit from Ministry of Education in Somalia was applied afterwards. Notification was shared with the relevant institution where the inquiry is to be undertaken. Administration of the questionnaire to participants was done in person, so as to allow room for the respondents to share their concerns and issues they might be facing as they fill in the questionnaire.

### 3.7 Data Analysis Techniques

Data analysis is the steps carried out to process raw facts into meaningful insights that inform policy and decisions (Kraus, 2014). The analysis of the collected data was supported by SPSS tool version 24. Descriptive (means and standard deviations, frequencies and percentages) supported the analysis. Regression analysis was also utilized to make relevant inferences with the model as specified:

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

Where;

Y = performance of WASH projects

$\beta_0$  = Y intercept

$\beta_1$  to  $\beta_3$  = régression coefficients

$X_1$  = participatory project resource allocation

$X_2$  = participatory project monitoring

$X_3$  = participatory project control

$X_4$  = participatory project communication

$\varepsilon$  = Error term

The results will be presented through tables

### 3.8 Operationalization

**Table 3.2: Operationalization**

Variable type	Indicators	Scale of measurement	Data collection tool
---------------	------------	----------------------	----------------------

Independent Participatory resource allocation	project	Financial allocation Technological allocation Human resource allocation Time resource allocation	resource	Ordinal scale (5-point Likert)	Questionnaire
Independent Participatory monitoring	project	Data collection Monitoring team Progress reports Monitoring system		Ordinal scale (5-point Likert)	Questionnaire
Independent Participatory control	project	Project control team Project costs Project schedule Project quality control		Ordinal scale (5-point Likert)	Questionnaire
Independent Participatory communication	project	Information flow Internal communication External communication Project meetings & briefings		Ordinal scale (5-point Likert)	Questionnaire
Dependent performance of Water, Sanitation and Hygiene Projects	of	Access to clean 7 safe water Access to basic sanitation Access to hygiene facilities		Ordinal scale (5-point Likert)	Questionnaire

### 3.9 Ethical Consideration

The researcher sought for authority including an introduction letter and the permit from NACOSTI before conducting the actual inquiry. Efforts were made to assure the participants that any information was only to be used for the purpose of academics. Participation in the study was voluntary, as no respondents were forced to do so. The respondents were not required to indicate their names on the questionnaire and information gathered was handled confidentially. All the materials used in the study were acknowledged through APA style of referencing.



## CHAPTER FOUR RESEARCH FINDINGS

### 4.1 Introduction

The processing of the evidence from the information gathered in field is presented in this chapter. The processing was done descriptively and inferentially and presented in tabular format.

### 4.2 Response Rate

Having administered 45 tools to participants during field work, 35 had complete information and thus were retained. This being a 77.8% response rate as supported by Babbie (2020).

### 4.3 General Information

The general information of the respondents was determined covering gender, level of education and years of implementing WASH project and presented as shown in Table 4.1.

**Table 4.1: General Information**

Category	Classification	Frequency	Percentage
Gender	Male	23	65.7
	Female	12	34.3
Level of education	Diploma	11	31.4
	First degree	15	42.9
	Masters	9	25.7
Years of implementing WASH projects	Less than 5 years	7	20.0
	6-10 years	17	48.6
	11-15 years	8	22.9
	over 16 years	3	8.6

The findings in Table 4.1 indicate that while 65.7% of the respondents were male, 34.3% were female. This implies that there was gender diversity in the study and hence representative findings were sought. On level of education, it emerged from respondents that while 42.9% of the respondents had first degrees, 25.7% had masters' degrees and thus had informed views to convey as needed by this inquiry.

## 4.4 Descriptive Statistics

### 4.4.1 Participatory Project Resource Allocation.

**Table 4.2: Participatory Project Resource Allocation**

	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean
<b>Adequate finances are allocated towards WASH projects at PAH Humanitarian Action</b>	0	8.6	17.1	68.6	5.7	3.71
<b>The allocated funds are prudently utilized in implementing WASH projects at PAH</b>	2.9	17.1	14.3	40	25.7	3.69
<b>New technologies have been allocated to staff implementing WASH projects at PAH</b>	0	11.4	17.1	60	11.4	3.71
<b>The allocated technologies have simplified processes when implementing WASH projects at PAH</b>	0	5.7	25.7	57.1	11.4	3.74
<b>Competent staff have been allocated to implement WASH projects at PAH</b>	0	17.1	8.6	65.7	8.6	3.66
<b>Competitive remuneration packages are allocated for WASH project staff at PAH</b>	0	11.4	11.4	60	17.1	3.83
<b>Sufficient time has been allocated to various activities of WASH project at PAH</b>	0	5.7	11.4	57.1	25.7	4.03

Table 4.2 indicates that 58.6% of the study participants were in agreement (M=3.71) that adequate finances were allocated towards WASH projects at PAH Humanitarian Action and 65.7% also were in agreement (M=3.66) that competent staff had been allocated to implement WASH projects at PAH. This means that funding and staff competency played an instrumental role as far as the performance of WASH projects was concerned. It was established that 60% of the respondents were in agreement (M=3.71) that new technologies had been allocated to staff implementing WASH projects at PAH and the other 60% agreed (M=3.83) that competitive remuneration packages were allocated for WASH project staff at PAH. This means that the allocation of new

technologies and salaries to staffs contributed to performance of WASH projects in Somalia. The findings indicated that 57.1% of the participants were in concurrence (M=4.03) that sufficient time had been allocated to various activities of WASH project at PAH while 57.1% others also agreed (M=3.74) on the fact that the allocated technologies had simplified processes when implementing WASH projects at PAH. This means that the allocation of technological infrastructures and time had supported performance of WASH projects in Somalia. It was observed that 40% of the respondents agreed (M=3.69) that the allocated funds were prudently utilized in implementing WASH projects at PAH. This means that prudence in use of the allocated funds had allowed PAH to enhance performance of WASH projects in Somalia.

#### 4.4.2 Participatory Project Monitoring

**Table 4.3: Participatory Project Monitoring**

	SD	D	N	A	SA	Mean
A participatory approach is adopted in collection of data on WASH project at PAH	2.9					3.77
	%	11.4%	5.7%	65.7%	14.3%	
The monitoring team for WASH project is jointly established at PAH	2.9					3.74
	%	11.4%	11.4%	57.1%	17.1%	
The skills of the monitoring team are jointly determined at PAH	0%	5.7%	2.9%	80%	11.4%	3.97
A participatory approach is adopted in generation of progress reports on WASH at PAH	0%	20%	8.6%	68.6%	2.9%	3.54
The progress reports are utilized by all the stakeholders at PAH	0%	2.9%	25.7%	45.7%	25.7%	3.94
The monitoring system is jointly utilized at PAH	0%	2.9%	34.3%	60%	2.9%	3.63

The findings in Table 4.3 while 80% of the respondents agreed (M=3.97) on the fact that skills of the monitoring team were jointly determined at PAH, 68.6% agreed (M=3.54) that participatory approach was adopted in generation of progress reports on WASH at PAH. This means that collective determination of the skills and generation of progress reports contributed and supported the implementation of WASH projects by PAH in Somalia. The study noted that while 65.7% of the respondents agreed (M=3.77) on the fact that participatory approach was adopted in collection of data on WASH project at PAH, 60% agreed (M=3.63) that monitoring system was jointly utilized at PAH. This implies that joint collection of data and utilization of monitoring systems enhanced performance of WASH projects in Somalia. The results indicated that 57.1%

of the respondents were in agreement (M=3.74) that monitoring team for WASH project was jointly established at PAH and 45.7% agreed (M=3.94) that progress reports were utilized by all the stakeholders at PAH. This means that joint determination of the monitoring team as well as collective utilization of the progress reports by the concerned stakeholders allowed PAH to implement WASH projects in Somalia.

#### 4.4.3 Participatory Project Control

**Table 4.4: Participatory Project Control**

	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>	<b>Mean</b>
There is a competent control team for WASH projects at PAH	0%	5.7%	17.1%	71.4%	5.7%	3.77
The control team of the WASH project is jointly determined at PAH	0%	20%	14.3%	60%	5.7%	3.51
The costs of WASH projects are controlled against the budget at PAH	0%	2.9%	8.6%	71.4%	17.1%	4.03
All WASH projects should be conducted within the set costs in the budget at PAH	2.9%	17.1%	8.6%	65.7%	5.7%	3.54
The WASH projects at PAH are monitored to ensure they are done within the established schedule	5.7%	11.4%	11.4%	62.9%	8.6%	3.57
Water samples are regularly tested for quality control at PAH	0%	8.6%	14.3%	71.4%	5.7%	3.74

The findings in Table 4.4 indicate that while 71.4% of the respondents agreed (M=3.77) that there was a competent control team for WASH projects at PAH, the other 71.4% agreed (M=4.03) that costs of WASH projects were controlled against the budget at PAH. This means that PAH had a competent control team that effectively controlled the costs during the implementation of WASH projects in Somalia. The study noted that while 71.4% of the respondents were in agreement (M=3.74) that water samples were regularly tested for quality control at PAH, 65.7% agreed (M=3.54) that all WASH projects were conducted within the set costs in the budget at PAH. This means that quality and cost control contributed to effective implementation of WASH projects in Somalia. The findings of the study were that while 62.9% of the respondents agreed (M=3.57) that WASH projects at PAH were monitored to ensure they were done within the established schedule, 60% others agreed that control team of the WASH project was jointly determined at PAH. This implies that effective monitoring of projects and joint determination of the project team enabled the implementation of WASH projects in Somalia

#### 4.4.4 Participatory Project Communication

**Table 4.5: Participatory Project Communication**

	SD	D	N	A	SA	Mean
There is flow of information among different employees carrying out WASH projects at PAH	0%	2.9%	20%	68.6%	8.6%	3.83
Systems are in place to support internal communication among staff implementing WASH projects at PAH	0%	14.3%	14.3%	65.7%	5.7%	3.63
Internal communication supports a culture of team work among staff when implementing WASH projects at PAH	0%	14.3%	8.6%	71.4%	5.7%	3.69
Staff communicate with the beneficiaries of WASH projects at PAH	0%	8.6%	25.7%	57.1%	8.6%	3.66
Meetings are organized for stakeholders of WASH projects to share relevant information at PAH	0%	2.9%	11.4%	80%	5.7%	3.89
The stakeholders of the WASH projects are briefed on a regular basis at PAH	0%	8.6%	5.7%	74.3%	11.4%	3.89

The findings of the study were that while 80% of the respondents were in agreement (M=3.89) that meetings were organized for stakeholders of WASH projects to share relevant information at PAH, 74.3% were in agreement (M=3.89) that stakeholders of the WASH projects were briefed on a regular basis at PAH. It then implies that meetings and briefings are instrumental when it comes to project communication. The study established that while 71.4% of the participants were in agreement (M=3.69) that internal communication supported a culture of team work among staff when implementing WASH projects at PAH, 68.6% concurred (M=3.83) that there was flow of information among different employees carrying out WASH projects at PAH. This means that internal communication facilitated the flow of information which allowed for proper coordination of various activities during the implementation of WASH projects in Somalia. The findings of the study indicated that while 65.7% of the respondents agreed (M=3.63) that systems were in place to support internal communication among staff implementing WASH projects at PAH, 57.8% concurred (M=3.66) that staff communicated with the beneficiaries of WASH projects at PAH. This means that existence of relevant systems allowed for effective communication with the stakeholders during the implementation of WASH project.

#### 4.5 Regression Results

Regression analysis was conducted to test the formulated hypotheses that guided the study.

#### 4.5.1 Regression Model Summary

Table 4.6 summarizes evidence

**Table 4.6: Regression Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.833 <sup>a</sup>	.694	.653	.83719

It can be deduced that 69.4% of the change in performance Polish Humanitarian Action project in Banaadir region, Somalia is explained by (participatory implementation) participatory project resource allocation, participatory project monitoring, participatory project control and participatory project communication carried out during the implementation phases.

#### 4.5.2 Beta Coefficients and Significance

Table 4.7 is an overview

**Table 4.7: Beta Coefficients and Significance**

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
(Constant)		8.002	2.602		3.075	.004
Participatory resource allocation	project	.388	.090	.500	4.333	.000
Participatory monitoring	project	.108	.061	.201	1.761	.088
Participatory control	project	.318	.096	.492	3.301	.002
Participatory communication	project	.333	.118	.264	2.822	.019

Based on the results in Table 4.7, it is evident that participatory project resource allocation ( $\beta=0.388$ ,  $p<0.05$ ), participatory project communication ( $\beta=.333$ ,  $p<0.05$ ), participatory project control ( $\beta=0.318$ ,  $p<0.05$ ) and participatory project monitoring ( $\beta=.108$ ,  $p<0.05$ ) were significant. It then follows that participatory project implementation is a significant predictor of performance Polish Humanitarian Action project in Banaadir region, Somalia.

## **CHAPTER FIVE**

### **SUMMARY, DISCUSSION, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

A summary of the analyzed evidence is presented with discussion. Concluding recommendation and recommending remarks are also suggested. The areas which should be of focus by future inquiries are also documented.

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

The subsequent sections summarize the results of analysis:

##### **5.2.1 Participatory Project Resource Allocation and Performance of Water, Sanitation and Hygiene Projects**

From regression analysis, participatory project resource allocation ( $\beta=0.388$ ,  $p<0.05$ ) was significant. The findings were that 68.6% of the participants were in agreement ( $M=3.71$ ) that adequate finances were allocated towards WASH projects at PAH Humanitarian Action and 65.7% also were in agreement ( $M=3.66$ ) that competent staff had been allocated to implement WASH projects at PAH. It was established that 60% of the respondents were in agreement ( $M=3.71$ ) that new technologies had been allocated to staff implementing WASH projects at PAH and the other 60% agreed ( $M=3.83$ ) that competitive remuneration packages were allocated for WASH project staff at PAH. The findings indicated that 57.1% of the respondents agreed ( $M=4.03$ ) that sufficient time had been allocated to various activities of WASH project at PAH while 57.1% others also agreed ( $M=3.74$ ) on the fact that the allocated technologies had simplified processes when implementing WASH projects at PAH. It was observed that 40% of the respondents agreed ( $M=3.69$ ) that the allocated funds were prudently utilized in implementing WASH projects at PAH.

##### **5.2.2 Participatory Project Monitoring and Performance of Water, Sanitation and Hygiene Projects**

The findings of regression analysis were that participatory project monitoring ( $\beta=0.108$ ,  $p<0.05$ ) had significant effect on performance Polish Humanitarian Action project in Banaadir region, Somalia. The study established that while 80% of the respondents agreed ( $M=3.97$ ) on the fact that



skills of the monitoring team were jointly determined at PAH, 68.6% agreed (M=3.54) that participatory approach was adopted in generation of progress reports on WASH at PAH. The study noted that while 65.7% of the respondents agreed (M=3.77) on the fact that participatory approach was adopted in collection of data on WASH project at PAH, 60% agreed (M=3.63) that monitoring system was jointly utilized at PAH. The results indicated that 57.1% of the respondents were in agreement (M=3.74) that monitoring team for WASH project was jointly established at PAH and 45.7% agreed (M=3.94) that progress reports were utilized by all the stakeholders at PAH.

### **5.2.3 Participatory Project Control and Performance of Water, Sanitation and Hygiene Projects**

Based on regression analysis, participatory project control ( $\beta=0.318$ ,  $p<0.05$ ) had significant effect on performance Polish Humanitarian Action project in Banaadir region, Somalia. The findings indicate that while 71.4% of the respondents agreed (M=3.77) that there was a competent control team for WASH projects at PAH, the other 71.4% agreed (M=4.03) that costs of WASH projects were controlled against the budget at PAH. The study noted that while 71.4% of the respondents were in agreement (M=3.74) that water samples were regularly tested for quality control at PAH, 65.7% agreed (M=3.54) that all WASH projects were conducted within the set costs in the budget at PAH. The findings of the study were that while 62.9% of the respondents agreed (M=3.57) that WASH projects at PAH were monitored to ensure they were done within the established schedule, 60% others agreed that control team of the WASH project was jointly determined at PAH.

### **5.2.4 Participatory Project Communication and Performance of Water, Sanitation and Hygiene Projects**

The findings from regression analysis were that participatory project communication ( $\beta=.333$ ,  $p<0.05$ ) had significant effect on performance Polish Humanitarian Action project in Banaadir region, Somalia. The findings of the study were that while 80% of the respondents were in agreement (M=3.89) that meetings were organized for stakeholders of WASH projects to share relevant information at PAH, 74.3% agreed (M=3.89) that stakeholders of the WASH projects were briefed on a regular basis at PAH. The study established that while 71.4% of the respondents agreed (M=3.69) that internal communication supported a culture of team work among staff when

implementing WASH projects at PAH, 68.6% agreed (M=3.83) that there was flow of information among different employees carrying out WASH projects at PAH. The findings of the study indicated that while 65.7% of the respondents agreed (M=3.63) that systems were in place to support internal communication among staff implementing WASH projects at PAH, 57.8% agreed (M=3.66) that Staff communicated with the beneficiaries of WASH projects at PAH.

### **5.3 Discussion**

The subsequent section detail discussion of the findings

#### **5.3.1 Participatory Project Resource Allocation and Performance of Water, Sanitation and Hygiene Projects**

From regression analysis, participatory project resource allocation ( $\beta=0.388$ ,  $p<0.05$ ) had the greatest significant effect on performance Polish Humanitarian Action project in Banaadir region, Somalia. This finding is consists net with Kwesiga and Mulyungi (2018) who were keen to establish the role played by allocation of resources as far as performance of Rwandan agricultural projects was concerned and observed that allocation of seeds was linked with an improvement in production of maize among farmers. Obegi and Kimutai (2017) carried out an inquiry into scheduling of resources and the link with performance of international NGO projects in Kenya and noted that scheduling of resources help the project managers to identify the time and resource constraints so as to control resources in a way that is proper. The findings were that 68.6% of the respondents agreed (M=3.71) that adequate finances were allocated towards WASH projects at PAH Humanitarian Action and 65.7% also were in agreement (M=3.66) that competent staff had been allocated to implement WASH projects at PAH. The finding agrees with Chepng'eno and Kimutai (2021) who shared that people are important components of resources that include the specific competences and knowledge including experience of the personnel responsible for the day to day operations of the WASH projects.

It was established that 60% of the respondents were in agreement (M=3.71) that new technologies had been allocated to staff implementing WASH projects at PAH and the other 60% agreed (M=3.83) that competitive remuneration packages were allocated for WASH project staff at PAH.

As observed by Huang et al. (2020), technologies reduce the time needed to carry out the various WASH activities in the project organization and thus directly impacting on performance. The findings indicated that 57.1% of the respondents agreed (M=4.03) that sufficient time had been allocated to various activities of WASH project at PAH while 57.1% others also agreed (M=3.74) on the fact that the allocated technologies had simplified processes when implementing WASH projects at PAH. The finding is supported by Al-Abdullatif and Gameil (2021) who noted that new technologies are revolutionizing and transforming the way operations including WASH project activities are conducted and that technology is important when it comes towards success of the WASH project.

### **5.3.2 Participatory Project Monitoring and Performance of Water, Sanitation and Hygiene Projects**

The findings of regression analysis were that participatory project monitoring ( $\beta=0.108$ ,  $p<0.05$ ) had significant effect on performance Polish Humanitarian Action project in Banaadir region, Somalia. The finding is consistent with Evans et al. (2018), who shared that participatory monitoring helps to enhance the effectiveness and efficiency of the project. Similarly, Turreira-García et al. (2018) noted that participatory monitoring is carried out to achieve two key goals, efficiency and effectiveness of the WASH projects. Al-Wanjala et al. (2017) conducted an inquiry focusing on techniques of monitoring and their link with performance of Kenyan State Corporation projects. It was shown that the techniques of monitoring and performance of the projects are linked with each other. The study established that while 80% of the respondents agreed (M=3.97) on the fact that skills of the monitoring team were jointly determined at PAH, 68.6% agreed (M=3.54) that participatory approach was adopted in generation of progress reports on WASH at PAH. The finding is consistent with Sartorius (2018) who noted that a participatory monitoring framework allows the interested parties to the project to systematically and regularly collect analyze and report information with regard to impacts, outcomes, activities and inputs of the WASH project.

The study noted that while 65.7% of the respondents agreed (M=3.77) on the fact that participatory approach was adopted in collection of data on WASH project at PAH, 60% agreed (M=3.63) that monitoring system was jointly utilized at PAH. According to Evans, Guariguata and Brancalion (2018), participatory monitoring approach is largely done internally where systems for gathering information are put in place while data is collected and analyzed to generate findings for

the daily running of the WASH projects. The results indicated that 57.1% of the respondents were in agreement (M=3.74) that monitoring team for WASH project was jointly established at PAH and 45.7% agreed (M=3.94) that progress reports were utilized by all the stakeholders at PAH. As argued by Tiwari and Suresha (2021), participatory monitoring avails relevant information to the stakeholders that may help in carrying out an analysis of whether the objectives and goals of the project have been attained and whether the resources in place have been optimally used up.

### **5.3.3 Participatory Project Control and Performance of Water, Sanitation and Hygiene Projects**

Based on regression analysis, participatory project control ( $\beta=0.318$ ,  $p<0.05$ ) had significant effect on performance Polish Humanitarian Action project in Banaadir region, Somalia. The finding concur with a study was by Grau and Abbaszadegan (2015) that focused on control of projects and the link with performance of the schedule of the projects and shared that control is important in the project context as it seeks to rectify deviations in schedule and costs. Amjad (2018) looked at control of the project and its link with success of the project where leadership was moderator and governance a mediator where it was shown that project control is linked with the possibility to enhance success of the project activities. Yaghootkar and Gil (2012) did a study an inquiry into management philosophy that places emphasis on schedule and the link with the ability of the organization to attain the milestones of the project and noted that an organization should have in place free resource capacity and the ability to hire additional staff so as to enhance performance of the schedule of the project.

The findings in indicate that while 71.4% of the respondents agreed (M=3.77) that there was a competent control team for WASH projects at PAH, the other 71.4% agreed (M=4.03) that costs of WASH projects were controlled against the budget at PAH. This finding is strongly supported by Koluksuz (2020) who argued that when the costs are not controlled, the project may experience cost overruns that may adversely hurt success of the project and that cost control aim at ensuring that the project activities are carried out within the specified budget. The study noted that while 71.4% of the respondents were in agreement (M=3.74) that water samples were regularly tested for quality control at PAH, 65.7% agreed (M=3.54) that all WASH projects were conducted within the set costs in the budget at PAH. The result is consistent with Grau and Abbaszadegan (2015)

who shared that control is important in the project context as it seeks to rectify deviations in schedule and costs.

### **5.3.4 Participatory Project Communication and Performance of Water, Sanitation and Hygiene Projects**

The findings from regression analysis were that participatory project communication ( $\beta=.333$ ,  $p<0.05$ ) had significant effect on performance Polish Humanitarian Action project in Banaadir region, Somalia. The finding is in line with Zulch (2014) who noted that focused on communication as a foundation of management of the project activities and noted that communication allows the project managers to share information with regard to quality, time, scope and costs within the projects. Kiradoo (2017) looked at communication and the role it plays in management of quality and timeliness as far as project success is concerned and noted that formal and informal tools of communication are key for sound comprehension of information of the project as well as the rate of success.

The findings of the study were that while 80% of the respondents were in agreement ( $M=3.89$ ) that meetings were organized for stakeholders of WASH projects to share relevant information at PAH, 74.3% agreed ( $M=3.89$ ) that stakeholders of the WASH projects were briefed on a regular basis at PAH. This finding is consistent with Safapour et al. (2020) who noted that stakeholders should be briefed on the activities of the project as they are executed. The study established that while 71.4% of the respondents agreed ( $M=3.69$ ) that internal communication supported a culture of team work among staff when implementing WASH projects at PAH, 68.6% agreed ( $M=3.83$ ) that there was flow of information among different employees carrying out WASH projects at PAH. This finding is in line with Alsulaimi and Abdullah (2020) who observed that the flow of information in the project make it easier in coordinating the various project activities and this may contribute to overall success.

## **5.4 Conclusion**

The conclusion of the study is detailed in the subsequent sections:

#### **5.4.1 Participatory Project Resource Allocation and Performance of Water, Sanitation and Hygiene Projects**

From regression analysis, participatory project resource allocation had the greatest significant effect on performance Polish Humanitarian Action project in Banaadir region, Somalia. Funding and staff competency played an instrumental role as far as the performance of WASH projects was concerned. Allocation of new technologies and salaries to staffs contributed to performance of WASH projects in Somalia. Allocation of technological infrastructures and time had supported performance of WASH projects in Somalia. Prudence in use of the allocated funds had allowed PAH enhancing performance of WASH projects in Somalia.

#### **5.4.2 Participatory Project Monitoring and Performance of Water, Sanitation and Hygiene Projects**

The findings of regression analysis were that participatory project monitoring had significant effect on performance Polish Humanitarian Action project in Banaadir region, Somalia. Collective determination of the skills and generation of progress reports contributed and supported the implementation of WASH projects by PAH in Somalia. Joint collection of data and utilization of monitoring systems enhanced performance of WASH projects in Somalia. Joint determination of the monitoring team as well as collective utilization of the progress reports by the concerned stakeholders allowed PAH to implement WASH projects in Somalia.

#### **5.4.3 Participatory Project Control and Performance of Water, Sanitation and Hygiene Projects**

Based on regression analysis, participatory project control had significant effect on performance Polish Humanitarian Action project in Banaadir region, Somalia. PAH had a competed control team that effectively controlled the costs during the implementation of WASH projects in Somalia. Quality and cost control contributed to effective implementation of WASH projects in Somalia. Effective monitoring of projects and joint determination of the project team enabled the implementation of WASH projects in Somalia.

#### **5.4.4 Participatory Project Communication and Performance of Water, Sanitation and Hygiene Projects**

The findings from regression analysis were that participatory project communication had significant effect on performance Polish Humanitarian Action project in Banaadir region, Somalia. Meetings and briefings were organized and they played an instrumental role as far as implementation of WASH projects was concerned. Internal communication facilitated the flow of information which allowed for proper coordination of various activities during the implementation of WASH projects in Somalia. Existence of relevant systems allowed for effective communication with the stakeholders during the implementation of WASH project.

#### **5.5 Recommendations of the Study**

From the findings, the study makes the following recommendations:

- i. The project managers of the WASH projects in Banaadir region Somalia should diversify their sources of finances and invest in talented and qualified project staff to enhance performance of their projects
- ii. The monitoring and evaluation officers of the WASH projects in Banaadir region Somalia need to undertake a participatory approach to monitoring of their projects
- iii. The cost and quality control managers of the WASH projects in Banaadir region Somalia should embrace best industry practices when it comes to project control
- iv. The public relations officer working for WASH projects in Banaadir region Somalia should establish clear channels of communication to facilitate the flow of information for ease of coordination of activities.

#### **5.6 Suggestions for Further Research**

The study suggests the following areas for further research:

- i. The value of R-square was 0.694, which means that aside from participatory project implementation, there are still other factors affecting performance Polish Humanitarian Action project in Banaadir region, Somalia that future studies should focus on.
- ii. Aside from focusing on WASH projects, future studies should be on other types of projects

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## APPENDICES

### Appendix I: Letter of Introduction

Dear Respondents,

I am a Masters Students at the University of Nairobi, currently undertaking a research study titled; **INFLUENCE OF PARTICIPATORY PROJECT MANAGEMENT ON PERFORMANCE OF WATER, SANITATION AND HYGIENE PROJECTS: A CASE OF POLISH HUMANITARIAN ACTION PROJECT IN BANAADIR REGION, SOMALIA**. This is a requirement for the award of the Degree of Master of Arts in Project Planning and Management. I am therefore requesting your assistance to fill the attached questionnaires by ticking and recording the appropriate answers. The information given will be handled confidentially, and will only be used only for academic intention.

Regards,

**Appendix II: Questionnaire**

1. Kindly indicate your gender?

Male

Female

2. What is your highest level of education?

Certificate

Diploma

First Degree

Masters

Other.....

3. How many years have you been implementing WASH projects?

Less than 5 years

5-10 years

10-15 years

Over 15 years

**SECTION B: Performance of Water, Sanitation and Hygiene Projects (Provide responses by ticking appropriate answers)**

8. To what extent do you agree with the following statements on Performance of Water, Sanitation and Hygiene Projects, where: 1= Strongly Disagree (SD) 2=Disagree (D) 3= Neutral (N) 4= Agree (A) 5= Strongly Agree (SA)

	1	2	3	4	5
The beneficiaries can access clean water from this project					
Safe water can be accessed by beneficiaries of this project at PAH					
Hand washing practices are encouraged among beneficiaries of this project at PAH					
Communal toilets can be accessed by beneficiaries of this project at PAH					
More water tanks have been installed by at PAH in schools to supply clean water					
Menstrual hygiene is supported by at PAH among school going girls by this project					

**SECTION C: Participatory project resource allocation (Provide responses by ticking appropriate answers)**

4. To what extent do you agree with the following statements on Participatory project resource allocation where: 1= Strongly Disagree (SD) 2=Disagree (D) 3= Neutral (N) 4= Agree (A) 5= Strongly Agree (SA)

	1	2	3	4	5
Adequate finances are allocated towards WASH projects at PAH Humanitarian Action					
The allocated funds are prudently utilized in implementing WASH projects at PAH					
New technologies have been allocated to staff implementing WASH projects at PAH					
The allocated technologies have simplified processes when implementing WASH projects at PAH					
Competent staff have been allocated to implement WASH projects at PAH					
Competitive remuneration packages are allocated for WASH project staff at PAH					
Sufficient time has been allocated to various activities of WASH project at PAH					

**SECTION D: Participatory project monitoring (Provide responses by ticking appropriate answers)**

5. To what extent do you agree with the following statements on Participatory project monitoring, where: 1= Strongly Disagree (SD) 2=Disagree (D) 3= Neutral (N) 4= Agree (A) 5= Strongly Agree (SA)

	1	2	3	4	5
A participatory approach is adopted in collection of data on WASH project at PAH					
The monitoring team for WASH project is jointly established at PAH					
The skills of the monitoring team are jointly determined at PAH					
A participatory approach is adopted in generation of progress reports on WASH at PAH					
The progress reports are utilized by all the stakeholders at PAH					
The monitoring system is jointly utilized at PAH					

**SECTION E: Participatory project control (Provide responses by ticking appropriate answers)**

6. To what extent do you agree with the following statements on Participatory project control where: 1= Strongly Disagree (SD) 2=Disagree (D) 3= Neutral (N) 4= Agree (A) 5= Strongly Agree (SA)

	1	2	3	4	5
There is a competent control team for WASH projects at PAH					
The control team of the WASH project is jointly determined at PAH					
The costs of WASH projects are controlled against the budget at PAH					
All WASH projects should be conducted within the set costs in the budget at PAH					
The WASH projects at PAH are monitored to ensure they are done within the established schedule					
Water samples are regularly tested for quality control at PAH					

**SECTION F: Participatory project communication (Provide responses by ticking appropriate answers)**

7. To what extent do you agree with the following statements on Participatory project communication where: 1= Strongly Disagree (SD) 2=Disagree (D) 3= Neutral (N) 4= Agree (A) 5= Strongly Agree (SA)

	1	2	3	4	5
There is flow of information among different employees carrying out WASH projects at PAH					
Systems are in place to support internal communication among staff implementing WASH projects at PAH					
Internal communication supports a culture of team work among staff when implementing WASH projects at PAH					
Staff communicate with the beneficiaries of WASH projects at PAH					
Meetings are organized for stakeholders of WASH projects to share relevant information at PAH					
The stakeholders of the WASH projects are briefed on a regular basis at PAH					

**Thank you**



