

**FACTORS INFLUENCING CONSUMER PARTICIPATION
AMONG WATER USERS IN SELECTED WATER UTILITIES IN
KENYA: A CASE OF THE WATER ACTION GROUPS.**

BY

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Award of Master of Arts Degree in Project Planning and Management of The
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DECLARATION

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

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DEDICATION

I wish to dedicate this research project to my dear mother – Rosemary Anyona who has steadfastly supported me through all phases of my life. To my siblings Claire, Paul and David, this is an ode to you as well and a testament to us as a family that God is faithful and our desires and efforts when pursued, can be achieved. Finally, I dedicate this research project to the Lord most high who has supplied me with exceeding grace and favour to see me through this journey of life.

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ABBREVIATIONS AND ACRONYMS

CCWater	Consumer Council for Water
CEG	Consumer Engagement Guideline
CoK	Constitution of Kenya
FGD	Focused Group Discussion
LIAs	Low Income Areas
MWI	Ministry of Water and Irrigation
NCWSC	Nairobi City Water and Sewerage Company
NWASCO	National Water Supply and Sanitation Council
OfWat	The economic regulator of the water sector in England and Wales
SMS	Short Messaging Service
UNDP	United Nations Development Programme
USSD	Unstructured Supplementary Service Data
WAG	Water Action Group
WASREB	Water Services Regulatory Board
WIN	Water Integrity Network
WSB	Water Service Board
wsp	Water and Sanitation Programme (World Bank)
WSP	Water Service Provider
WSS	Water Supply and Sanitation
WSTF	Water Sector Trust Fund

ABSTRACT

Consumer participation allows for the public to take part in key decision making processes in the governance of the country, thus harnessing ownership and buy-in while ensuring a greater possibility of effectiveness of development projects and interventions. Prior to the reforms brought about by the enactment of the Water Act 2002, the water sector was characterized by inadequacy in funding of operations and infrastructural development, institutional deficiencies, poor coordination between various water departments and a disregard for the voice of the water consumer. The specific challenges experienced included; insufficient sector funding; over centralization of Authority; poor governance; conflicts in institutional mandates; a weak legal framework; poor services and a poor regard for the consumer. In a country which is categorized as water scarce and in which water coverage levels stand at 55 percent and sewerage coverage at an even more dismal 15 percent, complaints, dissatisfaction and concerns of inadequacy and inequity in access to water services are bound to come up. This is especially true for the poor, who occupy approximately 2000 Low Income Areas (LIAs) with an estimated population of close to 8 million. Community groups made up of volunteers who are active and passionate about water issues within their communities were selected to act as water user representatives in the grassroots through a project known as the Water Action Groups (WAGs). The WAGs were established by WASREB to act as a mechanism for redress through which water consumers can channel their complaints to the regulator and to provide both top-down and bottom-up feedback to the public and the regulator respectively. They also disseminate relevant information to the public while engaging with relevant water sector institutions for the benefit of water users. However, fluctuations in the performance of the WAGs and effectiveness in the execution of their mandate since conception, has led to the need to investigate which of five key factors have the greatest influence on consumer participation through these groups. The factors to be investigated include: funding, institutional goodwill, Information Technology, M&E and incentives. The study has reviewed a vast number of scholarly literature from published authors to provide a theoretical framework to support the research. A descriptive survey research design was applied for this research study while employing the use of questionnaires as the main data collection instrument. The target population for the study consisted of WAG members from four selected water utilities including: Nairobi, Nakuru, Eldoret and Mombasa water companies. Both primary and secondary data was collected through the use of questionnaires and through the electronic platform known as MajiVoice respectively. Data collected from the respondents was analyzed through descriptive statistics and frequencies through the use of Microsoft Excel programme and SPSS where applicable. The findings of the study showed that there is a significant positive relation between the adequacy of funds provided and the level of consumer participation through executed community participation activities. Further to this, the WSBs showed the least support and institutional goodwill towards the WAGs, while IT though thought of as useful, has not been fully exploited and is still not fully embraced by the public in the water sector. Incentives were found to have a very big influence on the motivation to continue in consumer participation although non-monetary incentives need to be exploited further.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The Constitution of Kenya that was promulgated in the year 2010 was different from the previous constitution in many aspects. One of these aspects is the emphasis it lays on citizen participation as a key pillar in the promotion of democracy and transparency. Citizen participation allows for the public to take part in key decision making processes in the governance of the country, thus harnessing ownership and buy-in while ensuring a greater possibility of effectiveness of development projects and interventions. This citizen participation encompasses all levels of governance including the national and county governments, the legislature as well as access to information by the public (The citizen handbook, 2017).

The backbone of the new constitution that led to its promulgation and introduction of the devolved system of governance, was premised on public participation whose objective was to “enhance the participation of the people in the exercise of the powers of the State and in making decisions affecting them” (CoK, 2010).

The CoK 2010 provides a strong legal framework for public citizen participation through the following key Articles among others: Article 10 (2) a, b and c: The national values and principles of governance include; democracy and participation of the people; inclusiveness; good governance, integrity, transparency and accountability. Article 33: Public participation should respect the freedom of expression of all participants. Article 118: (1) Parliament shall— (b) facilitate public participation and involvement in the legislative and other business of Parliament and its committees. 119(2) Parliament may not exclude the public, or any media, from any sitting, unless in exceptional circumstances the relevant Speaker has determined that there are justifiable reasons for the exclusion. Article 174(c): Objects of devolution are: to give powers of self-governance to the people and enhance their participation in the exercise of such powers in

decision-making. Article 196(1): A county assembly shall— (a) conduct its business in an open manner, and hold its sittings and those of its committees, in public; and (b) facilitate public participation and involvement in the legislative and other business of the assembly and its committees. Article 232(1) (d): The values and principles of public service include the involvement of the people in the process of policy making and (f) transparency and provision to the public of timely and accurate information. Fourth Schedule Part 2(14): The functions and powers of the county are to coordinate and ensure the participation of communities in governance. Counties are also to assist communities to develop the administrative capacity to enhance their exercise of power and participation in governance at the local level. (CoK, 2010).

The CoK 2010 is supplemented by other Acts of Parliament among which includes the Water Act (2016) which was preceded by the Water Act 2002 that brought about significant reforms in the water sector by providing a clearer framework through which water institutions were established to provide more effective and efficient water supply and sanitation services (WSS) as well as to encourage consumer participation in water resources management and commercialized service provision for water consumers. One such institution that was established as an autonomous state corporation under the Ministry of Water and Irrigation (MWI) in 2003 was the Water Services Regulatory Board (WASREB). WASREB's principal mandate under the Water Act Section 70(1) is "to protect the interests and rights of consumers in the provision of water services". It is to execute this mandate through various functions among which include establishing a mechanism for handling complaints from consumers regarding the quality or nature of water services (Water Act, 2016). Furthermore, section 70(1) (k) gives WASREB the powers to "develop guidelines on the establishment of consumer groups and facilitate their establishment" as a way to ensure that the voice of the public is heard and that their views are brought on board during decision making at the national level.

Prior to the reforms brought about by the enactment of the Water Act 2002, the water sector was characterized by inadequacy in funding of operations and infrastructural development, institutional deficiencies, poor coordination between various water departments and a disregard for the voice of the water consumer. The specific challenges experienced included; insufficient sector funding; over centralization of authority; poor governance; conflicts in institutional

mandates; a weak legal framework; poor services and a poor regard for the consumer (World Bank, 2012).

Upon this backdrop, WASREB established the Water Action Groups (WAGs). These are community groups made up of volunteers who are active and passionate about water issues within their communities, selected to act as water user representatives in the grassroots. These groups are domiciled within selected Water Service Providers (WSPs) across various counties in Kenya and operate within the existing regulatory framework, in alignment to sector legislation and policies. Their mandate is three pronged; they act as a mechanism for redress through which water consumers can channel their complaints to the regulator; they provide both top-down and bottom-up feedback to the public and the regulator respectively; and they disseminate relevant information to the public while also engaging with relevant water sector institutions for the benefit of water users (CEG, 2010). Below is a diagram that shows the different institutional levels within the water sector in Kenya and the placement of the consumer participation through WAGs within the institutional framework as adopted from WASREB’s CEG (2009).

INSTITUTIONAL FRAMEWORK OF THE WATER SECTOR IN KENYA

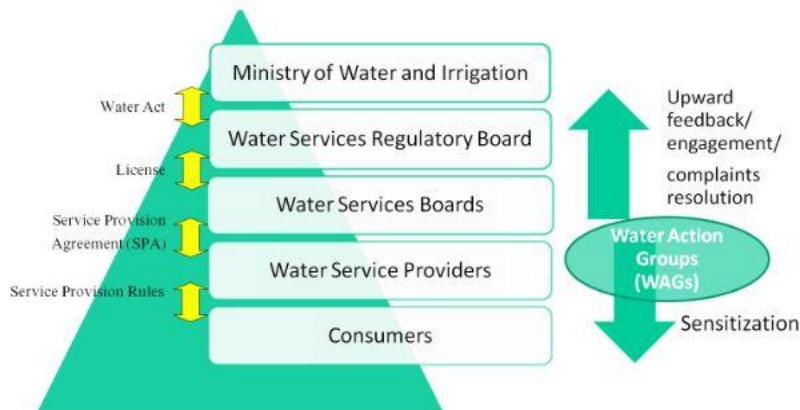


Figure 1: Institutional Framework of the Water Sector

Source: WASREB’s Consumer Engagement Guideline

In a sector that previously paid little attention to participation of the consumer in the decision making process, but instead leaned heavily towards technical knowledge, the WAGs play a key role in ensuring that the regulator WASREB is able to play its part in achieving ‘Sustainable Development Goal 6’ as prescribed by the United Nations – universal and equitable access to

safe and affordable drinking water and sanitation for all by 2030 (UNDP, 2015). The issue of equity in access of water services is where the groups' mandate is most relevant since most WSPs within Kenya tend to neglect and ignore the lower income areas in which these groups mostly cater to (although not exclusively).

The WAGs carry out their mandate primarily within the low income areas of the utilities' service areas due to their lack of or poor infrastructure, high population densities and the inability of the people to pay for WSS services due to their low income levels. This means that most of these water users needs are marginalized and neglected hence the need for a mechanism to channel their views and desires with regards to water services (Hakijamii, 2016). The human right to water and sanitation as prescribed under the Bill of Rights in the CoK 2010 was a new addition to the sectorial framework that has significant implications. It entails among other things, applying the human rights principles such as non-discriminatory access to water and mechanisms for redress, participation in decision making as well as sustainability, affordability, reliability, transparency and accountability in WSS services (Impact report 9, 2016). Consumer participation in the water sector is paramount as it can be used by water institutions in the assessment of real demand for water services, their potential impact and utility to water users and therefore appropriately link the right service to suitable customer groups and/or areas (Cranfield University, 2006).

Similar models of consumer participation within the water sector have been successfully adopted by various countries around the world. In Zambia, the regulator of water services – the National Water Supply and Sanitation Council (NWASCO) - established the Water Watch Groups which it describes as “voluntary community based groups established to assist in monitoring service delivery”. They are made up of eight groups who, similar to the WAGs, have a role is to inform water users within their communities about their rights and responsibilities as they relate to WSS so that they are sufficiently empowered to demand for services and also have a conduit for resolution of their complaints (NWASCO, 2017). The Water Watch Groups receive limited financial support from the regulator to facilitate their functions and do so through the authority vested on them by NWASCO. Though the Water Watch Groups experienced a myriad of challenges such as those that will be dissected in this research paper, their mandate has now been

significantly extended and is no longer limited to just engaging the public in water issues but now also handle energy and telecommunications as well. These groups are now referred to as Consumer Watch Groups (WIN, 2017).

Another similar although somewhat different model that has been used to engage water users to participate in decision making processes is the Consumer Council for Water (CCWater) of the United Kingdom which describe themselves as ‘the independent voice of all water consumers of England and Wales’. Unlike the WAGs and WWGs which are made up of volunteer groups strategically located around their respective communities, CCWater is made up of local consumer advocates who are appointed by CCWater to serve in four regions around England and Wales and similarly handle complaints from water consumers, provide guidance and information and work with other relevant institutions in the water sector including their regulator to ensure that the water users are protected and active participants. While the WWG and WAGs take their mandates from their respective regulators, the CCWater is an independent public body that is not subject to statutory regulators. This means that it is able to provide non-partisan input and advocacy to the public on policy issues with regards to water issues in the UK (Cook, 2017). Currently CCWater enjoys a high degree of support from the public (OfWat, 2011) and is therefore significantly ahead of the other two African models. Its transition has spanned a number of years from 1983 as Consumer Consultative Committees formed to provide a platform for public participation, to the Consumer Council “WaterVoice” in 2003 and eventually the CCWater as it is today. However they did undergo their own similar share of challenges some of which includes the inability to provide independent consumer representation (Rouse, 2013).

However, consumer participation through community groups as illustrated in the two examples above, vary depending on various factors. According to Rouse (2013), the degree and nature of participation in already developed and developing countries is dependent on various factors such as the degree of transparency with which the water institutions run their operations, the existence or lack thereof of a good water service as well as the size of the community (urban or rural). For the purposes of this research, we will look into other factors specific to public participation in consumer groups in a developing country like Kenya.

1.2 Statement of the Problem

Consumer participation of water users through community consumer groups plays an important role in facilitating the formulation of policies and actions for government and providing understanding of those actions. Kenya is categorized as a water scarce country in which water coverage levels stand at 55% and sewerage coverage at an even more dismal 15%, complaints, dissatisfaction and concerns of inadequacy and inequity in access to water services are bound to come up. This is especially true for the poor, who occupy approximately 2000 Low Income Areas (LIAs) with an estimated population of close to 8 million (Impact report, 2016).

The effectiveness of the Water Action Groups to execute their mandate is therefore crucial to ensure that Kenyan water users are both active participants and also protected in their quest for better water and sanitation services. However, the effectiveness of the WAGs has not been without challenges due to various factors. Since the inception and piloting of the WAGs project in 2009 and its official launch in 2013, the membership and effectiveness of the WAGs has gone through phases of robust activity followed by seasons of inactivity or subpar performance in the execution of their mandate.

Their performance and effectiveness in the execution of their mandate is evidenced through the number of public engagement forums they carry out, the number of people reached in their service areas, the number of engagement meetings they convene with water institutions to represent the interest of water users as well as the number of consumer complaints handled each month (Hakijamii, 2016). These fluctuations in performance in the execution of their operations disrupts the channels for redress for water users as well as compromises the principle of good governance and consumer protection as stipulated in the law leaving the public vulnerable to exploitation. Following this background, the researcher will investigate the determinants that influence water users as participants in their communities through these Water Action Groups.

1.3 Purpose of the Study

This study attempts to investigate the factors influencing consumer participation among water users in selected water utilities in Kenya through Water Action groups by studying five key variables.

1.4 Objectives of the Study

This research study sought to:

1. Determine how funding influences consumer participation among water users as Water Action Group members in selected water utilities in Kenya
2. Investigate how institutional goodwill influences consumer participation among water users as Water Action Group members in selected water utilities in Kenya
3. Explore the influence of monitoring and evaluation on consumer participation among water users as Water Action Group members in selected water utilities in Kenya
4. Establish how information technology influences consumer participation among water users as Water Action Group members in selected water utilities water utilities in Kenya
5. Learn the influence of incentives on consumer participation among water users as Water Action Group members in selected water utilities in Kenya

1.5 Research questions of the study

This study was guided by the following questions:

1. To what extent does funding influence consumer participation among water users as Water Action Group members in selected water utilities in Kenya?
2. How does institutional goodwill influence consumer participation among water users as Water Action Group members in selected water utilities in Kenya?
3. How does regular monitoring and evaluation influence consumer participation among water users as Water Action Group members in selected water utilities in Kenya?
4. What is the influence of information technology on consumer participation among water users as Water Action Group members in selected water utilities in Kenya?
5. To what extent do incentives influence consumer participation among water users as Water Action Group members in selected water utilities in Kenya?

1.6 Significance of the study

This research study sought to identify the most critical factors that affect the participation among water users by illuminating how and where improvements can be made in order to ensure that the regulator efficiently executes its mandate in consumer protection and also that the principle of participation as a tenet of good governance is upheld in the provision of WSS.

Eliminating hurdles to consumer participation among water users ensures that policies and water projects developed for the people by the Kenyan government through the Ministry of Water and Irrigation (MWI) and by WASREB, are tailored to their needs by increasing awareness of the water issues and projects and subsequently ensuring community ownership through a well informed and empowered public.

This research would also be useful to Non-Governmental Organizations and civil society to use as reference material and additional body of knowledge as a best practice and guide to address consumer participation issues when attempting to replicate the same model in other areas or countries around the world.

Other researchers would find useful material with which they can reference their work in consumer participation in the water sector especially specifically to the Kenyan context. It would be useful in identifying further areas of research by exposing gaps that may have not been considered by the researcher.

1.7 Limitations of the study

The scope of this research will be limited by the current distribution of the WAGs as established by WASREB is uneven and only specific to select water utilities. This in turn means that this research will also be limited along the same parameters. This research will be limited in only investigating five of the factors that could influence consumer participation of water users in WAGs yet there are many more possible factors that can influence participation. In the context of this particular research, all other factors will be ignored.

1.8 Delimitation of the study

The basis for selection of the water utilities that was part of this study was the presence of both a Water Action Group and MajiVoice Technology within the water utility. This enabled the researcher to adequately answer the research questions pertaining to information technology and incentives. The rest of the research questions applied to all other WAGs. It was the case for only the selected WSPs namely: Nairobi City Water and Sewerage Company, Nakuru Water and Sanitation Service Company, Eldoret Water and Sanitation Company and Mombasa Water Supply and Sanitation Company.

1.9 Basic assumptions of the study

It is assumed that all the information that was given by the respondents was true and accurate and that the members currently participating in Water Action Groups were willing participants in this research study. It is also assumed that all the information that was extracted from secondary sources will be credible and accurate.

1.10 Definition of significant terms

The following is a list of significant terms as operationally defined in this research study:

Consumer Participation: Used interchangeably with public participation and citizen participation. It refers to the active involvement of the public in decision making processes.

Evaluation: Refers to a systematic collection and assessment of project related data that is used to determine the relevance, efficiency and effectiveness of activities with regard to with the project objectives.

Funding: Refers to financial resources provided by an organization or government to finance a project or programme.

Incentives: Refers to a motivating influence or stimulus.

Information Technology: Refers to the usage of computer systems, physical devices, software and networks in the storage, processing and exchange of all types of electronic data.

Institutional goodwill: Refers to actions of support and cooperation shown by an institution toward a certain intervention, project or programme.

Monitoring: Refers to a continuous process with the primary objective of providing management and the main stakeholders with relevant information to be used for tracking of intended outputs, outcomes and impacts of an ongoing project.

Service area: Refers to the delimited area of operation in which a water utility/WSP is required to provide its services as prescribed by the regulator WASREB

Water Action Groups: Refers to community groups established by WASREB made up of volunteers who are active and passionate about water issues within their communities, selected to act as water user representatives in the grassroots and to be the voice of water users.

Water Utility: Refers to companies established by their respective county governments to provide water services as approved by WASREB and as per the Water Act 2016. For the

purposes of this study, water utility will be used interchangeably with the term Water Service Provider (WSP).

Water User: This refers to any member of the public that is a customer of a formal WSP including the underserved citizens from low income urban areas who may not always receive formalized or regulated water services. This will be used interchangeably with the term consumer

1.11 Organization of the study

Chapter one of this study will cover the background to the study, statement of the problem, purpose and objectives of the study, research questions, the significance, assumptions, limitations and delimitations of the study, and definition of significant terms. Chapter two will constitute the literature review of the study which will detail the theoretical framework and the concept of consumer participation, the conceptual framework and academic literature on funding, institutional goodwill, monitoring and evaluation, information technology and incentives as a function of consumer participation in the water sector. Chapter three will outline the research design, target population, sampling technique, data collection method, data analysis, ethical considerations and operational definitions of variables. Chapter four will highlight findings of the study discussed under thematic areas and sub-sections in line with the study objectives. This includes the questionnaire return rate, demographic characteristics of the respondents and a detailed analysis of both influential and descriptive statistics of the five independent variables of this study in relation to the dependent variable consumer participation. Chapter five covers summary of findings, discussions, conclusions, recommendations and suggestions for further study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter will provide detailed information about the factors highlighted in the previous chapter and how they relate with and influence consumer participation of water users. It will highlight each of the five variables that constitute the research problem i.e. funding, institutional goodwill, monitoring and evaluation, information technology and incentives. It will also outline a theoretical framework based on the literature discovered and then provide a graphical representation of the interplay between the variables through a conceptual framework. By the end of this chapter, the researcher will have provided in depth explanations about the research questions and relationships between the variables which will increase the understanding of the researcher and the reader by providing clarity.

2.2 The Concept of Consumer Participation

Consumer participation allows for the public to take part in key decision making processes in the governance of the country, thus harnessing ownership and buy-in while ensuring a greater possibility of effectiveness of development projects and interventions. This consumer participation encompasses all levels of governance including the national and county governments, the legislature as well as access to information by the public (The citizen handbook, 2017).

Cogan, Sharpe and Hertberg (1986), outline five key techniques that can be employed in governance in engaging the public to participate in decision making. According to these scholars, publicity techniques are used to build public support from the citizenry who are generally perceived as passive consumers. Public education programs provide neutral information to the public for their general information purposes to create awareness and draw their own conclusions. Public input techniques are concerned with collecting information from the public by encouraging for their contributions. Their effectiveness is further enhanced when participants

are informed about the degree to which their contributions have influenced the final decisions. Public Interaction techniques, information and ideas are exchanged among all relevant stakeholders through discussions. If done effectively, it can be used for consensus building between all parties. Finally, public partnerships offer citizens a formalized role in shaping the ultimate decisions.

Public participation programs should therefore be designed with specific target groups and objectives kept in mind in order to ensure their effectiveness. Cogan, Sharpe and Hertberg (1986), posit that in order for a public participation programme to be effective it should contain certain elements. This includes the receipt of adequate funding, staff and time; compliance to legal requirements and obligations, clearly outlined goals and objectives as well as having well designated roles and responsibilities for all participants. In addition to this, the program should have sufficient political backing and a sense of relatability with the concerned public.

2.3 Funding and Consumer Participation

There exists a huge funding deficit in the Kenyan Water Sector. Sector investments over the last three years have averaged about Ksh. 29 billion which is a far cry from the total required annual investments of about Ksh. 290 billion (MWI, 2016). With current water coverage levels at 55% in urban and urbanizing areas, and 15% sewerage levels, much more needs to be done in bridging the investment gap if Kenya is to attain its Vision 2030 targets of 100% water and sewerage coverage for areas covered by commercialized utilities by the year 2030 (WASREB, 2016). The water sector currently receives funding from the national and county governments, donors, civil society and internal revenues from water institutions. However, more than half of the funding comes from development partners (donors) even as annual budgetary targets for the sector are routinely missed due to what the MWI attributes as “inadequate release of funds from the national treasury”. Since public participation budgetary requirements need to emanate from the sector which already suffers large deficits, alternative and innovative avenues of financing need to be sought if it will be done effectively.

Since piloting and inception of the WAGs in 2010 by WASREB, the regulator has been solely responsible for funding their day to day activities as well as all the consumer outreach activities carried out to create awareness to the public and disseminate information. The budget line items

include monthly stipends paid out to each volunteer to act as an incentive as well as a larger disbursement of funds paid out quarterly to the volunteers to carry out public hearings, community forums, Focus Group Discussions and community outreach publicity campaigns (WASREB, 2011). Due to these significant funding requirements, WASREB also relied heavily on financial support from development partners to run the project just as reflected on the national level. This routinely brought about questions to do with the sustainability of the project in the long run. Consequently, suggestions have been made to seek out ways of funding the WAGs project through levies (Kaseu, 2014).

In order to address this concern, the WAGs project was restructured to transfer the financial burden of facilitating the WAGs to the WSPs who are the direct beneficiaries of the services provided by the WAGs since they ensure that customer complaints are addressed and inadequacies in service delivery as relayed by the public are addressed by the utility (Kaseu, 2014). Water utilities generate revenues through billed water and sewerage services. Though the issue of sustainability may have been addressed in utilities that are commercialized and are able to meet their daily operational and maintenance costs, some utilities have not fully bought into the importance of consumer participation and thus lack the goodwill to fund the WAGs seamlessly as required by the regulator.

2.4 Institutional goodwill and Consumer Participation

Part of the reforms brought about to the water sector through the Water Act 2002 and subsequently Water Act 2016 was a strong emphasis on the need for a sector that was more consumer oriented and that encouraged participation. However, many institutions that were present before the reforms still display a resistance to change which is still reflected in their performance in service delivery and customer engagement (GIZ, 2012).

If social accountability through public participation of water users is going to be effective, increased partnerships between sector institutions and stakeholders will be paramount. This involves quadripartite partnerships between the WAGs and WSPs, WSBs and WASREB that will create greater synergies for service delivery to the public (Kaseu, 2014). Institutional goodwill towards consumer participation from the national regulator WASREB will be shown

through support of WAGs both internally and externally in engaging with sector institutions by ensuring that their role as consumer representatives is given priority. It will also entail ensuring the facilitation of the community outreach activities for WAGs – financially or otherwise while carrying out regular monitoring and evaluation of the institutional players as legally required. WASREB would also have to ensure that the contributions and concerns of the public are heard, addressed and used to influence policy decisions at the national level. From the WSBs, a display of institutional goodwill toward consumer participation will involve ensuring that customer complaints from the public raised by WAGs are addressed by their agent (the WSP) in good time while ensuring that disputes between consumers (WAGs) and the WSP are resolved amicably. WSBs will also have to show willingness to meet with WAGs in regular intervals as prescribed by WASREB and support WAGs outreach activities by being present in community forums and public hearings (WSTF, 2017).

According to WASREB's Consumer Engagement Guideline (2009), WSPs will show institutional goodwill toward consumer participation by ensuring that there is a budget for public participation and specifically for WAGs disbursed regularly as prescribed by WASREB. The utility's involvement of the WAGs in the company's internal community outreach events as participant mobilisers and information disseminators is paramount in fostering a sense of ownership and sensitivity toward the public. WSPs should also show a willingness to meet with WAGs each month as directed by WASREB to discuss consumer concerns from the public. However, the ultimate display of goodwill from a WSP would be to elect one member to the Board of Directors of the company specifically to represent consumer interests and concerns. This is a universally recognized display of good governance in public partnership.

Kaseu (2014), posits that greater enforcement is required to support the system of social accountability through public participation at the various institutional levels. From top-down, this includes: MWI and WASREB at the national level in charge of policy formulation and regulation, WSBs at the regional level approved as the licensees of WASREB to carry out infrastructure development and oversee the utilities within its jurisdiction, WSPs at the community level appointed as the agents responsible for service delivery and finally the

consumer represented by WAGs that will receive the WSS services from the WSP (WSTF, 2017).

2.5 Monitoring and Evaluation and Consumer Participation

Monitoring and Evaluation (M&E) is an integral part in the implementation of any consumer participation project as it ensures reflection and communication of the progress of the project. One of the key functions mandated by WASREB under the Water Act (2016) is monitoring and evaluation of various aspects including evaluation of water and sewerage tariffs, to ensure that the consumer is protected from imposition of excessive tariffs, and monitoring the progress in implementation of the Water Strategy which involves consumer participation and protection. They are then required to make appropriate recommendations.

According to the World Bank (2007), monitoring can be defined as a continuous process with the primary objective of providing management and the main stakeholders with relevant information to be used for tracking of intended outputs, outcomes and impacts of an ongoing project. Evaluation refers to a systematic collection and assessment of project related data that is used to determine the relevance, efficiency and effectiveness of activities with regard to with the project objectives. The importance of carrying out M&E cannot be understated in any project much less one that concerns the area of consumer participation. The exercise can either be carried out internally - by a member of the project team – or externally by an external evaluator not part of the implementing team. It provides routine feedback on the progress of the project and the degree to which project goals are being met.

Any potential problems that may emanate during the entire life cycle of the project are flagged out during the early stages. The efficiency of the different aspects of the project can be monitored through M&E and an evaluation made to determine just how feasible a project will be in achieving the general objectives. Relevant information collected during the M&E process can be used to improve the project design and to provide guidelines for the planning of future projects. It is also important to incorporate the views of all stakeholders when monitoring and evaluating a project involved with consumer participation as it brings a greater sense of ownership and thus a greater chance of project sustainability and accountability from all parties

involved. Evaluating the projects strengths and weaknesses through M&E can be used to improve the project design and enrich the quality of project interventions while allowing for a cost benefit analysis of the project (World Bank, 2001).

Monitoring and evaluation of consumer participation activities require the involvement of several parties both inside and outside government. In the water sector for example, WASREB as the government representative through the MWI will have the significant role of designing the overall M&E strategy, monitoring its implementation, and using the results, as well as providing key data on expenditures (Prennushi, Rubio & Subbarao, 2013). Strengthening the capacity of the M&E system and feedback mechanisms for consumer participation is essential to ensuring their effectiveness. In order to create a sustainable monitoring and evaluation process at the national level, there needs to be a strong in-country demand i.e. demands from the public. Currently, the regulator monitors and evaluates service delivery of WSS in Kenya by carrying out inspections and collection of service delivery data. WASREB then collates the data separating it into ten key indicators which are then published in an annual report (WASREB, 2016).

Presently, none of these key indicators directly assesses the aspect of consumer participation. However, it is important to note that a newly developed governance indicator has taken into account the aspect of consumer participation as a proxy to indicate the governance levels within utilities in Kenya. It is suggested that in order to strengthen the capacity of M&E systems, it is better to scale up M&E activities gradually by setting up a few mechanisms that can be implemented immediately instead of developing an intricate and sophisticated system (Prennushi, Rubio & Subbarao, 2013). Other ways through which M&E capacity can be strengthened with relation to consumer participation include: the establishment of partnerships with NGOs, development partners and research institutions to provide training on skills relating to M&E as well as to collect and analyze data; dissemination of information on lessons learnt during the M&E process and adoption of best practices from other countries and; creation of a network to facilitate information exchange among stakeholders.

The provision of feedback from consumer participation activities is essential to the decision making processes at all levels and should therefore be linked to monitoring and evaluation processes in order to decide on future courses of action. Feedback mechanisms in M&E can be strengthened by ensuring that the results from the process are widely disseminated and tailored to meet the interests and needs of the different stakeholder groups in an accessible manner. Wide dissemination also prevents against the risk of underuse of the information. The means of information dissemination of M&E results also determines the effectiveness of M&E in a feedback mechanism. It is important to diversify between electronic media and print media to cater for those who may not have access to information technology, convene meetings and also provide the information in different languages. Additionally, the actual data and methodology of analysis should be availed to the public (Prennushi, Rubio & Subbarao, 2013).

According to Prennushi, Rubio & Subbarao (2013), public participation in the M&E process can be promoted by encouraging the expression of views, expertise and knowledge during the design of the system and including the different stakeholders in the implementation of the M&E activities. Again, wide information dissemination of the results increases participation. Broad consultations during the design phase of the M&E system need to be carried out in order to decide on which aspects need to be monitored and which to be evaluated and on which indicators and objectives. This will create a sense of ownership among the stakeholders.

The WAGs project is currently monitored by WASREB through monthly reports sent from each group from across the different countries to the directorate in charge of consumer and public affairs. These reports detail the number of complaints handled by the individual WAG, their nature, and when the complaint was lodged. In addition to this, the WAGs report on community outreach activities that they carried out within their service areas and the general views and concerns raised by the public. WASREB is then supposed to sift through this information and ensure that relevant information gets to the policy and decision makers in order to close the feedback loop. A field monitoring exercise is also done annually as well as an annual evaluation of the WAGs performance which is then shared through a consumer summit or quadripartite meeting (WSTF, 2017). It should be mentioned that the monitoring and evaluation of consumer participation is not only limited to the WAGs in the implementation of their activities but also in

their usage of the electronic complaints system set up by WASREB for the public to make their complaints known as MajiVoice. WSPs and WAGs alike are each monitored and evaluated based on their effectiveness in using the electronic medium and their efficiency in solving the complaints (Kimotho, 2017). It is then the responsibility of the water regulator to ensure that all concerns and complaints raised by consumers through public participation are adequately addressed by the relevant institutions.

2.6 Information Technology and Consumer Participation

Information Technology (IT) plays an integral role in public participation and policy decision making. In an age where all sectors of the economy have evolved to the adoption of IT, it is critical that governments and public authorities too are not left behind. Adoption of IT by public authorities can improve government efficiency by making it easier to manage electronic information and communication relayed from the public and thus leading to the reduction of overall costs. According to the European Union (EU), the attempt by public authorities to adopt the use of Information and Communication Technology (ICT) with the object of improving public services and encouraging democratic participation is known as eGovernment. In addition to reducing costs, ICT makes it easier for the public to interact with government, by reducing the bureaucracy traditionally associated with public authorities with respect to administrative functions. This leads to greater convenience, faster and cheaper services thus encouraging competitiveness and economic growth (Davies, 2015).

The use of IT in public participation allows for collection of feedback, reviews and dialogue on a large scale and therefore is an effective tool for social accountability. Public authorities can use IT to spur participation from the public through various media including blogs, citizen forums, social media such as Facebook, YouTube and Twitter as well as complaint loop between citizens and the concerned authorities and service providers (World Bank, 2012). The government of Kenya in line with the spirit of devolution under the CoK 2010 developed the ecitizen platform through which many of the services that had to be accessed through daunting procedures and winding queues at government offices previously, are now easily accessible at the click of a button (GoK, 2013). It is however important that the government also invest in the infrastructure that will make ICT services accessible to all and not just a select few. An example of how this

can be done is by making internet connection available in all parts of the country through placement of fiber optic networks.

MajiVoice is the electronic IT system developed by WASREB with the support of development partners, to provide a link between the public, WSPs and the regulator in channeling information and feedback from the public with regards to service delivery. Its primary focus is to channel complaints from the public about service delivery in a convenient manner. For example, the public can now make complaints about their water bills, lack of water or vandalism of WSS infrastructure among other things through their mobile phones via SMS and quick codes (USSD) or through the internet via an online portal (MajiVoice.com, 2017).

Apart from the WAGs, MajiVoice is the other mechanism for complaints handling that was developed by WASREB as mandated under the Water Act (2016) to compliment the face-to-face contact of WAGs with water users while still making it easier to transmit their queries to the relevant water institutions. The MajiVoice software not only strengthens accountability in service delivery but also the capacity of service delivery. This is by reducing costs relating to complaint submission and tracking while increasing the capacity of the staff to process a large number of complaints efficiently. According to the World Bank's Water and Sanitation Programme (wsp, 2015), Nairobi City Water and Sewerage Company Ltd (NCWSC), Kenya's largest water utility and the first to adopt MajiVoice, was able to resolve 94 percent of the complaints received via MajiVoice up from 46 percent prior to its adoption. This also saw an increment of almost tenfold the number of complaints recorded through the portal while the resolution time was halved. The spike in the number of complaints received from the public via WAGs and MajiVoice is a good indication that when the public are presented with more opportunities to participate in decision making and feel that the cause is worthwhile they are more than willing to let their voice be heard (wsp, 2015).

2.7 Incentives and Consumer Participation

An incentive refers to something that encourages someone to do something. Voluntary work refers to work that is done at the discretion of the doer or volunteer. It is not compulsory to do and is therefore done at one's free will. Volunteers are an important contributor to social work within the community since they tend to have intrinsic reasons as to why they choose to engage themselves in voluntary work.

While scholars believe that incentives matter in motivating people to generate the desired behavior or outcome, others believe that extrinsic incentives such as money may have an inverse effect in producing desired behavior or outcomes since they may “crowd out” intrinsic motivations that are important to producing the desired behavior (Gneezy, Meier & Rey-Biel, 2011).

Research has shown that offering of monetary incentives changes the perception of the tasks by the doer and if the monetary incentive is not large enough, the desired outcomes may not be achieved. Gneezy and Rustichini (2000) found that when it comes to monetary incentives, it is better to not to pay at all than to pay small or insufficient amounts since fully intrinsic motivation without any sort of payment yielded higher desired outcomes. Gneezy, Meier & Rey-Biel (2011) concluded that whereas extrinsic motivators especially of a monetary nature can have moderate success in producing desired outcomes, in general, they to have a conflicting effect on intrinsic motivators. Incentives can be cost effective when use in behavior modification although to a large extent it depends on the design of the incentive, the form in which they are given i.e. monetary versus non-monetary, their interaction with intrinsic and social motivations as well as their impact on behavior once they are withdrawn.

Pertaining to the WAGs, both monetary and non-monetary incentives have been meted out by the regulator. Monetary incentives are given in the form of a small monthly stipend. The rationale for this monetary incentive was to cater for their daily operations in handling consumer complaints from the public and transportation costs in carrying out their responsibilities. Another possible incentive has been a quarterly lump sum provided to the WAGs following submissions of proposals of possible community outreach activities they intend to carry out (WASREB, 2011). Non-monetary incentives come in the form of exposure to the public, which can be a good platform for those who may want to pursue public office in future - although this is frowned upon. Additionally, many of the members are able to interact with other peers from across the different water utilities in sharing best practices and also get the opportunity to attend numerous national and international forums at the invitation of WASREB (Hakijamii, 2016).

The sustainability of the WAGs project has been threatened by the financial strain put on the regulator to sustain these incentives to each member and questions have also been raised about its long term prospects of success running on this model of incentivized volunteering.

2.8 Theoretical Framework

This research study was based on the theory of the ladder of citizen participation developed by Sherry Arnstein in 1969. The theory looked at public participation in the context of power structures and its role in the governance of a country. Specifically, consideration is given to the various types of public participation and ‘non-participation’ that can be used by a government to engage the public. The theory highlights eight hierarchical levels of public participation while subsequently separating them into three distinct phases: nonparticipation, tokenism and citizen power. The eight levels include: manipulation, therapy, informing, consultation, placation, partnership, delegated power and citizen control (Arnstein, 1969).

The two lower rungs of the ladder – manipulation and therapy - are dubbed ‘nonparticipation’ since they are really approaches used by decision makers to hoodwink the public into thinking they are genuinely participating while in reality the decisions are imposed from the top to the bottom through publicity. For the next three higher rungs, – informing, consultation and placation – the public does have a voice and they are heard by the decision makers. However, they do not have any assurance that their contributions to the decision making process will be heard since they lack the power to put the powerful decision makers at the top to account. In placation, the public is given the opportunity to advise the powerful decision makers at the top although ultimately the final decision is not theirs to make. These three rungs make up the tier of tokenism according to Arnstein. The top most tier of citizen participation is citizen power which is made up of three levels: partnership, delegated power and citizen control. This tier takes a more holistic approach to citizen participation since the public can enter into partnership with traditional power holders as portrayed in rung six, and ultimately directly influence the decision making process through a majority vote or say in the highest rung of citizen control.

The theory of citizen participation is a public policy practice that seeks to provide the public with a direct channel through which their voice can be heard for the purposes of influencing policy decision making. The theory is based on the principle that individuals affected by a decision have a right to be involved in the decision-making process. If public participation is to be effective, the public must be assured that their contribution will in turn influence the decision. In addition to this, the needs and interests of all stakeholders should be taken into consideration in order to

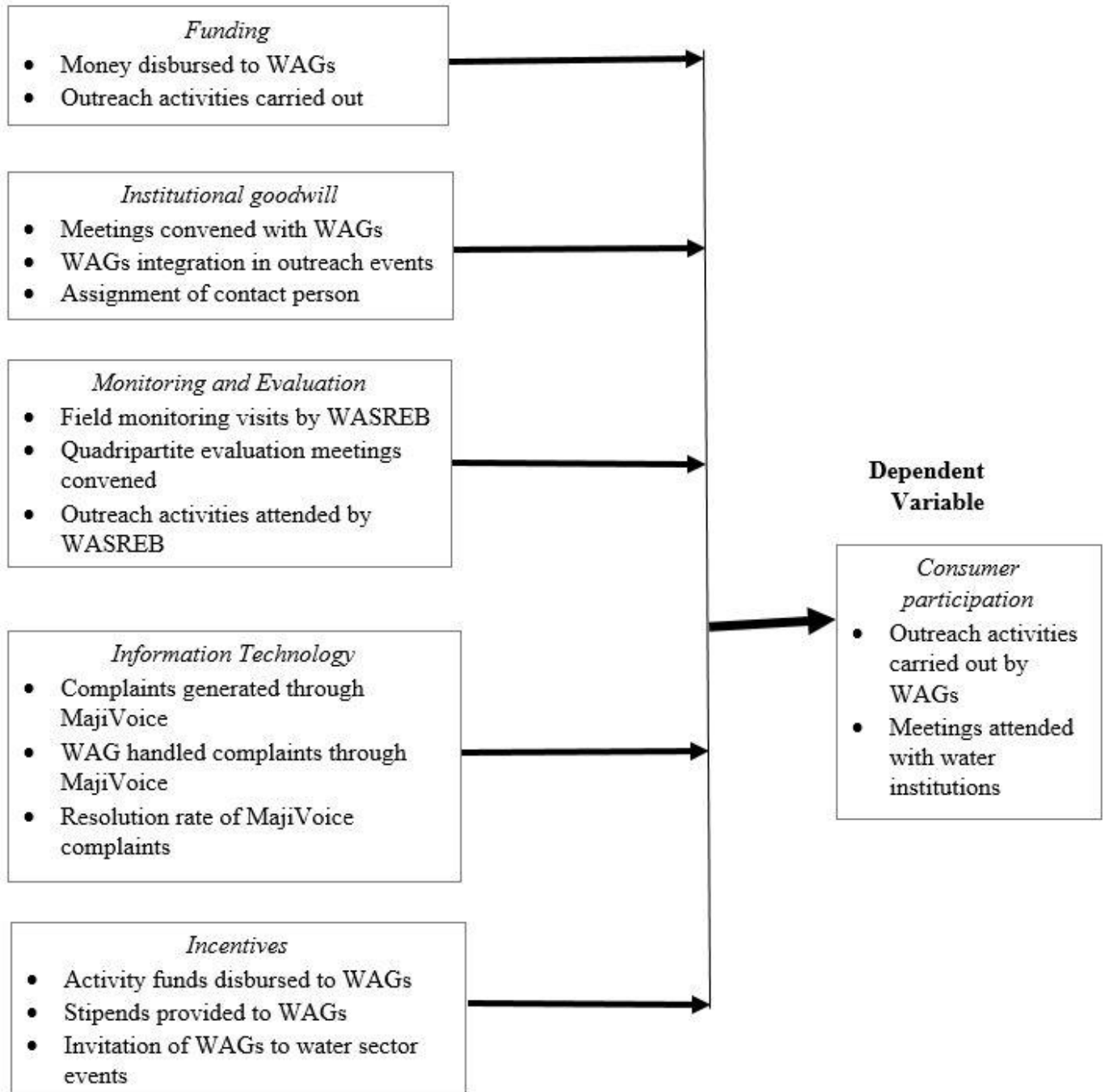
foster sustainability of the decisions made while still facilitating their involvement. All participants and stakeholders should give their contributions to the approach that will be used during the participation process. In turn, the public participation process will provide the participants with meaningful information which can facilitate effectiveness in their participation while relaying the impact or effects of their contributions to the final decision (Arnstein, 1969).

2.9 Conceptual Framework

Smyth (2004) describes a conceptual framework as a set of broad ideas and theories that provide the researcher greater clarity on the research study by helping in the identification of the research problem, framing the research questions and finding relevant literature that will support the research study. The framework can be a graphical representation of the main variables or a narrative that portrays the presumed relationships between the variables of the research study. Below is a graphical representation of the conceptual framework upon which this research study will be based.

Figure 2: Conceptual Framework

Independent Variables



The dependent variable in this research study is consumer participation of water users while the independent variables constitute key factors that influence the operations of the WAGs. They include; funding, institutional goodwill, monitoring and evaluation, information technology and incentives. The intervening variable in the case of this research study will be the willingness of water consumers to participate in water activities related to water issues in the sector.

The level of funding will be determined by the amount of money disbursed to the WAGs as well as well as the number of community outreach activities carried out by them. The indicators that will determine institutional goodwill include: the number of monthly and quarterly meetings that the WAGs will have convened with the WSP and WSB; the number of community outreach events initiated by WSPs in which the WAGs were integrated; and the presence of a designated contact person assigned by the utility specifically to handle WAG related complaints.

Monitoring and evaluation will be determined by the number of field monitoring visits carried by WASREB for the WAGs programme. It will also entail looking into the number of quadripartite meetings in which the performance of the WAGs and the sector institutions are evaluated based on complaints handling and consumer engagement. Finally, the number of WAG related community outreach events attended by WASREB will be an indicator of the level of M&E.

The indicators for information technology as a variable include: the total number of complaints generated through MajiVoice; the number of complaints handled by WAGs through MajiVoice and the rate of resolution of complaints channeled through MajiVoice by consumers to the WSPs in the past one year. Incentives as a variable in this study will be determined by the presence of activity funds provided to the WAGs; the presence or absence of stipends provided to the groups; and lastly, the number of sector events in which the WAGs were invited to in the past one year.

2.10 Research Gap

The research gap that in the reviewed literature for which this study will attempt to address is summarized in Table 2.1.

Table 2.1: Research Gap

<i>Variable</i>	<i>Research Gap</i>
Funding	How much money is spent on funding consumer participation activities in the water sector in Kenya?
Institutional Goodwill	What measures can be taken to make water institutions in Kenya more oriented towards consumer participation and engagement?
Monitoring and Evaluation	What is the most efficient M&E system that can be adopted by the MWI to ensure that the water sector runs more efficiently?
Information Technology	What is the level of penetration in the use of IT specifically in the water sector?
Incentives	What other non-monetary incentives can be used by water institutions in Kenya to get the public more active participants in decision making processes?

2.11 Summary of the Literature Review

This chapter has provided a detailed framework of all the variables involved that will make up this research study while detailing related literature works by published authors and scholars relating to the variables.

It first looks into the concept of consumer participation then funding and consumer participation in the general context of the water sector. This is then followed by a specific review of literature pertaining to funding and consumer participation through WAGs. Literature is then reviewed on institutional goodwill and consumer participation as the second variable in relation to the dependent variable. The third variable monitoring and evaluation is also reviewed with respect to consumer participation in general and then specifically to WAGs. The use of information technology and its relation to consumer participation is the fourth variable of the study that is reviewed and specifically its use as a tool for public participation in the Kenyan water sector

through MajiVoice. The last variable of the study, incentives, is reviewed as it pertains to voluntary work and consumer participation.

In addition to the literature reviewed on each variable, this chapter highlights the theory of the ladder of citizen participation developed by Sherry Arnstein in 1969 which forms the basis for this research study. The chapter then concludes with a graphical presentation portraying the relationships between the variables through a conceptual framework and a summary of the research gap emanating from the literature review.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research design that was adopted for this study in order to come up with solutions to the research questions. It then highlights the target population of the study and the sample size that was used to collect research data from. The data collection instruments and procedures that were applied throughout the course of the data collection process are then outlined. The ethical considerations that were taken into account during the course of this research study are also mentioned. The chapter then concludes with a description of the data analysis techniques that were used by the researcher.

3.2 Research Design

This study adopted a descriptive survey design. Kothari (2004), describes a descriptive survey as a fact finding enquiry that involves asking questions to a large group of individuals often in the form of a questionnaire. The main objective of this design is to describe the status quo of a phenomenon and represent the findings in a statistical manner. According to Mugenda and Mugenda (2003), a descriptive survey determines and reports the way things are or answers questions concerning the current status of the subjects in the study.

According to DeVaus (2005), a research design ensures that the evidence obtained from the research study will enable the researcher to answer the initial research questions as unambiguously as possible. The nature and relevance of the evidence collected will be determined by the type of evidence that will be required to answer a research question or test a theory in the most convincing manner. The research design concerns itself with the question “what evidence/data do I need to collect?” rather than how the data should be collected. It therefore deals with the logical problem and not the logistical problem.

3.3 Target Population

The population towards which this study was targeted to collect relevant information from, consists of all the members that currently serve in Water Action Groups in the selected water utilities. These include; Nairobi City Water and Sewerage Company, Nakuru Water and Sanitation Service Company, Eldoret Water and Sanitation Company and Mombasa Water Supply and Sanitation Company.

Table 3.1: Target Population

Designation	No. of members	Percentage of total population
Nairobi	8	27.6
Nakuru	6	20.7
Eldoret	6	20.7
Mombasa	9	31.0
Total	29	100

As shown in Table 3.1, the total population size will be 29 people from the four water utilities.

3.4 Sample Size and Sampling Technique

The main objective for selecting a sampling technique in quantitative research is to draw a representative sample from the population in order to make generalizations from the results of the sample back to the entire population. The selection of the most appropriate sampling technique is dependent on the objective of the study and the research questions of the study. The optimum number required from the sample, to make valid and accurate inferences about the population, will determine the sample size of the study (Marshall, 1996).

Due to the small size of the target population that was used for this research study, ($N < 30$), the entire population was considered for the study. Therefore in this study, $N = n$. Where (N) is the total target population of the study and (n) is the sample size.

3.5 Data Collection Methods and Research Instruments

The data that was required for this research study came from a combination of primary and secondary sources. The primary data was collected through questionnaires that were mailed to

the respondents. The data collection instrument contained a combination of closed and open-ended questions to ensure that the quantitative data that was collected is furnished with more detailed information through the open ended questions. However, the open ended questions were limited in number and reserved to the bottom of the questionnaire while keeping the rest of the questions focused and direct. Secondary data was obtained mainly through the MajiVoice portal from WASREB to verify the efficiency in use of the technology both by the public and by the respective WSPs that form the scope of this study.

3.5.1 Piloting the instruments

Piloting of the data collection instrument was done for the study to ensure that the research questions are not vague or ambiguous. It also tested how appropriate and accurate the research design and instrument was in answering the research questions while addressing all other issues arising to instrumentation or researcher bias. According to Connelly (2008), ten percent of the sample size used for the parent research is recommended for pilot testing. However, this is also a function of time, cost and practicability as determinants of the sample size to be selected for pilot testing.

Therefore, one pilot test of the research instrument was done from a member from each of the four WAG groups. After the piloting, the researcher; asked the subjects for feedback to identify ambiguities and difficult questions, took note of the time taken by respondents to answer the questions and make necessary adjustments while assessing the adequacy of the range of responses. Any unnecessary and ambiguous questions were discarded or rephrased to elicit the responses that would be more useful to the study while taking into account the length of the research instrument.

3.5.2 Validity of the research instruments

The concept of validity as it relates to a research study refers to the extent to which a concept is measured. In relation to a research instrument, validity is the extent to which a research instrument accurately measures the intended area of content. A research instrument is said to have content validity if it adequately covers all the necessary content related to the variable it was designed to measure. Face validity as subset of content validity refers to expert opinion on the research instrument and its suitability and adequacy to measure the concept or variable in

question. Construct validity is the extent to which inferences can be drawn from the results of the test scores in relation to the concept being studied. The evidence for construct validity is displayed through: homogeneity – that the instrument measures one construct; convergence – when there is similarity between the concepts being measured by the instrument and those of other instruments and through evidence from score results that show consistency similar to existing theories of the construct being measured (Heale & Twycross, 2015). There is however no way of expressing validity in numerical terms and therefore intuitive judgments will have to be made.

For the purposes of this study, validity of the research instrument was ensured by subjecting it to scrutiny by a number of experienced professionals in the field of research as well as those specific in the field of public participation. They addressed the issue of face and content validity by ensuring there was homogeneity.

3.5.3 Reliability of the research instrument

The reliability of a research instrument refers to how consistently it measures the variable or constructs being studied. This includes the stability of the results from the instrument after repeated trials. According to Heale & Twycross (2015), there exists no way of determining the exact calculation for reliability but there are a number of ways to determine an estimate. The initial measurement errors that will affect the reliability of the research instrument will be addressed during the pretesting or pilot testing stage in order to identify such sources.

The homogeneity or internal consistency of the research instrument was addressed through an assessment of Cronbach alpha which determined the internal consistency of the scale items in each section of the research instrument. The reliability coefficient which gives the strength of the correlation between all the scale items should lie between 0 and 1. As a rule of thumb, a Cronbach alpha coefficient of .7 or higher is acceptable (Heale & Twycross, 2015).

Alpha was set at 0.05.

Table 3.2: Reliability Statistics

Variables	Cronbach's Alpha
Funding	.72
Institutional Goodwill	.82
Monitoring and Evaluation	.56
Information Technology	.75
Incentives	.51

Nunnally (1978) states that the acceptable level for Cronbach Alpha especially for a psychometric test should be .70 and above. From Table 3.2, Cronbach alpha for three of the variables is above the .70 threshold except for the variables of incentives and M&E. This is because Cronbach Alpha is also a function of the number of Likert items in which for both variables, the items were less than five. Hence the relatively lower coefficient for the two variables.

3.6 Data Collection Procedure

Prior to carrying out this study, the researcher informed the target population of the intention to carry out the research study and give them a brief overview of what the research would be about. This was done via email and telephone where necessary. The researcher sought prior consent from the respondents to take part as participants in this study.

3.7 Data Analysis Technique

Data analysis involves the collection and organization of data in order to derive important information that will bring the researcher to a conclusion. It involves uncovering patterns and trends from data sets to produce meaningful information (Best and Kahn, 2006).

Microsoft Excel computer package from Windows was used primarily for the analysis of the data in combination with the Statistical Package for Social Scientists (SPSS) version 17 where necessary. Various formulae were used to analyze the data where applicable. Descriptive statistics will be used to interpret and summarize the data into meaningful trends and patterns where applicable.

3.7.1 Quantitative Data Analysis

Answers from the questionnaire will be organized, sorted and coded to numerical form for ease of data analysis. This will allow for quick collection and presentation of the data in a manner that will ease usability of the data in the future if necessary. In order to avoid confusion while assigning numerical values during the coding stage, the researcher will employ the use of coding frames which will serve as a reminder of the same. This will be especially true in the case of Likert-scale questions. Descriptive statistics were used to interpret the data through the data analysis software packages mentioned earlier. The information from the data collected was tabulated and presented in the research report of this study.

3.7.2 Qualitative Data Analysis

Responses collected from the open-ended questions of the questionnaire were grouped in relation to each question in order to allow for easy comparison between the responses of each respondent to a particular question.

3.8 Ethical Considerations

During the course of this research study, ethical considerations were taken into account by ensuring that all the respondents participate in it in a voluntary matter at their own volition and without coercion from the researcher. The researcher ensured that there was informed consent from all the participants of the study and that the information provided was handled with anonymity and confidentiality. Information collected from the participants was only be used for the sole purpose of this research and will not be extended to any other part or parties without prior consent from all participants.

3.9 Operationalization of variables

In order to use concepts in research, translation of these concepts into a more observable and measurable form needs to take place. This is because most concepts as they exist in nature are not directly observable (De Vaus, 2005). This involves definition and clarification of abstract concepts and developing indicators for them. This process is called operationalization. According to De Vaus (2005), nominally defined concepts do not have a fixed or correct meaning. Table 3.3 gives a summary of the operational definitions of the variables relating to this research study.

Objective	Variable	Indicator(s)	Measurement Scale	Method of data collection	Instrument/ Data collection tools	Data analysis technique
To determine how funding influences consumer participation of water users	1. <u>Independent Variable</u>	a) Amount of money disbursed to WAGs annually	Ordinal	Administering questionnaires	Questionnaires	Frequencies and percentages
	2. <u>Dependent variable</u>	b) Number of community outreach activities carried out by WAGs	Ordinal			Correlational and descriptive statistics
To investigate how institutional goodwill influences consumer participation of water users	1. <u>Independent Variable</u>	a) Number of monthly and quarterly meetings convened with WAGs	Ordinal	Administering Questionnaires	Questionnaires	Correlational and descriptive statistics
	Institutional goodwill	b) Number of community outreach events initiated by WSPs with integration of WAGs	Ordinal			
	2. <u>Dependent variable</u>	c) Presence of a contact person assigned to handle WAGs complaints at WSP	Nominal			Frequencies and percentages

To explore the influence of monitoring and evaluation on consumer participation of water users	<p>1.<u>Independent Variable</u> Monitoring and Evaluation</p> <p>2.<u>Dependent variable</u> Consumer participation</p>	<p>a) Number of field monitoring visits by WASREB to WAGs</p> <p>b) Convening of quadripartite evaluation meetings between WAGs, WSPs, WSBs and WASEB</p> <p>c) Number of WAG community outreach activities attended by WASREB in the past one year</p>	<p>Ordinal</p> <p>Nominal</p> <p>Ordinal</p>	Administering Questionnaires	Questionnaires	Correlational and descriptive statistics
To establish how information technology influences consumer participation of water users	<p>1.<u>Independent Variable</u> Information Technology</p> <p>2.<u>Dependent variable</u> Consumer participation</p>	<p>a) Total number of complaints generated by the public through MajiVoice in the past one year</p> <p>b) Number of complaints handled by WAGs through MajiVoice</p> <p>c) Resolution rate of complaints channeled through MajiVoice by</p>	<p>Ordinal</p> <p>Ordinal</p> <p>Ratio</p>	MajiVoice	MajiVoice	<p>Correlational and descriptive statistics</p> <p>Frequencies and percentages</p>

		consumers to the WSPs in the past one year				
To ascertain the influence of incentives on consumer participation of water users	1. <u>Independent Variable</u> Incentives 2. <u>Dependent variable</u> Consumer participation	a) Presence of activity funds disbursed or provided to WAGs b) Presence or absence of stipends c) Water sector events in which WAGs were invited in the past one year	Nominal Nominal Ordinal	Administering Questionnaires	Questionnaires	Correlational and descriptive statistics Frequencies and percentages

Table 3.3 - Operationalization of Variables

CHAPTER FOUR

DATA ANALYSIS, PRESENTATIONS AND INTERPRETATIONS

4.1 Introduction

In this chapter, the data collected from the research instruments is analyzed and presented for interpretation. Correlational and descriptive statistics methods have been used to show the influence of factors such as funding, institutional goodwill, technology, M&E and incentives on consumer participation of water users in selected water utilities. Each section will be broken down to elaborate further on each of the five variables and their influence on the dependent variable. The demographic characteristics of the respondents are also presented as well as the reliability data of the research instrument.

4.2 Questionnaire Return Rate

Twenty nine respondents that constituted the target population of this study were administered a questionnaire containing a mix of both open and closed ended questions. From the 29 questionnaires that were administered, 27 were responded to and successfully returned. This represents a response rate of 93.1%.

4.3 Demographic Characteristics of Respondents

The following were the characteristics of the respondents based on their demographics as relevant to the research study:

4.3.1 Gender demographics of the respondents

For the respondents that took part in this study, there were more men than women.

Table 4.1: Respondents' distribution according to gender

Gender	Frequency	Percent	Frequency	Cumulative percent
Male	15	56		56
Female	12	44		100.0
Total	27	100.0		

From Table 4.1, there were slightly more men who took part in this research than women. 15 males and 12 females responded to the questionnaires representing 56% and 44% respectively.

4.3.2 Geographic distribution of respondents by water utility

The target population of the study was sourced from the four selected water utilities. The table below shows the distribution of the respondents that participated in the study taking into account the response rate.

Table 4.2: Distribution of respondents by water utility

County	Frequency	Percent	Frequency	Cumulative percent
Nairobi	8	29.6		29.6
Nakuru	6	22.2		51.8
Eldoret	5	18.5		70.3
Mombasa	8	29.6		100.0
Total	27	100		

Table 4.2 shows 8 of the respondents of this study came from Nairobi and Mombasa water utilities each, representing a majority of 59.2%. Nakuru water utilities had 6 respondents representing 22% of the total. Eldoret had the least number of participants with only 5 of the WAG members responding to the questionnaire.

4.3.3 Distribution of Respondents by Length of Service

The table below summarizes the distribution of the respondents of the study according to the number of years they have been serving as WAG members and taking part in water issues.

Table 4.3: Length of service of respondents

Length of service	Frequency	Percent	Frequency	Cumulative percent
Below 1 year	4	14.8		14.8
2 – 3 years	14	51.9		66.7
Over 5 years	9	33.3		100.0
Total	27	100.0		

As shown in Table 4.3, 14 out of the 27 respondents had been actively serving as WAG members for between 2-3 years. This represents 51.9% of the total. Only 4 out of the 27 respondents had been WAG members for less than a year, while 9 of the respondents had been actively participating in water issues as WAG members for over 5 years.

4.5 Funding and Consumer Participation

The first objective of this study was to determine how funding influences consumer participation of water users as Water Action Group members in selected water utilities in Kenya. Funding refers to the financial resources provided by an organization or government to finance a project or programme.

4.5.1 Sources of Funding

Respondents were asked to cite from which sources their WAGs received funding to facilitate their operations.

Table 4.4: Sources of Funding

Source of Funding	Frequency	Percent	Cumulative Percent
WASREB	25	65.8	65.8
WSP	4	10.5	76.3
Individual donations	1	2.6	78.6
Donors / Civil Society Organizations	8	21.1	94.9
N=27			

As illustrated in Table 4.4, the majority of the respondents cited WASREB as the major financier of the WAGs sometimes in combination with other sources. At a distant second, 21.1% the respondents cited donors such as civil society organizations as their financiers.

4.5.2 Influence of Funding and Consumer Participation

Respondents were asked whether an increase in funding would influence the level of WAG consumer participation and effectiveness.

Table 4.5: Descriptive statistics for funding

<i>Funding item</i>	<i>Total (N)</i>	<i>Mean</i>	<i>Standard Deviation</i>
An increase in funding would influence the level of our participation	27	1.3	0.6
My WAG received adequate financial support from WASREB to run our operations or intended activities	27	2.8	0.8
Our WAG received adequate financial support from our water company	27	3.4	0.8
Our WAG carried out the intended number of consumer outreach activities in the previous financial year	27	2.4	0.8
NGOs have been a significant source of funding for our WAG activities	27	2.9	1.0
Total annual amounts received was adequate for WAG operations or intended activities	27	3.1	0.9
4 point scale: 1 = Strongly agree, 2 = Agree, 3 = Disagree, 4 = Strongly disagree			

81.5% of the respondents strongly agreed that it would, while 11.1% simply agreed making a cumulative majority of 92.6%. None of the respondents strongly disagreed to the statement. Table 4.5 shows the descriptive summary from the respondents on the funding variable at a 95% confidence level for the mean.

4.5.3 Relationship between Adequacy of Funds and Consumer Participation

A correlational analysis of the relationship between adequacy of funds and the execution of intended activities and WAGs operations (consumer participation) was done as shown in Table 4.6. Pearson correlation coefficient (r) was computed and tested at significance level of 5% ($p \leq 0.05$).

Table 4.6: Relationship between Adequacy of funds and Consumer Participation

		Adequacy of funds	Execution of activities
Adequacy of funds	Pearson correlation	1	.665
	df	25	
	N	27	27
Execution of activities	Pearson correlation	.665	1
	df		25
	N	27	27

From the results, there is a moderately large positive relationship between the amount of funding and the execution of intended activities for WAG operation $r(25) = .66, p < .001$ at 25 degrees of freedom (df). Where $df = N - 2$ i.e. $27 - 2 = 25$.

4.5.4 Discussion of the results for Funding and Consumer Participation

The first research question of this study sought to determine to what extent funding influences consumer participation of water users through WAGs. The findings found that funding levels and specifically the adequacy of funds has a positive significant influence on consumer participation ($r = .66, p < .001$). These findings agree with the work of Cogan, Sharpe and Hertberg (1986), who exerted that in order for a public participation programme to be effective it should contain certain elements such as receipt of adequate funding, staff and time among others. The findings further show that consumer participation much like other areas of the water sector is underfunded and therefore does not work at optimum levels. Whereas this result may not be solely due to funding it does have an effect. However, whereas responses from the respondents show that donors do not make up a significant source of funding for consumer participation, this is contradictory to the case at the national level. The MWI (2016) through its annual publication the Annual Water Sector Review reported that although the water sector currently receives funding from the national and county governments, donors, civil society and internal revenues from water institutions, more than half of the funding comes from development partners (donors).

4.6 Institutional Goodwill and Consumer Participation

As a second objective, this study sought to investigate how institutional goodwill influences consumer participation of water users as Water Action Group members. Institutional goodwill refers to actions of support and cooperation shown by an institution toward a certain intervention, project or programme – in this case the Water Action Groups.

4.6.1 Influence of institutional goodwill on Consumer Participation

The opinions of the respondents was sought as to whether the support given to their WAGS by the water sector institutions they interact with impacts their level of participation and activity.

Table 4.7: Influence of Institutional Goodwill on Consumer Participation

Response	Frequency	Percent	Frequency	Cumulative percent
Strongly agree	5	18.5		18.5
Agree	19	70.4		88.9
Disagree	0	0		88.9
Strongly disagree	3	11.1		100.0
Total	27	100.0		

A majority of them (88.9%) responded in the affirmative as shown in Table 4.7.

4.6.2 Descriptive statistics for Institutional Goodwill and Consumer Participation

The influence of institutional goodwill on the level of consumer participation of WAGs was sought from the respondents who were asked to give their views on various aspects of engagement with sector institutions as a display on their goodwill towards WAGs in consumer participation. Table 4.8 summarizes their responses.

Table 4.8: Descriptive Statistics for Institutional Goodwill

Responses	Total (N)	Mean	Standard Deviation
Support of WASREB towards WAGs	27	1.7	.71
WASREB plays a key role in linking WAGs with sector institutions	27	2.2	.93
WAGs are taken seriously by WSP	27	2.4	.70
WAGs are taken seriously by WSB	27	3.2	.82
WAGs are taken seriously by WASREB	27	1.8	.79
Support given by institutions impacts level of WAG participation and activity	27	2.0	.81
Inclusion of WAGs in community outreach events by WSP	27	2.3	.92

4 point scale: 1 = Strongly agree, 2 = Agree, 3 = Disagree, 4 = Strongly disagree

From Table 4.8, respondents agreed to all of the statements to varying degrees except that they are taken seriously by WSBs. It is clear by the mean score of 3.2 that the respondents do not think they receive the adequate level of support from their WSBs and neither are they taken seriously by them. This means that more discourse and regulatory intervention from WASREB is required to step in and bridge the gap between the two parties. The highest scores from the respondents were in relation to WASREB in which they cited that WASREB is supportive towards WAGs (1.7) and takes them seriously (1.8). This means that WASREB being the body in charge of WAGs and responsible for their establishment, gives them the due support that they require and understands the importance of consumer participation. The median score for each of the responses above was 2 except for that in relation to the seriousness of WSBs towards WAGs which was 3.

4.6.3 Discussion of the results for Institutional Goodwill and Consumer Participation

Cogan, Sharpe and Hertberg (1986) posited that a public participation programme can only be effective if it receives sufficient political backing and a sense of relatability with the concerned public among other factors. In this study political backing was analyzed under the factor of institutional goodwill. The findings of this study agree with the findings of Cogan et.al. as it was found that the level of support accrued to the WAGs by sector institution influence their level of consumer participation. Greater support leads to a greater degree of participation. Inferences from these previous researches can be made that it also leads to greater effectiveness of the consumer participation programs since the information will be better tailored to the audience and more facilitation can be accorded to the participation programs.

4.7 Monitoring and Evaluation and Consumer Participation

Since WAGs are under the purview of WASREB, the regulator is obligated to monitor and evaluate the performance of the groups in terms of activities carried out, efficiency and effectiveness in interacting with the public and carrying out their mandate.

4.7.1 Influence of Monitoring and Evaluation on Consumer Participation

Respondents of the study were asked whether they think it is important that monitoring and evaluation of their operation is carried out to ensure they remain active participants in the water sector. Table 4.9 is a summary of their responses.

Table 4.9: Influence of M&E on Consumer Participation

Response	Frequency	Percent	Frequency	Cumulative percent
Strongly agree	11	40.7		40.7
Agree	15	55.6		96.3
Disagree	1	3.7		100.0
Strongly disagree	0	0		100.0
Total	27	100.0		

96.3% of the respondents agree to varying extents that monitoring and evaluation of their operations is an important aspect that ensures they remain active participants in water issues.

4.7.2 Descriptive statistics for M&E and Consumer Participation

Respondents were asked to either agree or disagree to a variety of statements regarding the adequacy of WASREB in monitoring and evaluation of various aspects of their WAG operations and the effect it may have on their participation as water users. Table 4.10 below is a summary of their responses.

Table 4.10: Descriptive statistics for M&E and Consumer Participation

Responses	Total (N)	Mean	Standard Deviation
Monitoring through field visits	27	2.0	.81
Monitoring of monthly reports	27	2.1	.68
Importance of M&E in continuing active participation	27	1.6	.57
Monitoring activity levels and performance	27	1.8	.64
Importance of evaluation through quadripartite meetings	27	1.5	.51
Adequacy of the number of evaluation meetings convened	27	2.7	.62

4 point scale: 1 = Strongly agree, 2 = Agree, 3 = Disagree, 4 = Strongly disagree

For each of the scale items on M&E above, the median score was 2 except for last item about adequacy of the number of evaluation meetings held which scored 3. It is clear however that the respondents by and large understand and appreciate the importance of M&E in their operations. From the results it also appears that the respondents are largely satisfied with WASREB's performance with regards to monitoring and evaluating their operations.

4.7.3 Discussion of the results for M & E and Consumer Participation

According to the World Bank (2001), the importance of incorporation of all the stakeholder views when monitoring and evaluating a consumer participation project cannot be understated. It enhances a greater sense of ownership and thus a greater chance of project sustainability and accountability from all parties involved. This findings from the World Bank agree with the

findings of this study that shows that the WAGs are willing to be monitored and evaluated on their performance to increase their effectiveness and accountability. The findings also showed that the both WAGs and WASREB understand the importance and role of M&E in consumer participation.

4.8 Information Technology and Consumer Participation

The fourth variable that this research study sought to find out was the influence of Information Technology on consumer participation of water users. The primary platform that water users can engage with their service providers and other water institutions using technology is through MajiVoice. This is a complaints channeling electronic system developed by WASREB and other development partners. The level of use and adoption of the system by the public can be tracked through various indicators such as the total number of complaints generated by the public through MajiVoice; the number of complaints handled by WAGs through MajiVoice and the resolution rate of complaints channeled through MajiVoice by water users.

4.8.1 Number of complaints generated by the public through MajiVoice

Data collected from the MajiVoice portal shows that the total number of complaints generated by the public through MajiVoice over the last one year was as follows: 59,897 for Nairobi, 1,088 for Nakuru, 2,367 for Eldoret and 2,799 for Mombasa Water Company. The total population in the service areas of Nairobi, Nakuru, Eldoret and Mombasa water companies were 3.892M, 462043, 408215 and 1.072M respectively. Since the MajiVoice system can be used by the entire population in the service area, these figures will be used to calculate the level of penetration of the electronic system among the public.

Table 4.11: Level of penetration of MajiVoice

Utility	Total complaints	Population in service area	% level of penetration
Nairobi	59,897	3,891,490	1.54
Nakuru	1,088	462,043	.24
Eldoret	2,367	408,215	.58
Mombasa	2,799	1,071,656	.26

From Table 4.11, Nairobi has the highest level of penetration in the use of MajiVoice. However, the overall levels are still incredibly low which indicates that the public has yet to fully embrace the use of technology when it comes to consumer participation in the Kenyan water sector.

4.8.2 Resolution rate of complaints channeled through MajiVoice

The resolution rate of the complaints channeled through MajiVoice since the establishment of the electronic system in the respective utilities was as follows: Nairobi, Nakuru, Eldoret and Mombasa achieved 65.97%, 66.31%, 52.45% and 3.59% respectively. It is clear from this information that Mombasa Water Company has a much lower resolution rate of complaints with most of the channeled complaints remaining pending at the utility yet to resolved. This information was corroborated from the responses received from the respondents who were asked if their respective water utilities were active in using the system in handling consumer complaints. Table 16 shows a summary of their responses.

4.8.3 Descriptive statistics for Information Technology

Respondents were asked to give their perception as to what extent their interaction with MajiVoice and the interaction of various other sector players affects their level of participation in water issues. Table 4.12 below gives a descriptive summary of the responses.

Table 4.12: Descriptive statistics for Information Technology and Consumer Participation

Responses	Total (N)	Mean	Standard Deviation
Active use by individual	27	2.8	1.14
Active use by utility	27	2.5	1.05
Equipment to use MajiVoice	27	2.7	1.00
MajiVoice as a critical factor in enhancing WAG participation	27	2.3	1.03
Reception of the general public toward MajiVoice	27	3.1	.78

4 point scale: 1 =A large extent, 2 = A significant extent, 3 = Some extent, 4 = No extent

While the mean score for the first three items was under 3 implying that the use of MajiVoice has a somewhat significant extent on the level of consumer participation, descriptive analysis shows that the median score for the level of activity of the individual WAG members, the utility and their feeling of having been sufficiently equipped to use MajiVoice was 3. This indicates that a majority only felt the effect of MajiVoice to a somewhat small extent. These low scores imply that the technology has yet to be fully embraced and its full impacts and capabilities are yet to be felt and exploited.

4.8.4 Measures to Increase Consumer Participation of Water Users through Information Technology

Respondents were asked to give their opinions on which other measures can be taken by water sector institutions to increase consumer participation through the use of Information Technology.

Table 4.13: Measures to increase consumer participation through IT

Measures to be taken	Frequency	Percent	Cumulative Percent
Public education / Awareness creation	9	32.1	32.1
Use of Social media	7	25.0	57.1
For mobile / electronic billing	5	17.9	75.0
Training	3	10.7	85.7
Other	4	14.3	100.0
N=27			

The most frequent responses included: the need for greater public education campaigns about the MajiVoice system and other technologies in the water sector; and the use of social media platforms such as Facebook, Twitter and WhatsApp for information sharing. The use of technology for mobile or electronic transmission of water bills was also commonly cited, as well as the need for training of the different stakeholders in the water sector about the system. Other suggestions that were made include the use of GPS to identify water bursts, and reading of meters. Table 4.13 is a summary of the responses.

4.8.5 Relationship between Information Technology and Consumer Participation

Respondents were asked about their level of activity in using the MajiVoice system and then asked again whether they thought that the innovation of MajiVoice was critical in enhancing their participation in water services issues.

Table 4.14: Relationship between Information Technology and Consumer Participation

		Individual activity levels	Enhancement of participation through MajiVoice
Individual activity levels	Pearson correlation	1	.345
	df	25	
	N	27	27
Enhancement of participation through MajiVoice	Pearson correlation	.345	1
	df		25
	N	27	27

A correlational analysis was carried out to establish the relationship between these two parameters as shown in Table 4.14. Pearson correlation coefficient (r) was computed and tested at 5% significance level ($p \leq 0.05$). From the results, there is a moderately weak positive relationship between the two parameters $r(25) = .345$.

4.8.6 Discussion of the results for IT and Consumer Participation

The findings of this research study show that although the use of IT as a tool for consumer participation is encouraged and thought to be important, it has yet to be embraced both by the WAGs and by water sector institutions. The findings show a weak correlational relationship between the use of the actual technology and the perception of its usefulness or importance ($r = .345$). Davies (2015), posited that ICT makes it easier for the public to interact with government, by reducing the bureaucracy traditionally associated with public authorities with respect to administrative functions, and thus leads to greater convenience, faster and cheaper services hence encouraging competitiveness and economic growth. Though the benefits fronted

by Davies are globally agreed upon, they have not been realized from the results of this research. This could be due to infrastructural issues among others.

4.9 Incentives and Consumer Participation

The fifth objective of this research study was to ascertain the influence of incentives on consumer participation of water users as Water Action Group members. An incentive is any motivating influence or stimulus that makes someone to do something.

Respondents were asked to give their views as to what extent the various incentives they already receive influence or motivate them to continue taking part as active participants in water issues. Descriptive statistics were collected from their responses and collated in Table 4.15.

Table 4.15: Descriptive Statistics for Incentives and Consumer Participation

Responses	Total (N)	Mean	Standard Deviation
Receipt of quarterly activity funds	27	1.6	.69
Receipt of individual monthly stipends	27	1.3	.61
Invitations to big sector events	27	1.3	.47
4 point scale: 1 =A large extent, 2 = A significant extent, 3 = Some extent, 4 = No extent			

The average mean score for all three of the scale items is less than 2. This indicates that the majority of the respondents are influenced to a large extent by incentives to continue participating in consumer issues in the water sector. Also important to note, is that the median score for all three of the scale items was 1.

4.9.1 Possible Incentives to Increase Participation of Water Users

Respondents were asked to indicate what other kind of incentives would motivate them to continue their participation as WAGs in future. Table 4.16 is a tabulation of their responses.

Table 4.16: Proposed Incentives to Increase Consumer Participation

Proposed incentives	Frequency	Percent	Cumulative Percent
Increment in monthly stipends	16	30.2	30.2
Increment in activity funding	10	18.9	49.1
Training	4	7.5	56.6
Public recognition	7	13.2	69.8
WAG seminars for knowledge exchange	4	7.5	77.3
Other	12	22.6	100.0
N=27			

Besides the majority of the suggestions to increase the monthly stipend and activity funds, other numerous suggestions were made. These included: consideration for formal employment, facilitation through travel allowances, statutory benefits such as health insurance and social security. In addition to these, the respondents also suggested facilitation by being allocated office space to conduct their operations. From the results of the data, it is clear that incentives play a big role in motivating the WAGs in consumer participation. It is therefore worthwhile that water sector institutions find other innovative ways of motivating the public to participate.

4.9.2 Discussion of the results for Incentives and Consumer Participation

Gneezy and Rustichini (2000) found that when it comes to monetary incentives, it is better to not pay at all than to pay small or insufficient amounts since fully intrinsic motivation without any sort of payment yielded higher desired outcomes. Gneezy, Meier & Rey-Biel (2011) concluded that whereas extrinsic motivators especially of a monetary nature can have moderate success in producing desired outcomes, in general, they to have a conflicting effect on intrinsic motivators. The findings of this research both confirm and also somehow contradict the findings of this research. However, contradiction could be attributed by a bias from respondents who may not have wanted to seem less altruistic in their voluntary efforts. While majority of the respondents overwhelmingly agreed and encouraged incentives (median score of 1), suggestions on which other incentives could be added included employee benefits and further increment of the already

existing incentives. This somewhat agrees with the work of Gneezy, Meier & Rey-Biel (2011) that found that monetary incentives changes the perception of the tasks by the doer and if the monetary incentive is not large enough, the desired outcomes may not be achieved.

4.10 Consumer Participation of Water Users

The dependent variable of this research study was consumer participation which refers to the active involvement of the public in decision making processes. Respondents were asked open ended questions regarding various aspects of their participation in the water sector. Below is a summary of their responses.

4.10.1 Reasons for becoming a WAG member

Respondents were asked to give their personal reasons as to why they chose to become a WAG member. Their responses are tabulated in Table 4.17.

Table 4.17: Reasons for becoming a WAG member

Reasons	Frequency	Percent	Cumulative Percent
Poor service delivery	3	9.7	9.7
Desire to serve the community	11	35.5	45.2
To improve the water sector	5	16.1	61.3
To empower consumers on their rights	6	19.3	80.6
To link consumers with water institutions	4	6.5	87.1
Other	2	12.9	100.0
N=27			

From the frequency table 4.17, majority of the respondents cited an innate desire to their communities as a reason they chose to participate in consumer issues through WAGs. This represents 35.5% of the total reasons cited. The top three other common reasons that were cited include the need to empower consumers on their water rights (19.3%), to improve services in the water sector (16.1%) and to be a linking agent between consumers and water sector institutions mandated with different aspects of service delivery (6.5%). Other reasons that were cited

included poor service delivery in their communities, and to gain exposure in the sector and in water issues.

4.10.2 Importance of Consumer Participation

Respondents were asked to give their opinion on the importance of participating in issues concerning service delivery in the water sector. Below is a summarized tabulation of their responses as shown in Table 4.18.

Table 4.18: Importance of Consumer Participation

Importance of Consumer Participation	Frequency	Percent	Cumulative Percent
To improve service delivery	12	35.3	35.3
To improve quality of life	3	8.8	44.1
To become empowered on rights	10	29.4	73.5
To promote transparency and accountability	6	17.7	91.2
Other	3	8.8	100.0
Total	34	100.0	

35.3% of the respondents say that consumer participation of water users is important in order to improve the level of service delivery and to become empowered and knowledgeable able consumer rights in the water sector (29.4%). Respondents were also aware that active participation in the decision making processes holds the duty bearers accountable to deliver their mandates to the citizenry while encouraging transparency in their operation. This is a good indication that majority of the respondents understand the concept of consumer participation. Other reasons that were cited include the impact active participation has on improving the quality of life and how it increases ownership and buy-in from the public.

4.10.3 Measures to encourage active consumer participation

Respondents were asked to give their suggestions as to how else water sector institutions in Kenya can get more consumers involved as active participants in water issues. Table 4.19 is a summary of their responses.

Table 4.19: Measures to Encourage Consumer Participation by Water Sector Institutions

Possible measures to be taken	Frequency	Percent	Cumulative Percent
Create more platforms for engagement	11	29.7	29.7
Create awareness	9	24.3	54.0
Be more responsive to the consumer	7	18.9	72.9
Solve service delivery problems	4	10.8	83.7
Be more transparent	2	5.4	89.1
Other	4	10.8	100.0

N=27

83.7% of the responses received suggested that water institutions can encourage consumer participation from the public by creating more platforms for engagement with the consumer to know their needs and share their plans, to create awareness through information sharing of whatever issues that are pertinent to the consumer and to solve inefficiencies in their service delivery mandate in order to increase consumer confidence in water institutions. Other suggestions that were given include being more transparent and increasing the number of water resources to avoid scarcity since according to some respondents, many problems in the water sector are due to scarcity of the precious commodity.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the findings from the study will be summarized and conclusions made based on the findings. Recommendations will be given as well as suggestions for further research in future. The findings are summarized according to each of the five variables that have been examined in this research study.

5.2 Summary of Findings

The following is an in-depth summary of the findings:

5.2.1 Influence of funding on Consumer Participation

The findings of this research study reveal that WASREB is main financier of the Water Action Groups and it is also equally committed to uphold its mandate of consumer protection through consumer participation in support of WAGs. The findings reveals that funding has a significant positive influence on consumer participation supported by a correlational analysis between adequacy of funds and the number of intended activities that were executed ($r=.66$). While the majority of the respondents (92.6%) believe that an increase in funding would also increase their level of consumer participation, the results show that the respondents do not receive adequate financial support especially from their water utilities. There is still room to exploit alternative means of financing through NGOs and civil society organizations which have not been fully exploited as a source of funding as evidenced in the findings.

5.2.2 Influence of Institutional Goodwill on Consumer Participation

Revelations from the results show that the support accorded to the WAGs by water sector institutions such as WSPs, WSBs and WASREB influenced their level of participation as evidenced by 88.9% of the respondents who cumulatively agreed to the statement. This could be due to motivational factors such as the feeling of not being wanted or taken seriously, or due to a lack of inclusion and facilitation that can handicap their progress and mandate in helping to disseminate information or solve consumer complaints. The findings further reveal that the

respondents receive the least amount of support and lack of seriousness from WSBs while they enjoy the most amount from WASREB. However, water utilities have been stepping up in terms of including WAGs in their consumer participation activities although there is still room for improvement.

5.2.3 Influence of M&E on Consumer Participation

With regards to the influence of M&E on consumer participation, it is interesting that the majority of respondents were willing to be held accountable through M&E which may be an indicator that there is a genuine desire within a majority to have an impact on the ground in carrying out their mandate. This is further supported by the most popular response from the respondents who cited that they became WAGs due to an innate desire they had to serve their communities. Majority of the respondents agree to varying extents that M&E is an important aspect in ensuring consumer participation. From the findings, there seems to be a strong understanding of the importance of M&E. The results show that WASREB has been adequately playing its role as the overseer of the groups by carrying out monitoring activities adequately both in the field and on the desk through reports. However, there have not been a sufficient number of evaluation meetings between WAGS, WASREB, WSBs and WSPs which means that the WAGs miss an important chance to express the voice of the consumer on a singular platform to all parties as well as to be publicly recognized for their performance and role in the water sector.

5.2.4 Influence of Information Technology on Consumer Participation

The findings indicate that NCWSC is the most active water utility in relation to the use of MajiVoice and also has the most number of complaints channeled through the system. However the overall levels of penetration of the MajiVoice technology are still incredibly low which indicates that the public has yet to fully embrace the use of technology when it comes to consumer participation in the Kenyan water sector. This is supported by the results from the respondents who disagreed that the general public has been receptive toward the use of MajiVoice.

Despite the majority of respondents citing that the innovation of MajiVoice was a critical factor in enhancing their participation in consumer issues, the median response showed that they did not feel adequately equipped to use the system. MajiVoice is yet to be fully exploited by the

WAGs, WSPs and by the public. This was supported by a correlational analysis between individual activity levels using MajiVoice and the enhancement of consumer participation which showed a weak correlation ($r=.345$). Respondents suggested that the use of public education programs to create awareness of the system, use of social media platforms, embracing of mobile or electronic billing systems by water utilities as well as refresher trainings are some of the measures that can be taken by water institutions to increase consumer participation through technology.

5.2.5 Influence of Incentives on Consumer Participation

Incentives have a large influence on the level of consumer participation from the results of the study. Majority of the respondents are in full agreement and support of provisions of the current incentives they are offered by WASREB and in fact suggested that they made be made better. This includes both monetary and non-monetary incentives in the form of monthly stipends, disbursed activity funds on a quarterly basis and invitation to significant sector events. The respondents further suggested incentives in the form of training opportunities, public recognition through award ceremonies and WAG seminars in which there can be exchange of knowledge and experiences. What is interesting to note is that some members did suggest being formally incorporated by WASREB as an employee or having employee benefits. This could be an indication that not all the respondents participate purely for altruistic reasons but rather to benefit themselves as well.

5.3 Conclusions

The findings of this study have led the researcher to conclude that funding and the level of funding in terms of the adequacy of the funds provided has a positive significant influence on the level of consumer participation of WAGs. This means that if more funds are availed for WAGs and specific budget lines put in place to facilitate their consumer engagement activities we will see an increment in their levels of consumer participation. More avenues for funding need to be exploited in order to alleviate this inadequacy of funding and offload dependency from WASREB and instead get more actors on board who have a stake in the sector and have a constitutional duty to engage with their consumers through participatory methods.

Water institutions especially the WSBs and some WSPs have not yet fully embraced the importance and consumer participation and more needs to be done to sensitize them on the

importance of the same both in terms of benefits for them and also as a constitutional mandate. Monitoring and evaluation has a positive influence on the participation of WAGs and continuous assessment and evaluation of the project needs to be carried out in order to ensure that it does not become redundant nor does it wane in efficiency.

MajiVoice as a tool of engagement with the public through Information Technology has still not been fully embraced by the public nor exploited by WSPs. The higher penetration levels of the system in Nairobi could be due to better infrastructure, exposure to technology and a better educated population in the service area. However, it is also likely that the system enjoys greater acceptance and buy in both from the management and staff of NCWSC that makes it so much more successful than its counterparts.

On incentives, whereas they are more than welcome by the WAGs and the findings reveal a strong positive influence of reported levels consumer participation it may emanate from an individual bias that always seeks for more. Suggestions by a number of WAGs asking for employee benefits for work meant to be voluntary could lead to an inference that suggests that a small monetary incentive can lead to greater expectations. Instead, non-monetary incentives should be exploited such as capacity development programs, exchange trips and public recognition through award ceremonies.

5.4 Recommendations of the Study

The following are the proposed recommendations to improve the level of consumer participation taking into account the key findings of this study:

1. WASREB needs to be more assertive in its regulatory role both as a liaison and an enforcer to ensure that water utilities secure a financial budget for consumer participation in general and specifically for WAGs and also to link WAGs with interested NGOs who could be potential financiers. There is still room to exploit alternative means of financing through NGOs and civil society organizations which have not been a significant source of funding as evidenced in the findings. All this however, has to be taken into account with respect to the principle of sustainability. NGOs can be used as a supplementary source of funding but the main financier should be water utilities since ideally, they have a constant revenue stream through WSS.

2. Greater awareness of the importance of consumer participation needs to be encouraged among water sector institutions more so WSBs. This can be done through a soft approach of training and capacity development or through a more hardline approach via punitive regulatory action which enforces the practice of consumer participation as a key element of good governance and adherence to the requirements of the CoK (2010).
3. Quadripartite evaluation meetings in which performing members are duly recognized and any inefficiencies are addressed need to be held at least on an annual basis. The regulator should also begin to closely monitor the level of engagement in consumer participation issues by WSPs and WSBs and take regulatory action in cases where they are not being supportive to the WAGs project.
4. The regulator needs to step up its efforts in rolling out MajiVoice throughout the country and also needs to carry out extensive public awareness campaigns on the new technology. Water utilities also have to be sensitized on the usefulness of embracing technology and its role in improving service delivery. WASREB needs to take more action in veering the sector towards embracing technology. Extensive training and refresher courses need to be provided for the WAGs many of whom cited that they did not feel adequately equipped to use the system. This can also be extended to water utilities since they are the principle service delivery agent.
5. Taking into account the financial sustainability of the WAGs project if monetary incentives are to be increased as per the suggestions of the respondents, direction should be focused on increasing the non-monetary incentives such as recognition through annual evaluation meetings and training. This is not only less expensive but the benefits could lead to more value addition in the long run.

5.5 Suggestions for Further Research

The following are the suggestions made by the researcher for further research:

1. This research was limited to studying the influence of five various factors on consumer participation with the Water Action Groups. Further research needs to be carried out to establish the actual impact of consumer participation through WAGs on the performance of WSPs. In other words, compare the levels of consumer participation among WSPs that do have WAGs versus those that do not in order to establish if in deed the WAGs model

is useful in encouraging the public to engage in consumer participation in the water sector.

2. The scope of this research was specific to the water sector. It could be useful for researchers in future to find out if the findings of this study can be generalized to other sectors which use similar models such as the energy sector and also to find out what other alternative models can be borrowed from other sectors into the water sector.
3. In this study, the researcher only sought to determine the influence of funding, IT, institutional goodwill, M&E and incentives on consumer participation. Whereas those are the major factors that can influence consumer participation through WAGs they are not the only. Future research can look into the influence of age and especially gender (and gender roles) and consumer participation and how the effect of these factors could be improved or encouraged.
4. Future researchers can investigate the reasons as to why the penetration levels of IT and specifically MajiVoice in the water sector are significantly higher in Nairobi than in the other water utilities in Kenya that also have the system. Factors such as the level of education, staffing levels, amount of revenues and availability of infrastructure such as smart phones, computer and steady internet can be considered.

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APPENDIX I

LETTER OF INTRODUCTION

University of Nairobi
P.O Box 30197-00100
NAIROBI.

Dear respondent,

I am a post-graduate student at University of Nairobi pursuing a Masters of Arts degree in Project Planning and Management. As a requirement in partial fulfillment for the award of this degree, I am conducting a research study on **“Factors influencing consumer participation of water users in selected water utilities in Kenya: A case of the Water Action Groups”**.

I kindly request for your time and cooperation to take part in this research study as a participant, by answering all the questions asked in the accompanying questionnaire. Kindly fill out all your answers in the spaces provided in the most honest and accurate manner to the best of your knowledge. Wherever applicable, kindly indicate the answer which best describes your opinion/inclination with a tick (√).

Your individual responses to this questionnaire will be kept anonymous.

Thank you for your time and cooperation.

Yours Sincerely,



Jennifer Chiku.

APPENDIX II

QUESTIONNAIRE

SECTION A: PROFILE OF RESPONDENT

Dear Respondent,

By filling out this survey you consent to the use of the data for research purposes. Please tick (✓) your answer in the checkbox of choice or fill the space provided where appropriate.

Your participation is strictly voluntary. Information that you choose to provide will be anonymous and will be sent directly to the researcher who will incorporate your responses with those from your fellow colleagues.

1. What is your gender?

Male () Female ()

2. In which county do you work?

Nairobi () Nakuru () Uasin Gishu () Mombasa ()

3. For how long have you worked with Water Action Groups?

Below 1 year () 2-3 years () Over 5 years ()

SECTION B: FUNDING

This section will investigate the relationship between the financial resources provided to the WAGs and how it influences their participation as water users.

4. From which sources do you receive your funding for WAGs operations?

.....
.....
.....
.....

5. Please tick (✓) your answer in the checkbox of choice

Statement	Strongly agree	Agree	Disagree	Strongly disagree
a) An increase in funding would influence the level of our participation and effectiveness as a WAG	()	()	()	()
b) My WAG received adequate financial support from WASREB to run our operations or intended activities	()	()	()	()
c) Our WAG received adequate financial support from our water company to run our operations or intended activities	()	()	()	()
c) Our WAG carried out the intended number of consumer outreach activities in the previous financial year	()	()	()	()
d) NGOs have been a significant source of funding for our WAG activities	()	()	()	()
e) The total amount of money our WAG received annually from all the different sources was adequate for our operations or intended activities	()	()	()	()

SECTION C: INSTITUTIONAL GOODWILL

Institutional goodwill refers to actions of support and cooperation shown by an institution toward a certain intervention, project or programme. This section seeks to determine how institutional goodwill affects participation of consumers.

6. Please tick (√) your answer in the checkbox of choice

Statement	Strongly agree	Agree	Disagree	Strongly disagree
a) WASREB is supportive to the WAGs in the execution of their mandate	()	()	()	()
b) WASREB plays a key role in connecting the WAGs to other sector institutions and civil society organizations	()	()	()	()
c) WAGs are taken seriously by the WSP	()	()	()	()
d) WAGs are taken seriously by the WSB	()	()	()	()
e)WAGs are taken seriously by WASREB	()	()	()	()
f) The support given to my WAG by the sector institutions we interact with impacts our level of participation and activity	()	()	()	()
g) The presence of sector institutions in WAGs' events has a significant impact on WAG operations	()	()	()	()
h) The assignment of a designated contact person specifically to handle WAG issues at my water utility is a good show of support towards WAGs	()	()	()	()
i) The number of times a WSP, WSB or WASREB is willing to meet with WAG is a good sign of its support for WAGs	()	()	()	()
j) Our WSP often includes us as WAG members in its community outreach activities	()	()	()	()

SECTION D: MONITORING AND EVALUATION

In this section, the influence of Monitoring and Evaluation of the operations and running of WAGs will be investigated with regards to how it influences their participation in water issues.

7. Kindly respond as accurately as possible to the following statements with (√) where suitable.

Statement	Strongly agree	Agree	Disagree	Strongly disagree
a) WASREB carries out sufficient field monitoring of our WAG activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Our monthly reports to WASREB are adequately monitored and followed up on	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Monitoring and evaluation of WAGs is important to ensure they remain active participants in water issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) WASREB adequately monitors the level of activity and performance of WAGs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) It is important to monitor and evaluate WAG performance annually through a quadripartite meeting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) WASREB convenes an adequate number quadripartite evaluation meetings between WAGs, WSPs and WSBs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SECTION E: INFORMATION TECHNOLOGY

This section seeks to ascertain how the use of electronic systems – i.e. MajiVoice in particular – influences consumer participation of WAGs.

8. Please tick (√) in the checkbox of choice to indicate the extent to which each of the following statements apply to you

Statement	To a large extent	To a significant extent	To some extent	To no extent
a) I actively use MajiVoice in handling complaints raised to me as a WAG member?	()	()	()	()
b) My utility is active in using MajiVoice for solving customer complaints	()	()	()	()
c) I feel adequately equipped to use MajiVoice	()	()	()	()
d) The innovation of MajiVoice was critical in enhancing my participation in water services issues.	()	()	()	()
e) Water users are receptive to the use of MajiVoice in my area.	()	()	()	()

9. How else can information technology be used to increase consumer participation in water issues?

.....

.....

.....

SECTION F: INCENTIVES

This section will explore to what extent incentives motivate WAGs to become and continue participating in consumer issues in the water sector.

10. Please tick (✓) in the checkbox of choice to indicate the extent to which each of the following statements apply to you

Statement	To a large extent	To a significant extent	To some extent	To no extent
a) The receipt of activity funds boosts my morale to continue participating as a WAG member?	()	()	()	()
b) The receipt of monthly stipends boosts my morale to continue participating as a WAG member	()	()	()	()
c) Invitations to big sector events and functions such as the launch of WASREB's impact report motivate me to continue participating as a WAG	()	()	()	()

11. What kind of incentives would motivate you to continue your participation as a WAG in future?

.....

.....

SECTION G: CONSUMER PARTICIPATION

This section will establish the reasons why consumers choose to participate in water issues.

12. Why did you become a WAG member?

.....

13. In your opinion, what is the importance of participating in issues concerning service delivery in the water sector?

.....

.....

14. What do water sector institutions need to do to get more consumers involved as active participants in water issues?

.....

.....

APPENDIX III

RESEARCH PERMIT


**THIS IS TO CERTIFY THAT:
MISS. JENNIFER CHIKU OWOKO
of UNIVERSITY OF NAIROBI, 19512-100
NAIROBI, has been permitted to conduct
research in Nairobi County**

**Permit No : NACOSTI/P/17/87121/20318
Date Of Issue : 4th December,2017
Fee Received :Ksh 1000**

**on the topic: FACTORS INFLUENCING
CONSUMER PARTICIPATION OF WATER
USERS IN SELECTED WATER UTILITIES IN
KENYA: A CASE OF THE WATER ACTION
GROUPS, KENYA.**

**for the period ending:
4th December,2018**




.....
**Applicant's
Signature**


.....
**Director General
National Commission for Science,
Technology & Innovation**



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

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Website: www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/17/87121/20318**

Date: **4th December, 2017**

Jennifer Chiku Owoko
University of Nairobi
P.O. Box 30197-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Factors influencing consumer participation of water users in selected water utilities in Kenya: A case of the Water Action Groups, Kenya,*" I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **4th December, 2018.**

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

G.P. Kalerwa

**GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.

National Commission for Science, Technology and Innovation is ISO9001:2008 Certified