ASSESSMENT OF PUBLIC-PRIVATE PARTNERSHIP ON WATER SERVICE DELIVERY IN MERU COUNTY, KENYA

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RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER IN PUBLIC ADMINISTRATION AND MANAGEMENT DECREE OF MOUNT KENYA UNIVERSITY.

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DECLARATION AND APPROVAL

Student Declaration

This submission is solely my own creation and has not been submitted for a degree at any other university or for any other recognition.

Signature  Date…21/05/2024

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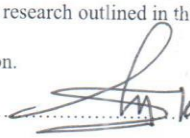
MPAM/2023/40279

Supervisor approval

I verify that the research outlined in this proposal was conducted by the candidate under my direct supervision.

Signature: ……  …… Date ……21/05/2024……

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DEDICATION

This research is dedication to my mother Mwaka Daudi.

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ABSTRACT

The execution of public-private partnerships (PPPs) faces multiple hurdles, encompassing difficulties in identifying, selecting, evaluating, and conducting due diligence on suppliers, as well as managing supplier performance and relationships. The establishment of these partnerships is further complicated by the need to find suitable partners who share the right problem, timing, and level of resources. Overcoming challenges also involves navigating collaboration across institutional cultures and processes, making the facilitation of partnerships a complex task. Additionally, the creation and maintenance of partnerships between water supply companies and private enterprises are time-consuming and may have uncertain outcomes. This research aimed to investigate public-private partnerships and water service delivery within Meru County, Kenya. The study was guided by the Public Value Theory, resource dependence theory, and stakeholder theory. The specific objectives included examining the impact of technical skills, financial contributions, risk mitigation, and accountability on water service delivery in Meru County, Kenya. The research adopted a descriptive approach, targeting a population comprising development partners, non-governmental organizations involved in water projects, County government officials in the Ministry of Water, officials from MEWASS and IMETHA water and sanitation company, and the heads of 31,933 households in Meru County. The sample size was determined using Slovin's formula, with a census for County officials, department managers, NGO managers, development partners, and MEWASS and IMETHA officials. Simple random sampling was employed for household heads, resulting in a sample size of 395. Data collection was conducted using questionnaires for primary data, and the analysis utilized both descriptive and inferential statistical methods. The data was examined using frequencies, as well as descriptive and inferential statistics. Descriptive metrics included frequencies, percentages, means, and standard deviation. The inferential analysis involved correlation and multiple regression analysis. The results indicated that technical skills, financial contribution, risk mitigation, and accountability were crucial factors influencing water service delivery. Correlation analysis showed a strong positive relationship between service delivery and financial contribution, risk mitigation, and accountability. Regression analysis confirmed a significant positive connection between these factors and water service delivery. The findings suggest that Meru County has implemented measures related to financial contribution, risk mitigation, and accountability in public private partnership in water projects, which are important for service delivery in an institution. For technical skills, the researcher suggests that public-private partnerships should seek cost-effective technical expertise to ensure high output levels. Regarding financial contributions, the recommendation is for the government to provide financial support for feasibility analyses to assess project viability effectively. For risk mitigation, public-private partnerships should involve experts in risk analysis before initiating projects. To enhance accountability, the researcher recommends incorporating more transparency measures in public-private partnerships. Lastly, the researcher suggests conducting a similar study in other settings, such as the Kenyan private sector, to determine if the results are consistent.

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LIST OF ABBREVIATIONS AND ACRONYMS

ANOVA: Analysis of variance

CCPPP: Canadian Council for Public-Private Partnerships

DBFM: Design-Build-Finance-Maintain

MEWASS: Meru Water and Sewerage Services Board

PIIP: Privately Initiated Investment Proposals

PPP: Public-Private Partnership

PV: Public value

RDT: Resource Dependence Theory

ROE: Return on Equity

SDGs: Sustainable Development Goals

SPSS: Statistical Package for Social sciences

UAE: United Arab Emirates

UK: United Kingdom

ROA: Return on Assets

USAID: United States Agency for International Development

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

A Public-Private Partnership (PPP) is a collaborative agreement between the public and private sectors designed to provide public goods or services. This approach leverages the operational principles of private enterprise alongside public administration to elevate the quality and efficiency of public service provision (Wang et al., 2018). With the rise of urbanization, there has been a notable push towards employing PPPs for the delivery of essential services, such as high-quality water services, to meet the increasing demands of urban populations (Liang & Wang, 2019).

The concept of Public-Private Partnerships (PPPs) originated in the United Kingdom in 1992 under John Major's Conservative government, where it was first introduced as the Private Finance Initiative (PFI). This initiative involved the UK government partnering with the private sector to finance, operate, and construct public services and infrastructure, typically focusing on long-term projects lasting up to 30 years. The main goal of these partnerships was to collaborate with the private sector to deliver efficient, cost-effective, and measurable public services within modern facilities, while also reducing financial risks to promote financial sustainability.

Following the UK's pioneering efforts, the PPP model has gained popularity as a preferred approach by various governments worldwide to augment the effectiveness and efficiency of public service delivery across diverse sectors, including transportation, construction, housing, water, education, and health. Countries such as Australia, Canada, the USA, Germany, France, and Kenya have since implemented PPP initiatives, adopting this model for its potential to finance "mega-projects" (Alteneiji, Alkass, & Abu Dabous,

2020). However, as the project's value increases, the incentive for exploiting corruption for competitive advantage also grows, presenting a significant challenge to the integrity and success of PPPs (Dumitriu & Ahmed, 2018).

Not only does the water sector largely rely on infrastructure measures to improve water security over the long term, but it also depends on these activities to favorably effect economic growth and further development. There is still a substantial lack of investment for water infrastructure, despite the fact that there are urgent demands in the industry. According to research published by the African Development Bank in 2018, there is a gap in water infrastructure finance that is projected to be between $67.6 billion to 107.5 billion USD in Africa alone. This deficit has resulted in the loss of economic, social, and environmental advantages owing to rising water risks (OECD, 2017). The Sustainable Development Goals (SDGs) require that both greater investment levels and better protection of current investments be implemented in order to avoid the loss of resources. It is apparent that both of these measures are essential in order to accomplish the SDGs.

On a worldwide scale, Public-Private Partnerships (PPPs) have grown more prevalent in industrialized countries such as the United Kingdom, Canada, Australia, and Japan. These nations have public-private partnership (PPP) units that are devoted and specialized, and they function as policy instruments to enable initiatives and attract finance for growth. One country in particular that has effectively applied this strategy is Canada, which has 291 ongoing projects with a total value of 134.5 billion USD. Canada's founding of the Canadian Council for Public-Private Partnerships (CCPPP), a national non-profit organization that was established in 1993, is credited with contributing to this achievement. The mission of the CCPPP is to advocate for the utilization of public-private partnerships (PPPs), educate stakeholders and the community on the economic and social advantages of PPPs, and encourage the adoption of worldwide best practices (Whiteside,

2020). The CCPPP has a wide range of representatives from both the public and private sectors.

According to Opara and Rouse (2019), the Public-Private Partnership (PPP) model that is used in Canada is usually considered to be among the most successful models utilized all over the world. According to the Canadian Council for Public-Private Partnerships (CCPPP), public-private partnerships (PPPs) in Canada involve delivering public services or infrastructure with a crucial aspect being the transfer of risk from the public sector to the private sector. Over the last several years, the government of Canada has been more aware of the benefits that public-private partnerships (PPPs) provide, and as a result, it has included this model into long-term infrastructure plans that have been executed by consecutive governments. It is important to note that the provincial governments have been in the forefront of advancing the public-private partnership (PPP) sector in Canada. There are many different kinds of public-private partnership (PPP) agreements that can be found in Canada. One of them is the Operation and Maintenance Contract, which is a contract in which a private operator runs a publicly-owned facility, such a water or wastewater treatment plant, for a certain period of time while the public body continues to retain ownership of the asset (Silva et al., 2020). Under the Build-Finance model, the private sector is responsible for the building of an asset, the financing of the capital cost is limited to the time during which the asset is being constructed, and the private sector receives returns depending on the agreement with the government. Under the Design-Build-Finance-Maintain (DBFM) model, the private sector is tasked with the design, construction, and financing of an asset, as well as providing long-term facility management or maintenance services. In the Design-Build-Finance-Maintain-Operate (DBFMO) model, the private sector is also responsible for operating assets, such as bridges, highways, and water treatment facilities. As an additional point of interest, the

Concession model requires a concessionaire from the private sector to make investments and run a facility for a certain amount of time before the ownership is transferred back to the public sector. There are now 291 operational public-private partnership projects in Canada, with a total value of USD 134.5 billion. These projects are spread throughout a variety of industries, such as health, transportation, water, accommodation, and energy, among others. Additionally, there are 68 projects in the process of being developed (El Kawam, 2023).

The states that make up the Gulf Cooperation Council (GCC), in particular Kuwait, the United Arab Emirates (UAE), and Qatar, have shown a growing willingness to embrace the idea of Public-Private Partnerships (PPPs). Since 2015, the drop in oil income has been putting increased pressure on government finances (Alteneiji et al., 2020). This trend has been exacerbated by the fact that oil revenues have started to decline. According to Deloitte (2016) and Almarri (2019), Kuwait, the United Arab Emirates, and Qatar have all stated their intention to use public-private partnerships (PPPs) as a method to entice investment in the infrastructure sector, which includes housing developments. This is in reaction to the financial issues that they are now facing. With that being said, in order to make the most of public-private partnerships (PPPs) in water projects, it is very necessary to give careful consideration to the many stakeholders involved in each project and to strictly adhere to the neo-institutionalism principles that regulate them (Alrashidi, 2021). Despite the fact that Public-Private Partnership (PPP) legislation and institutions are becoming more widespread in Sub-Saharan Africa (SSA), they are still in a state of underdevelopment in many situations (Motsoane, 2022). By enacting certain legislation or structures, a number of African countries have shown their support for public-private partnerships (PPPs). While some nations are still in the preliminary stages of developing frameworks, others have already established legal and regulatory structures. Some laws

are currently undergoing policy discussions within government ministries or parliamentary processes, and others do not have a clear roadmap for a functional public-private partnership framework (Tshombe et al., 2020). In spite of this, the difficulty that these nations have is to ensure that their rules and regulations are solid and that they are effectively implemented (Thorn, 2022).

In accordance with Werneck and Saadi (2019), the success of a public-private partnership (PPP) programme is contingent upon the legislative framework that provides a legal environment that is transparent, equitable, predictable, and stable. Public-private partnerships (PPPs) have been more common in Rwanda over the course of the last twenty years, notably in the fields of water, transportation, energy, and healthcare service sectors (Nkurunziza, 2021). In this nation, the general consensus is that public-private partnerships (PPPs) may flourish despite the presence of political limitations, with an emphasis on openness in contract negotiations. Even if public-private partnerships (PPPs) have the potential to improve service delivery, there is a case to be made for rationalizing PPP models in order to ensure efficient service supply. According to research conducted in Rwanda, the Build Own Operate and Transfer (BOOT) model is considered to be one of the most popular public-private partnership (PPP) models. It is deemed to be the greatest choice for implementing PPPs in the provision of public services (Tshombe et al., 2020).

According to Tsitsifli et al. (2017), water is seen as a fundamental human right, an essential component in the commercial and industrial sectors, and a significant resource that contributes significantly to the growth of the economy. As noted by Aung, Jiang, and He (2018), as well as Martínez Fernández, Neto, Hernández-Mora, Del Mora, and La Roca (2020), water is considered essential for all living organisms, serving as a medium for transportation, a crucial component in agricultural production, a solvent, and a

temperature regulator. This understanding prompted efforts to enhance the water supply in terms of efficiency, public engagement, accountability, and financial stewardship (Langford, 2005; Means, Ospina, & Patrick, 2005). As a result of this process, water became a crucial focus of the United Nations Millennium Development Goals (MDGs), which aimed to halve the number of people lacking access to water and basic sanitation (Hering et al., 2015; Lester & Rhiney, 2018). By 2015, the United Nations Children's Fund and the World Health Organization reported a shift towards increasing investment in the sector to improve global access to water.

Aligned with the Sustainable Development Goals (SDGs), economies have strived to monitor broader aspects of water service provision, encompassing access, quality, efficiency, integrated management, transboundary cooperation, and public engagement (Ait-Kadi, 2016). According to Satterthwaite (2016), the Sustainable Development Goals (SDGs) also place a greater focus on the financial sustainability of the supply of the many parts of water. The fact that some nations reported declining access rates as of the end of the term was the impetus for the need of taking sustainability into consideration. A review of the Millennium Development Goals (Satterthwaite, 2016). According to Satterthwaite (2016) and Alaerts (2019), according to the Sustainable Development Goals (SDG), the economies that are a part of SDG 6 have committed to tackling the issue of ensuring that water management is accessible and sustainable for all people by the year 2030. This is in accordance with the seventh Sustainable Development Goal. Despite global commitments to improving access to water and sanitation, access rates in Kenya remain low, with only 59% having access to water and 17% to sewerage services. The annual growth rates for these services are just 0.9% for water and 0.2% for sewerage (WASREB, 2020).

Although public-private partnerships (PPPs) in the Sub-Saharan Region are still in the process of developing, there are indicators that their applications are growing. SA (South Africa) The public-private partnership (PPP) sector is the most successful in Africa because the nation has a robust legal framework that is executed by its National Treasury. This framework helps to control risk and stabilise returns for private investors, and it has been in place since the middle of the year 2000. As of the year 2021, 34 public-private partnership projects with a total value of USD 5.6 billion have been completed in a variety of industries, including health, transportation, tourism, water and sanitation, and office rooming. Uganda, Rwanda, and Kenya are some of the other nations that have embraced public-private partnerships (PPPs). As of 2018, Uganda had 28 projects worth USD 1.9 billion that had reached their final close. Rwanda had 10 PPP projects worth USD 694 million during the same time period. Kenya had 23 projects worth USD 2.9 billion that had reached their final conclusion. Our next step is to investigate public-private partnerships (PPPs) in Kenya, which currently has a pipeline of over seventy projects in various stages of approval and across a variety of economic sectors.

PPPs have emerged as a popular option in Rwanda (Nuwagaba, 2013). These public-private partnerships are in the industry of water, transportation, energy, and health care services. PPPs are seen to be able to work well within the confines of politics and in situations where transparency is the norm when it comes to contract negotiations in this nation. It is further maintained that public-private partnerships (PPPs) have the potential to enhance service delivery; nonetheless, it is essential to rationalize PPP models for service delivery. According to the findings of the research, the Build Own Operate and Transfer (BOOT) model is one of the most chosen public-private partnership (PPP) models. This model is thought to be the greatest alternative when it comes to the implementation of PPPs in the provision of public services. According to Prevost (2010),

public-private partnerships (PPPs) have been the norm in the water industry at the level of municipal governments. Local government organizations, such as those in the Northern Province (Byumba), have participated in public-private partnerships (PPPs) in the water sector. These PPPs include the contracting authority delegating the management and maintenance of their water delivery systems to local private operators. For the management of local governments, the public-private partnership (PPP) model in the water sector is regarded to be a source of income. In addition, it is believed that public-private partnerships (PPPs) in Rwanda make it possible for the government to harness the financial resources and technical skills of the private sector. In spite of the fact that a Public-Private Partnership Act was passed in 2016, there are still limitations on capability and insufficient knowledge on prospects for public-private partnership investments in Rwanda (World Bank, 2017). On the other hand, the Rwandan government need to be presented with the opportunity to evaluate the contract with the private sector in cases when the consumers are not receiving benefits that are in accordance with their expectations.

Kenya's Public-Private Partnerships (PPPs) may be traced back to the PPP Policy Statement of 2011, which was revised in 2013 via Act 15, also known as the 'Public Private Partnership Act.' This act is responsible for the formation of PPPs in Kenya. This piece of law stipulates that the government retains full strategic control over the services, which therefore requires the government to acquire new infrastructure as its assets after the contract has been completed. One of the parties that has the greatest capacity to manage or minimize the risks associated with the project and performance is the one that receives the allocation of such risks. Kenya is not just one of the most mature public-private partnership (PPP) marketplaces in Africa, but it also has a robust legal framework. In order to rectify the shortcomings of the Public Private Partnerships Act of 2013, the

Public Private Partnerships (PPP) Bill 2021 was passed into law in December of 2021. A simplified project process that includes specified timetables, broader procurement alternatives, and strong processes for Privately Initiated Investment Proposals (PIIP) is introduced as a result of the new legislation.

Regulatory adjustments have been made in order to better assist the growth of public-private partnerships (PPPs) in Kenya. One of these modifications is the addition of debt instruments as an investment class that is permitted under the Retirement Benefits Regulations. Pension plans are able to invest up to ten percent of their assets in public-private partnerships (PPPs) at this time. Furthermore, in accordance with these modifications, the government has raised the Public-Private Partnership (PPP) Unit to the position of Directorate under the National Treasury, as mentioned in the FY'2022/23 Budget Statement. The Public Debt Management Office and the Public Private Partnership Directorate was to be better able to coordinate their efforts in order to achieve effective fiscal exposure management, as described in the new PPP Act 2021. Additionally, it was to build a collaborative planning framework for Public Investment Management and Public-Private Partnerships. In addition, preparations are being made to enable the Public-Private Partnership Project Facilitation Fund to undergo full operationalization. During the preparatory phase, tendering procedures, and project evaluation, the purpose of this fund is to provide financial assistance to the operations of the Public-Private Partnership Directorate and contracting authorities.

According to Schwartz, Tutusaus, and Savelli (2017), the delivery of water services is not only a crucial factor in ensuring that everyone has access to water, but it is also a key concern for growth partners who are interested in funding the industry. High levels of inefficiency, sub-optimal water pricing, excessive reliance on subsidies, a lack of accountability, failure to address various risks associated with water provision, failure to

implement current technology in the management of water, and low water coverage are all potential factors that could contribute to an inability to realize quality water service delivery. One of the most important factors that drives socioeconomic growth in Kenya is the availability of water in rural regions. It is not only beneficial to the general quality of life to improve the water supply in rural areas, but it also increases production, assures food security, and contributes to the reduction of poverty. This target has not been met, and many rural areas are experiencing severe water scarcity. This is despite the fact that the Kenyan government has committed to achieving Sustainable Development Goal 6, which aimed to double the number of people who do not have access to safe drinking water by the year 2015 and ensure that everyone has access to water by the year 2030. For the purpose of ensuring that water is available for rural development, community engagement is an essential component. Kenya is considered to be a water-scarce nation, as stated by Langat, Kumar, and Koech (2019). This highlights the need of maintaining a constant monitoring, assessment, and evaluation of water resources in order to guarantee protection of water supplies. The importance of recognizing trends and understanding climatic patterns cannot be overstated. It is necessary to have efficient management in order to improve the supply of water services because of the unequal geographical distribution of water resources, both surface and subsurface. (Connor, 2015) Kenya is facing severe economic consequences as a result of inefficient management of its water resources.

According to the Ministry of Water and Irrigation, there are over 680 piped water systems that provide over 740,000 water connections throughout the nation. In addition, there are an additional 350 community-managed water schemes. It is unfortunate that a significant proportion of these connections remain dormant as a result of insufficient administration and maintenance (Wasilwa, 2020).

This situation is especially worse in urban areas during the rainy season due to a lack of proper storage and cleaning water systems by the water service provider (MEWASS, 2015). In spite of the numerous efforts made by the County government to improve water service delivery, a significant portion of the residents of Meru County do not have access to drinking water that is adequate and reliable according to the circumstances.

The Meru Water and Sewerage Services Board (MEWASS), the registered trustees in Meru County, has been facing numerous challenges due to massive urban sprawl and encroachment into agricultural and water catchment areas. Rapid urbanization and population growth, high unemployment and low-income levels, disorganized urban and rural development, inadequate infrastructure and utility services, poor transport services, environmental degradation, poor sanitation, and uncoordinated water management governance have all contributed to the poor water supply in the county (MEWASS Technical Report, 2022). These issues have significantly strained water resources and catchment areas in Meru County. Consequently, a public-private partnership is necessary to improve the water supply services throughout the county. This research aims to evaluate the impact of public-private partnerships on the provision of water services in Meru County within this context.

1.2 Statement of the Problem

The lack of financial sustainability is the primary issue that arises in partnerships between the public sector and private businesses. Marson and Savin (2015) conducted research that analyzed the sustainability levels of water and waste water utilities throughout Sub-Saharan Africa. The study revealed that there is a downward trend in the sustainability levels of these utilities. In Kenya, there are a number of obstacles that have been identified as contributing to the decline in the financial viability of water projects. These obstacles included an excessive reliance on public financing for operation and maintenance, highly

leveraged projects, cooperation disarrangements, a lack of clear leasing periods and concessions, financial operation costs and management, to name just a few. Since the beginning of the process of financing water projects, Kenya has been taking the initiative to provide the community with a variety of water supply projects. Despite the progress that has been made, the majority of projects have failed or been significantly delayed due to funding issues. For instance, the Kiptogot water project, which was supposed to begin providing service in January 2021, has not been finished as of yet, which has caused a great deal of concern. The idea that was presented before calls for an exhaustive examination, which is why the purpose of this research was to investigate it.

According to Ryan and Eunil (2011), long-term concessions, for instance, might result in considerable problems for the general public, which can lead to the collapse of a project. This is due to the fact that accurate forecasting of urban expansion and traffic demand is difficult to achieve, while investors want assurances about the prospective revenues. That is more insight on appropriate allocation of sufficient resources for the project (Bhatia, 2017), government guarantees, contractual guarantees, and preparation of a financial, fiscal framework to include tax reduction (Mohammad, 2021). In order to ensure that the project is financially viable and sustainable, the officials in charge of the project need to be well informed about the decisions regarding cooperation. If they are not, the project will collapse. In order to prevent the failure of a project, it is essential to have a thorough understanding of joint ventures, which provides a reduction in risk, access to the market, and a source of financing throughout the execution of a project. The Naari/Nturukume water project in Buuri Sub-County, Meru County, which failed due to a lack of funds for purchasing water pipes, is an example of a project that could have collapsed (Kenya News Agency, 2022). In addition, in order to portray consistency in terms of lease fees,

operating fees, and maintained fees, there should be a mutual agreement between the parties involved.

With only a limited amount of information about public-private partnerships (PPP) for water projects, the majority of research had focused on PPP as a general paradigm for the development of diverse infrastructure. For example, Anna and Dariusz (2016) in Poland provide some insight into the fundamentals of public-private partnership (PPP) finance by using discounted subsidy, internal rate of return, and risk variant analysis. The researchers came to the conclusion that public and private sectors are significant, despite the fact that they do not correspond with one another. Since partnership is only a kind of collaboration, further study was required. In addition, Julius and Okech (2020) conducted research on the impact of public-private partnerships (PPPs) on the financial sustainability of water service providers (WSPs) in Kenya. They came to the conclusion that PPPs have a positive and statistically significant impact on the financial sustainability of WSPs in Kenya. In order to improve connection in the last mile, the researchers suggested that all funding bids should take into consideration an end-to-end finance strategy. Although it had been expected that investments would be made in the water industry, the questions of how sustainable they were in terms of the realization of the financial gap remain unanswered. Therefore, it was necessary to conduct research with the objective of determining the impact that Public Private Partnerships have on the provision of water services in Meru County.

1.3 Purpose of the study

The study sought to assess the effect of Public Private Partnership on Water Service Delivery in Meru County, Kenya.

1.4 Specific Objectives

The research was anchored on these objectives:

i. To investigate the effect of technical skills on Water Service Delivery in Meru County, Kenya.
ii. To examine the effect of financial contribution on Water Service Delivery in Meru County, Kenya.
iii. To assess the effect of risk mitigation on Water Service Delivery in Meru County, Kenya.
iv. To determine the effect of accountability on Water Service Delivery in Meru County, Kenya.

1.5 Research Questions

The researcher seeks to answer the following research questions:

i. What is the effect of technical skills on Water Service Delivery in Meru County, Kenya?
ii. How does financial contribution affect Water Service Delivery in Meru County, Kenya?
iii. What is the effect of risk mitigation on Water Service Delivery in Meru County, Kenya?
iv. What is the effect of accountability on Water Service Delivery in Meru County, Kenya?

1.6 Significance for the Study

The results of the research were to play a crucial role in identifying gaps within public-private partnerships and water service delivery in the Kenyan public sector. These findings are anticipated to provide valuable insights that aided in addressing and rectifying the identified shortcomings. The researcher was confident that the invaluable benefits derived from the research became apparent to managing authorities and those entrusted with the oversight of the water projects in Meru County. As a result, an

assurance to enhance water service delivery. The research is poised to significantly contribute to the expansion of current knowledge on public-private partnerships. It is expected to create new insights connecting public-private partnerships with water service delivery, potentially influencing policymakers in resource planning within the sector. The implications of this research are far-reaching, as it is foreseen to impact decision-making processes, leading to more effective water service delivery.

Moreover, scholars and researchers seeking to delve deeper into the realm of public-private partnerships and service delivery will find this study to be a valuable resource. The knowledge generated from this research is anticipated to serve as a foundation for further studies in the field, fostering a continuous cycle of exploration and understanding in the dynamic landscape of public-private partnerships in the Kenyan context.

1.7 Scope of the Study

The study focused on investigating the effect of public private partnership on water service delivery in Meru County, Kenya, considering provision of technical skills, financial contribution, ensuring accountability and risk mitigation in the public private partnership. The study was anchored under public value theory, Resource Dependence Theory and Stakeholder Theory, adopting descriptive research design the study targeted 31978 participants drawn from MEWASS and IMETHA water companies and household benefitting from the water services. The research conducted in January to April 2024.

1.8 Limitations of the Study

The primary constraint in this study stem from the rigid bureaucratic structures within the water service systems in Kenya. To overcome this challenge, the researcher obtained necessary approvals from the relevant authorities prior to engaging with the participants, adhering to will establish rules and regulations. Additionally, the researcher carried a letter of introduction when approaching the respondents. A further impediment may arise

from lack of cooperation among respondents in sharing information considered to be private, as indicated in the questionnaire. To mitigate this issue, the researcher assured participants that their responses was solely contribute to the research and was not be utilized for any other purposes. Further, delays may occur in respondents completing the research tool. To address this issue, the researcher conducted follow-up with phone calls and text massages to prompt and motivate respondents to improve the response rate.

1.9 Delimitation of the study

The study focused on Meru County in Kenya, the study findings and conclusions drawn from this research may not be generalized to other regions or Counties. The study was limited to a specific time period, and findings was a reflective of the conditions existing during that time. Changes or developments occurring after the set time frame was considered. The assessment was constrained to the various public-private partnership models employed in water service delivery within Meru County. Other forms of water management structures or delivery mechanisms was excluded from the study.

1.10 Assumptions of the study

This study was based on the assumptions that;

i. There exist public-private partnerships in water service delivery within Meru County are designed to be sustainable and have a genuine commitment from involved stakeholders.
ii. Both public and private entities involved in the partnerships adhere to legal and regulatory frameworks governing water service delivery.
iii. The data available for analysis, including statistics, reports, and information obtained from stakeholders, are accurate, reliable, and representative of the actual situation.

iv. A certain level of cooperation and transparency among stakeholders involved in the PPP for water service delivery, allowing for open communication and access to necessary information.

1.11 Operational definition of key terms

Accountability	In the context of economics, the process of discovering, measuring, and disseminating economic information in order to facilitate the making of choices that are both informed and sensible.
Financial Contribution	This pertains to the possible direct transfer of cash or liabilities, such loan guarantees, as well as the direct transfer of funds, like grants, loans, and equity injections.
Public Private Partnerships	When a government agency collaborates with a private business to finance, construct, and manage projects such as parks, convention centers, and public transit networks, it is referred to as a public-private partnership.
Risk Mitigation	refers to the process of determining the loss exposures an organization faces and which solutions are best suitable for mitigating such exposures.
Technical Skills	They speak about the knowledge and practical skills required to carry out certain duties in a particular project.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter provides an in-depth exploration of the theories influencing both public-private partnerships and water service delivery, drawing insights from empirical investigations conducted in analogous study areas. Subsequently, a conceptual framework was created to visually represent the study variables.

2.2 Theoretical Literature

This study was anchored under Public Value Theory by Barry Bozeman (2011), The Resource Dependence Theory by Pfeffer and Salancik (1978) and Stakeholder Theory by Freeman (2012).

2.2.1 Public Value Theory

This particular pragmatic theory of public value theory was developed by Barry Bozeman (2011) by himself. According to Alford and Hughes (2008), public value is defined as value that is realized at the macro level during the use of public services, but not at the micro level. Value is created whenever the advantages of an intervention outweigh the expenses of the activity, according to author Spano (2009). Public values act as a normative consensus at the social level about what rights, privileges, and obligations citizens should have (and shouldn't have), as well as what duties they have to society, the state, and each other. They also establish the values that should guide government and policy (Bozeman, 2007).

According to Rutgers (2015) and Sufna and Fernand (2015), public value is a method that allows for the resolution of democratic gaps, the evaluation of the feasibility of projects, the making of decisions, as well as the definition, measurement, and improvement of performance. Because of this, PV may provide managerial values like efficacy and

efficiency as well as democratic principles like equality, honesty, and fairness while carrying out duties (Bonina & Cordella, 2009). Through the resolution of market defects such negative externalities, natural monopolies, and incomplete information, PV operations maximize the welfare of citizens. Furthermore, these actions enhance public trust in the government and its legitimacy (Alford & Hughes, 2008 & Talbot, 2008).

These conclusions are based on those that have been presented above. The development of economic activity and employment, the improvement of social networking for prosperity, the transparency of conversations and the engagement of citizens, the regeneration of morals, and the reduction of environmental degradation are all outcomes that may be attributed to such factors (Benington, 2007). While PV is criticised for its emphasis on accomplishing and assessing medium to long-term aims, governments that are determined by voting procedures tend to place more of an emphasis on short-term targets. This is despite the fact that PV had the advantages that have been discussed above. On the other hand, this may be restricted if public servants instead focus on programme politics rather than party politics (Benington, 2007). This is because the actual political context might constrain their autonomy in service delivery (Alford & Hughes, 2008).

In a manner that is analogous to the New Public Service Theory, the Public Value Theory calls for the responsibility of public organisations not just to political authorities but also to the general public. According to Blaug, Horner, and Lekhi (2006), it goes beyond the constraints of political democracy, which are restricted to election procedures, and places an emphasis on the ability of bureaucrats to satisfy the desires of residents via administrative systems that take into consideration the realities of the local community's environment. As opposed to simply conforming to the frequently impractical demands of the general public, water service providers need to actively shape and guide public interests based on purposeful interactions and logical decisions in order to ensure that

Public-Private Partnerships (PPPs) have a positive impact on the delivery of services (Blaug et al., 2006). In order to do this, it is necessary for managers of water companies to possess the capacity to persuade institutions, politicians, and individuals to react favourably to the supply of water services and to apply new approaches in order to accomplish this achievement. Using the suggestions made by Coats (2006) as a foundation, public managers have the ability to guarantee that public-private partnerships (PPPs) provide value for the general public by implementing strategies that expand, improve, react to, disclose, and innovate in ways that put the interests of people first. The "Public Value Scorecard" that was established by Meynhardt (2012) is one of the many key instruments that may be used to advance the public value paradigm in a true public-private partnership context. It is an efficient management tool that can be used to evaluate the appropriateness of project implementation choices by using the chance and risk method. Additionally, it can be used to determine whether or not planned public-private partnership water projects are viable. Five criteria are traded off by the tool in the process of analyzing and evaluating the various public-private partnership (PPP) operational structures and system settings: profitability, usefulness, decency, positive experience, and political realism/acceptance. Ensuring that public-private partnership (PPP) policies and performance targets are legitimate, practical, sustainable, ethical, and suitable for the individuals and private parties engaged is the aim of the Public Value Scorecard. Essentially, the PV approach raises awareness among the public about the difficulties faced by public managers and politicians, as well as the limitations of what can be provided, and ensures effective management, which is why it was chosen for this study. It also advances actions that are based on well-informed solutions and challenges the technocratic led performance approach.

2.2.2 The Resource Dependence Theory

The resource dependency hypothesis, which was proposed by Pfeffer and Salancik in 1978, states that there is no institution or body that can possess the capabilities and resources necessary to continue existing without interacting with organisations and individuals who are located outside of their bounds. The Relational Development Theory (RDT) provides an understanding of inter-organizational connections and the manner in which the development of these interactions helps to reduce risk and uncertainty. Additionally, Hillman notes that these interactions simply include some of the dangers that are encountered by establishments in the context of a commercial setting (Hillman, Withers, & Collins, 2009).

In accordance with the Resource Dependence Theory (RDT), which was proposed by Tokudo (2015), the capabilities that an organisation has are the primary variables that determine whether or not it is successful in achieving its objectives. According to Siemiatycki (2013), the concept of resources takes into consideration all of the firm's qualities, organisational processes, knowledge, capabilities, information, assets, and other assets that are within the control of an organisation and that enable the organisation to conceive up and implement strategies that improve its efficiency and effectiveness. Because of the differences in capabilities that exist across the institutions, it is possible for one institution to have the same resources as another institution yet accomplish different results altogether. According to Dickert, Fielder, Andreas, and Nicklisch (2013), competencies are defined as the capacity of an organisation to convert the assets it has into completed products and output. This is the case in this scenario.

This study is relevant to the idea of resource dependency, which is based on the view that the capabilities of an institution, in terms of its resources and capabilities, are better realised in situations where there is synergy and strength. There is a connection between

this idea and service delivery as a variable. The foundations of this theory are quite relevant in order to get a better understanding of how public-private partnerships (PPPs) affect the delivery of water services in Meru County. PPPs are based on the idea that institutions might not have all of the resources they require, and as a result, they join forces with other institutions in order to be able to achieve a desired goal through financial contribution and technical skills.

2.2.3 Stakeholder Theory

The stakeholder theory, which was first proposed by Freeman (2012), asserts that a stakeholder is any group or person that has the potential to be impacted by the accomplishment of objectives and goals inside an organisation. Stakeholder philosophers suggest that managers in establishments have a connection of interactions to work that include the personnel, business partners and suppliers, and society in general. This is in contrast to the agency theory, which state that managers are at work and serve the stakeholders via their job. The implementation of public-private partnerships (PPPs) in any institution requires support from the participants and stakeholders of the institution (Mitchell, 2010).

When it comes to making important choices, every stakeholder is given the opportunity to make a significant contribution, as stated by Freeman (2012). According to Stieb (2012), its is the responsibility of the professionals who are in charge of making choices to generate value for the public, workers, suppliers, and consumers. The concept of the stakeholder hypothesis emphasises the significance of an organisation concentrating on the many groups of stakeholders that are presumed to have a role in the operations of the organisation. It is essential for effective corporate governance to have stakeholders who are represented in the process (Gibson, 2010). It is relevant to the present study because public water corporations often make the decision to enter into public-private partnerships

(PPPs), and these decisions have the potential to either favourably or negatively impact the well-being of interested parties. When it comes to making decisions, the players are often required to be on board with the process. If this is not the case, the projects may not be successful since the institution may face resistance from the players. In the process of entering into public-private partnerships (PPPs), the expected purpose is to produce actual value and benefits from the water delivery services that are implemented, while simultaneously achieving the goals of the stakeholders and solving the needs that the water projects were specifically designed to solve.

2.3 Empirical Review

This section focused on research and scholarly works undertaken by various investigators and academics that align with the predictor and response factors pertinent to the study.

2.3.1 Technical Skills and water service delivery

Technical skills in water service delivery encompass a broad range of competencies essential for the effective planning, implementation, operation, and maintenance of water supply systems. These skills ensure the provision of safe and sustainable water services to communities, addressing both immediate needs and long-term sustainability goals. According to a report by the OECD (2015), addressing disparities through national initiatives can be facilitated by aligning skills requirements with constructive responses from various initiatives. This approach empowers communities and allows them greater control over the policies they derive benefit from. However, a significant gap exists between the skills possessed by workers and those sought by managers, leading to a costly misalignment. The cost of this misalignment varies based on the efficacy of learning systems and education methods but is deemed significant even in advanced countries,

reaching approximately 7% of gross domestic product in European countries (Tsirkas, Chytiri, & Bouranta, 2020).

In many regions, the gap between the existing technical skills and those required for efficient water service delivery is notable. This discrepancy not only affects the quality of water services but also incurs substantial economic costs. For instance, in Europe, the skills gap is estimated to cost around 7% of the gross domestic product, highlighting the importance of addressing this issue through improved education and training systems (Tsirkas et al., 2020). Effective water service delivery depends on a workforce that is well-trained in various technical areas, including hydraulic engineering, water quality testing, infrastructure maintenance, and the use of advanced technologies for monitoring and management.

The engagement of the private sector in public-private partnerships (PPPs) has been shown to significantly enhance the success of various infrastructure projects, including those in the water sector. Nshimiyimana (2022) explored the effect of private sector engagement on the success of PPP projects in housing construction in Kigali, Rwanda. The study, conducted in Gasabo, Nyarugenge, and Kicukiro, found a strong positive correlation between technical skills and the successful implementation of housing projects, with a correlation coefficient of 0.736** and a significance level of $p<0.001$. These findings underscore the necessity for government strategies and regulations to attract housing investments, thereby addressing the housing shortage exacerbated by rapid urban population growth.

The role of technical skills in the successful execution of PPPs cannot be overstated. In Rwanda, the correlation between technical skills and project success suggests that enhancing technical capabilities within the workforce can lead to more efficient and effective implementation of housing projects (Nshimiyimana, 2022). This highlights the

importance of targeted training and development programs that equip workers with the necessary skills to meet the demands of complex projects. Additionally, government policies should focus on creating an enabling environment that encourages private sector investment, thereby leveraging the technical expertise and resources that the private sector can provide.

Vocational education plays a crucial role in developing the technical skills required for successful water service delivery and other infrastructure projects. Marques, Remington, and Bazavliuk (2020) investigated the role of public-private partnerships in vocational education in Russia. Their research revealed that the resource capabilities of Russian public institutions for professional training were inadequate to address their issues. This finding suggests the need to make opportunities for companies more appealing through the formation of PPPs. By fostering collaborations between public institutions and private companies, vocational education programs can be enhanced, ensuring that they provide relevant and up-to-date training that meets industry standards.

The study by Marques et al. (2020) emphasized the importance of technical skills and expertise in enhancing the efficiency of PPP projects. By integrating private sector involvement in vocational education, public institutions can benefit from the expertise and resources of private companies, leading to improved training programs and better-prepared graduates. This approach not only addresses the immediate needs of the labor market but also ensures the long-term sustainability of infrastructure projects, including water service delivery systems.

Institutional and governance structures play a vital role in the successful execution of PPP projects. Casady, Eriksson, Levitt, and Scott (2020) conducted research investigating the essential components of committed public-private partnerships. They surveyed institutional and governance structures, evaluating both US and international experiences

with PPP Units. Their findings highlighted that these Units play a crucial role in addressing a common issue encountered in PPP programs: the lack of sufficient expertise within the public sector to effectively execute PPP deals. Establishing PPP Units can aid in cultivating the necessary technical skills required for successful PPP negotiations.

PPP Units serve as a focal point of authority during negotiations, which is particularly valuable when multiple ministries are involved in a PPP (Casady et al., 2020). These Units not only provide the necessary technical expertise but also ensure that all parties are aligned in their objectives and strategies. This centralized approach facilitates more efficient decision-making processes and helps mitigate the risks associated with complex negotiations. By consolidating expertise within dedicated PPP Units, governments can enhance their capacity to manage and execute large-scale infrastructure projects, including those related to water service delivery.

Addressing the skills gap in water service delivery requires a multifaceted approach that includes improving education and training systems, fostering public-private partnerships, and enhancing institutional and governance structures. The OECD (2015) report emphasizes the importance of aligning skills requirements with constructive responses from national initiatives. This alignment can be achieved through targeted education and training programs that focus on the specific needs of the water sector. Additionally, policies should encourage private sector involvement in vocational education and PPP projects, leveraging the expertise and resources of private companies to enhance training programs and infrastructure projects.

The disparity between the skills possessed by workers and those sought by managers presents a significant challenge to efficient water service delivery (Tsirkas et al., 2020). To address this challenge, governments and educational institutions must collaborate to develop training programs that are responsive to the evolving needs of the water sector.

This includes incorporating advanced technologies and innovative practices into the curriculum, ensuring that graduates are equipped with the latest skills and knowledge.

Continuous learning and adaptation are essential for maintaining the technical skills required for effective water service delivery. As technologies and methodologies evolve, so too must the skills of the workforce. This requires ongoing professional development opportunities and a commitment to lifelong learning. By fostering a culture of continuous improvement, organizations can ensure that their employees remain proficient in the latest techniques and best practices.

In conclusion, technical skills in water service delivery are crucial for ensuring the provision of safe and sustainable water services. Addressing the skills gap requires a comprehensive approach that includes improving education and training systems, fostering public-private partnerships, and enhancing institutional and governance structures. By aligning skills requirements with national initiatives and encouraging private sector involvement, governments can enhance the technical capabilities of the workforce and ensure the successful implementation of water service projects. Continuous learning and adaptation are also essential for maintaining the proficiency of the workforce in an ever-evolving sector.

2.3.2 Financial Contribution and water service delivery

Collaboration between the public and private sectors to supply water services in a manner that is both efficient and sustainable is what is meant by the term "public-private partnerships," or PPPs, in the context of water service delivery. Funding contributions are an essential component in guaranteeing the success and profitability of public-private partnerships (PPPs). In the year 2021, Yakubova and colleagues carried out a research study that was centred on the impact that finance has on economic development via the implementation of Public-Private Partnership (PPP) infrastructure projects. During the

course of their inquiry, they conducted a descriptive survey that included a variety of project types, with a particular focus on agricultural and road building projects. Following the use of a regression study model and the examination of data from one hundred different projects, the researchers came to the conclusion that there is a positive correlation between the funding of public-private partnership (PPP) infrastructure and the subsequent increase in gross domestic product (GDP).

In a study that was conducted by Shen et al. (2016), the researchers investigated the influence that the distribution of financial contributions between the public and private sectors had on the overall performance of the project in terms of sustainability. For the purpose of determining whether or not public-private partnership initiatives are sustainable, the researchers developed the Sustainability Performance-Based Evaluation Model (SPbEM). It was proved by their research that there is a quantifiable and favourable correlation between financial commitment and the performance sustainability of the initiatives. A study conducted by Onyinkwa (2021) looked at the relationship between the funding of infrastructure projects and the expansion of the economy in Kenya. The research was conducted using a descriptive methodology, and it entailed the distribution of a questionnaire to a total of 25 respondents via the use of a census technique. For the analysis, descriptive statistics and regression modelling were used, and both primary and secondary sources of information were combined. The findings of the research suggested that there is a favourable connection between the funding of infrastructure projects and the expansion of Kenya's economy.

Mohanty and Bhanu Murthy (2019) carried out a thorough study that included 200 infrastructure projects from 136 different nations. As part of their investigation, they used detailed panel data to investigate the connection between the funding of infrastructure projects and the influence that these projects have on economic growth. In the course of

the study, a comparative analysis of these projects was carried out in order to evaluate the various implications that they have on economic growth. The results highlighted a favourable association between the funding of infrastructure projects and the progress of economic growth. This correlation was found to be significant.

In a similar vein, Mohammed (2021) conducted research with the intention of determining the impact that funding infrastructure projects has on the growth of the economy. The Ministry of Lands was the primary focus of the research, which used a descriptive approach and included fifteen participants who were chosen using a census method-based selection process. A unique set of criteria was used in the study project in order to evaluate the relationship between infrastructure funding and economic growth. This was accomplished by merging primary and secondary data. Following the findings of the investigation, the researcher came to the conclusion that initiatives pertaining to infrastructure provided a significant contribution to the economic growth of Kenya.

2.3.3 Risk Mitigation and water service delivery

Risk mitigation in Public-Private Partnerships (PPPs) related to water service delivery is essential to ensure the success and sustainability of the projects. This includes a well-drafted PPP contracts clearly defining the responsibilities and risks allocated to each party (public and private). Chileshe et al., (2022) examined the difficulties influencing the effectiveness of Public-Private Partnerships (PPPs) in the housing sector in Kenya. Using a descriptive research methodology, the study focused on a sample of 96 real estate agencies located in Nairobi. The findings indicated that the effective management of risks, which included various contract categories, guarantees, and appropriate risk allocation by the government, had a substantial impact on the performance of PPPs.

Sudić, Ćirović, and Mitrović (2017) conducted an evaluation of risk management in Public-Private Partnership (PPP) projects in Serbia. Employing a descriptive research

approach, the researchers utilized multiple linear regressions, Pearson's correlation analysis, and descriptive statistics for data analysis. The study's results uncovered a critical and integral relationship between PPP projects and risk analysis in Serbia. Moreover, the research demonstrated a noteworthy and positive correlation between the predictor variable (risk management and analysis) and the response variables (performance of public-private partnership projects). It was the responsibility of Fadun and Oye (2020) to examine the financial performance of Nigerian financial institutions as well as their risk management strategies. For the purpose of this research, data were collected from 10 different banks in Nigeria on a yearly basis, beginning in 2006 and continuing through 2009. For the purpose of assessing the company's financial performance, measures such as Return on Equity (ROE) and Return on Assets (ROA) were used. Credit, capital risks, and liquidity were some of the independent factors that were assessed over the course of the study. The study concluded that a robust connection exists between performance and effective risk management. Additionally, the research findings indicated a positive correlation between these two variables.

Muriuki (2022) sought to identify the impact of the PPP strategy on performance of public sector firms in Kenya's electricity energy sector. The study adopted a case study research design targeting Chief Executive Officers, officers in charge of strategy or strategic partnerships in the six (6) electricity firms. The study relied on the qualitative data only which was collected using interview guide distributed virtually to the sampled respondents. The study findings showed that PPPs were adopted mainly as a way of mitigating high cost of energy development projects. The study presents a conceptual gap as the current study was focus on the risk mitigation in water sector in Meru County.

Getuno et al., (2015) conducted a study on the guidelines, implementation, and organizational performance of Kenyan State corporations involved in public-private

partnerships (PPPs). The research employed a census approach, encompassing 187 government corporations. The study sample included 250 procurement staff and 60 accounting officials from 125 national firms. Basic random sampling was employed to select participants from five working groups. The collected data underwent analysis through multiple linear regressions and descriptive statistics. The study results revealed a significant correlation between the application of PPPR (2009) and the organizational and overall performance of government firms. Furthermore, the research suggested that the implementation of PPPR (2009) played a substantial role in the establishment of government institutions. Maslova and Sokolov (2017) examined the management of risks in public-private partnership projects in the healthcare sector, concentrating on the implementation of the existing approach and its improvement. The research adopted a descriptive research design with a participant pool of 25 respondents chosen through a comprehensive approach. Both primary and secondary data sources were incorporated, and descriptive statistics were applied for data analysis. The results of the study demonstrated a favorable correlation between technical expertise and the performance of the projects.

2.3.4 Accountability and water service delivery

Accountability is a critical component of public-private partnerships (PPPs) in the water sector. It involves ensuring that all stakeholders fulfill their responsibilities and meet the expectations of the public. This aspect is crucial for the success and sustainability of PPP projects, as it helps to maintain trust and transparency among all parties involved. Busch and Mcmeel (2023) examined the sufficiency and settlement of financial responsibility in PPPs, emphasizing that entities providing financial assistance commitments should shoulder accountability for the results. They highlighted that even with a functional financial system in place, disparities in information or social inequities could lead to

skewed outcomes favoring the less privileged. This raises fundamental questions about the value the public receives in exchange for its substantial investment in these initiatives. The issue of accountability is multifaceted and can be influenced by various factors. For instance, in the water sector, the diverse array of cost projections alone suggests a restricted scope of financial responsibility in projects. This can lead to a situation where the true cost of a project is not fully understood or accounted for, ultimately impacting the project's success and the public's perception of its value (Busch & Mcmeel, 2023). Therefore, clear and transparent financial reporting and accountability mechanisms are essential to ensure that PPP projects deliver the intended benefits to the public.

In a study by Ishawu et al. (2020), the factors affecting the adoption of PPP policies in the procurement of social projects in Technical Universities in Ghana were examined. The study targeted senior staff members such as Vice Chancellors, Pro-Vice Chancellors, Registrars, Finance Directors, Directors of Audit, Heads of Procurement, and Heads of Works departments in the universities. The findings revealed that reduced project accountability is a significant hindrance to the implementation of PPP projects in Ghanaian Technical Universities. This underscores the importance of robust accountability frameworks in ensuring the successful adoption and implementation of PPP policies.

The study by Ishawu et al. (2020) highlights the critical role of accountability in the procurement and implementation of social projects. Without adequate accountability measures, it becomes challenging to track progress, manage resources effectively, and achieve the desired outcomes. This is particularly relevant in the context of technical universities, where the successful implementation of PPP projects can significantly enhance the quality of education and infrastructure.

Private sector investment plays a crucial role in authorizing partnerships between the private and public sectors, especially in housing development projects. Benon and Mbabazize (2016) examined the effects of private sector investment in PPPs for housing development plots in Kigali, Rwanda. Various regression analyses and Pearson's correlation coefficient were employed for the investigation. The results demonstrated a strong, positive, and significant association between technical skills in risk mitigation, housing plan performance, and financial contribution. These findings highlight the importance of technical skills and private sector investment in enhancing the performance and accountability of PPP projects.

The study by Benon and Mbabazize (2016) underscores the need for private sector involvement in PPPs to bring in not only financial resources but also technical expertise. This combination is crucial for mitigating risks and ensuring the successful implementation of housing projects. Moreover, the positive association between technical skills and project performance suggests that investing in the development of these skills can lead to better outcomes and greater accountability in PPP projects.

Public-private partnerships also have a significant impact on the education sector. Barrera-Osorio, Sabarwal, Galbert, and Habyarimana (2015) conducted a study to assess the impact of PPPs on the performance of private schools in Uganda. Utilizing data from a randomized controlled experiment and employing a randomized phase-in research design, the researchers sought to establish cause-and-effect relationships in the private school program. Despite effectively accommodating a significant number of qualified students in secondary schools, these students exhibited superior academic performance compared to their peers. The study also highlighted the positive influence of increased resource availability and the intentional selection of government-assisted students.

The findings of Barrera-Osorio et al. (2015) indicate that PPPs can significantly improve educational outcomes by providing additional resources and support to private schools. This, in turn, enhances accountability as schools are better equipped to meet educational standards and deliver quality education to students. Moreover, the study demonstrates that PPPs can help bridge the gap between public and private education sectors, ensuring that more students have access to high-quality education.

Accountability in PPP projects is also a critical issue in infrastructure sectors, such as highways. Alfan and Zakaria (2014) investigated the accountability of PPP projects through a financial examination of the Malaysian highway authority. Using a case study approach, the research focused on the impact of PPP arrangements on accountability within the tolled highway sector. The study uncovered shortcomings in the transparency of the public sector's reporting in the tolled highway sector, indicating a weakening of accountability. Additionally, the research findings indicated a positive correlation between accountability and performance in PPP projects in Malaysia.

The study by Alfan and Zakaria (2014) highlights the importance of transparency and accountability in infrastructure projects. Without these elements, it becomes challenging to ensure that projects are managed efficiently and that public funds are used effectively. The positive correlation between accountability and performance suggests that enhancing accountability mechanisms can lead to better project outcomes and increased public trust in PPP initiatives.

Effective governance structures are essential for enhancing accountability in PPP projects. Casady, Eriksson, Levitt, and Scott (2020) investigated the essential components of committed PPPs by surveying institutional and governance structures, evaluating both US and international experiences with PPP Units. Their findings highlighted that these Units play a crucial role in addressing a common issue encountered in PPP programs: the

lack of sufficient expertise within the public sector to effectively execute PPP deals. Establishing PPP Units can aid in cultivating the necessary technical skills required for successful PPP negotiations.

PPP Units serve as a focal point of authority during negotiations, which is particularly valuable when multiple ministries are involved in a PPP (Casady et al., 2020). These Units not only provide the necessary technical expertise but also ensure that all parties are aligned in their objectives and strategies. This centralized approach facilitates more efficient decision-making processes and helps mitigate the risks associated with complex negotiations. By consolidating expertise within dedicated PPP Units, governments can enhance their capacity to manage and execute large-scale infrastructure projects, including those related to water service delivery.

Addressing disparities in accountability is essential for ensuring that PPP projects deliver equitable benefits to all stakeholders. Busch and Mcmeel (2023) highlighted that disparities in information or social inequities could lead to skewed outcomes that favor the less privileged. This underscores the importance of creating accountability frameworks that address these disparities and ensure that all stakeholders have access to the same information and opportunities.

To address these disparities, governments and private sector partners need to work together to develop inclusive accountability mechanisms. This includes ensuring that all stakeholders are represented in decision-making processes and that there are clear channels for reporting and addressing grievances. By creating a more inclusive and transparent accountability framework, PPP projects can deliver more equitable outcomes and build greater public trust.

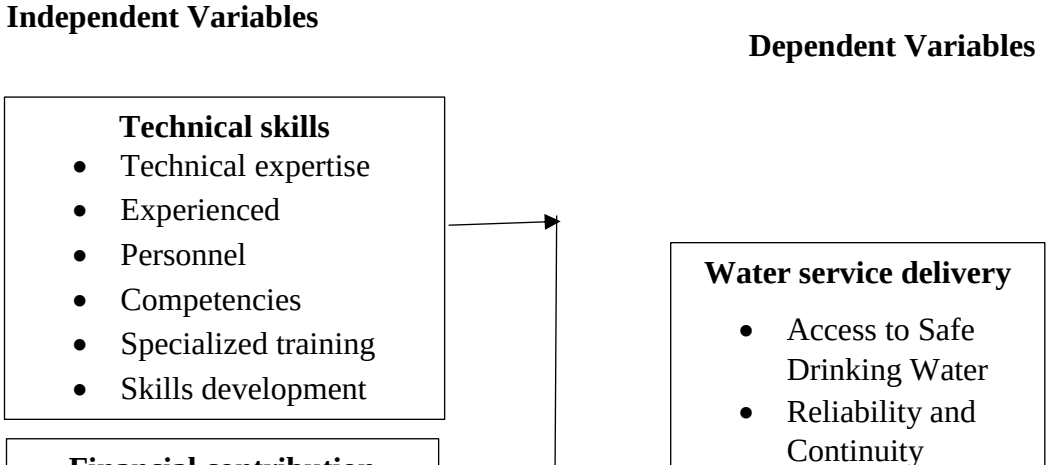
Continuous improvement in accountability practices is essential for the long-term success of PPP projects. As projects evolve and new challenges emerge, it is important to

regularly review and update accountability mechanisms to ensure they remain effective. This requires ongoing monitoring and evaluation, as well as a commitment to learning from past experiences and incorporating best practices.

In conclusion, accountability is a crucial aspect of PPPs in the water sector and other infrastructure projects. Ensuring that all stakeholders fulfill their responsibilities and meet public expectations requires robust accountability frameworks, clear governance structures, and a commitment to continuous improvement. By addressing disparities in accountability and enhancing transparency, governments and private sector partners can ensure that PPP projects deliver the intended benefits and build greater public trust.

2.4 Conceptual Framework

A conceptual framework is a visual representation that illustrates the connections among the variables under study. In this research, the anticipated variables encompass technical skills, financial contribution, risk mitigation, and accountability. The project's performance, serving as the dependent variable in this study, was evaluated by assessing the performance of commercial state corporation projects.



2.5 Research Gaps and Summary of Literature Review

Several studies have demonstrated the direct influence of public-private partnerships on service delivery. While these research endeavors have contributed significantly within their respective contexts, there is a notable gap in the literature concerning Meru County Water service delivery, thus lacking a local perspective. The researcher aims to highlight and address this gap by presenting a summary of the study's focus and identified gaps.

Table 1: Summary of Research Gaps

Author	Focus of Study	Key Findings	Research Gaps
Wibowo and Alfen (2017)	The impact of funding Public-Private Partnership (PPP) projects on the economic growth.	Study revealed a Positive correlation between the funding of Public-Private Partnership (PPP) projects and the increase in GDP levels.	The work looked at financing as the only predictor variable while the current study considers other variables
Marques, Remington and Bazavliuk (2020)	Private-public partnerships and the particulars of their execution in vocational education in Russia	Resource competencies of Russian communal establishments increased the efficiency of these projects, practical skills and know-how needed to be taken into description	The study focused on technical skills from a resource capability perspective while the current study will approach technical skills form a PPP perspective
Benon and Mbabazize (2016)	The outcome of private sector involvement in public, private partnership performance in housing construction schemes in the city of Kigali.	Positive and substantial relationship between Practical skills, monetary support, Risk justification, and performance of housing ventures	The assessment was not executed in Kenya causing a geographical gap

Kamau (2016)	The connection amidst financing infrastructure projects on economic growth in Kenya	Optimistic correlation amid financing infrastructure and economic growth.	Study focused on financing infrastructure and economic growth and not project performance
Musyoka (2016)	Responsibility in the context of public-private partnership projects within the Malaysian highway authority.	Risk management factors positively affected the PPP performance.	Study conducted in the housing industry and not the water sector hence a contextual gap
Sudić, Ćirović and Mitrović (2017)	Examining the risk assessment and control of public-private partnership (PPP) projects within the context of Serbia.	The study revealed a close connection between the analysis of risks and public-private partnership (PPP) projects in Serbia.	The evaluation emphasized risk through an analysis and management perspective, whereas the present study will address it more from a standpoint of mitigating those risks.
Alfan and Zakaria (2014)	The study focused on Responsibility in the context of partnership projects between the private sector and the Malaysian highway authority.	Accountability is positively related to performance in the PPPs projects in Malaysia.	The study was conducted in Malaysia rather than in Kenya, and the scholar aims to address this gap or deficiency.

Source: Researcher (2024)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter outlines the approach to research that was used to conduct the study, including how data will be gathered, interpreted, and analyzed. It covers elements like research methods, design, the group being studied, details about how participants was selected and how many there were, making sure the study's results are consistent and accurate, explaining how data was gathered and what tools was used, detailing how the data was analyzed, presented, and addressing any ethical concerns.

3.2 Research Methodology

Kapur (2018) outlines that research methodology encompasses a systematic approach and a series of processes that researchers utilize to gather, analyze, and interpret information, aiming to address a research question or validate a hypothesis. It acts as a guiding framework that ensures the research is executed in a structured and meticulous manner. In this study, a mixed-methods strategy will be employed, integrating both qualitative and quantitative research techniques within a single investigation. The rationale behind adopting this strategy lies in its ability to offer a more holistic insight into the research issue. Quantitative research provided insights into trends and patterns through statistical analysis, whereas qualitative research contributed depth and context to these findings, as noted by Pandey & Pandey (2021). Moreover, employing a mixed-methods approach aids in mitigating the drawbacks typically associated with using quantitative or qualitative methods in isolation.

3.3 Research Design

Sileyew (2019) describe research design as a strategic blueprint guiding researcher to fill a knowledge gap. It involves orchestrating the process of gathering, measuring, and scrutinizing raw data to elucidate the significance of the study's objectives. In this particular study, a descriptive research design was employed. According to McCombes (2020), the descriptive research design seeks to accurately and systematically depict a population, situation, or phenomenon by addressing inquiries related to what, how, when, and where, while intentionally omitting considerations of why. This choice is made to gain a comprehensive understanding of the methodology necessary for the study's focus. Additionally, the researcher took an observational stance, documenting and analyzing the findings without exerting control over the data.

3.4 Location of the Study

The study was conducted in Meru County. The County is located in the Eastern side of Kenya and it is neighbor to Tharaka Nithi County, Isiolo County, Laikipia County, Nyeri County and Samburu County.

3.5 Target Population

The target population of this study was 31978 respondents comprising of development partners, non-governmental organization involved in water projects, County government officials in ministry of water and officials from MEWASS and IMETHA water and sanitation company. According to the KNBS, (2019) Meru County has an estimate of 31933 household. These households are of relevance to the study as they were the direct beneficiaries of the provided water in the county. According Kothari (2019), population refers to an all-inclusive group of people or items that the researcher intended to investigate.

Table 2: Target Population Position

S/No	Position	Population
1	County officials in the Department of Water, Irrigation, Environment and Climate Change	15
2	Non- Governmental Organizations managers	25
3	Development partners managers MEWASS and IMETHA officials	5
4	Targeted households presumed to benefit from water supply	31933
	Total	**31978**

Source: Department of Water, Irrigation, Environment and Climate Change, (2023)

3.6 Sampling Techniques and Sample Size

The study sample size will be derived by using the Slovin's formula and is computed as follows;

n =N/ (1 + Ne^2)

where;

n = Number of samples

N = Total population

e = margin error, 0.05

Therefore: n = 31978/ (1 + 31978(0.05^2))

= 395 respondents

Further census for County officials' Department of Water, Irrigation, Environment and Climate Change managers, Non- Governmental Organizations managers, Development partners and managers MEWASS and IMETHA officials. while simple random sampling for household heads was used to arrive to the required sample size of 395. Census sampling was used where the questionnaires were distributed to all County officials, non-governmental organization managers, and development partners managers. Social stratification was performed and proportionate samples was obtained in the proposed

affordable water programs. Through this, the questionnaire was administered to household heads. The list of water connection units was obtained from the officials of IMETHA and MEWASS, the total was computed and a random table was adopted in picking the household to participate in the study. If the household head picked was to fail to meet the inclusion criteria or the household head was absent that was to be excluded. This was conducted repeatedly until the desired sample size was attained.

Table 3: Sample Size

S/No	Position	Population	Sample size
1	County officials' Department of Water, Irrigation, Environment and Climate Change managers	15	15
2	Non- Governmental Organizations managers	25	25
3	Development partners managers MEWASS and IMETHA officials	5	5
4	Targeted households presumed to benefit from water supply	31933	350
	Total	**31978**	**395**

Source: Researcher (2024)

3.7 Research Instruments

Data from selected participants was collected through questionnaires. This method was choose for its efficiency in gathering extensive information quickly. Additionally, it allowed for the objective collection of data that is straightforward to analyze. Kothari (2019) describes a questionnaire as a tool for gathering data, enabling the assessment of certain viewpoints. The questionnaire was structured around subtopics that align with the

objectives of the study, mainly consisting of closed-ended questions to simplify the response process. A Likert scale was utilized for most questions, giving respondents the opportunity to express their views on a scale of agreement or disagreement regarding different aspects relevant to the study's goals.

3.8 Pre-testing

A preliminary test was carried out in Tharaka Nithi County to fine-tune the questionnaire, aiming to minimize any difficulties respondents might face while responding. Bell (2018) emphasizes that pre-testing the questionnaire allows for a more accurate evaluation of its validity and reliability in data collection. The questionnaires was distributed randomly to 40 participants from the intended respondent pool. These 40 individuals did not participate in the main data collection phase. Adjustments to the questionnaire was made based on the pretest results to improve its validity.

3.8.1 Validity of Research Instruments

To guarantee content and construct validity in this research, questionnaires was preliminarily reviewed by a sample of the target respondents, and the research supervisor provided feedback to improve content validity. Augousti (2013) defines validity as the accuracy and relevance of conclusions drawn from research findings. This process ensures that the questionnaire accurately measures what it is intended to measure, reflecting the study's objectives effectively.

3.8.2 Reliability of Research Instruments

To assess the reliability of the research instruments, this study utilized Cronbach's Alpha (α), a widely recognized measure of internal consistency, calculated using SPSS. Ten questionnaires was pretested by distributing them to a sample of respondents who did not participate in the main study. These pretested questionnaires subsequently be coded and entered into SPSS version 27.0, a statistical software package designed for social sciences

analysis. This approach ensures that the instruments used for data collection are consistent and reliable in measuring the variables of interest.

3.9 Data Collection Techniques

Creswell (2017) emphasized that the data collection process is pivotal for acquiring data that can be analyzed to yield valuable and dependable insights. To mitigate any potential skepticism and to bolster trust among participants, the researcher secured an introductory letter from the university. The method of self-administering questionnaires was employed, with research assistants available to aid respondents who encounter difficulties. To maintain high standards of data quality, these assistants did undergo detailed training on the data collection process prior to the initiation of the exercise. This preparation aimed at ensuring the data collection was conducted efficiently and effectively, facilitating the gathering of accurate and reliable data.

3.10 Data Analysis and Presentation

The data obtained from the questionnaires was initially be reviewed for completeness before being coded, tabulated, and analyzed with SPSS version 27.0. Descriptive statistical methods, included percentages and frequencies, were employed to describe the traits of the variables being investigated. This step ensures a systematic approach to understanding the data's distribution and central tendencies, providing a foundational analysis of the study's variables. Further inferential statistics, specifically the normality tests, and test of parallel lines was performed to explored the data. Pearson correlation and specifically the Kolmogorov-Smirnova was checked to check the significance of the p value.

An ordinal logistic regression was used to examine the significance of the influence of the independent variables on the dependent variable. The study adopted the regression model;

$Y = \alpha+\beta1X1+\beta2X2+ \beta3X3+ \beta4X4+ \mu$

Where;

Y = Water Service Delivery α = Constant μ= Error β=1, 2, 3, 4 are the logit coefficients of the predictors

X1= Technical Skills

X2= Financial Contribution

X3= Risk Mitigation

X4= Accountability

3.11 Ethical Considerations

The researcher secured a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) to ensure compliance with national research guidelines. In the field, consent was acquired from participants in various regions of Meru County. The purpose and nature of the research was clearly communicated to them, addressing any concerns they may have regarding anonymity and confidentiality. Participants was assured that their identities and the information provided was kept confidential, safeguarding their privacy and the integrity of the research data. This step was crucial in maintaining ethical standards and building trust between the researcher and the participants.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents conclusions drawn from the analysis of the collected data. It also describes the characteristics of the participants and their perspectives on the impact of Public-Private Partnerships on water service delivery in Meru County, Kenya. The presentation begins with the results of the sample demographics, followed by descriptive findings, and concludes with inferential findings.

4.2 The Response Rate

The researcher distributed 395 questionnaires to the sampled respondents where 306 questionnaires were successfully filled and returned to the researcher as presented in Table 4.

Table 4 Questionnaire Return

	Respondents Status	Frequency	Percent
Valid	Successful Responses	306	77.5
	Unsuccessful Responses	89	22.5
	Total	**306**	**100.0**

Source: Researcher (2024)

Findings from Table indicate that the response rate of 77.5% was achieved in this study, according to Mugenda and Mugenda (2009), a response rate of 70% and above is excellent to be used for further analysis. Thus, the response rate of the study was satisfactory.

4.2 Reliability

Results on reliability are presented in Table 5.

Table 5: Reliability Results

	Variable	Cronbach's Coefficient	Remark
Valid	Technical Skills	0.721	accept
	Financial Contribution	0.740	accept
	Risk Mitigation	0.732	accept
	Accountability	0.722	accept

Source: Researcher (2024)

The Cronbach's Alpha results on technical skills, financial contribution, risk mitigation and accountability were 0.721, 0.740, 0.732 and 0.722 respectively which was more than the set value of threshold reliability at 0.7. All the factors were considered as reliable since they had above 0.7 coefficients for Cronbach Alpha and were hence accepted for the study.

4.3 Demographics characteristics

This section presents findings on age bracket, gender proportion, highest attained education, job experience and duration at the corporation.

4.3.1 Gender Categorization

The research set out to assess the proportion of gender for the participants in the research as revealed in Figure 2.

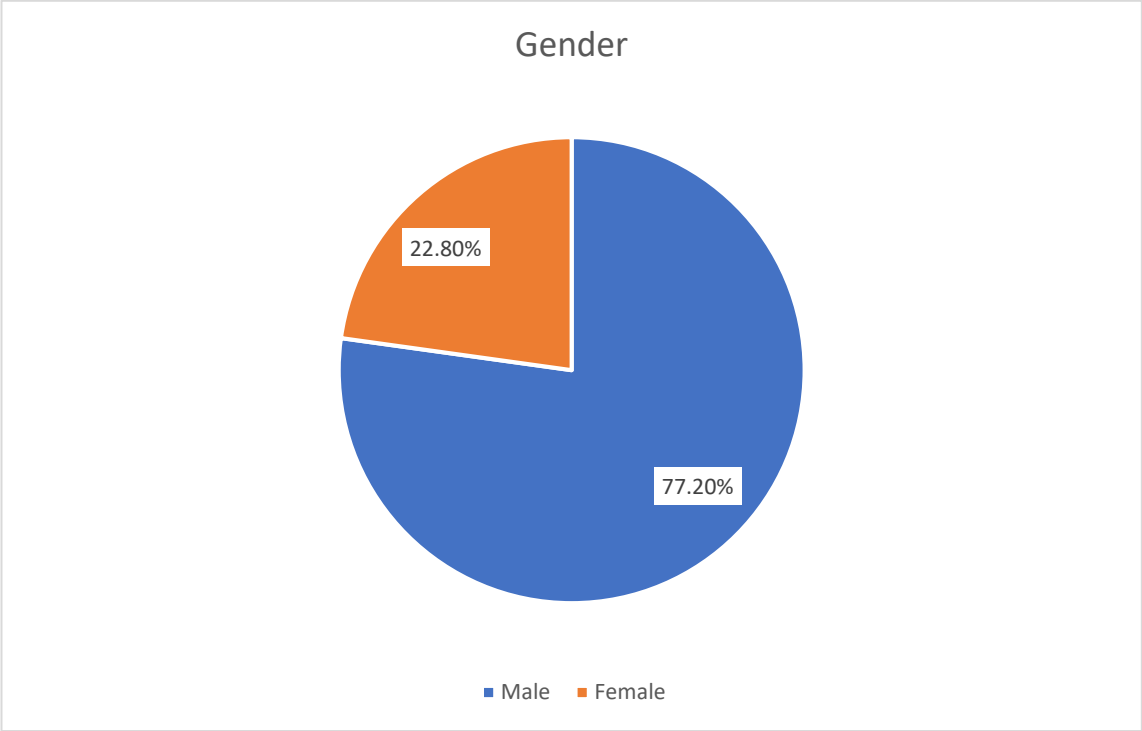


Figure 2: Respondents' Gender

Source: Researcher (2024)

According to the findings majority (77.2%) of the respondents were male, while 22.8% of the respondents were female. The findings imply that most management staff in the water provision sector are male indicating a masculine dominance in the sector and may be justified by the fact that much of the work in the water sector ids manual.

4.3.2 Respondents' Age

The study sought to determine the age of the respondents and their responses were as shown in figure 3.

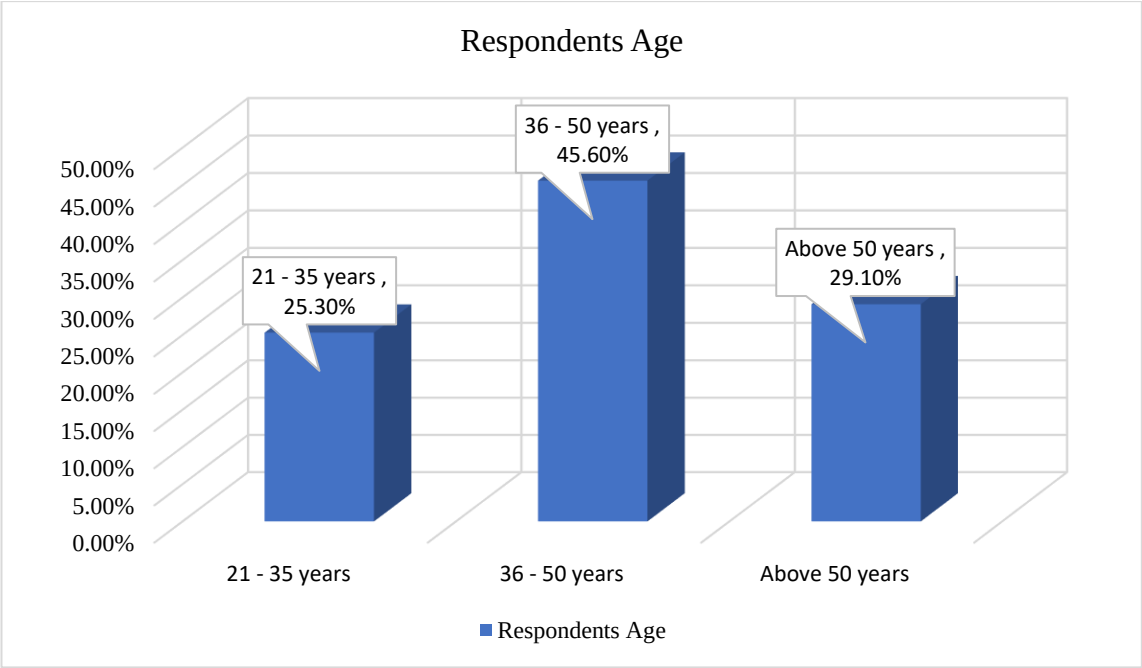


Figure 3: Respondents' Age Bracket

Source: Researcher (2024)

The data shown in the figure reveals that 45.6% of the participants in the study were aged between 36 and 50 years, and 29.1% were over 50 years old. A quarter of the participants were in the 21 to 35-year age range, with no individuals under 20. These results indicate that the majority of the study's participants were likely at the height of their careers, being over 36 years old.

. 4.3.3 Experience of the Respondents

The study set out to assess experience in work for those that participated in the research. The outcomes of the results were illustrated in Figure 4.

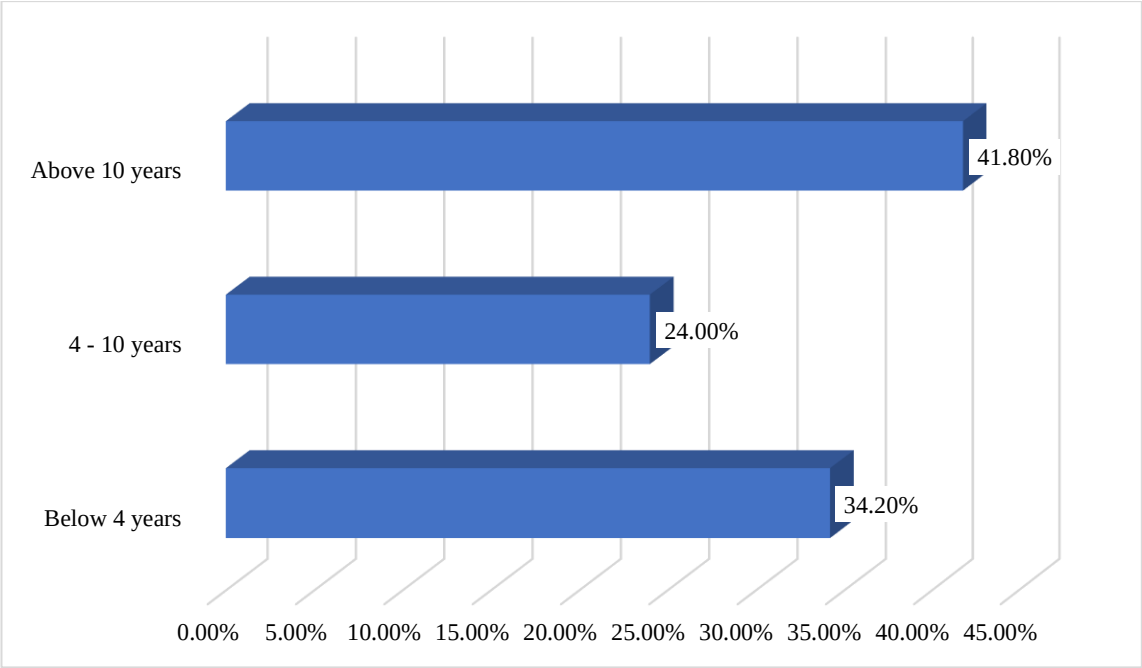


Figure 4: Respondents' Work Experience

Source: Researcher (2024)

Forty-two percent of the study participants had been employed in their departments for over ten years. Meanwhile, thirty-four percent had been with their corporations for less than four years. The remaining twenty-four percent had tenure ranging from four to ten years. This indicates that the respondents possessed significant experience in their roles within their respective corporations, making them well-acquainted with the PPPs in these institutions and, therefore, ideal participants for this study.

4.3.4 Education Level for the Respondents

The scholar set out to assess the achieved education level for those that undertook the study and the responses are as indicated in figure 5.

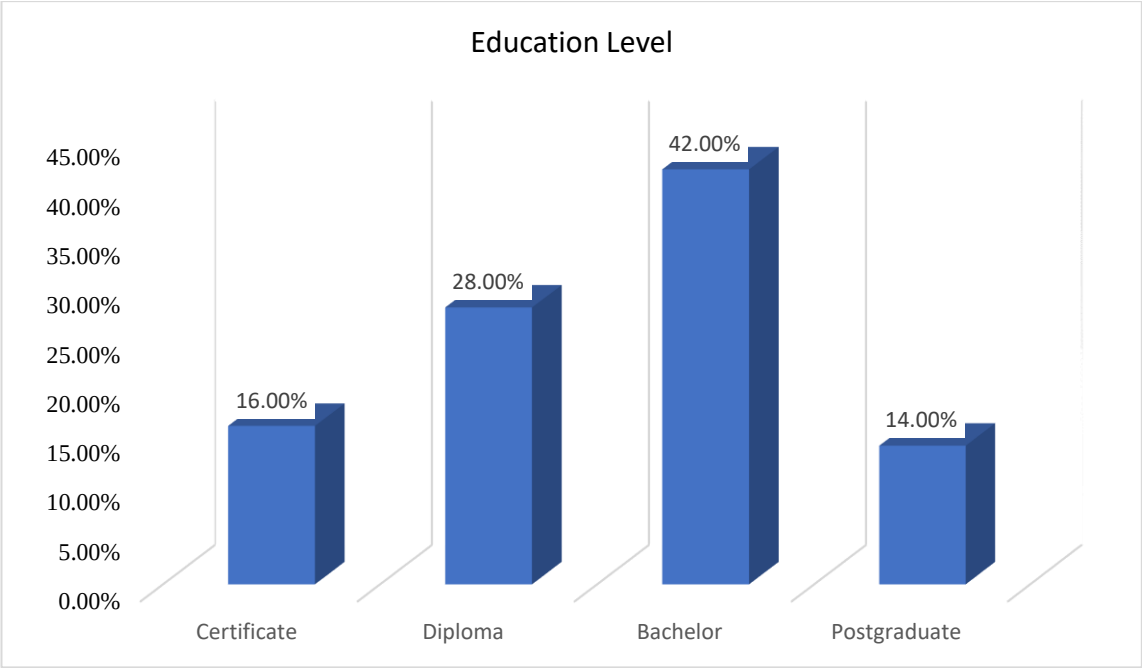


Figure 5: Respondents' Education Level

Source: Researcher (2024)

From the findings in figure 5 majority (42.0%) of the respondents had bachelor degree as their highest academic level of education, 28.0% indicated that they had a diploma in various fields as their highest education qualification, while 16.0% of the respondents gave certificate as their highest academic qualification. The study further indicated that 14.0% of respondents had postgraduate degree as their highest academic level. The results imply that most respondents were well advance in terms of academic qualifications and were thus fit to participate in the current research.

4.4 Descriptive Statistic

The study employed descriptive statistics, particularly mean and standard deviation, to summarize data for Public Private Partnership variables and service delivery variables. Data was presented according to specific objectives using tables, which facilitated further interpretation of the results. The descriptive statistics were organized in tables related to Technical Skills, Financial Contribution, Risk Mitigation, accountability and service delivery outcomes. This approach enhanced the comprehension of the variables.

4.4.1 Technical Skills and Water Service Delivery

The study set to focus on the effect of technical skills on Water Service Delivery in Meru County, Kenya. Presentation of the outcomes of the findings was done in Table 6.

Table 6 Technical Skills

	N	Min	Max	Mean	Std. Deviation
Public-Private Partnerships (PPPs) have introduced technical expertise in fields where it is necessary for implementing water projects.	306	1	5	4.38	0.860
The engagement of PPPs in project execution has facilitated the sourcing of experienced personnel.	306	1	5	4.08	0.709
The involvement of PPPs has improved project management within the water sector by effectively screening key competencies.	306	1	5	3.93	0.848
PPPs have also provided customized specialized training in areas requiring specific skills.	306	1	5	3.95	0.926
The corporation has enhanced skills development through the engagement of PPPs in project execution and implementation	306	1	5	3.23	0.926
Valid N (listwise)	306				

Source: Researcher (2024)

From Table 6, respondents agreed with the statement that PPPs had brought in technical expertise in fields where such was required in carrying out corporation's projects, this is supported by a mean of 4.38 and a standard deviation of 0.860; respondents also concurred with the statement that the engagement of PPPs in project execution has facilitated the sourcing of experienced personnel (M=4.08, SD=0.709) and that the involvement of PPPs has improved project management within the water sector by effectively screening key competencies (M=3.93, SD=0.848). on corporation enhancing skills development through the engagement of PPPs in project execution and

implementation respondents were neutral on the matter (M=3.23, SD=0.926). further respondents agreed that PPPs have also provided customized specialized training in areas requiring specific skills (M=.3.95, SD=0.926).

The outcomes of this study indicate that technical skills, as a proxy factor, were suitably effective in evaluating private-public partnerships and water service delivery projects in Meru County. These findings align with Puentes and Istrate (2011), who conducted research on the roles of committed private-public associations within dedicated public-private partnership frameworks. Their study involved a review of institutional and governance structures, assessing both United State of America and international experiences with PPP units.

4.4.2 Financial Contribution and Water Service Delivery

The study set out to examine the effect of financial contribution on Water Service Delivery in Meru County, Kenya. The presentation for the outcomes of the results was done Table 7.

Table 7 Financial Contribution

	N	Min	Max	Mean	Std. Deviation
Financial support for feasibility analysis to check the viability of the corporation's projects is provided as a result of the PPP.	306	1	5	4.15	0.833
Budget requirements are well met when PPPs are in place, covering the project life	306	1	5	4.56	0.927
Sufficient leverage in case of deficiency has been facilitated through PPPs covering cost needs.	306	1	5	4.68	0.853

Capital requirements for significant projects have been adequately fulfilled through PPPs.	306	1	5	4.01	0.921
Running costs have been thoroughly considered in involving PPPs in executing various projects within the corporation	306	1	3	3.95	0.777
Valid N (listwise)	306				

Source: Researcher (2024)

The study revealed that respondents concurred on the provision of financial support for feasibility analyses to evaluate project viability due to PPPs, with a mean response of 4.15 and a standard deviation of 0.833. There was strong consensus among respondents that PPPs facilitated sufficient leverage to cover cost needs in case of deficiencies (M=4.68, SD=0.853) and ensured that budget requirements were adequately met throughout the project lifecycle (M=4.56, SD=0.927). Additionally, the study indicated agreement among respondents that capital requirements for significant projects were adequately fulfilled through PPPs (M=4.01, SD=0.921), and that running costs were comprehensively considered when involving PPPs in executing various projects within the corporation (M=3.95, SD=0.777).

The results of this study indicate that financial contributions were effectively evaluated in the context of private-public partnerships and water service delivery projects in Meru County. These findings are in agreement with Wibowo and Alfen (2013), who investigated the impact of financing PPP infrastructure projects on economic growth and concluded that financial contributions are essential for enhancing economic development.

4.4.3 Risk Mitigation and Water Service Delivery

The study set out to assess the effect of risk mitigation on Water Service Delivery in Meru County, Kenya. The presentation of the outcomes of the findings was done in Table 8.

Table 8 Risk Mitigation

	N	Min	Max	Mean	Std. Deviation
Thorough risk analysis precedes the initiation of any water projects.	306	1	5	4.27	0.791
The contract agreements within PPPs have transparent protocols for handling risks to mitigate their impact.	306	1	4	4.58	0.740
Government guarantees on risk control and mitigation are effectively established throughout the lifespan of PPP projects.	306	1	5	3.87	0.848
Adequate measures for risk allocation ensure a fair distribution of risks.	306	1	5	2.96	0.721
contingency plans are set up to address adverse risk scenarios and are regularly reviewed and evaluated.	306	1	5	3.76	0.915
Valid N (listwise)	306				

Source: Researcher (2024)

From the study, respondents agreed with the following statements on risk mitigation, they strongly agreed that the contract agreements within PPPs have transparent protocols for handling risks to mitigate their impact (M=4.58 SD=0.740); thorough risk analysis precedes the initiation of any water projects (M=4.27, SD=0.791). the study also revealed an agreement between the respondents on the statement that Government guarantees on risk control and mitigation are effectively established throughout the lifespan of PPP projects (M=3.87 SD=0.848) and that contingency plans are set up to address adverse risk scenarios and are regularly reviewed and evaluated (M=3.76, SD=0.915). there was a low response on the statement that adequate measures for risk allocation ensure a fair distribution of risks where the respondents were neutral as supported by a mean of 2.96 and a standard deviation of 0.721. The study outcomes show that risk mitigation as a

proxy factor was satisfactorily fit in assessing private public partnerships and project Water Service Delivery in Meru County.

4.4.4 Accountability and Project Water Service Delivery

The research set out to determine the effect of accountability on Water Service Delivery in Meru County, Kenya. The outcomes of the results were presented in Table 9.

Table 9 Accountability

	N	Min	Max	Mean	Std. Deviation
Transparency within PPPs has been strengthened to promote accountability	306	1	5	3.93	0.775
There is a strong emphasis on timeliness in disseminating information during project operations.	306	1	5	3.89	0.887
Financial reporting practices have been established and are operational to ensure accountability.	306	1	4	3.95	0.559
The accuracy of information is diligently maintained within PPPs for informed decision-making.	306	1	5	3.96	0.721
Effective internal control measures are in position to provide checks and balances.	306	1	5	4.37	0.851
Valid N (listwise)	306				

Source: Researcher (2024)

The study revealed that respondents agreed with several statements regarding internal controls and information management within PPPs. Effective internal control measures were recognized for providing checks and balances (M=4.37, SD=0.851). Respondents

also noted that the accuracy of information is diligently maintained to support informed decision-making (M=3.96, SD=0.721) and that there is a strong focus on the timely dissemination of information during project operations (M=3.89, SD=0.887). Additionally, financial reporting practices are established and operational, ensuring accountability (M=3.95, SD=0.559), and transparency within PPPs has been enhanced to promote accountability (M=3.93, SD=0.775).

The study results indicate that accountability, as a proxy factor, was effectively utilized in assessing private-public partnerships and water service delivery projects in Meru County. These findings are consistent with those of Musyoka (2012), who examined issues impacting Public-Private Partnerships' water service delivery in Kenya's housing sector and concluded that risk management factors, such as guarantees and appropriate risk allocation by the state, influenced PPP performance. The results also align with Barrera-Osorio, Sabarwal, Galbert, and Habyarimana (2015), who studied the impact of public-private partnerships on water service delivery in private schools in Uganda, finding that accountability is crucial for achieving high-quality water service delivery in these institutions.

4.4.5 Water Service Delivery

The study set out to assess water service delivery in Meru County. Presentation of the outcomes was done in Table 10.

Table 10 Water Service Delivery

	N	Min	Max	Mean	Std. Deviation
Recent experiences indicate project efficiency, thus contributing to enhanced water delivery	306	1	5	3.86	0.882

The completed water projects have achieved the anticipated impact on customers, resulting in their satisfaction.	306	1	5	3.99	0.847
Implemented water projects have delivered expected returns and cost reductions, contributing to better services.	306	1	5	4.09	0.867
Contractors involved in the water projects have had their interests addressed, obtaining benefits from their execution	306	1	5	3.61	0.761
The completion of projects has allowed the water companies to prepare for the future through their successful implementation.	306	1	5	4.14	1.031
Valid N (listwise)	306				

Source: Researcher (2024)

The study findings indicated that respondents agreed that the water sector in Meru County lately experiences indicate project efficiency, thus contributing to enhanced water service delivery (M=3.86 SD=0.882); that the completed water projects have achieved the anticipated impact on customers, resulting in their satisfaction (M=3.99 SD=0.847) and that implemented water projects have delivered expected returns and cost reductions, contributing to better services (M=4.09 SD=0.867). The respondents also agreed with the statement that contractors involved in the water projects have had their interests addressed, obtaining benefits from their execution (M=3.61 SD=0.761) and that completion of projects has allowed the water companies to prepare for the future through their successful implementation (M=4.14 SD=1.031). The research outcomes show that water service delivery was satisfactorily fit in assessing PPPs and service delivery.

4.5 Inferential Findings

4.5.1 Pearson's Correlation Analysis

Pearson's correlation explains the association amidst two factors and falls between positive 1 to negative 1 where positive 1 suggests a sturdy/robust positive association and a negative 1 suggests a sturdy/robust inverse association. The more the affiliation will in general zero the feebler it ends up being. The presentation of the outcomes of correlation results as done in Table 11.

Table 11 Pearson's Correlation Results

		Service Delivery	Technical Skills	Financial Contribution	Risk Mitigation	Account Ability
Service Delivery	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	306				
Technical Skills	Pearson Correlation	0.647**	1			
	Sig. (2-tailed)	0.000				
	N	306	306			
Financial Contribution	Pearson Correlation	0.736**	.224**	1		
	Sig. (2-tailed)	0.000	0.004			
	N	306	306	306		
Risk Mitigation	Pearson Correlation	0.603**	.373**	0.078	1	
	Sig. (2-tailed)	0.000	0.000	0.324		
	N	306	306	306	306	
Accountability	Pearson Correlation	0.266**	0.070	-.354**	.373**	1
	Sig. (2-tailed)	0.018	0.376	0.000	0.000	
	N	306	306	306	306	306

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

Source: Researcher (2024)

The connection between water service delivery via PPP water projects and the predictor variables; technical skills, financial contribution, risk mitigation, and accountability—was positive, with values of 0.647, 0.736, 0.603, and 0.266 respectively. The results indicate that the predictor variables, namely technical skills, financial contribution, and risk mitigation, have a strong correlation with effective water service delivery.

However, there was a weak association between service delivery and accountability, with a beta value of 0.266. This may be due to issues with budget preparation and corruption. Jones (2009) suggested that effective accountability in fund management is possible and emphasized the need to address institutions with poor financial accountability caused by budgeting flaws and corruption. Additionally, the wide range of cost estimates indicates insufficient financial accountability in these projects, impacting the return on investment in the targeted areas (Benon & Mbabazize, 2016).

4.5.2 Model Summary

Presentation of the results on the fitness goodness of the joint model was done in Table 12.

Table 12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.789[a]	0.646	0.664	1.2459

a. Predictors: (Constant), technical skills, financial contribution, risk mitigation and accountability

Source: Researcher (2024)

The outcomes of the results show that the predictor factors; technical skills, financial contribution, risk mitigation and accountability jointly were satisfactorily explaining performance of projects as evidenced by the R square (adjusted) of 0.646 which shows that technical skills, financial contribution, risk mitigation and accountability jointly can

explain 64.6% of the water service delivery. The rest of the extent (35.4%) shows that there are different components not caught in this investigation which clarify its execution.

4.5.4 Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.809	4	1.452	36.906	.000[b]
	Residual	32.591	302	0.210		
	Total	38.400	306			

a. Dependent Variable: Service Delivery

b. Predictors: (Constant), technical skills, financial contribution, risk mitigation and accountability

The outcomes of the research imply that the joint model is qualified to be significant in statistical terms. The findings show that the F Cal was of 36.906 which was greater than the F Critical which was 3.789 at p value 0.000. This suggests that the model demonstrated a good fit. The results indicate that technical skills, financial contribution, risk mitigation, and accountability are key determinants of water service delivery. These findings align with Vertakova and Plotnikov's (2014) study on public-private partnerships in Russian vocational education, which found a positive correlation between PPPs and performance. Additionally, they concur with Wibowo and Alfen's (2013) research, which identified a significant connection between PPP infrastructure financing and both GDP growth and performance.

4.5.3 Coefficient's Regression

Presentation of the outcomes on coefficient's regression was done in Table 13.

Table 13 Coefficient's Regression

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	-3.281	0.172		7.454	0.000
	Technical Skills	0.354	0.065	0.479	3.897	0.000
	Financial Contribution	0.631	0.065	0.435	3.553	0.001
	Risk Mitigation	0.368	0.047	0.285	3.598	0.000
	Accountability	0.486	0.042	0.010	-0.129	0.017

a. Dependent Variable: Service Delivery

Source: Researcher (2024)

The outcomes of the findings indicate that there is an optimistic link amidst specialized abilities, money related commitment, hazard moderation and responsibility and undertaking execution beta coefficients as indicated by their coefficients of 0.354, 0.631, 0.368 and 0.486 respectively. Furthermore, technical skills, financial contribution, risk mitigation and accountability were all statistically significant as shown by significance values of 0.000, 0.001, 0.000 and 0.017 respectively. The results indicated that technical skills, financial contribution, risk mitigation and accountability were key predictors of water service delivery.

The outcomes of the results are in agreement with Benon and Mbabazize (2016) studied the influence of involvement in private sector in performance of PPPs in projects of constructions of housing in the Kigali and the researchers found that technical skills do have a positive link to performance of projects. outcomes of the results are in agreement with those of Sudić, Ćirović and Mitrović (2013) who did in Serbia an analysis of risk management on public private partnership projects (PPP) and the study revealed a sturdy and optimistic connection amidst the predictor variable (risk analysis and management) and response variables (public private partnership projects' performance) in the study.

The outcomes of the results show that; a unit rise in technical skills translates to increase in water service delivery by 0.354 units; a unit rise in financial contribution by one unit leads to translates increase in water service delivery by 0.631 units; a unit rise in in risk mitigation by one unit translates to increase in water service delivery by 0.368 units; a unit rise in accountability by a unit translates increase in performance of projects by 0.486 units.

The study outcomes agree with Istrate and Puentes (2011) who conducted a study on devoted public private partnership components which was a survey of institutional and governance structures by assessing US and international encounters with PPP Units and found that technical skills are significant determinants of Water service delivery . Furthermore, they agree with Shen, et al. (2016) who studied the effects of the financial contribution spread amidst public and private areas on sustainability of Water service delivery and results of the research it was established that there is an affirmative and statistically significant association amid financial contribution and performance of projects. the results are consistent with Alfan and Zakaria (2012) who carried out a study on public-private partnership project's accountability by performing a financial examination of Malaysian highway authority and the findings revealed that accountability is positively linked to PPP projects performance.

The equation for the overall model was presented as;

Service Delivery = – 3.569 + 0.330 X1 + 0.637 X2 + 0.397 X3 + 0.497 X4

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter presents the summary covering the key outcomes of the results as per the research objectives. A conclusion on the association amid the variables of the research was inferred according to the study objectives. Proposals for policy recommendations and further study areas were then presented.

5.2 Summary

The objective of the study was to evaluate the impact of Public-Private Partnerships (PPPs) on water service delivery in Meru County, Kenya. Previous research indicates that the expansion of PPPs influences project performance, with a consistent rise in their involvement in government projects over time. This provides the rationale for the study,

which seeks to assess the effect of PPPs on project implementation in commercial state-owned partnerships.

Regarding technical expertise and water service delivery in Meru County, the findings revealed that technical skills played a crucial role in determining water service delivery. Many participants in the study acknowledged that PPPs had brought in technical know-how where needed, sourced experienced personnel, screened key competencies, provided specialized training, and facilitated skills development within the corporation. Correlation analysis demonstrated a strong and positive relationship between water service delivery and technical skills, while regression analysis confirmed a statistically significant connection.

Concerning financial contributions and water service delivery in Meru County, the results indicated that financial support was a major determinant of water service delivery. Participants noted that PPPs provided financial backing for feasibility analysis, met budget requirements, eased leverage in case of deficiencies, adequately covered capital requirements, and accounted for running costs in various projects within the corporation. Correlation analysis similarly showed a robust and positive link between water service delivery and financial contributions, with regression analysis confirming its statistical significance.

On risk mitigation and water service delivery in Meru County, the outcomes of the findings showed that risk mitigation was a chief determining factor for Water service delivery. This was supported by the majority of participants in the study, who agreed that risk analysis was thoroughly conducted before any corporation undertook project initiatives. They affirmed that the contract agreements in PPPs clearly outlined methods for managing and mitigating risk, that government guarantees for risk control and mitigation were established throughout the duration of PPP projects, and that appropriate

risk allocation measures were in place to assign risk accordingly. Additionally, they confirmed that contingency measures for adverse risk scenarios were established and regularly assessed. Results from correlation analysis show that the link amidst Water service delivery and risk mitigation was sturdy/ robust and positive. Outcomes from regression analysis demonstrate a statistically significant link amidst Water service delivery and risk mitigation.

Finally, regarding accountability and water service delivery in Meru County, Kenya, the findings indicated that accountability played a crucial role in determining water service delivery. Most participants in the study affirmed that transparency had been improved within PPPs to enhance accountability, emphasized the importance of timely information measures in project operations, implemented functional financial reporting practices to ensure accountability, prioritized accuracy of information for decision-making within PPPs, and established internal control measures for checks and balances. Correlation analysis revealed a weak but positive relationship between water service delivery and accountability, while regression analysis demonstrated a statistically significant link between the two.

5.3 Conclusions

Regarding technical skills and water service delivery, it can be concluded that PPPs have introduced technical expertise in areas where it was needed for executing the corporation's projects. The findings indicate that experienced personnel were effectively sourced through the engagement of PPPs, enhancing project management within the corporation. Key competencies were thoroughly screened by involving PPPs, leading to improved project outcomes. Additionally, PPPs provided specialized training in areas requiring specific skills, contributing to skills development within the corporation. Finally, Meru

County has implemented technical skills measures, which are crucial for determining water service delivery in the institutions.

Regarding financial contribution and water service delivery, it is evident that PPPs provided financial support for feasibility analysis to assess the viability of the corporation's projects. Budget requirements were effectively met where PPPs were involved, covering the project's entire lifespan. Moreover, PPPs facilitated sufficient leverage to address deficiencies in cost needs and adequately met capital requirements for significant projects. Additionally, running costs were carefully considered when engaging PPPs in various projects within the corporation. The researcher concludes that Meru County in Kenya has implemented measures for financial contribution, which significantly influence water service delivery in the institutions.

Concerning risk mitigation and water service delivery, it is evident that thorough risk analysis preceded any project undertakings within the corporation. The contract agreements in PPPs clearly outlined strategies for managing and mitigating risks. Moreover, government guarantees on risk control and mitigation were effectively incorporated into the lifespan of PPP projects. Furthermore, appropriate measures for risk allocation were established to attribute risks accordingly. Additionally, contingency measures were in place to address adverse risk scenarios and were regularly assessed. The researcher concludes that Meru County has implemented measures for risk mitigation, which play a crucial role in determining water service delivery in the institutions.

On accountability and Water service delivery, it can be concluded that transparency had been enhanced in PPPs so as to increase accountability. In addition, information timeliness measures were highly advocated for in the project operations. Further, it can be concluded that financial reporting practices had been put in place and were functional in pursuit of accountability. Also, it can be concluded that accurateness of information

was highly exercised in PPPs for decision making and that internal control measures were well in place for checks and balances. Finally, the researcher concludes that Meru County had implemented measures for accountability and those accountability measures were imperative in the determination of Water service delivery in the institutions.

5.4 Recommendations

Regarding technical skills, the researcher suggests that PPP management should ensure they procure the most cost-effective technical expertise in fields where required for the corporation's projects to achieve high output levels. Additionally, the researcher recommends implementing measures to screen key competencies to enhance better project management.

Concerning financial contribution, the researcher suggests that the government provides financial support for feasibility analysis to assess the viability of the corporation's projects effectively. Furthermore, the researcher recommends that PPPs implement actions to ensure budget requirements are well within limits and adequately met throughout the project lifespan. Moreover, the researcher recommends enhancing sufficient leverage measures to address costing needs.

On risk mitigation, the researcher recommends that PPPs engage specialists to conduct risk analysis before undertaking any corporation's projects. Additionally, measures should be established to clearly outline how risks are dealt with to enhance mitigation. Moreover, the researcher suggests that the government should have measures in place to guarantee enhanced risk control and mitigation. Lastly, frequent assessments should be conducted to strengthen contingency measures for adverse risk scenarios.

Regarding accountability, the researcher recommends incorporating more transparency measures in PPPs to enhance accountability. Additionally, emphasis should be placed on

financial reporting practices in PPPs and their effective implementation to enhance accountability in the institutions. Furthermore, the researcher suggests establishing robust internal control measures to enhance checks and balances in state corporations, thereby enhancing accountability.

5.5 Suggestions for Further Study

This study examined aspects concerning technical skills, risk mitigation, accountability, and financial contribution within the realm of PPPs. The researcher emphasizes the importance of conducting further investigations in various organizations, such as the private sector in Kenya, using similar parameters to assess if the outcomes align across different settings. Additionally, conducting additional research on PPPs with different variables to measure overall performance will help determine whether the findings of this study are consistent or divergent.

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APPENDICES

Appendix I: Informed Consent

Assessment of Public Private Partnership on Water Service Delivery in Meru County, Kenya.

Dear Participant,

I extend an invitation for you to participate in a study titled "Evaluation of Public-Private Partnerships in Enhancing Water Service Delivery in Meru County, Kenya." I am pursuing a Master of Public Administration and Management at Mount Kenya University and am currently working on my Master's thesis. The aim of this study is to investigate the impact of Public-Private Partnerships on the provision of water services in Meru County, Kenya.

Your participation in this study is completely optional. You are free to decide not to participate or to skip any questions you prefer not to answer. Participation in this study poses no more risk than daily life activities. Any information you provide will be kept confidential and anonymous. The data gathered will be stored securely and reported in a collective format. Only the researchers involved in this study will have access to individual responses, thus preserving your privacy.

Although there may not be immediate personal benefits from participating, you might find the discussion on the topics of this research engaging. Additionally, your input could contribute significantly to this field of study, potentially aiding future endeavors or individuals with similar issues.

Should you agree to participate, please answer the questionnaire as accurately as possible. It is estimated to take around 20 minutes to complete. Prompt return of the completed questionnaire will greatly assist in the efficient preparation of the research report.

Should you have any inquiries regarding this study, please do not hesitate to reach out to the principal investigator, David Mtua, at 0715583017, or my academic advisor, Dr. Kennedy Nyariki, at the provided contact details. For concerns about your rights as a participant in this research, please contact the Chair of the Ethical Review Committee at Mount Kenya University, located at P.O Box 342-01000, Thika.

CONSENT

I certify that I have read, understood, and been given the opportunity to ask questions about the material that was provided to me. I understand that my participation in this research is completely optional, and I am free to end it whenever I want, with no financial penalty and no need to provide an explanation. I understand that I will get a copy of this permission form. I voluntarily agree to take part in this study with this knowledge.

Participant's Signature _____ Date _____

Investigator's Signature _____ Date _____

Appendix II: Research Questionnaire

SECTION A: RESPONDENT'S INFORMATION

1) What is you gender?

1) Female [ ]
2) Male [ ]

2) Indicate the category for your age

a. 51 years and above [ ]
b. From 35 to 50 years [ ]
c. From 20 to 34 years [ ]
d. Less than 20 years [ ]

3) Please indicate your experience for work

More than 10 years [ ]
Between 4 and 9 years [ ]
Less than 4 years [ ]

4) What is your highest accomplished education level?

Doctorate Degree [ ]
Master's Degree [ ]
Bachelor's Degree [ ]
Diploma [ ]

5) Please indicate the duration in this corporation

10 years and above [ ]
From 6 to 10 years [ ]
From 3 to 6 years [ ]
Less than 3 years [ ]

SECTION B: PUBLIC PRIVATE PARTNERSHIPS AND WATER SERVICE DELIVERY

This section presents assessment statements on the effect of the predictor factors on water services delivery.

Section B1: Technical Skills

Within this section, assessment statements pertaining to technical expertise and project implementation are presented. Indicate your level of agreement with each statement by marking (x) in the appropriate box. The scale reference is outlined below: (5- Strongly Agree; 4 - Agree; 3 - Neutral; 2 - Disagree; 1 - Strongly Disagree).

Statements	**5**	**4**	**3**	**2**	**1**
Public-Private Partnerships (PPPs) have introduced technical expertise in fields where it is necessary for implementing water projects.					
The engagement of PPPs in project execution has facilitated the sourcing of experienced personnel.					
The involvement of PPPs has improved project management within the water sector by effectively screening key competencies.					
PPPs have also provided customized specialized training in areas requiring specific skills.					
The corporation has enhanced skills development through the engagement of PPPs in project execution and implementation.					

Which technical skills do you consider most crucial for your organization in providing water services? Provide a list, prioritizing the skills from the most important to the least important.

……

……

.....

.....

Section B2: Financial Contribution

This section contains evaluation statements related to financial contributions and the delivery of water services. Please mark (x) in the designated space that best reflects your agreement with each statement. The scale key is provided below; (**5** for Strongly Agree; **4** for Agree; **3** for Neutral; **2** for Disagree; **1** and Strongly Disagree)

Statements	**5**	**4**	**3**	**2**	**1**
As a consequence of the PPP, financial assistance is given for feasibility studies to determine if the corporation's proposals are viable.					
When PPPs are in place, budgetary criteria are effectively fulfilled throughout the project life.					
PPPs addressing cost requirements have made it easier to have enough leverage in the event of a deficit.					
Through PPPs, the capital needs for large-scale projects have been sufficiently met.					
Running costs have been thoroughly considered in involving PPPs in executing various projects within the corporation					

How do you think financial contributions from PPPs in your corporation will most effectively improve water service delivery? Please list them in order of importance, from the greatest to the least……..

Section B3: Risk Mitigation

This section contains statements evaluating risk mitigation and water service delivery. Please mark (x) in the appropriate box that most accurately reflects your level of agreement with each statement. The scale key is as follows; (**5** for Strongly Agree; **4** for Agree; **3** for Neutral; **2** for Disagree; **1** and Strongly Disagree)

Statements	**5**	**4**	**3**	**2**	**1**
Thorough risk analysis precedes the initiation of any water projects.					
The contract agreements within PPPs have transparent protocols for handling risks to mitigate their impact.					
Government guarantees on risk control and mitigation are effectively established throughout the lifespan of PPP projects.					
Adequate measures for risk allocation ensure a fair distribution of risks.					
contingency plans are set up to address adverse risk scenarios and are regularly reviewed and evaluated.					

How do you think PPPs will best enhance risk mitigation in your corporation in water service delivery?

……
……
……
……

Section B4: Accountability

This section provides evaluation statements regarding accountability and project performance. Please mark (x) in the designated space that most accurately represents your agreement with each statement. The scale key is outlined as follows: (**5** for Strongly Agree; **4** for Agree; **3** for Neutral; **2** for Disagree; **1** and Strongly Disagree)

Statements	**5**	**4**	**3**	**2**	**1**
Transparency within PPPs has been strengthened to promote accountability.					
There is a strong emphasis on timeliness in disseminating information during project operations.					
Financial reporting practices have been established and are operational to ensure accountability.					
The accuracy of information is diligently maintained within PPPs for informed decision-making.					
Effective internal control measures are in position to provide checks and balances.					

In what ways do you believe that accountability within your corporation will significantly enhance the performance of projects?.....

SECTION C: SERVICE DELIVERY

Within this segment, assessment statements concerning service delivery are presented. Please indicate your level of agreement with each statement by marking (x) in the designated space. The scale is outlined as follows: (5 for Strongly Agree; 4 for Agree; 3 for Neutral; 2 for Disagree; 1 for Strongly Disagree).

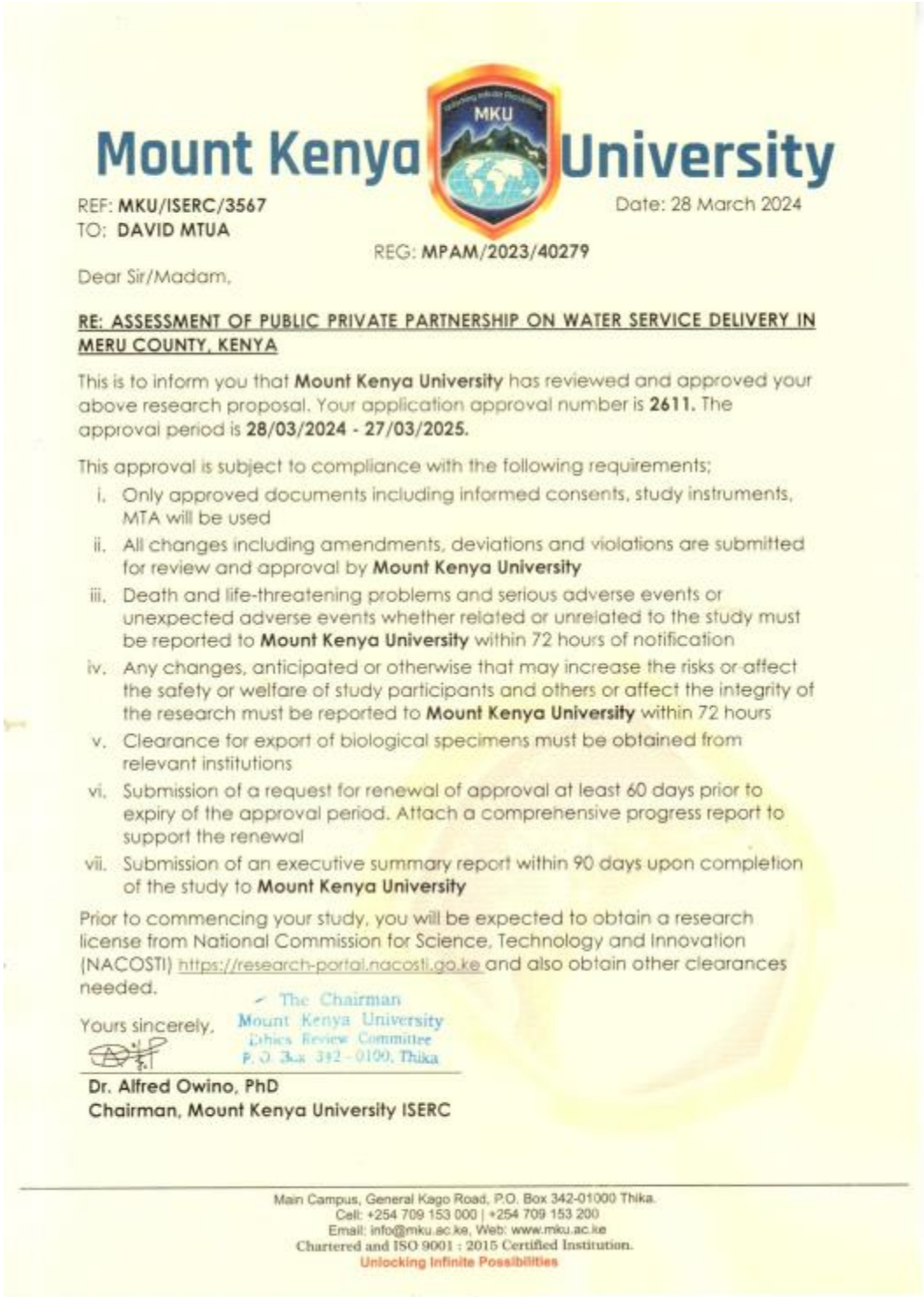
Remark	1	2	3	4	5
Recent experiences indicate project efficiency, thus contributing to enhanced water delivery					
The completed water projects have achieved the anticipated impact on customers, resulting in their satisfaction.					
Implemented water projects have delivered expected returns and cost reductions, contributing to better services.					
Contractors involved in the water projects have had their interests addressed, obtaining benefits from their execution					
The completion of projects has allowed the water companies to prepare for the future through their successful implementation.					

What in your words do you feel should be done in your corporation to improveservice delivery?

……
……
……

THANK YOU

Appendix III: ERC Certificate



Mount Kenya University

REF: **MKU/ISERC/3567**
TO: **DAVID MTUA**

Date: 28 March 2024

REG: **MPAM/2023/40279**

Dear Sir/Madam,

RE: ASSESSMENT OF PUBLIC PRIVATE PARTNERSHIP ON WATER SERVICE DELIVERY IN MERU COUNTY, KENYA

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **2611.** The approval period is **28/03/2024 - 27/03/2025.**

This approval is subject to compliance with the following requirements;

i. Only approved documents including informed consents, study instruments, MTA will be used
ii. All changes including amendments, deviations and violations are submitted for review and approval by **Mount Kenya University**
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **Mount Kenya University** within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to **Mount Kenya University** within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal
vii. Submission of an executive summary report within 90 days upon completion of the study to **Mount Kenya University**

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://research-portal.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely,

The Chairman
Mount Kenya University
Ethics Review Committee
P. O. Box 342 - 0100, Thika

Dr. Alfred Owino, PhD
Chairman, Mount Kenya University ISERC

Main Campus, General Kago Road, P.O. Box 342-01000 Thika.
Cell: +254 709 153 000 | +254 709 153 200
Email: info@mku.ac.ke, Web: www.mku.ac.ke
Chartered and ISO 9001 : 2015 Certified Institution.
Unlocking Infinite Possibilities

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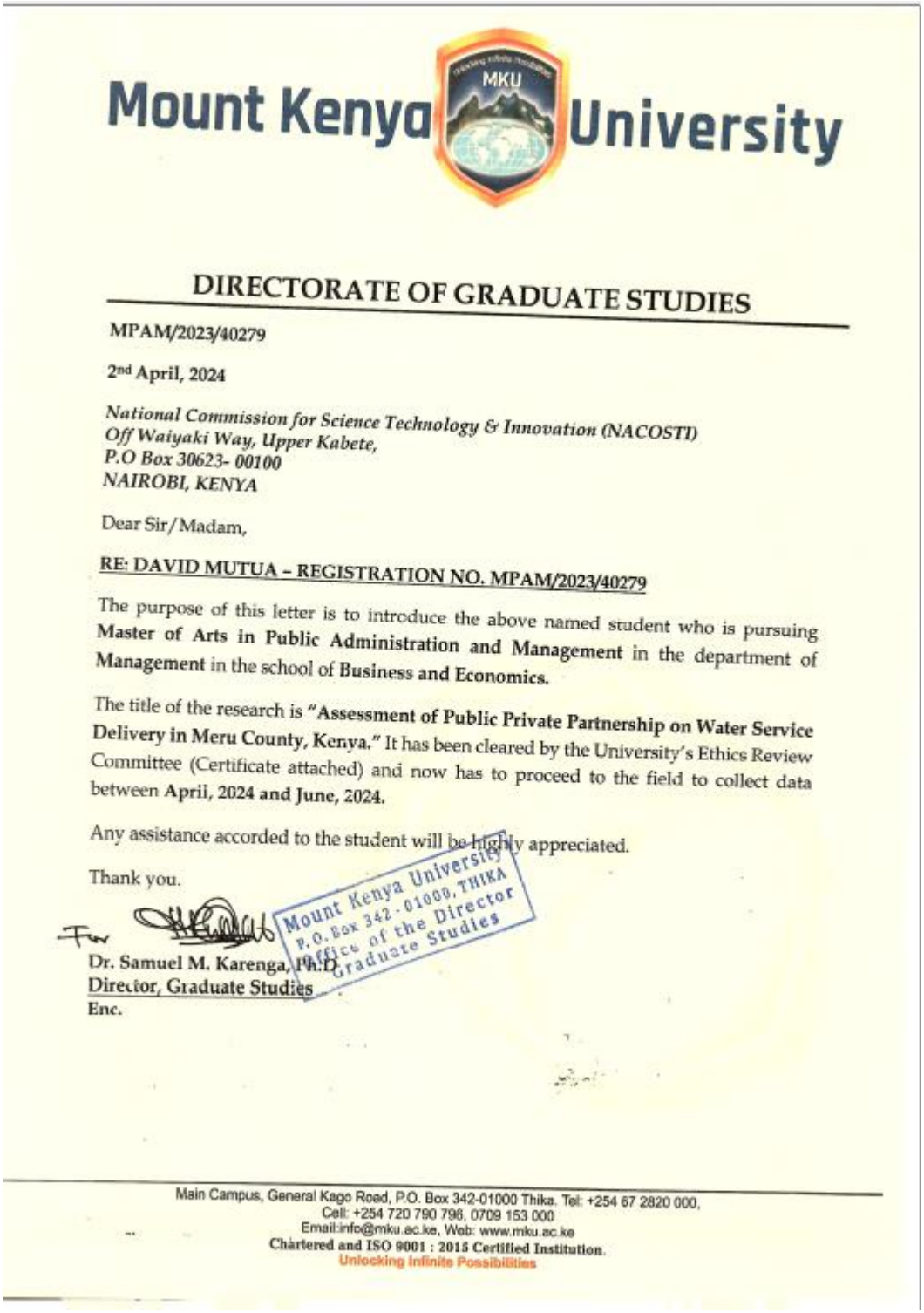
Appendix IV: Introduction Letter



Mount Kenya University

DIRECTORATE OF GRADUATE STUDIES

MPAM/2023/40279

2nd April, 2024

National Commission for Science Technology & Innovation (NACOSTI)
Off Waiyaki Way, Upper Kabete,
P.O Box 30623- 00100
NAIROBI, KENYA

Dear Sir/Madam,

RE: DAVID MUTUA – REGISTRATION NO. MPAM/2023/40279

The purpose of this letter is to introduce the above named student who is pursuing **Master of Arts in Public Administration and Management** in the department of **Management** in the school of **Business and Economics.**

The title of the research is **"Assessment of Public Private Partnership on Water Service Delivery in Meru County, Kenya."** It has been cleared by the University's Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data between **April, 2024 and June, 2024.**

Any assistance accorded to the student will be highly appreciated.

Thank you.

Mount Kenya University
P.O. Box 342-01000, THIKA
Office of the Director
Graduate Studies

For

Dr. Samuel M. Karenga, Ph.D.
Director, Graduate Studies
Enc.

Main Campus, General Kago Road, P.O. Box 342-01000 Thika. Tel: +254 67 2820 000,
Cell: +254 720 790 796, 0709 153 000
Email:info@mku.ac.ke, Web: www.mku.ac.ke
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Appendix V: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 142836

Date of Issue: 13/April/2024

RESEARCH LICENSE

This is to Certify that Mr.. DAVID NGITI MTUA of Mount Kenya University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Meru on the topic: ASSESSMENT OF PUBLIC PRIVATE PARTNERSHIP ON WATER SERVICE DELIVERY IN MERU COUNTY, KENYA for the period ending : 13/April/2025.

License No: NACOSTI/P/24/34561

142836

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

Appendix VI: Research Field Authorization

OFFICE OF THE PRESIDENT
MINISTRY OF INTERIOR AND NATIONAL ADMINISTRATION
STATE DEPARTMENT FOR INTERNAL SECURITY AND NATIONAL ADMINISTRATION

Telegrams:
Telephone:
Email: ccmeru@yahoo.com
Fax:

COUNTY COMMISSIONER
MERU COUNTY
P.O BOX 703-6020
MERU

When replying please quote
Ref: ED.12/3/VOL IV/139
and Date:

15th April,2024.

TO WHOM IT MAY CONCERN

RE: RESEARCH AUTHORIZATION MR. DAVID NGITI MTUA

This is to inform you that **MR. DAVID NGITI MTUA** ID. No.**28967312** of Mount Kenya University has reported to this office as directed by the National Commission for Science, Technology and Innovation and will be carrying out research on **"Assessment of Public Private Partnership on Water Service Delivery in Meru County, Kenya."**

Since authority has been granted by the said Commission, and the above-named person has reported to this office, he can embark on his research project for a period ending13th April, 2025.

Kindly accord him the necessary assistance he may require.

BERNARD. K NJENGA
FOR: COUNTY COMMISSIONER
MERU COUNTY.

Appendix VII: Similarity Index

ASSESSMENT OF PUBLIC PRIVATE PARTNERSHIP ON WATER SERVICE DELIVERY IN MERU COUNTY, KENYA

by DAVID MTUA MTUA

Submission date: 27-May-2024 01:37PM (UTC+0300)
Submission ID: 2303128393
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Word count: 20480
Character count: 121360

ASSESSMENT OF PUBLIC PRIVATE PARTNERSHIP ON WATER SERVICE DELIVERY IN MERU COUNTY, KENYA

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