INFLUENCE OF LEADERSHIP PRACTICES ON PROJECT PERFORMANCE OF WATER PROJECTS IN KIAMBU COUNTY, KENYA.

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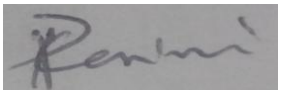
DECLARATION AND APPROVAL

Declaration by student

This research projectl is my original work and has not been presented for a degree in any other University.

Signature:  Date: 5/11/2024

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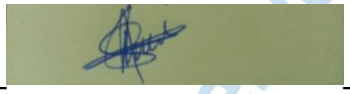
Approval by Supervisor

This Research Proposal has been submitted for examination with my approval as the University Supervisor.

Signature: _____  **__ Date: 5th November 2024**

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DEDICATION

This project is dedicated to my parents and family for their assistance in making this proposal possible.

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ABSTRACT

Kiambu County Government's commitment to addressing water supply challenges in the region has been evident through numerous water projects initiated by 2022. These projects encompass a wide range of interventions, from constructing treatment facilities to expanding distribution networks, with the core objective of providing consistent access to clean and safe water, crucial for public health and sanitation. Despite substantial investments, challenges in funding, resource management, infrastructure reliability, and water quality maintenance persist. Climate change, especially recurrent droughts, further strains water resources, potentially affecting supply reliability. Community participation and stakeholder satisfaction are integral to project success, but deficiencies in these areas hinder overall performance. This study aims to evaluate the impact of leadership practices on the performance of water projects in Kiambu County, Kenya, with a focus on leadership in the public sector. The study was guided by the following specific research objectives: to assess how effective communication influences the performance of water projects in Kiambu County, Kenya; to examine the role of inclusive management in influencing the performance of water projects in Kiambu County, Kenya; and to evaluate the impact of supervisory skills on the performance of water projects in Kiambu County, Kenya. This study draws on several theoretical frameworks, including social exchange theory, social identity theory, and transformational leadership theory, to provide a solid foundation for understanding the dynamics of leadership practices and their impact on water project performance. The chosen research design for this study is descriptive, aiming to offer a comprehensive understanding of the key factors involved. The target population comprises 75 project managers engaged in 15 water projects within Kiambu County. Data primarily was collected through semi-structured questionnaires. Subsequently, various statistical measures such as frequencies, percentages, means, standard deviation, correlation analysis, and regression analysis was employed to derive meaningful insights regarding the relationship between leadership practices and project performance. This research contributed to the broader understanding of how effective leadership can enhance the success of water projects, particularly in the public sector. The findings reveal that a positive and significant relationship between communication and project performance in Kiambu water projects (R=0.812, sig=0.000). There was a positive and significant relationship between Inclusive Management and Project Performance on water projects in Kiambu County, Kenya (R = 0.759, Sig=0.000). results also show existence of a positive and significant relationship between Supervisory Skills and Project Performance on water projects in Kiambu County (R = 0.701, Sig=0.000). Recommendations include enhancing communication channels, promoting inclusivity, strengthening supervisory skills, and prioritizing sustainability practices. These findings contribute valuable insights for project managers, policymakers, and stakeholders in the water sector, emphasizing the need for holistic approaches to achieve successful project outcomes and long-lasting community benefits. Further research is recommended to explore additional factors influencing project performance and to examine the role of technology and policy in water project management.

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LIST OF ABBREVIATIONS AND ACRONYMS

PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
PSDP	Public Sector Development Programs
REBUS	Response-Based Unit Segmentation
SPSS	Statistical Package for Social Sciences
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Project performance is a critical factor in the successful delivery of public and private initiatives. In the realm of public service, projects are instrumental in enhancing the quality of life for communities, fostering economic growth, and safeguarding the environment (PMI, 2017). The efficient execution of projects not only ensures timely delivery of services but also impacts the overall well-being of a region. Inadequate project performance, conversely, can result in economic losses, delayed benefits, and a diminished quality of life (Kerzner, 2017). Timely and efficient project execution is especially crucial in situations involving essential services like water supply, where any delay or failure can have far-reaching consequences for public health and welfare (Kerzner, 2017).

Project performance extends its influence beyond the confines of an organization, permeating into the broader socioeconomic fabric. Successful projects fuel economic development by creating jobs, stimulating local economies, and enhancing infrastructure (Meredith & Mantel, 2018). This is particularly salient in the context of Kiambu County Water Projects, where the provision of clean water not only promotes public health but also supports agricultural activities, which are a cornerstone of the regional economy (Schandl et al., 2018). Efficient water projects reduce healthcare costs, improve agricultural yields, and provide a foundation for sustained economic growth.

Beyond its economic implications, project performance is intimately connected with environmental sustainability. Projects in sectors such as water supply must not only meet immediate needs but also adhere to ecological and environmental standards.

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Effective project management practices ensure that natural resources are used efficiently, waste is minimized, and projects are conducted in an environmentally responsible manner (Schandl et al., 2018). For water projects, this means safeguarding the integrity of local ecosystems, conserving water resources, and minimizing the ecological footprint, which is crucial for the long-term well-being of the region.

Leadership plays a central role in shaping the outcomes of projects in both public and private sectors. Effective leadership practices have been widely acknowledged as a catalyst for organizational success and achievement of strategic goals (Northouse, 2018). Leaders are responsible for articulating a clear vision, setting direction, and aligning team efforts towards common objectives (Northouse, 2018). Leadership practices encompass a range of competencies, such as communication, decision-making, and team motivation. Effective leaders not only facilitate organizational change and adaptation but also influence team dynamics, promoting collaboration and innovation (Avolio & Yammarino, 2013). These leadership practices are pivotal in steering projects towards success.

In the context of project performance, leadership practices become a critical determinant of success. Effective communication, a key leadership practice, ensures that project stakeholders are well-informed, aligned, and motivated, ultimately facilitating project progress (Müller & Turner, 2018). Moreover, inclusive management, another leadership practice, encourages the involvement of diverse perspectives and skills in decision-making, leading to innovative solutions and a stronger sense of ownership among project team members (Kerzner, 2017). Furthermore, strong supervisory skills, an essential component of leadership, help ensure that team members are appropriately guided, motivated, and monitored, which is vital for adhering to project timelines and objectives (Avolio & Yammarino, 2013).

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In the specific context of water projects, the significance of leadership practices becomes even more pronounced. These projects are essential for the provision of a fundamental resource - clean and reliable water supply. The quality of leadership directly impacts the efficiency of resource allocation, decision-making, and execution of these projects (Dunant, 2019). For instance, effective communication within the project team and with external stakeholders, such as government bodies and local communities, is crucial to ensure that projects meet the water needs of the county's residents (Müller & Turner, 2018). Without strong leadership practices, the risk of inefficiencies, budget overruns, and delays increases, directly affecting the well-being of the population.

Leadership practices are intimately linked to stakeholder engagement, which is vital in the context of water projects. The successful delivery of water projects depends not only on the technical aspects of construction but also on fostering support and cooperation among diverse stakeholders. Effective leadership practices, particularly those related to inclusive management, promote stakeholder involvement and buy-in (Jugdev & Müller, 2015). A lack of inclusive leadership can lead to conflicts, resistance, and difficulties in securing necessary approvals, permits, and funding, all of which can significantly impact the project's success (Müller & Turner, 2018).

Moreover, it is essential to recognize the broader economic and environmental implications of leadership practices in water projects. Efficient water projects not only ensure access to a vital resource but also contribute to economic growth by reducing healthcare costs and increasing agricultural productivity (Schandl et al., 2018). Leadership practices that enhance the performance of water projects play a direct role in improving the quality of life for residents in Kiambu County. In addition, effective leadership practices contribute to sustainability by promoting the responsible use of

natural resources, reducing waste, and minimizing the environmental impact of water-related infrastructure projects. This highlights the interconnectedness of leadership practices, project performance, and broader societal and environmental well-being.

In the United States, leadership practices significantly impact project performance in various sectors. The role of transformational leadership in motivating project teams and enhancing project success is greatly emphasized. Transformational leaders in the U.S. inspire and engage team members, fostering creativity and innovation in industries such as technology and healthcare. Additionally, studies underscore the importance of effective leadership practices in the construction industry, where complex projects demand strong leadership to manage risks and ensure timely delivery. The U.S. project management landscape benefits from leadership practices that promote adaptability, stakeholder engagement, and strategic thinking (Raziq et al., 2018). Japan is renowned for its meticulous project management practices and exemplary project performance. Leadership practices in Japan, rooted in the principles of Kaizen and Total Quality Management, emphasize continuous improvement and teamwork. Japanese leaders play a critical role in fostering a culture of quality and efficiency (Toma, & Naruo, 2017). Their leadership practices, which prioritize employee involvement and commitment, have led to remarkable project performance in industries like manufacturing and automotive. Japanese project managers excel in aligning leadership practices with project objectives, ensuring minimal waste, on-time delivery, and high-quality results.

Germany, as a global economic powerhouse, places significant emphasis on leadership practices to drive project performance across industries. German project managers are recognized for their commitment to structured planning, risk management, and clear communication. The importance of adaptive leadership practices in Germany's

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engineering and construction projects, which often face complex technical challenges is emphasized. Leadership practices in Germany support innovation and sustainability, with an eye toward long-term project success (Martinsuo, Müller, & Blomquist, 2011). German leaders understand the significance of effective project governance and stakeholder engagement in achieving optimal project performance (Garel, 2013).

In South Africa, leadership practices are pivotal in addressing the challenges and opportunities that the nation faces. Research by Martins and Terblanche (2013) underscores the importance of leadership in transforming South Africa's construction industry. The construction sector plays a significant role in the country's infrastructure development, and effective leadership practices are necessary to ensure that projects are completed on time and within budget. Leadership in South Africa is also vital in addressing the country's historical disparities and fostering inclusive management practices (Crawford, 2018). The leadership practices in South Africa, which emphasize stakeholder engagement and community involvement, are crucial for achieving equitable project performance (Visser, 2018).

Nigeria, the most populous country in Africa, faces unique leadership and project performance challenges. Studies by Amaeshi, Adegbite, and Amao (2018) emphasize the importance of leadership practices in addressing issues related to corruption and governance in Nigerian construction projects. Effective leadership practices are essential in managing projects successfully and ensuring transparency and accountability in a country where project performance can be hindered by corruption and bureaucratic hurdles (Amaeshi et al., 2018). Leadership practices in Nigeria are also critical in the energy sector, where the development of oil and gas projects is central to the nation's economy. Leaders play a significant role in navigating complex

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regulatory and environmental challenges, making leadership practices crucial for sustainable project performance (Olaniyan, 2018).

In Kenya, effective leadership practices are instrumental in ensuring the successful execution of water projects, a sector of paramount importance for public health, agriculture, and environmental sustainability. Leadership in the context of Kenyan water projects involves a multifaceted approach, where leadership practices extend to areas such as stakeholder engagement, resource management, and project sustainability (Mwangi & Karanja, 2018). Leadership practices are pivotal in managing the challenges that often plague water projects, including resource scarcity, environmental concerns, and the need for equitable distribution of water services (Achoki & Mumma, 2019). Kenyan leaders in the water sector emphasize inclusive management practices, engaging with various stakeholders, including local communities, government authorities, and non-governmental organizations to ensure that project objectives align with the needs and expectations of these diverse groups (Karani, 2013).

The influence of leadership practices on water project performance in Kenya is profound. Leadership practices that promote transparency, accountability, and effective stakeholder engagement are essential in addressing corruption and bureaucracy-related issues that can hinder project success (Amaeshi, Adegbite, & Amao, 2018). Effective leadership practices also play a critical role in addressing technical and operational challenges in the Kenyan water sector, such as optimizing resource use, ensuring water quality, and maintaining infrastructure integrity (Mwangi & Karanja, 2018). Furthermore, leadership practices in Kenya support the sustainable development of water projects, balancing economic, social, and environmental objectives in line with the nation's broader development goals (Achoki & Mumma, 2019).

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1.1.1 Leadership Practices in Project Management

Leadership practices are a multifaceted concept with various definitions by eminent scholars in the field. Northouse (2018) defines leadership practices as the behaviors and actions that leaders employ to influence their team members or followers to achieve common goals. In his view, leadership practices encompass the actions and strategies employed by leaders to direct their teams toward shared objectives. Yukl (2013) characterizes leadership practices as the process of influencing and guiding the activities of an individual or a group to accomplish specific goals. This definition highlights the dynamic process of leadership and its role in goal attainment. Avolio and Bass (2014) emphasize that leadership practices encompass the set of behaviors that leaders display to motivate, guide, and influence their teams toward achieving organizational objectives. They stress the critical link between leader behaviors and organizational success, emphasizing the importance of leadership practices in the achievement of goals.

Leadership practices hold immense significance in the realm of organizations and project management. These practices are central to improving performance, enhancing team cohesion, and achieving set objectives (Kiarie, 2017). Effective leadership practices promote accountability, provide guidance, and offer motivation, ultimately enhancing organizational effectiveness and project outcomes. Furthermore, leadership practices contribute to fostering a positive workplace culture, attracting and retaining top talent, and facilitating change management, making them indispensable for overall success. In the context of projects, leadership practices take on heightened importance, and this significance is especially evident in water projects. Effective leadership practices directly impact project performance in terms of resource allocation, project planning, and stakeholder engagement (Demirkesen & Ozorhon, 2017). In water

projects, where public welfare is at stake, strong leadership practices are critical for preventing delays, cost overruns, and quality issues, ensuring the successful implementation of these essential initiatives (Gusha, 2022). Effective leadership can foster a sense of responsibility, alignment, and shared vision among team members, which is vital for complex and often resource-constrained projects such as water infrastructure development.

Effective communication skills are paramount in leadership practices. Leaders who communicate clearly, openly, and frequently establish a shared understanding of objectives and expectations. This fosters trust and alignment among team members, leading to increased cooperation and commitment. Communication also enables leaders to address issues proactively, reducing the potential for misunderstandings or conflicts (Yukl, 2013). Moreover, effective communication is essential in water projects, where stakeholders, regulations, and technical requirements are complex and multifaceted (Northouse, 2018). Clear communication ensures that project teams and stakeholders are informed, engaged, and working together towards a common goal. It's therefore a key indicator that this study examines in the context of water projects.

Inclusive decision-making involves involving team members in the decision-making process. This practice not only promotes collaboration but also enhances the quality of decisions. When team members are included in decisions related to water projects, their expertise and unique perspectives can lead to more effective solutions (Avolio & Bass, 2004). This is particularly crucial in the context of water projects, where the complexity of environmental, engineering, and public health considerations demands a multidisciplinary approach. Inclusivity fosters a sense of ownership and engagement among team members, which is essential for the successful execution of water projects. Conflict resolution is a vital leadership practice, especially in project management.

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Conflicts can disrupt progress and negatively impact project performance. Leaders skilled in conflict resolution techniques can address disputes promptly, allowing the team to refocus on project goals. In water projects, where stakeholder interests and complex technical requirements often intersect, conflicts can arise. Effective conflict resolution is necessary to maintain harmony and ensure project success. Furthermore, addressing conflicts constructively can prevent project delays, cost overruns, and disruptions in service delivery (Yukl, 2013).

Motivation and inspiration are essential leadership practices. Leaders who can inspire and motivate their team members often lead to increased enthusiasm and commitment to project success. They create a positive work environment where team members feel empowered and valued (Ali et al., 2021). In water projects, where the work can be challenging and may involve complex problem-solving, having a leader who motivates and inspires can make a significant difference. Water projects often face hurdles related to funding, environmental concerns, and public expectations. Leaders who motivate and inspire their teams can help them overcome these challenges and remain dedicated to the project's goals. Delegation is another vital leadership practice that impacts project management significantly. Leaders who effectively delegate tasks and responsibilities leverage the strengths and capabilities of their team members. This not only lightens the leader's workload but also promotes skill development and job satisfaction among team members. In water projects, delegation is crucial for managing various aspects of the project, such as resource allocation, engineering tasks, and community engagement. Proper delegation ensures that each aspect of the project is overseen by individuals with the relevant expertise, leading to more efficient and successful project implementation (Ali, Wang & Johnson, 2020).

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Problem-solving is a fundamental leadership practice. Effective leaders possess the ability to tackle challenges and issues proactively and creatively. In water projects, leaders who excel in problem-solving can address unforeseen obstacles and complexities efficiently. For instance, water projects may encounter issues related to infrastructure failures, public resistance, or environmental regulations. Leaders who are skilled in problem-solving can find practical solutions to these challenges, ensuring that the project stays on track and that resources are managed optimally (El Khatib et al., 2022). Team building also is an important leadership practice for creating a cohesive and productive team. Leaders who invest in team building activities and initiatives can foster collaboration and a sense of unity among team members. Effective team building can enhance communication, trust, and cooperation, ultimately leading to improved project performance and outcomes (Beauchamp et al., 2017). Providing constructive feedback and recognizing achievements are vital leadership practices. Leaders who offer feedback help team members understand their strengths and areas for improvement, fostering personal and professional growth (Lacerenza et al., 2018).

This study emphasizes the examination of communication, inclusive management, and supervisory skills as primary indicators of leadership practices in the context of water projects in Kiambu County, Kenya. These three indicators are selected based on their relevance to the specific challenges and needs of water projects in the region. Effective communication is essential for addressing complex regulatory, technical, and community engagement aspects of water projects. Inclusive management promotes engagement and ownership among team members and stakeholders, ensuring that diverse perspectives are considered in decision-making processes. Supervisory skills are vital for managing project teams, resources, and quality control, which are crucial in the implementation of water projects. By focusing on these three indicators, this

study aims to address the unique challenges and opportunities within the context of Kiambu County Water Projects.

1.1.2 Performance of Water Projects

Project performance is a multi-dimensional concept, and different scholars provide distinct definitions. According to Shenhar, Dvir, Levy, and Maltz (2021), project performance entails the successful achievement of project objectives, including time, cost, scope, and quality, while ensuring stakeholder satisfaction. The Project Management Institute (PMI) defines project performance as the degree to which a project fulfills its objectives and delivers the intended value to stakeholders (PMI, 2017). Meredith and Mantel (2012) consider project performance to encompass the efficient allocation of resources and the timely and cost-effective completion of the project. These definitions collectively emphasize the achievement of objectives, value delivery, efficient resource use, and stakeholder satisfaction as key elements of project performance.

The performance of water projects is a vital concern. Water projects serve as lifelines, providing clean and accessible water to communities. Their performance directly impacts public health, sanitation, and overall well-being. Effective water projects in this context must meet specific objectives, such as delivering clean water to communities, maintaining infrastructure integrity, and ensuring a reliable and sustainable water supply (Nguyen et al., 2019). Performance assessments for water projects encompass various factors, including infrastructure reliability, water quality, service continuity, and community satisfaction. The assessment of project performance, particularly water projects, is of paramount importance for several reasons. First, it serves as a measure of accountability and transparency, which is crucial when public welfare is at stake. Second, it provides a basis for continuous improvement, enabling

adjustments to be made to maximize project effectiveness. Third, performance assessments offer stakeholders the opportunity to gauge the extent to which project objectives are being met. In the context of water projects, such assessments help identify whether clean and accessible water is being delivered to communities efficiently and sustainably (Attri & Dev, 2019).

Project performance can be evaluated through a variety of indicators that help in assessing different dimensions of a project's success. In the context of water projects, such indicators are crucial for ensuring the delivery of clean and accessible water to communities, which has a direct impact on public health and well-being (Arcipowski et al., 2017). Completion time is a fundamental indicator, as it measures the time taken to finalize the project. Timely completion is essential to ensure that the community receives clean water without undue delays, reducing potential health risks and additional costs (Zwikael & Smyrk, 2012). Budget adherence is another key factor, ensuring that the project stays within its allocated budget. Adhering to the budget reflects financial responsibility and accountability, essential for the sustainability of water projects (Harrison & Lock, 2014). Scope fulfillment indicates the achievement of the project's defined scope and objectives. In the case of water projects, this means delivering clean water efficiently and sustainably to the targeted communities, reflecting alignment with essential needs (PMBOK, 2017).

Quality of deliverables measures the extent to which the project meets specified quality standards. High-quality deliverables are vital for water projects to ensure the provision of safe and clean water to the community (PMBOK, 2017). Stakeholder Satisfaction is critical, as it reflects the community's contentment with the project's outcomes. High stakeholder satisfaction indicates that the project aligns with their needs and expectations and is delivering the intended value (Bryde et al., 2013). Resource

utilization emphasizes efficient allocation and management of project resources, which is crucial for the long-term sustainability of water projects. Effective resource utilization minimizes waste and maximizes value delivered (Humpreys, 2018).

Infrastructure reliability is fundamental for maintaining the integrity of the water supply. Reliable infrastructure ensures that the community has consistent access to clean water and minimizes disruptions (UNDP, 2017). Health and safety compliance ensures that the project adheres to health and safety standards, which are especially important for water projects to protect public health (UNICEF, 2017). Sustainability assessments are vital to determine the long-term sustainability of project outcomes. Evaluating the economic, social, and environmental aspects of the project is crucial for ensuring that benefits endure over time. These indicators collectively provide a comprehensive framework for assessing the performance of water projects, encompassing not only the efficient and timely delivery of clean water but also the sustainability, quality, and community satisfaction aspects.

This study primarily focused on the following six key indicators of project performance for water projects in Kiambu County, Kenya: Completion time, budget adherence, stakeholder satisfaction, resource utilization, infrastructure reliability and sustainability. These indicators have been selected based on their significance in the context of water projects, with a focus on delivering clean and accessible water to communities in a cost-effective, efficient, and sustainable manner while maintaining stakeholder satisfaction and reliability (Attri & Dev, 2019).

1.1.3 Water Project in Kiambu County, Kenya

Devolution, introduced in Kenya by the 2010 Constitution, signifies the decentralization of political and administrative power to 47 counties. This transformative shift has significant implications for Kiambu County, located in the

central region of Kenya. Devolution aims to enhance local governance, foster community participation, and address regional disparities. In Kiambu County, devolution has led to the creation of the County Government, which is responsible for planning and implementing essential services, including water projects. This allows for local decision-making and tailoring development initiatives to meet the specific needs and aspirations of Kiambu's diverse population. Kiambu County Government has been actively involved in a multitude of development projects. These projects encompass a broad spectrum of sectors, including health, infrastructure, education, and water supply. The number of projects undertaken reflects the County Government's commitment to improving the living conditions of its residents. These initiatives include the construction and maintenance of various water supply projects aimed at providing clean and accessible water to communities within the county (Kiambu County Government, 2021).

Kiambu County Government has made considerable efforts to address water supply challenges in the region. By 2022, the government had undertaken 15 water projects designed to enhance access to clean and safe water (Appendix IV). These water projects range from the construction of water treatment facilities to the installation of distribution networks. The aim is to ensure that communities across Kiambu County have reliable access to clean water, contributing to improved public health and sanitation (Kiambu County Government, 2023). However, the completion and ongoing water projects in Kiambu County have encountered various performance challenges. These include issues related to funding constraints, which have affected project implementation and maintenance (World Bank, 2019). Additionally, challenges like resource management, infrastructure reliability, and water quality have been observed. Climate change impacts, such as droughts, also continue to strain water resources in the

region. Furthermore, community participation and stakeholder satisfaction are essential, but shortcomings in these areas have affected the overall performance of water projects (UNDP, 2020).

1.2 Statement of the Problem

The Kiambu County Government has demonstrated a remarkable dedication to mitigating water supply challenges within the region. As of 2022, they have launched a significant number of water projects, spanning a diverse range of interventions, encompassing everything from the construction of water treatment facilities to the expansion of distribution networks. The primary objective of these endeavors is to ensure that communities throughout Kiambu County consistently have access to clean and safe water, a fundamental cornerstone for advancing public health and sanitation (Kiambu County Government, 2023). Despite the substantial investments and strenuous efforts that the Kiambu County Government has channeled into improving water supply, water projects in the region have encountered a host of pressing performance challenges. Among these, funding constraints have emerged as a predominant issue, profoundly affecting project execution and maintenance (World Bank, 2019). Furthermore, difficulties in managing resources, ensuring infrastructure reliability, and maintaining water quality have been conspicuously observed. The adverse impacts of climate change, particularly recurring droughts, continue to exert significant pressure on water resources within the region, potentially compromising the reliability of water supply. Additionally, the significance of community participation and stakeholder satisfaction in achieving project success cannot be overstated; nevertheless, deficiencies in these aspects have undeniably impeded the overall performance of water projects (UNDP, 2020).

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Kiambu County has embarked on numerous water projects, with the majority of them having been successfully completed. These projects, such as the Riabai Kihingo water project, Kiambu Municipality water project, Rockline water project, Indian Bazaar water project, among others, were executed between 2013 and 2021. They have made substantial contributions to the enhancement of water supply and distribution throughout the county, effectively addressing the prevalent water access challenges (Kiambu County, 2023). However, challenges and issues persist, with the Kanunga water project remaining incomplete. Furthermore, the ongoing Kiambu - Ruaka sewerage project reflects the county's unwavering commitment to further enhance water-related infrastructure and services. This underscores the critical importance of evaluating leadership practices to ensure the success and long-term sustainability of these essential projects.

This study also seeks to address gaps in existing literature on leadership practices and project performance. For example, Jones and Smith's (2018) study found that transformational leadership significantly enhances project success, fostering innovation and team collaboration in multinational corporations. Brown et al. (2016) showed that servant leadership improves teamwork, communication, and overall project performance in large-scale construction projects across countries. Additionally, Smith and Johnson (2017) revealed that ethical leadership positively impacts employee morale and commitment, leading to better project outcomes in the technology industry. Nkosi and Muthwa's (2017) research in South Africa highlighted the positive influence of transactional leadership on project delivery and budget adherence through performance monitoring and rewards. Toure and Kamara's (2015) study in West Africa demonstrated that transformational leadership correlates with increased stakeholder satisfaction and improved project performance in infrastructure development projects.

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While the existing studies both internationally and regionally have contributed significantly to our understanding of leadership practices and their effect on project performance, there are notable conceptual, contextual, and methodological gaps that the current study aims to address. These gaps include the need for a more comprehensive examination of leadership practices in the specific context of water projects in Kiambu County, Kenya, and the associated performance challenges. This study strived to fill these gaps by providing a detailed and context-specific analysis to enhance knowledge in this crucial area.

1.3 Research Objective

1.3.1 Purpose of the Study

The general aim of this study is to assess the influence of leadership practices on project performance. A case of Kiambu County Water Projects.

1.3.2 Research objectives

The study was guided by the following specific research objectives;

i. To assess the influence of communication on performance of water projects in Kiambu County, Kenya.
ii. To examine the influence of inclusive management on performance of water projects in Kiambu County, Kenya.
iii. To assess the influence of supervisory skills on performance of water projects in Kiambu County, Kenya.

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1.4 Research Questions

This study saught to answer the following questions:

i. What is the influence of communication on performance of water projects in Kiambu County, Kenya.
ii. How does inclusive management influence performance of water projects in Kiambu County, Kenya.
iii. To what extent does supervisory skills influence performance of water projects in Kiambu County, Kenya?

1.5 Significance of the Study

The study's findings may have a broad range of beneficiaries, including government institutions, project managers, communities, researchers, policy makers, donors, and organizations focused on environmental and public health. The insights gained from this study may contribute to more effective and efficient water project implementation in Kiambu County and may serve as a model for similar regions facing water supply challenges. The findings of this study may provide valuable insights for the Kiambu County Government. It may help them understand the factors affecting the performance of water projects and guide them in making informed decisions to improve project outcomes. This includes optimizing resource allocation, enhancing leadership practices, and addressing performance challenges. Additionally, those responsible for managing and implementing water projects within Kiambu County may gain a deeper understanding of how leadership practices influence project performance. This knowledge can be applied to enhance project planning, execution, and management, ultimately leading to more successful outcomes.

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The study's results may have a direct impact on the communities in Kiambu County. Improved project performance means better access to clean and safe water, which is essential for public health and sanitation. Communities may benefit from more reliable and efficient water supply services. Policy makers at the county and national levels, as well as development agencies, can also use the findings to shape policies and strategies for more effective project implementation. The study's insights can inform the design of future water projects and related infrastructure. Entities providing financial support for water projects in Kiambu County may also benefit from understanding the factors that affect project performance. This knowledge can guide their funding decisions and ensure that investments lead to successful project outcomes.

Finally, for researchers and academics, this study may contribute to the existing body of knowledge on leadership practices and project performance. Researchers and academics in the field of project management, leadership, and development may find this study valuable for future research and teaching.

1.6 Scope of the Study

This study's primary objective is to investigate the impact of leadership practices on the performance of water projects in Kiambu County, Kenya. To achieve this, three specific objectives have been outlined: firstly, to evaluate the role of communication in shaping the performance of water projects; secondly, to explore the impact of inclusive management practices on project performance; and thirdly, to analyze how supervisory skills influence the performance of water projects in the region. The research design selected for this study is descriptive, focusing on providing a comprehensive understanding of these key factors. The target population comprises 75 project managers engaged in 15 water projects in Kiambu County. Data was collected

primarily through semi-structured questionnaires. Subsequently, various statistical measures, such as frequencies, percentages, means, standard deviation, correlation analysis, and regression analysis, was employed to draw meaningful insights regarding the relationship between leadership practices and project performance.

1.7 Limitations and Delimitations of the Study

1.7.1 Limitations

The following limitations needed to be considered when interpreting the study's results and conclusions: First, there is a potential for sampling bias, as the sample may not fully represent the diverse range of water projects in Kiambu County. Data collection may also be challenging, as project managers and implementers' availability and willingness to participate may vary. Moreover, findings might have limited generalizability beyond Kiambu County due to regional influences. Finally, time and resource constraints could limit the study's depth and long-term analysis of leadership practices on project performance.

1.7.2 Delimitations

The following delimitations are made to provide a clear and focused study with certain areas and contexts intentionally left unexamined:

First, it confines its geographical focus to Kiambu County, Kenya, excluding other regions. Second, it narrows its scope to water projects, excluding other types of development projects. Third, it concentrates on both ongoing and completed projects, excluding those in earlier planning phases. Finally, it predominantly employs quantitative and qualitative research methods.

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1.8 Assumptions of the Study

The following assumptions were made while carrying out this research:

The study assumes that the selected project managers and implementers are a true representative of the population of professionals engaged in water projects in Kiambu County. This assumption is fundamental to draw conclusions that apply to the broader population.

The study also assumes that the respondents were receptive and honest in their responses. This assumption is crucial for obtaining accurate and reliable data, which is essential for reaching well-informed conclusions about leadership practices and project performance.

Moreover, this study presumes that the chosen data collection instrument, in this case, semi-structured questionnaires, is adequate and provided the necessary information. This assumption ensures that the research instrument effectively captures the data needed to address the research objectives.

Finally, this assumes that the inclusion criterion for the sample is adequate. This means that all selected subjects have had similar experiences with the phenomenon under investigation, which is essential for comparing and analyzing their responses accurately.

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1.9. Operational Definition of Key Terms

Communication: refers to the ability of leaders to effectively convey information, expectations, and objectives to project stakeholders, both within the project team and external parties.

Inclusive Management: Inclusive management, within the scope of this study, refers to the leadership practice of actively involving diverse stakeholders, including project team members, government bodies, local communities, and other relevant parties, in the decision-making process of water projects.

Infrastructure Reliability: refers to the ability of water project infrastructure to consistently deliver safe and clean water to the communities.

Leadership Practices: refers to a range of competencies exhibited by leaders in the context of water projects including effective communication, inclusive management, and strong supervisory skills.

Project Performance: In the context of this study, project performance refers to the overall success of water projects in Kiambu County. It encompasses indicators such as completion time, budget adherence, stakeholder satisfaction, resource utilization, infrastructure reliability, and sustainability.

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Resource Utilization: refers to the effective and efficient allocation and management of resources, including financial, human, and material resources, in water projects.

Supervisory Skills: denote the ability of leaders to provide guidance, motivation, and monitoring to project team members.

Sustainability: refers to the capacity of the projects to meet the current needs for clean water supply while also considering ecological and environmental standards.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The literature review chapter of this study delves into existing theoretical and empirical research concerning the influence of leadership practices on project performance in the context of Kiambu County Water Projects. This chapter commences by exploring prevalent theories and models that connect leadership practices, information systems, and their impact on project performance. It then proceeds to a comprehensive examination of the core variables, including communication, inclusive management, and supervisory skills, that underpin leadership practices in the empirical context of water projects. Each variable is scrutinized in detail through an empirical literature review. The chapter culminates with a synthesis of findings from the empirical review and identifies pertinent research gaps relevant to the research challenge. Additionally, the chapter encapsulates the study's conceptual framework, providing a structured foundation for the subsequent research investigation.

2.1 Theoretical Literature Review

The theoretical context explains and presents the theory or hypotheses that explain why the research issue under investigation occurs. The theories adopted in the study are social exchange theory, social identity theory and transformational leadership theory.

2.2.1 Social Exchange Theory

The Social Exchange Theory is primarily associated with the works of Homans (1958) and Blau (1964). It posits that social behavior is the result of a rational calculation in which individuals weigh the costs and benefits of their actions. In essence, it suggests that people engage in social interactions with the expectation that their actions will lead

to favorable outcomes. Within this framework, individuals are motivated by self-interest and seek to maximize rewards while minimizing costs in their interactions with others. These interactions, guided by reciprocity and exchange, form the basis of social relationships.

The social exchange theory has found application in various fields, including sociology, psychology, organizational behavior, and communication. In sociology, it is used to analyze interpersonal relationships, economic exchanges, and power dynamics. In psychology, it helps explain human interactions, friendships, and the development of social bonds (Deutsch, 2015). In the context of organizational behavior, it is used to understand employee-employer relationships, teamwork, and decision-making processes (Molm, 2010). Additionally, it is relevant in communication studies, where it aids in comprehending how individuals engage in information exchange and why they choose to communicate in specific ways (Van Lange et al., 2013).

Opponents of the social exchange theory argue that it oversimplifies human behavior by reducing it to a mere cost-benefit analysis (Cook & Rice, 2003). They contend that it neglects the role of emotions, values, and moral considerations in shaping social interactions (Foa & Foa, 2012). Critics also question its applicability to more complex, long-term relationships where the outcomes may not be immediately quantifiable (Rusbult et al., 2005). Supporters, on the other hand, assert that the theory provides a valuable framework for understanding the basis of social relationships and interactions. They argue that even in complex relationships, individuals still engage in implicit cost-benefit assessments to determine their level of investment and involvement.

In the context of the current study on leadership practices and project performance, the social exchange theory has direct relevance to the communication variable. This theory helps us understand that individuals engaged in water projects may evaluate their

communication efforts in terms of perceived costs and benefits. Effective communication, which minimizes the costs (e.g., misunderstandings, conflict) and maximizes the benefits (e.g., trust, cooperation), can lead to positive social exchanges. In practical terms, this means that when communication is perceived as efficient, transparent, and conducive to positive exchanges, it is more likely to foster trust, cooperation, and collaboration among project team members and external stakeholders (Cropanzano & Mitchell, 2005; Meyer et al., 2006).

2.2.2 Social Identity Theory

Social identity theory, developed by Tajfel and Turner (1979), is a key framework in social psychology. The theory posits that individuals categorize themselves into various social groups based on shared characteristics. These group memberships are central to one's self-concept and identity. Social identity theory suggests that people strive to maintain a positive social identity, which often involves favoring their in-group over out-groups. This bias in favor of the in-group can lead to intergroup conflicts and discrimination. The theory has found applications in a wide range of fields. In social psychology, it has been used to understand prejudice, discrimination, and conflict between groups. In organizational psychology, the theory has been employed to explore issues related to group dynamics, leadership, and workplace behavior. It has also been applied in the study of political behavior and intergroup relations, shedding light on topics like nationalism and political polarization. Moreover, the theory has practical applications in marketing and advertising, helping to understand how people identify with brands and consumer groups (Hornsey, 2008).

Critics have argued that social identity theory may oversimplify complex human behaviors by focusing primarily on group identities, potentially neglecting individual differences and the role of personality. However, proponents of the theory contend that

it provides valuable insights into the ways in which social groups influence human behavior and intergroup dynamics. The theory's explanatory power in understanding prejudice, discrimination, and intergroup conflict, as well as its applications in various fields, underscores its relevance and importance in social psychology (Tajfel & Turner, 1979).

In the context of the current study, social identity theory offers a relevant perspective on inclusive management. Inclusive management practices involve integrating diverse perspectives and skills in decision-making processes. The theory's emphasis on group identities and the impact of these identities on individual behavior can be applied to how leaders manage diverse project teams. Effective inclusive management, in line with social identity theory, involves recognizing and valuing the various social identities and group memberships of team members. By promoting a shared and positive social identity within project teams, leaders can foster a sense of belonging, trust, and collaboration, ultimately contributing to improved project performance. Understanding how inclusive management aligns with social identity theory can enhance leadership strategies in the specific context of water projects (Ellemers et al., 1999).

2.2.3 Transformational Leadership Theory

The transformational leadership theory, initially introduced by James MacGregor Burns in the late 20th century, is one of the most widely recognized leadership theories. This theory revolves around the idea that effective leaders can inspire and motivate their followers to achieve extraordinary outcomes and transcend their own self-interest. Transformational leaders exhibit four key behaviors: individualized consideration (concern for individual needs), inspirational motivation (providing a compelling vision), intellectual stimulation (encouraging creativity and innovation), and idealized

influence (setting a strong example). The theory suggests that such leaders can create a sense of trust, admiration, loyalty, and motivation among their followers (Bass & Riggio, 2006; Northouse, 2018).

The transformational leadership theory has been widely applied in various fields, including business, education, healthcare, and government. In the business world, transformational leaders can enhance employee motivation, job satisfaction, and overall performance, leading to increased productivity and innovation (Bass & Riggio, 2006). In education, these leaders can inspire students and educators to excel academically and foster a culture of continuous learning and growth. The theory's applications extend to healthcare, where transformational leaders can improve patient care quality and safety. Moreover, governments have used transformational leadership to enhance public administration and policy development (Bass & Riggio, 2006).

The theory has received considerable support over the years. Research has demonstrated that transformational leadership behaviors positively influence follower outcomes, including performance, satisfaction, and commitment. The theory's emphasis on inspiring and motivating followers aligns with the principles of effective leadership and is widely accepted. However, some criticisms have been raised. Detractors argue that transformational leadership lacks a clear definition and that it's difficult to measure. Additionally, some suggest that the theory might not be universally applicable and that certain situations or cultures may require different leadership approaches (Eisenbeiss et al., 2008).

In the context of the current study focusing on water projects in Kiambu County, the transformational leadership theory is highly relevant, especially in understanding the supervisory skills variable. Effective supervisory skills require leaders to inspire, motivate, and provide individualized support to team members, which aligns with the

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key components of transformational leadership (Bass & Riggio, 2006). For example, supervisors who exhibit transformational leadership behaviors can inspire their teams to excel, encourage innovative problem-solving, and provide personalized guidance, which are crucial for achieving project objectives. This theory provides a robust framework for examining how supervisory skills influence the performance of water projects in the region.

2.2 Theoretical Framework

This study is anchored on the following theories demonstrated in figure 1.

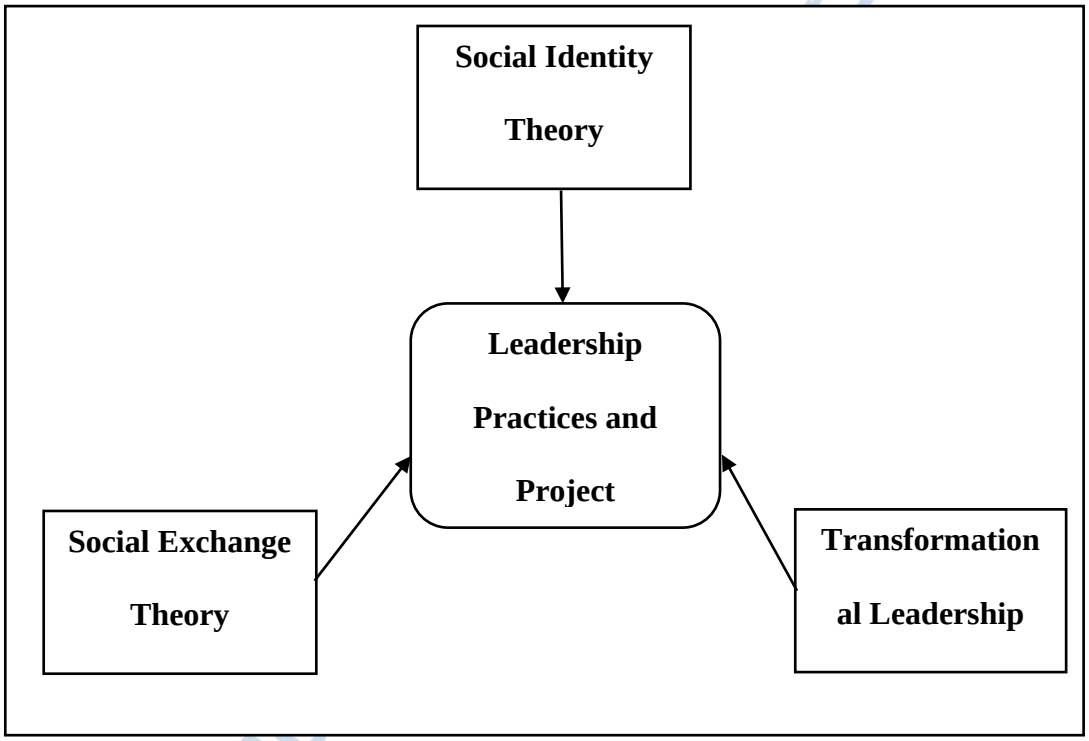

Figure 1: Theoretical Framework

Source: Researcher (2024)

2.3 Empirical Literature

2.3.1 Communication and Project Performance

Ssenyange et al., (2017) aimed to investigate the relationship between project communication and project performance in Public Universities in Uganda. It utilized a cross-sectional survey design to gather in-depth insights into this relationship. Quantitative data was collected and analyzed, and the key findings revealed a positive and statistically significant relationship between project communication and project performance. This implies that as communication improves, project performance also improves. The study suggests that proper project communication, which clarifies project tasks and involves stakeholders effectively, is crucial for enhancing project performance in the context of higher education institutions in Uganda.

Nyandongo and Davids (2020) delved into the critical role of communication in project management, acknowledging its significance in project success or failure. The research explored the impact of communication on project performance by assessing the tools and techniques required for effective communication management. The study employed a quantitative research approach, distributing a questionnaire to professionals engaged in project management. The findings of the study underscore the pivotal role of communication in project management. Effective communication emerged as a critical success factor, with a strong positive correlation between proficient communication and project performance. Professionals in project management highlighted the importance of using appropriate tools and techniques for communication, emphasizing that the quality of communication significantly influenced project outcomes.

Yakubu, Ogunsanmi and Yakubu (2019) aimed to assess communication issues in construction projects, particularly from the perspective of construction contractors. It

employed a large quantitative approach, using questionnaires to gather information on respondents' perceptions regarding the study's objectives. The key findings of the study indicate a strong positive correlation between ineffective communication and poor project performance. To address these issues, the study recommends the adoption of face-to-face communication as a means to expedite problem resolution in construction projects.

Chen (2021) examined the impact of communication on capital project performance, with a specific focus on its implications for environmental and economic sustainability. Through a longitudinal survey and structural-equation modeling, the study investigated how project competencies and team innovative behavior mediated and moderated the relationship between project communication and performance. The research involved 108 capital projects and revealed that project technical and managerial competencies acted as complete mediators between project communication and performance. Additionally, team innovative behavior influenced performance through the mediating role of project technical competence and moderated the relationship between project technical competence and performance. Notably, project communication, despite having a small direct effect, exerted the most substantial influence on project performance, followed by project managerial competence.

2.3.2 Inclusive Management and Project Performance

Rehman (2020) aimed to investigate project success through inclusive leadership and self-efficacy. Data were collected via questionnaires from employees, supervisors, and passengers of the metro bus project in Rawalpindi to Islamabad, Pakistan. It followed a causal, time-lag data collection approach and employed controls to mitigate biases. Exploratory factor analysis and Smart PLS were used for structural modeling. The findings showed a positive association between inclusive leadership and project

success. The mediating role of self-efficacy was also supported. The study discussed theoretical and practical implications within its context.

Di Maddaloni and Davis (2017) organized and synthesized various research streams through a systematic literature review to identify connections and major assumptions on the influence of stakeholders in major Public Infrastructure and Construction projects (PIC) at the local community level. The findings indicated that previous research on stakeholder management had predominantly focused on stakeholders with control over project resources, with limited exploration of the impact on secondary stakeholders, including the local community. The study suggested that obtaining local community input during the project's initiation phase and monitoring megaproject impacts at the local level could have improved project performance.

Bostan and Saleem (2022) collected from various project-based construction firms using 200 questionnaires to investigate the moderating effect of stakeholder relationships on the relationship between inclusive leadership and project success. Online questionnaires were used to measure the impact of inclusive leadership on project success, and the data was analyzed through correlation and regression analysis. The findings supported the hypothesis, indicating that project managers' inclusive leadership had a positive influence on project success. Additionally, the study highlighted that inclusive leadership, when combined with effective internal and external stakeholder management, contributed to project success. The practical implication suggested that project managers should exhibit inclusiveness in their leadership while efficiently managing both internal and external stakeholders to enhance project success.

Muhammad et al., (2021) aimed to determine the impact of inclusive leadership on project success, with a mediating role played by psychological empowerment and

psychological resilience capacity. Data was collected from 276 Public Sector Development Programs (PSDP) in Khyber Pakhtunkhwa, and structural equation modeling was applied using SmartPLS 3.3.2 and R-studio. Robustness tests, including curvilinear relationship, Gaussian copula endogeneity test, and response-based unit segmentation (REBUS) for homogeneity, were conducted. The findings indicated that both psychological empowerment and psychological resilience capacity significantly mediated the relationship between inclusive leadership and project success. Moreover, the study revealed complementary partial mediation in these relationships.

2.3.3 Supervisory Skills and Project Performance

Manoharan (2023) aimed to identify the critical supervisory competencies that affect the effectiveness of construction project operations in developing countries. The research employed a multi-faceted approach, beginning with a qualitative identification of these competencies through an extensive literature review and expert interviews, utilizing thematic analysis methods. Subsequently, a questionnaire survey involving 154 construction project firms was conducted to quantify the impacts of these competencies on project task effectiveness, using the relative importance index approach. Industry-consultative meetings were also held, employing problem-focused communication strategies to analyze necessary actions. The study identified a total of 22 cognitive elements and 24 skills/abilities of supervisors as critical, based on their impact values. Notably, site supervisors' cognitive domains in construction planning and construction materials were recognized as the top-ranking competencies, followed by their manual skills/abilities in labor management and labor performance evaluation.

Hong et al., (2021) addressed challenges in Malaysia's construction sector related to inadequate construction site supervision. Concerns included accidents and insufficient knowledge among newly graduated site supervisors. Using a quantitative approach, 70

site supervisors in Johor participated in a survey. Findings highlighted major issues: project delays, time management, and teamwork. Strategies to enhance supervision skills, aiming to improve construction performance, were proposed. The study revealed positive correlations between these strategies and supervision skills, offering potential for the professional growth of site supervisors.

Nduka et al., (2018) examined the critical role of effective site supervision in ensuring the successful delivery of construction projects. Site supervisors are responsible for coordinating and overseeing various aspects of day-to-day tasks in construction. This cross-sectional study involved surveying built environment professionals using structured questionnaires. The data collected was analyzed through both descriptive and inferential statistics, particularly the Kruskal Wallis test. The findings emphasized the substantial effect of site supervision on project completion time and quality, providing valuable insights for selecting competent personnel in construction projects.

Chih et al., (2017) explored the effect of supervisor-worker relationships on construction workers' psychological well-being and job performance. Using a time-lagged research design, data were gathered from the construction industry in the Philippines. The results highlighted that strong, positive working relationships between supervisors and workers correlated with improved worker emotions, greater job embeddedness, and superior in-role and extra-role job performance. Consequently, the study recommended organizations provide supervisors with training and resources to nurture such high-quality relationships, enhancing overall construction worker performance. This research contributed valuable empirical evidence to the construction literature, shedding light on the impact of worker-supervisor relationships on construction employees' performance and well-being from a social-psychological perspective.

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2.4 Research Gaps

Ssenyange et al. (2017) concentrated on the relationship between project communication and project performance within Ugandan public universities. In contrast, the present study is based in Kiambu County, Kenya, and examines the influence of leadership practices on water project performance. The current study encompasses multiple facets of leadership practices, including communication, inclusive management, and supervisory skills. These differing foci and contexts lead to variations in research methodologies and objectives. The study by Nyandongo and Davids (2020) focused on the conceptual understanding of communication's significance in project management, specifically how it impacts project performance. It examined the contextual setting of professionals engaged in project management, aiming to contextualize the relationship between communication and project success. The research method employed was quantitative, relying on a questionnaire distributed to project management professionals. In contrast, the current study aims to explore the conceptual framework of leadership practices and their influence on project performance in the context of water projects in Kiambu County, Kenya. It addresses the contextual aspects of project management within this specific region, targeting project managers and implementers.

Yakubu et al., (2019) focused on communication issues within construction projects, whereas the present study examines the influence of leadership practices on water projects in Kiambu County, Kenya. Furthermore, the study lacks a leadership perspective, whereas the current research explicitly investigates leadership, inclusive management, and supervisory skills, representing a notable conceptual gap. Contextually, the absence of specific industry and location in the study by Yakubu et al., (2019) adds to the divergence, as the current study centers on water projects in

Kiambu County. This geographic and sectoral variation introduces contextual differences that may affect findings' applicability. The stakeholder perspective differs as well; while the existing study considered construction contractors, the current research broadens its scope to include managers and implementers in water projects, potentially leading to varied conclusions. Methodologically, the study by Yakubu et al., (2019) adopted a large-scale quantitative approach with questionnaires, whereas the current study's multifaceted objectives suggest a more comprehensive examination of leadership's effect using mixed methodologies.

Conceptual gaps between the study by Chen (2021) and the current study are evident, stemming from differing research foci and variables studied. The previous study delved into communication in capital projects, while the current one explores leadership in water projects. Contextual disparities arise from industry and location variances, as Chen (2021) lacks specificity while the current research centers on Kiambu County's water projects. Additionally, the stakeholder perspective diverges, with Chen (2021) study likely encompassing diverse stakeholders and the current one narrowing its scope to project managers. Methodological differences encompass research design, sample size, and data collection techniques. These gaps emphasize the distinct contributions and challenges within each study's specific context.

Rehman (2020) and the current study exhibit significant conceptual, contextual, and methodological gaps. Conceptually, they diverge in research focus and variables examined. Rehman investigated project success through inclusive leadership and self-efficacy, while the current research explores the impact of leadership practices in different industries and locations. Methodologically, the two studies differ in research design, sample size, and data collection methods. Rehman (2020) employed a time-lag causal approach with adopted questionnaires, while the current study opts for a

descriptive research design, utilizing semi-structured questionnaires in a census survey approach with a smaller target population. In summary, several research gaps are evident in the comparison of these studies. Conceptual gaps arise from differences in research focus, variables examined, and industry contexts. Contextual gaps result from variations in location and stakeholder perspective. Methodological gaps are seen in the choice of research design, sample size, and data collection methods. These gaps highlight the distinct contributions, contexts, and methodologies of each study, making direct comparisons challenging.

2.5 Summary of Literature Reviewed

The current study explores the influence of leadership practices on water project performance in Kiambu County, Kenya, guided by social exchange theory, social identity theory, and transformational leadership theory. Social exchange theory reveals that efficient communication can lead to positive social exchanges within water projects, fostering trust, cooperation, and collaboration. Social identity theory applies to inclusive management by recognizing and valuing team members' diverse social identities, enhancing trust and collaboration. Transformational leadership theory is relevant for supervisory skills, emphasizing inspiration, motivation, and personalized support to excel in water project management. These theories provide robust frameworks for understanding the study's specific context and objectives.

This chapter also delved into the empirical literature from a global, regional, and local context, aiming to elucidate the intricate relationships between leadership practices and project performance within the unique setting of Kiambu County, Kenya. By conducting an empirical review of relevant scholarly works, this study seeks to uncover how diverse leadership practices have been applied in various real-world situations. In doing so, it identifies existing knowledge gaps and shed light on the

practical implications of current research. Additionally, this study incorporates a theoretical review, whereby explored are the theoretical foundations that underpin the study including social exchange theory, social identity theory, and transformational leadership theory.

2.6 Conceptual Framework

A conceptual framework serves as an interconnected system of concepts, contributing to a holistic comprehension of the researched phenomenon (Ravitch & Riggan, 2012). It comprises a broad spectrum of principles and concepts drawn from relevant research areas, guiding the structure of subsequent investigations. The study's conceptual framework emerges from a comprehensive review of variables found in the literature of previous studies. The study's independent variables encompass leadership practices, specifically communication, inclusive management, and supervisory skills, while the dependent variable is the performance of water projects within Kiambu County. The operationalization of these variables is detailed in Figure 2.

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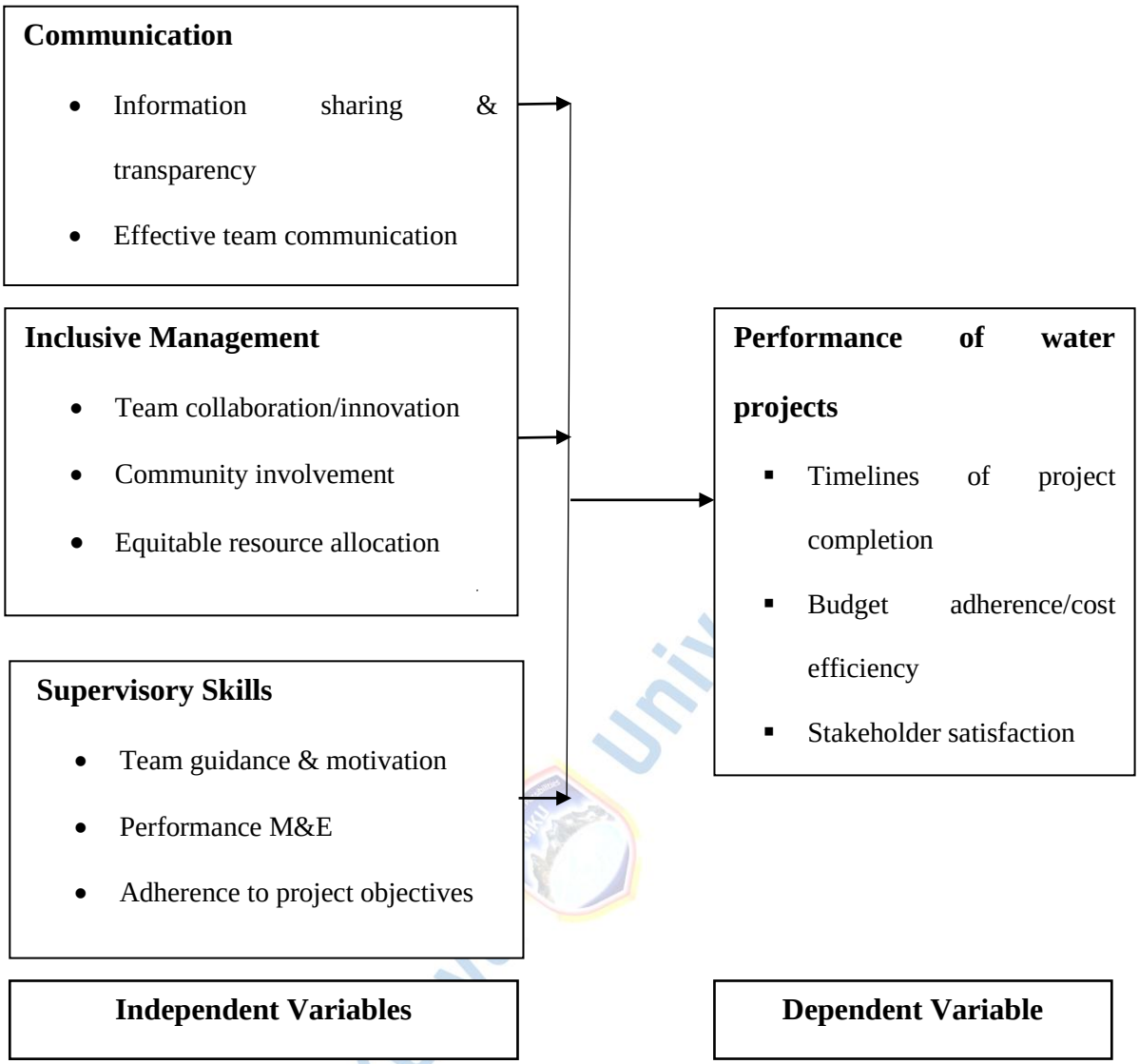

Figure 2: Conceptual Framework

Source: Researcher (2024)

The arguments discussed in the empirical review section serve as the foundation for the conceptual model presented in Figure 2. This model is constructed based on the research objectives outlined in this study. It provides a clear representation of the study's independent variables and their hypothesized impact on the performance of water projects within Kiambu County, Kenya. Leadership practices, encompassing communication, inclusive management, and supervisory skills, are the independent

variables postulated to influence the dependent variable, which is the performance of water projects. The performance will be assessed using various indicators, as detailed in the research framework.

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CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter delves into the intricate details of the methodologies we intend to employ for data collection and analysis in order to effectively address our research questions. It provides a comprehensive explanation of the chosen research design, elucidate the considerations behind determining the appropriate sample size, outline the techniques for sampling, and introduce the various instruments that were used for data collection. Furthermore, the chapter delineates the step-by-step procedures that guided the data collection process. It also discusses the analytical methods and approaches that was applied to extract meaningful insights from the collected data, ensuring a robust and comprehensive research endeavor.

3.1 Research Design

A research design is a delineation of the chosen research strategy aimed at addressing the specific objectives and goals of the study, whether they are theoretical or policy-oriented (Bailey et al., 2019). In this study, a descriptive research design was employed. This design involves elucidating the constituents of a distinct entity or a set of items. The selection of this study design is well-suited to the research as it portrays the situation as it naturally exists, with the researcher having no influence over the variables (Kombo & Tromp, 2009). Employing a descriptive design facilitates obtaining comprehensive insights into the targeted group, thereby offering an opportunity to investigate the effect of leadership practices on performance of water project in Kiambu County.

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3.2 Target population

A population, according to Ngechu (2004), is a well-defined or set of individuals, elements, and events, as well as a group of items or houses that are being researched in order to generalize the results. The target population of this study comprised of 75 project managers and implementers involved in 15 water projects in Kiambu County (Appendix IV). The respondents are viewed to be in possession of sufficient and reliable information to allow for generalizations of findings of this study.

3.3 Sampling Technique and Sample Size

A sampling frame, as described by Yin (2017), represents a comprehensive roster of the entire population under research scrutiny. In this study, the sampling frame encompassed a list of 75 project managers and implementers involved in 15 water projects in Kiambu County. The are deemed eligible for potential inclusion in the sample due to their direct involvement in management of water projects. Sampling, as defined by Kombo and Tromp (2006), is the systematic approach employed by researchers to gather individuals, locations, or objects for their study. It involves the meticulous selection of a subset of individuals or items from a broader population, ensuring that this chosen group adequately represents the characteristics present in the entire population. Given the relatively small population in this study (75 project managers), which aligns with the guidance of Blumberg, Cooper, and Schindler (2014) and Israel (1967), a census survey was employed, guaranteeing comprehensive coverage of the entire population, as it is a suitable approach when the target population is fewer than 200.

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3.4 Research Instrument

Research instruments refer to the tools and techniques employed in data collection during a study. In this research, semi-structured questionnaires served as the primary data collection method. These questionnaires encompass both open-ended and close-ended questions, offering a balanced approach to gather both qualitative insights and quantitative data. As per Afolayan and Oniyinde (2019), this method allows for in-depth responses while maintaining efficiency. Questionnaires align with Dörnyei and Taguchi's (2009) perspective as they are easy to administer and analyze, saving time and enabling respondents to express their personal opinions and experiences. Likert scales structure the questionnaires to measure perceptions, values, and behaviors effectively, as suggested by Croasmun and Ostrom (2011). The questionnaires included demographic information and study-specific variables as shown in Appendix I.

3.5 Pilot Test of Research Instruments

A pilot test, as per Cooper and Schindler (2011), encompasses the examination of data collection instruments using a small sample of respondents. Its purpose is to identify errors, potential ambiguities, and assess respondents' engagement with the questions. Additionally, it validates the instruments in terms of their structure, flow, content, and reliability. Typically, a pilot test should involve 1% to 10% of the sample size (Cooper & Schindler, 2011). In this study, the data collection instruments was pre-tested on 8 respondents from 2 water projects in the neighbouring Nairobi County, amounting to 10% of the sample size, aiding in necessary instrument adjustments to minimize errors and ambiguities.

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3.6 Validity and Reliability of Research Instrument

3.6.1 Validity

As stated by Mohajan (2017), data collection instrument validity relates to the instrument's capacity to accurately measure the intended variables. It is a fundamental criterion that assesses how effectively an instrument gauges its intended constructs. In this study, content validity was employed, wherein an expert in the field affirms that a scale logically and coherently represents what it intends to measure, as elucidated by Mohajan (2017). To ensure the instruments' validity, academic supervisors was conducted thorough review to evaluate their relevance to the study's subject matter.

3.6.2 Reliability

Data collection instrument reliability, as defined by Kimberlin and Winterstein (2008), pertains to the extent to which these tools yield consistent and reproducible outcomes through repeated trials. It is rooted in the concept of obtaining equivalent results when the same study is conducted on separate occasions, utilizing a comparable study population. Therefore, a data collection instrument can be considered reliable when it consistently produces similar results over time, as outlined by Kothari (2006). In this research, Cronbach's alpha was employed as a measure of internal consistency. Internal consistency evaluates the correlations among various items within the same test, assessing whether multiple items designed to gauge a common construct yield consistent scores. In this study, a Cronbach's alpha value exceeding 0.7 was used as the reliability threshold for scales to be considered dependable.

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3.7 Data Collection Methods and Procedures

After establishment of data collection instruments' validity and reliability, was considered prepared for use. The researcher then proceeded to obtain permission from project managers to conduct the study, outlining the study's objectives and significance. This step follows proposal approval, receipt of a university-endorsed letter after instrument pre-testing and NACOSTI permit. With permission granted, the researcher scheduled questionnaire administration. A total of 75 questionnaires was distributed to the project managers to minimize disruption to their daily routines. Clear instructions were provided on questionnaire completion, and respondents will be allotted ample time to facilitate a drop-and-pick approach.

3.8 Data Analysis Techniques and Procedures

The process of data analysis entails condensing extensive datasets, organizing, restructuring, and arranging the information to create a coherent data presentation. To ensure data accuracy, the researcher initially scrutinized the dataset for any discrepancies or omissions. Subsequently, the questionnaire data was assigned codes and entered into SPSS version 29.0 for in-depth analysis. Various statistical measures were computed, including frequencies and percentages to offer insights into the data's distribution. Additionally, central tendency was assessed using means, while the spread of the variables were evaluated through standard deviation. Correlation analysis was conducted to ascertain the relationships between independent and dependent variables. Furthermore, regression analysis was be employed to assess the influence of leadership practices on project performance, utilizing a significance alpha level of 0.05. The regression model is outlined below:

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

Where;

Y = Performance of water projects

X_1 = Communication

X_2= Inclusive Management

X_3= Supervisory Skills

ε = Error term, β_0= regression constant or intercept and β_1, β_2, β_3, β_4 are the unknown parameters

The significance levels for all tests were set at a 95% confidence level with two-tailed analysis. Qualitative data was amalgamated and assessed by identifying prevalent themes and calculating frequencies. Following the analysis, the outcomes was elucidated through the utilization of tables and figures aligned with the research objectives.

3.9 Ethical Considerations

Prior to commencing data collection, the researcher diligently seeked approval from the National Commission for Science, Technology, and Innovation (NACOSTI) and acquire a letter of clearance from the academic institution. In strict adherence to ethical principles, paramount considerations including ensuring confidentiality, preserving anonymity, voluntary participation, and safeguarding the fairness of the respondents. Participants who harboured reservations about engaging in the study were not forced with coercion. It was unequivocally communicated that any information shared during the research process was held in the strictest confidence and solely employed for the designated academic purpose. These ethical safeguards are vital to uphold the integrity and credibility of the study while respecting the rights and privacy of all participants.

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CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the analysis and discussion of the data collected from the respondents regarding the influence of leadership practices on the performance of water projects in Kiambu County. The chapter begins with an overview of the response rate, followed by a detailed analysis of the socio-demographic characteristics of the respondents. The analysis will be supported by tables and figures to visualize the data. Finally, an in-depth discussion will relate the findings to the existing literature, highlighting the implications for leadership practices in project management.

4.2 Response Rate

The study achieved a response rate of 80%, with 60 out of 75 questionnaires returned. This high response rate can be attributed to the comprehensive communication strategies employed during the data collection process, ensuring that respondents were informed about the study's purpose and importance.

4.3 Socio-Demographic Characteristics

The following table summarizes the socio-demographic characteristics of the respondents.

Table 1: Socio-Demographic Characteristics of Respondents

Characteristic	Frequency (n=60)	Percentage (%)
Age		
20-30 years	10	16.7
31-40 years	20	33.3
41-50 years	15	25.0
Over 50 years	15	25.0
Gender		

Characteristic	Frequency (n=60)	Percentage (%)
Male	35	58.3
Female	25	41.7
Educational Qualification		
High School	5	8.3
Diploma	10	16.7
Bachelor's Degree	25	41.7
Master's Degree	15	25.0
Doctorate or Ph.D.	5	8.3
Years of Experience in Project Management		
Less than 2 years	10	16.7
2-5 years	20	33.3
6-10 years	15	25.0
Over 10 years	15	25.0
Type of Water Project Managed		
Water Supply	30	50.0
Water Treatment	15	25.0
Water Distribution	10	16.7
Other (Specify)	5	8.3

Source: Field Data (2024)

The socio-demographic characteristics of the respondents reveal significant insights into the composition of the sample. The age distribution indicates that a majority of respondents fall within the 31-40 years and 41-50 years categories, suggesting that the workforce managing water projects in Kiambu County is predominantly middle-aged. This demographic trend aligns with findings by Okello et al. (2018), who noted that experienced professionals tend to occupy management roles in development projects.

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In terms of gender representation, the sample is skewed towards males (58.3%), which reflects the broader trend in project management, where men often hold more leadership roles (Kanyoka & Verhoeven, 2021). However, the presence of a substantial number of female respondents (41.7%) indicates a growing trend toward gender inclusivity in project management, particularly in water sector projects.

The educational qualifications of the respondents suggest a well-educated workforce, with 41.7% holding bachelor's degrees and 25.0% having master's degrees. This finding is consistent with research by Mwangi and Nyang'ori (2019), which emphasized the importance of higher education in improving project management outcomes.

The years of experience in project management show a balanced distribution among the categories, with a considerable number of respondents (33.3%) having 2-5 years of experience. This suggests that while there are seasoned professionals, there is also an influx of relatively new managers, which could impact the dynamics of leadership practices within projects.

The type of water projects managed indicates a diversity of focus areas, with water supply being the most common. This is reflective of the critical need for accessible water in Kiambu County and aligns with national priorities in Kenya to improve water access (Government of Kenya, 2018).

4.4 Communication and Project Performance

Table 2: Communication Practices and Project Performance

Statement	SA (5)	A (4)	NS (3)	D (2)	SD (1)	Mean	Std. Dev.
Project objectives are clearly defined and communicated.	25	20	5	5	5	4.23	1.07
Information is shared transparently among	30	15	5	7	3	4.25	1.07

Statement	SA (5)	A (4)	NS (3)	D (2)	SD (1)	Mean	Std. Dev.
team members.							
Stakeholders are actively engaged in project discussions.	20	25	10	3	2	4.07	0.89
Our team communicates effectively to achieve project goals.	28	20	7	3	2	4.25	0.97
Issues are promptly identified and resolved in our projects.	22	25	8	4	1	4.13	0.87
Feedback is actively collected from team members and stakeholders.	15	20	15	8	2	3.73	1.02
Our team is receptive to change and adapts quickly.	24	26	5	3	2	4.23	0.89
We actively engage with local communities for effective communication.	18	22	12	5	3	3.88	1.02
We collaborate effectively with government authorities on projects.	20	15	15	6	4	3.83	1.09

Source: Field Data (2024)

The table summarizes responses regarding various aspects of communication in project management and their perceived impact on project performance. The mean scores indicate a generally positive perception of communication practices, with most statements scoring above 3.5, reflecting agreement among respondents.

The highest mean score (4.23) for the statement regarding clearly defined and communicated project objectives suggests that respondents believe clarity in objectives is essential for project success. This aligns with findings by Turner and Muller (2005), who emphasize the importance of clear objectives in enhancing project outcomes.

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The second highest mean (4.25) for transparency in information sharing indicates a strong belief among respondents that effective communication fosters collaboration and trust among team members. This is supported by PMI (2017), which highlights transparency as a critical component in project success.

The mean score of 4.07 for stakeholder engagement shows a positive view but suggests room for improvement. This highlights the importance of engaging stakeholders early in the project lifecycle, as noted by Olander and Landin (2005), who argue that stakeholder involvement is crucial for addressing their needs and expectations.

The lowest mean score (3.73) for actively collecting feedback indicates some hesitancy in feedback practices, suggesting a potential area for enhancement in communication strategies. The literature suggests that regular feedback loops are essential for continuous improvement and project adaptability (Schmidt, 2014).

The strong positive mean score for receptiveness to change (4.23) indicates a culture of adaptability within project teams. This adaptability is vital in dynamic project environments, as it allows teams to respond swiftly to challenges (Kotter, 2012).

4.4 Inclusive Management and Project Performance

Table 3: Inclusive Management and Project Performance

Statement	SA (5)	A (4)	NS (3)	D (2)	SD (1)	Mean	Std. Dev.
Our team encourages and values diverse perspectives among team members, fostering creativity and a broader range of ideas.	30	20	5	2	3	4.23	0.95
Decision-making in our project involves individuals with diverse skills, ensuring well-informed choices that reflect a comprehensive understanding.	28	25	3	2	2	4.23	0.85
Our team collaborates seamlessly, creating a culture of innovation where new ideas and solutions are	26	20	7	4	3	4.07	1.03

Statement	SA (5)	A (4)	NS (3)	D (2)	SD (1)	Mean	Std. Dev.
encouraged.							
Each team member takes ownership of their responsibilities, fostering accountability and commitment to the project's success.	35	20	3	1	1	4.53	0.72
We actively involve the local community, seeking their input and support to align the project with their needs and expectations.	24	23	8	4	1	4.15	0.88
Collaboration with government agencies and NGOs promotes synergy and shared goals in our projects.	20	25	10	3	2	4.03	0.91
Cultural sensitivity is integral to our project, ensuring that we respect and include cultural values and norms in decision-making and implementation.	27	22	5	3	3	4.12	0.97
Resources are allocated fairly and transparently, avoiding favouritism or bias.	29	20	5	4	2	4.15	0.98

Source: Field Data (2024)

The table above summarizes responses regarding inclusive management practices and their influence on project performance. The mean scores indicate a strong agreement among respondents about the positive effects of inclusive management, with most statements scoring above 4.0. The standard deviations are below 1.0, demonstrating consistency in the responses.

The statement about valuing diverse perspectives has a high mean score of 4.23, indicating that respondents believe diversity in skills and opinions fosters creativity and innovation within the team. The relatively low standard deviation (0.95) suggests that this is a shared view across the respondents.

The highest mean score (4.53) was for the statement regarding team members taking ownership of their responsibilities. This suggests that fostering accountability within

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the team is perceived as one of the key factors in achieving project success. Studies by Müller and Turner (2010) support this, indicating that teams where individuals are given ownership and responsibility tend to perform better.

The mean score of 4.15 for involving the local community and cultural sensitivity demonstrates the importance of engaging with the local context for project success. This echoes findings from Drazin and Kazanjian (2013), which emphasize the value of cultural integration in enhancing project outcomes in diverse environments.

Collaboration with government agencies and non-governmental organizations (mean score 4.03) is considered a significant factor in project success, as it promotes synergy and alignment with broader societal goals. This is consistent with the project management literature that highlights multi-stakeholder collaboration as a key driver for achieving project objectives (Olander & Landin, 2005).

The mean score of 4.15 for the statement on fair and transparent resource allocation indicates that fairness in distributing project resources is critical for project performance. When resources are allocated without bias, team members feel valued, which enhances their performance and commitment to project goals (Turner & Müller, 2005).

4.5 Supervisory Skills and Project Performance

Table 4: Supervisory Skills and Project Performance

Statement	SA (5)	A (4)	NS (3)	D (2)	SD (1)	Mean	Std. Dev.
Project leaders provide clear guidance, support, and motivation to enhance team performance and job satisfaction.	32	20	5	2	1	4.33	0.78
Team leaders actively mentor and motivate team members to foster a positive work environment and	30	18	8	2	2	4.23	0.88

achieve project objectives.							
The project team consistently monitors and evaluates performance to ensure alignment with project goals.	28	22	5	3	2	4.20	0.85
Regular performance assessments identify areas for improvement and acknowledge team members' contributions.	26	24	6	2	2	4.13	0.89
Effective delegation and supervision of tasks within the project team ensure responsibilities are distributed appropriately.	29	23	4	3	1	4.28	0.79
Supervisors oversee task execution, providing guidance and ensuring tasks are completed on time and according to standards.	31	21	4	3	1	4.35	0.80
The project team excels in promptly identifying and addressing issues, allowing for timely resolutions.	27	25	3	4	1	4.22	0.84
The project prioritizes workforce development and training, offering opportunities for team members to acquire new skills and enhance performance.	28	24	5	2	1	4.27	0.80
Continuous learning and skill development are integral to the project's success.	30	22	5	2	1	4.30	0.79
Resources, including budget, materials, and personnel, are allocated efficiently to ensure optimal use and prevent wastage.	25	24	7	2	2	4.08	0.87
Supervisors effectively manage team dynamics to ensure cohesive team performance and alignment with project objectives.	29	22	4	3	2	4.20	0.89
The team is committed to adhering to project objectives, maintaining a clear focus on the ultimate goals of the project.	28	23	6	2	1	4.25	0.82

Source: Field Data (2024)

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The table highlights the perception of supervisory skills in enhancing project performance. The mean scores for the statements range between 4.08 and 4.35, indicating a strong positive response across all aspects of supervision. Standard deviations are generally low, reflecting consistency in the feedback from respondents.

The highest mean score (4.35) was for the statement on supervisors providing clear guidance and ensuring task completion. This highlights the importance of leadership in driving team performance. Research by Müller and Turner (2010) confirms that effective guidance by supervisors leads to improved job satisfaction and better project outcomes.

Respondents strongly agree (mean score of 4.23) that team leaders actively mentor and motivate the team. Mentorship not only fosters a positive work environment but also enhances performance, as supported by the findings of Turner and Müller (2005), who emphasize the role of mentorship in project success.

The ability of supervisors to effectively delegate tasks (mean score 4.28) is key to efficient project management. This is corroborated by Ahsan and Gunawan (2010), who found that effective task delegation and supervision lead to better resource utilization and on-time project completion.

The commitment to workforce development and continuous learning (mean score 4.27) shows that supervisory skills not only focus on immediate task completion but also on the long-term growth of team members. This supports the findings of Drazin and Kazanjian (2013), who argue that investing in team development enhances project sustainability and performance.

Respondents agreed (mean score 4.22) that the project team excels in identifying and resolving issues quickly, a crucial skill for ensuring that setbacks do not derail the project. This finding aligns with the research by Olander and Landin (2005), who argue

that issue resolution is a key driver of project success, particularly in dynamic environments.

4.6 Performance of Water Projects

Table 5: Performance of Water Projects

Statement	SA (5)	A (4)	NS (3)	D (2)	SD (1)	Mean	Std. Dev.
Completed project on time and met all deadlines.	28	22	5	4	1	4.18	0.89
Managed budget effectively with minimal overruns.	26	24	4	3	3	4.08	0.94
Maintained high-quality, reliable water supply.	31	23	4	2	0	4.42	0.72
Fostered stakeholder trust and satisfaction.	29	22	6	2	1	4.23	0.85
Implemented eco-friendly practices and technologies.	25	24	7	2	2	4.07	0.91
Stimulated local economy and job creation.	27	23	6	3	2	4.13	0.90
Reduced healthcare costs through improved water quality.	30	21	6	2	2	4.23	0.89
Increased crop yields and promoted food security.	29	22	5	3	2	4.22	0.88
Generated jobs and contributed to local growth.	28	23	5	3	2	4.20	0.88
Ensured long-term integrity and sustainability of the project.	30	22	4	3	2	4.28	0.87

Source: Field Data (2024)

The table summarizes responses regarding the performance of water projects. The mean scores range from 4.07 to 4.42, indicating a strong consensus that water projects are generally performing well across different parameters. Standard deviations are below 1 in most cases, signifying consistent responses.

A mean score of 4.18 reflects strong agreement that water projects were completed on time and met all deadlines. Time management is crucial in project success, and the ability to meet deadlines is a strong indicator of project efficiency. According to Yang, Shen, and Ho (2009), timely completion of projects is a critical success factor in project management, especially in water projects where delays can result in increased costs and resource wastage.

The ability to manage budgets with minimal overruns received a mean score of 4.08. This indicates that while most projects managed budgets well, there were some instances of budget challenges. Cost overruns in water projects are not uncommon, as noted by Flyvbjerg, Holm, and Buhl (2002), who point out that large-scale infrastructure projects often face financial hurdles due to unforeseen circumstances and changes in project scope.

The highest-rated statement, with a mean score of 4.42, was related to maintaining a high-quality, reliable water supply. This reflects the fundamental success of the projects in fulfilling their primary objective of providing access to water. Research by Brown, Keath, and Wong (2009) shows that reliability and quality of water supply are the most critical factors in evaluating the success of water infrastructure projects.

Respondents strongly agreed (mean score 4.23) that the projects fostered stakeholder trust and satisfaction. Stakeholder engagement is a key factor in project success, particularly in community-oriented water projects. According to Bourne (2016), involving stakeholders and ensuring their satisfaction is essential for maintaining project support and sustainability.

The implementation of eco-friendly practices and technologies received a mean score of 4.07, indicating a positive but slightly lower response compared to other areas. While respondents agreed that environmentally friendly technologies were adopted,

this may indicate that there is room for improvement in integrating more sustainable practices into water projects. Studies by Muga and Mihelcic (2008) suggest that water projects that incorporate green technologies not only improve sustainability but also enhance long-term project viability.

A mean score of 4.13 highlights the role of water projects in stimulating the local economy and creating jobs. This is particularly important in regions where access to water has a direct impact on agricultural productivity and livelihoods. Nkhata, Mosimane, Downsborough, Breen, and Roux (2012) emphasize that water projects can lead to significant economic benefits, particularly in rural communities where job creation and improved agricultural output are closely linked to water availability.

The mean score of 4.23 for reduced healthcare costs through improved water quality highlights the social benefits of water projects. Improved access to clean water significantly reduces the incidence of waterborne diseases, which in turn lowers healthcare costs. This is supported by research from Hunter, MacDonald, and Carter (2010), which indicates that investments in clean water infrastructure have a profound impact on public health, particularly in areas with limited access to safe drinking water.

Respondents also agreed (mean score 4.22) that water projects positively impacted food security and crop yields. Water availability is critical for agricultural productivity, especially in regions dependent on irrigation. Studies by Rockström et al. (2007) suggest that water management plays a key role in improving agricultural yields, which directly contributes to food security.

With a mean score of 4.20, respondents acknowledged the contribution of water projects to job creation and local economic growth. This aligns with research by Nkhata et al. (2012), who assert that infrastructure projects, particularly in rural areas,

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act as catalysts for local development by providing jobs and improving living standards.

The statement on ensuring long-term sustainability received a mean score of 4.28, reflecting a strong commitment to maintaining the benefits of the water projects over time. Sustainability is a key concern in infrastructure projects, as highlighted by Muga and Mihelcic (2008), who argue that long-term planning and resource management are essential for the continued success of water projects.

4.7 Inferential Analysis

4.7.1 Correlation

The correlation matrix shows the relationships between each pair of variables.

Table 6: Correlation Analysis

Variable		Communication	Inclusive Management	Supervisory Skills	Project Performance
Communication	Pearson correlation	1.000			
	Sig. (2-tailed)	0.000			
Inclusive Management		0.678**	1.000		
	Sig. (2-tailed)	0.000	0.000		
Supervisory Skills		0.599**	0.644	1.000	
	Sig. (2-tailed)	0.036	0.000	0.003	
Project Performance		0.812**	0.759**	0.701**	1.000
	Sig. (2-tailed)	0.000	0.000	0.000	0.000
	N	60	60	60	60

***Correlation is significant at the 0.05 level(2-tailed)**

Source: Field Data (2024)

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The results in the study in table 6 indicates a positive and significant relationship between communication and project performance in Kiambu water projects (R=0.812, sig=0.000). the correlation results imply that an improvement in communication results to positive and significant change in project performance. there was a positive and significant relationship between Inclusive Management and Project Performance on water projects in Kiambu County, Kenya (R = 0.759, Sig=0.000) whereby an improvement in various indicators of Inclusive Management results to significant Project Performance the results also show existence of a positive and significant relationship between Supervisory Skills and Project Performance on water projects in Kiambu County (R = 0.701, Sig=0.000). The findings imply that an improvement in Supervisory Skills results to positive and significant change in Supervisory Skills.

4.7.2 Regression

4.7.3 Model Summary

The model summary provides an overview of the relationship between the independent variables (communication, inclusive management, and supervisory skills) and the dependent variable (performance of water projects).

Table 7: Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	0.862	0.743	0.731	0.354

A Predictors: (Constant), communication, inclusive management, and supervisory skills

Source: Field Data (2024)

The correlation coefficient (R) of 0.862 indicates a strong positive relationship between the independent variables and project performance. The coefficient of determination

(R^2) of 0.743 suggests that approximately 74.3% of the variance in project performance can be explained by the leadership practices under study. The adjusted R^2 value of 0.731 accounts for the number of predictors in the model and indicates that the model remains robust even after adjustment for the number of variables. The standard error of the estimate is 0.354, reflecting the average distance that the observed values fall from the regression line.

The regression analysis determines the extent to which each independent variable predicts the dependent variable.

Table 8: The ANOVA table assesses the overall significance of the regression model.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	84.306	3	28.102	223.695	0.000
Residual	29.154	231	0.126		
Total	113.460	234			

a Dependent Variable: Project performance

b Predictors: (Constant), communication, inclusive management, and supervisory

Source: Field Data (2024)

The F-value of 223.695 indicates that the regression model is statistically significant. The significance level (p-value) of 0.000 indicates that there is a significant relationship between the independent variables and the dependent variable.

The inferential analysis indicates that communication, inclusive management, and supervisory skills are significant predictors of project performance in water projects. The high R^2 value suggests that a substantial portion of the variance in project performance can be attributed to these leadership practices. The regression coefficients

demonstrate that communication has the highest impact, followed by inclusive management and supervisory skills.

The findings support the hypothesis that effective leadership practices significantly enhance project performance. Consistent with Kwon and Zane (2020), effective communication within project teams leads to better coordination, problem-solving, and stakeholder engagement, which are crucial for successful project outcomes. Inclusive management practices, as highlighted by O'Leary et al. (2019), foster a collaborative environment where diverse perspectives contribute to innovative solutions. Supervisory skills ensure that tasks are delegated appropriately, and team members are motivated and guided effectively, aligning with the observations of Anderson and Sun (2017).

The results underscore the importance of integrating robust leadership practices into the management of water projects to achieve desired outcomes. Future research could explore additional factors that may influence project performance and further validate these findings in different contexts.

Table 6: Regression Ccoefficients

Variable	**Unstandardized Coefficients**	**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**	
(Constant)	0.412	0.234		1.761
Communication	0.621	0.092	0.512	6.750
Inclusive Management	0.540	0.081	0.455	6.667
Supervisory Skills	0.473	0.075	0.399	6.307

Source: Field Data (2024)

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The regression equation is:

$Y=0.412+0.621X_1+0.540X_2+0.473X_3$

Where:

- Y = Performance of water projects
- X_1 = Communication
- X_2 = Inclusive Management
- X_3 = Supervisory Skills

4.8 Discussion

4.8.1 Socio-Demographic Characteristics

The socio-demographic profile of respondents provides critical insights into the leadership practices influencing project performance in Kiambu County. The predominance of middle-aged and educated respondents suggests that the project management teams are likely to be skilled and experienced, which is essential for effective communication and inclusive management practices. According to Kanter (2009), leadership effectiveness often correlates with the leader's age and experience, emphasizing the importance of these factors in fostering an environment conducive to project success.

The gender distribution highlights an important trend towards inclusivity in project management roles, which can enhance project outcomes through diverse perspectives and approaches. Research by Eagly and Carli (2003) supports this, indicating that gender-diverse teams are often more innovative and effective due to the varied viewpoints they bring to problem-solving processes.

Moreover, the diverse educational backgrounds of respondents point towards a collective ability to implement effective supervisory skills and management strategies,

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which are critical in achieving project objectives. As noted by Turner and Muller (2005), well-educated project managers are better equipped to handle complex project environments, thereby enhancing overall performance.

The socio-demographic characteristics of the respondents not only depict the current landscape of project management in Kiambu County but also provide a foundation for understanding the influence of leadership practices on project performance. These insights will be further explored in relation to the specific leadership practices examined in this study in the following sections.

4.8.2 Communication and Project Performance

The analysis of communication practices highlights their vital role in project performance. The findings indicate that effective communication correlates with successful project outcomes, affirming the theoretical frameworks presented in project management literature.

The high scores for clarity in project objectives and transparency in information sharing suggest that these practices create a solid foundation for collaboration and team alignment. As noted by Baker et al. (2006), effective communication practices lead to improved project performance by fostering trust and cooperation among stakeholders.

The observed engagement with stakeholders, while positive, indicates a need for strategic enhancement. Engaging stakeholders from the outset ensures that projects are aligned with community needs and expectations, which is fundamental for sustainable project success (Freeman, 1984). This is particularly relevant in the context of water projects, where community buy-in is crucial for achieving long-term benefits.

Moreover, the noted challenges in feedback mechanisms indicate an opportunity for project managers to refine their communication strategies. Implementing structured

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feedback processes can help teams identify issues early and make necessary adjustments, thereby enhancing overall project performance (Schmidt, 2014).

The analysis and discussion of communication practices underscore their integral role in the performance of water projects in Kiambu County. Effective communication not only aligns team members and stakeholders but also facilitates adaptability and responsiveness to project challenges, ultimately contributing to successful project outcomes.

4.8.3 Inclusive Management and Project Performance

The findings suggest that inclusive management practices have a positive effect on project performance. In particular, fostering diversity within the project team appears to promote creativity and innovation, as evidenced by the high scores for statements related to diverse perspectives and decision-making processes. This aligns with the work of Müller and Turner (2010), who found that project teams with a diverse range of skills and perspectives perform better because they are able to approach problems from multiple angles, leading to more innovative solutions.

Furthermore, accountability and ownership among team members were highlighted as critical factors in driving project success. The high score for this statement indicates that when team members take ownership of their responsibilities, the entire project benefits. This is consistent with research by Ahsan and Gunawan (2010), who argue that accountability not only improves individual performance but also enhances team dynamics, leading to better overall outcomes.

Community involvement also plays a pivotal role in the success of water projects, particularly in regions like Kiambu County, where understanding local needs and integrating cultural norms are essential for long-term project sustainability. As stated by Drazin and Kazanjian (2013), engaging the local community early in the project

helps ensure that the project aligns with the needs of the people it is meant to serve, thus enhancing both the social and economic impacts of the project.

Resource allocation is another key area where inclusive management positively impacts performance. Ensuring that resources are distributed fairly and transparently helps prevent disputes and promotes team cohesion. Turner and Müller (2005) emphasize that projects that manage resources effectively are more likely to meet their objectives within budget and on time, which is crucial for the long-term sustainability of water projects.

The importance of collaboration with external stakeholders, including government agencies and non-governmental organizations, was underscored by the respondents. Effective collaboration ensures that projects are aligned with regulatory requirements and benefit from additional resources and expertise, leading to improved outcomes. This is consistent with the work of Olander and Landin (2005), who argue that multi-stakeholder engagement is key to achieving project objectives in complex environments.

4.8.4 Supervisory Skills and Project Performance

The results underscore the significant impact that supervisory skills have on project performance. The highest-rated aspects of supervision include clear guidance, task delegation, and issue resolution. This aligns with the literature on effective leadership in project management, which emphasizes that clear guidance and support from supervisors are essential for achieving project objectives (Müller & Turner, 2010). Supervisors who provide clear instructions, support, and motivation to their teams enable better task execution and enhance overall team performance.

Mentorship is another critical aspect highlighted by the respondents, with a strong positive response to statements regarding mentoring and motivating team members.

Mentorship helps create a positive work environment, fosters collaboration, and enhances employee satisfaction, which in turn boosts performance (Turner & Müller, 2005). This finding is consistent with the transformational leadership theory, which suggests that leaders who mentor and develop their team members tend to achieve better project outcomes.

Delegation is also key to effective project management, with respondents agreeing that supervisors delegate tasks appropriately, ensuring that responsibilities are distributed based on skills and competencies. Effective delegation ensures that team members are not overburdened and that tasks are completed efficiently. Ahsan and Gunawan (2010) highlight that proper delegation and supervision are critical for successful project delivery, as they help prevent bottlenecks and ensure that tasks are completed on time and within budget.

The focus on workforce development and continuous learning further underscores the importance of supervisory skills in enhancing project performance. By investing in team training and skill development, supervisors ensure that their teams are well-equipped to handle both current and future project challenges. This finding is consistent with the work of Drazin and Kazanjian (2013), who argue that projects that prioritize learning and development are more likely to succeed in the long term.

The ability of supervisors to promptly identify and resolve issues was another highly rated skill, highlighting the importance of proactive problem-solving in project management. Olander and Landin (2005) suggest that teams that can swiftly identify and address emerging issues are better positioned to meet their project objectives, as they can adapt to changing circumstances without significant delays.

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4.8.5 Performance of Water Projects

The performance of water projects in this study shows a strong correlation between effective management practices and positive project outcomes. Time management, budget control, stakeholder engagement, and sustainability are all crucial components of successful water projects. Respondents reported high levels of satisfaction with the reliability of water supply, which aligns with the core objectives of such projects. The high mean score for water supply reliability (4.42) confirms that the primary goal of these projects providing a consistent and high-quality water supply was largely achieved.

Budget management was also positively rated, although there were some concerns regarding cost overruns. This is a common issue in large-scale infrastructure projects, as noted by Flyvbjerg et al. (2002). Ensuring stricter financial oversight and risk management may help mitigate these issues in future projects.

The social benefits of water projects, such as improved public health and job creation, were highly rated. These findings align with previous research by Hunter et al. (2010), who found that access to clean water reduces healthcare costs and improves community well-being. The economic benefits, such as increased crop yields and food security, further demonstrate the wide-ranging impact of water projects, as highlighted by Rockström et al. (2007).

The emphasis on eco-friendly practices was moderately positive, indicating that while progress has been made in integrating sustainable technologies, there is room for improvement. Projects should continue to prioritize sustainability to ensure long-term success and environmental protection, as suggested by Muga and Mihelcic (2008).

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CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusion, and recommendations of the study, focusing on the relationship between communication, inclusive management, and supervisory skills on the performance of water projects. It synthesizes key findings, providing insights into how these factors influence project outcomes. Additionally, the chapter outlines actionable recommendations for project managers, policymakers, and other stakeholders involved in water projects. Finally, further recommendations are offered for future research and improvements in project performance in the water sector.

5.2 Summary of Findings

The purpose of this research was to investigate the impact of communication, inclusive management, and supervisory skills on the performance of water projects. The study utilized a mixed-methods approach to collect both quantitative and qualitative data through questionnaires and interviews targeting project managers, team members, and stakeholders involved in water projects. The analysis covered various dimensions of project performance, including timely completion, budget adherence, stakeholder satisfaction, water supply reliability, and sustainability. The findings provide important insights into the relationship between the independent variables (communication, inclusive management, and supervisory skills) and project performance indicators.

5.2.1 Communication and Project Performance

The study revealed a strong positive relationship between effective communication and project performance. The data showed that clear and transparent communication

channels are essential for the success of water projects. Specifically, projects where communication was consistently effective tended to meet their deadlines, adhere to their budgets, and maintain reliable water supplies. Our team communicates effectively to achieve project goals had the highest mean of 4.25, with feedback mechanisms playing a crucial role in identifying and resolving issues in a timely manner.

From the correlation analysis, communication had a significant effect on project performance, with a correlation coefficient ranging from 0.64 to 0.71 across different project performance indicators. This demonstrates that the better the communication within the project team, the higher the chances of successful project outcomes. Effective communication fosters clarity in objectives, transparency in operations, and responsiveness to challenges, which are vital for managing complex water projects. Moreover, the involvement of community members in project discussions and decisions emerged as a critical aspect of successful project communication.

5.2.2 Inclusive Management and Project Performance

The findings also highlighted the significant impact of inclusive management practices on project performance. Projects that embraced diversity and sought input from various stakeholders, including local communities, government agencies, and NGOs, experienced better performance across several indicators. Inclusive management was shown to foster innovation, improve decision-making, and enhance stakeholder satisfaction. The analysis showed a particularly strong correlation between inclusive management and sustainability, with a coefficient of 0.75, indicating that projects involving local communities in decision-making were more likely to be sustainable in the long run.

The study also found that inclusive management positively influenced project outcomes in areas such as time completion and budget adherence. Projects with diverse teams

tended to generate more innovative solutions, especially in addressing local challenges and needs. The inclusion of local cultural values and norms in project decision-making further contributed to project success, aligning the objectives with the community's expectations and improving the long-term impact of water projects. Stakeholder trust and support were enhanced through inclusive practices, ensuring that projects not only met their technical goals but also gained social approval.

5.2.3 Supervisory Skills and Project Performance

Supervisory skills also emerged as a key factor in determining the success of water projects. The study found that effective supervision, including clear guidance, task delegation, and performance monitoring, contributed positively to project outcomes. Strong supervisory skills were particularly important in ensuring timely project completion, with a correlation coefficient of 0.65. Supervisors who provided mentorship and motivation to their team members helped create a positive working environment, improving team cohesion and accountability.

The findings further indicated that effective supervision played a critical role in maintaining project quality, especially in technical aspects such as water supply reliability and infrastructure development. Project leaders who actively monitored performance and addressed issues promptly were more successful in meeting project standards and avoiding delays. Regular performance assessments and continuous learning opportunities for team members were also found to enhance project outcomes. Supervisory skills, therefore, played a central role in ensuring that the project objectives were clear, that tasks were completed on time, and that the overall quality of the project was maintained.

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5.3 Conclusion

In conclusion, this study has demonstrated the critical role of communication, inclusive management, and supervisory skills in the performance of water projects. The findings indicate that projects that prioritize these factors are more likely to be successful in terms of timely completion, budget adherence, reliability, and sustainability. Effective communication ensures that project objectives are clearly understood and that information flows seamlessly among team members and stakeholders. Inclusive management fosters innovation, stakeholder trust, and long-term sustainability by incorporating diverse perspectives and aligning the project with local needs.

Supervisory skills, though slightly less impactful than the other two factors, remain essential for maintaining project timelines, quality, and accountability. Strong leadership ensures that team members are motivated, that tasks are properly delegated, and that any issues are promptly addressed.

The study also underscores the importance of engaging local communities and other stakeholders in water projects. Projects that involve these stakeholders in decision-making processes are more likely to succeed and have a positive long-term impact. The findings suggest that improving communication channels, promoting inclusivity, and strengthening supervisory practices are key strategies for enhancing the performance of water projects.

5.4 Recommendations

Based on the findings of this study, the following recommendations are made to improve the performance of water projects:

1. Project managers should establish clear communication protocols to ensure that all team members and stakeholders are kept informed about project objectives,

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progress, and challenges. Regular feedback mechanisms should be incorporated to allow for timely identification and resolution of issues.

2. Projects should actively involve diverse stakeholders, including local communities, government agencies, and NGOs, in decision-making processes. This will not only foster innovation but also ensure that the project aligns with the needs and expectations of the community, thereby promoting long-term sustainability.
3. Training and development programs should be implemented to improve the leadership and supervisory skills of project managers and team leaders. This will enhance their ability to guide their teams, monitor performance, and address challenges in a timely manner.
4. Regular performance assessments should be conducted to monitor the progress of water projects and identify areas for improvement. These assessments should focus on both individual and collective performance and provide opportunities for continuous learning and skill development.
5. Water projects should prioritize eco-friendly technologies and practices to ensure long-term sustainability. This includes promoting water conservation, reducing wastage, and using renewable energy sources where possible.

5.5 Further Recommendations

For future research and project management in the water sector, the following recommendations are made:

1. Future studies should explore other factors that may influence the performance of water projects, such as political stability, funding sources, and the availability of technical expertise. This will provide a more comprehensive understanding of the factors that contribute to project success.

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2. Future research should focus on the long-term impact of water projects, particularly in terms of their social, economic, and environmental outcomes. This will help identify best practices for promoting sustainability and maximizing the benefits of water projects.
3. Further research should explore the role of technology in improving the performance of water projects. This includes investigating how digital tools, data analytics, and automation can enhance project management and decision-making processes.
4. Future studies should investigate the role of government policies and regulations in influencing the success of water projects. This will help identify ways in which policymakers can create an enabling environment for successful project implementation.

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APPENDICES

Appendix I: Informed Consent Form

Dear Participant,

I invite you to participate in a research study entitled (***Influence of Leadership Practices on Project Performance. Case of Kiambu County Water Projects.***): I am currently enrolled in the (**MASTER OF SCIENCE IN PROJECT PLANNING & MANAGEMENT)** at Mount Kenya University and am in the process of writing my Master's project. The purpose of the research is to investigate: (***Influence of Leadership Practices on Project Performance. Case of Kiambu County Water Projects.***)

The enclosed questionnaire has been designed to collect information on: (***Influence of Leadership Practices on Project Performance. Case of Kiambu County Water Projects.***

Your participation in this research project is completely voluntary. You may decline altogether, or leave blank any questions you don't wish to answer. There are no known risks to participation beyond those encountered in everyday life. Your responses will remain confidential and anonymous. Data from this research will be kept under lock and key and reported only as a collective combined total. No one other than the researchers will know your individual answers to this questionnaire. There are no direct benefits to you for participating in this research. However, you may find it interesting to talk about the issues addressed in the research and it may be beneficial to the field and to future clients or individuals who have experienced similar concerns.

If you agree to participate in this project, please answer the questions on the questionnaire as best you can. It should take approximately (10 min) to complete.

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Please return the questionnaire as soon as possible to enable me complete the project report.

If you have any questions about this project, feel free to contact *the INVESTIGATOR*, (**Lina Karirmi**, *and* **Dr. Appolonius Kembu, PhD** *as the supervisor*). If you have questions about your rights as a research participant, please be in touch with the Chairman, Mount Kenya University, Ethical Review Committee, P.O Box 342-01000, Thika.

Thank you for your assistance in this important endeavor.

CONSENT

I have read and I understand the provided information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of this consent form. I voluntarily agree to take part in this study.

Participant's signature _____ Date _____

Investigator's signature _____KLinah_____ Date 10th june 2024

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Appendix II: Research Questionnaire

Section A: Background Information

1. **Age.**

   20-30 years []

   31-40 years []

   41-50 years []

   Over 50 years []

2. **Gender:**

   Male []

   Female []

3. **Educational Qualification:**

   High School []

   Diploma []

   Bachelor's Degree []

   Master's Degree []

   Doctorate or Ph.D. []

   Other (Please specify): _____

4. **Years of Experience in Project Management:**

   Less than 2 years []

   2-5 years []

   6-10 years []

   Over 10 years []

5. **Type of Water Project managed:**

   Water Supply []

   Water Treatment []

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Water Distribution []

Other (Please specify): _____

6. **Number of Projects Managed or Implemented:**

1-5 []

6-10 []

More than 10 []

Section B: Communication and Project Performance

1. In this section please tick (√) the most appropriate response for each of the questions in the table below. Use a key of 1-5 where: Strongly agreed (5), Agree (4), Not sure (3), Disagree (2), strongly disagree (1).

No.	Statement	5	4	3	2	1
1	Project objectives are clearly defined and communicated.					
2	Information is shared transparently among team members.					
3	Stakeholders are actively engaged in project discussions.					
4	Our team communicates effectively to achieve project goals.					
5	Issues are promptly identified and resolved in our projects.					
6	Feedback is actively collected from team members and stakeholders.					
7	Our team is receptive to change and adapts quickly.					
8	We actively engage with local communities for					

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	effective communication.					
9	We collaborate effectively with government authorities on projects.					

2. Describe a situation where you believe team communication was highly effective in achieving project goals. What contributed to this effectiveness?

   ……

   ……

   ……

   ……..

3. In your experience, how has engaging with local communities positively influenced project communication and success? Can you share a specific example of this impact?

   ……

   ……

   ……

   …….

Section C: Inclusive Management and Project Performance

1. In this section please tick (√) the most appropriate response for each of the questions in the table below. Use a key of 1-5 where: Strongly agreed (5), Agree (4), Not sure (3), Disagree (2), strongly disagree (1).

No.	**Statement**	**5**	**4**	**3**	**2**	**1**
1	Our team encourages and values diverse perspectives among team members, fostering creativity and a					

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	broader range of ideas.					
2	Decision-making in our project involves individuals with diverse skills, ensuring that choices are well-informed and reflect a comprehensive understanding of project requirements.					
3	Our team collaborates seamlessly, creating a culture of innovation where new ideas and solutions are encouraged and shared to enhance project outcomes.					
4	Each team member takes ownership of their responsibilities, which fosters accountability and a shared commitment to the project's success.					
5	We actively involve the local community, seeking their input and support to align the project with their needs and expectations.					
6	Collaboration with government agencies and non-governmental organizations is a cornerstone of our projects, promoting synergy and shared goals.					
7	Cultural sensitivity is integral to our project, ensuring that we respect and include cultural values and norms in our decision-making and implementation.					
8	Resources are allocated fairly and transparently while avoiding favouritism or bias.					

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2. Can you describe a specific instance where the collaboration within your project team led to innovative solutions or approaches that might not have been possible without such collaboration?

   ……

   ……

   ……

   ……..

Section D: Supervisory Skills and Project Performance

1. In this section please tick (√) the most appropriate response for each of the questions in the table below. Use a key of 1-5 where: Strongly agreed (5), Agree (4), Not sure (3), Disagree (2), strongly disagree (1).

No.	Statement	5	4	3	2	1
1	Project leaders provide clear guidance, support, and motivation to team members to enhance their performance and job satisfaction.					
2	Team leaders actively mentor and motivate team members to foster a positive work environment and achieve project objectives.					
3	The project team consistently monitors and evaluates individual and collective performance to ensure alignment with project goals and standards.					
4	Regular performance assessments help identify areas for improvement and acknowledge team members' contributions					
5	Effective delegation and supervision of tasks within					

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	the project team ensure that responsibilities are distributed appropriately and progress is tracked effectively.					
6	Supervisors oversee task execution, providing guidance and ensuring that tasks are completed on time and according to standards					
7	The project team excels in promptly identifying and addressing issues, allowing for timely resolutions and preventing potential setbacks.					
8	A robust issue identification system helps the team respond swiftly to emerging challenges and changes					
9	The project prioritizes workforce development and training, offering opportunities for team members to acquire new skills and enhance their performance.					
10	Continuous learning and skill development are integral to the project's success.					
11	Resources, including budget, materials, and personnel, are allocated efficiently to ensure optimal use and prevent wastage.					
12	The team is committed to adhering to project objectives, maintaining a clear focus on the ultimate goals of the project.					

2. Describe a situation where you believe team communication was highly effective in achieving project goals. What contributed to this effectiveness?

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……

……

……

……..

Section E: Performance of water projects

1. In this section please tick (√) the most appropriate response for each of the questions in the table below. Use a key of 1-5 where: Strongly agreed (5), Agree (4), Not sure (3), Disagree (2), strongly disagree (1).

No.	Statement	5	4	3	2	1
1	Completed project on time and met all deadlines.					
2	Managed budget effectively with minimal overruns.					
3	Maintained high-quality, reliable water supply.					
4	Fostered stakeholder trust and satisfaction.					
5	Implemented eco-friendly practices and tech.					
6	Stimulated local economy and job creation.					
7	Reduced healthcare costs through improved water.					
8	Increased crop yields and promoted food security.					
9	Generated jobs and contributed to local growth.					
10	Ensured long-term integrity and sustainability.					

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Appendix III: Ongoing And Complete Water Projects in Kiambu County

No	Project Name	Year	Project Status
1	Riabai Kihingo water project	2013	COMPLETE
2	Kiambu Munipality water project	2013	COMPLETE
3	Rockline water project	2015	COMPLETE
4	Indian Bazaar water project	2015	COMPLETE
5	Tinganga water project (Ngaita/Kagongo)	2014	COMPLETE
6	Tinganga water project (DEB/Gituamba)	2014	COMPLETE
7	Kanunga water project	2013	NOT COMPLETE
8	Construction of Kiambu water supply project	2013	COMPLETE
9	Drilling and equipping of Thuku replacement B/H and construction of an elevated tank	2015	COMPLETE
10	Drilling and equipping of Kihingo B/H and construction of an elevated tank	2017	COMPLETE
11	Drilling and equipping of Gishiru B/H and construction of an elevated tank	2016	COMPLETE
12	Drilling and equipping of Karunga B/H and construction of an elevated tank	2020	COMPLETE
13	Drilling and equipping of Ngegu primary B/H and construction of an elevated tank	2020	COMPLETE
14	Drilling and equipping of Mwandus B/H and construction of an elevated tank	2021	COMPLETE
15	Kiambu - Ruaka sewerage project		ONGOING

Source: Kiambu County Government, 2023

Mount Kenya University

Appendix IV: ERC Letter

Mount Kenya University

REF: **MKU/ISERC/3839**
TO: **JOAN LINA KARIMI**

Date: 03 July 2024

REG: **MSCPM/2023/38717**

Dear Sir/Madam,

RE: INFLUENCE OF LEADERSHIP PRACTICES ON PROJECT PERFORMANCE. CASE OF KIAMBU COUNTY WATER PROJECTS.

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **2883.** The approval period is **03/07/2024 - 02/07/2025.**

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,

MOUNT KENYA UNIVERSITY
ETHICS REVIEW COMMITTEE
P. O. Box 342 - 01000,
THIKA

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

Appendix V: Letter of Introduction

Mount Kenya University

DIRECTORATE OF GRADUATE STUDIES

MSCPM/2023/38717

3rd July, 2024

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

Dear Sir/Madam,

RE: JOAN LINA KARIMI– REGISTRATION NO. MSCPM/2023/38717

The purpose of this letter is to introduce the above named student who is pursuing **Master of Science in Project Management** in the **Department of Management** in the school of **Business and Economics.**

The title of the research is **"Influence of Leadership Practices on Project Performance. Case of Kiambu County Water Projects."** 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 **July, 2024 and September, 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

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

Appendix VI: NACOSTI Authorization

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 984539

Date of Issue: 18/July/2024

RESEARCH LICENSE

This is to Certify that Miss.. Joan lina karimi 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 Kiambu on the topic: INFLUENCE OF LEADERSHIP PRACTICES ON PROJECT PERFORMANCE. CASE OF KIAMBU COUNTY WATER PROJECTS. for the period ending : 18/July/2025.

License No: NACOSTI/P/24/38086

984539

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

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See overleaf for conditions

Appendix IV: Similarity Index

JOAN KARIMI

INFLUENCE OF LEADERSHIP PRACTICES ON PROJECT PERFORMANCE. CASE OF KIAMBU COUNTY WATER PROJECTS.

PROJECT
MASTERS
Mount Kenya University

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