

**ANALYSIS OF STRATEGIC MANAGEMENT PRACTICES ON PERFORMANCE
OF MURANG'A WATER AND SEWERAGE COMPANY, KENYA**

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DECLARATION AND APPROVAL

Declaration

This thesis/project is my original work and has never been presented for any academic award in any institution.

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Date 26/6/2025

DEDICATION

Dedicated to my family, loved ones, and all who believe in the transformative power of education, service, and unwavering support through every step.



ACKNOWLEDGEMENT

I am deeply grateful to all who contributed to the successful completion of this thesis. My heartfelt appreciation goes to my supervisor, CPA Dr. Mwenda Geoffrey Justus, for his invaluable guidance, support, and commitment throughout the research process. I extend sincere thanks to the management and staff of Murang'a Water and Sewerage Company for their cooperation and for providing the essential data that made this study possible. I am also thankful to my family and friends for their constant encouragement, patience, and unwavering support throughout this journey. Special appreciation goes to my colleagues and classmates for their thoughtful feedback and engaging discussions, which significantly enriched this work. This accomplishment would not have been possible without the collective efforts and support of everyone mentioned. Thank you all.

ABSTRACT

Public water and sewerage companies are crucial to promoting public health and socio-economic development in Kenya. However, they continue to face persistent challenges such as outdated infrastructure, inadequate funding, and inefficient management practices, which hinder their performance. This study examined the influence of strategic management practices on the performance of Murang'a Water and Sewerage Company, focusing on three key variables: strategic planning, strategic alliances, and technology adoption, with organizational performance as the dependent variable. A descriptive research design was employed, and data were collected using structured questionnaires administered to both management and staff, enabling the gathering of both quantitative and qualitative insights. The findings revealed statistically significant positive relationships between all the strategic management practices and company performance. Strategic planning showed a moderate positive correlation (Spearman's rho = 0.692, $p < 0.001$), indicating that clearly defined objectives and effective resource allocation help address operational challenges. Strategic alliances had a stronger positive correlation (Spearman's rho = 0.729, $p < 0.001$), emphasizing the role of partnerships in enhancing innovation, efficiency, and access to shared resources. Technology adoption also demonstrated a positive correlation with performance (Spearman's rho = 0.669, $p < 0.001$), underlining its contribution to improved service delivery and adaptability in operations. Regression analysis confirmed that the combined effect of the three strategic practices explained 53.2% of the variance in performance ($R^2 = 0.532$), with strategic alliances emerging as the most influential predictor. ANOVA results supported the significance of all the independent variables ($p < 0.001$), affirming the strength and reliability of the model. The study concludes that strategic management practices significantly enhance the performance of public water utilities. It recommends that public entities prioritize strategic partnerships and invest in technological innovations to address existing infrastructural and financial constraints. Furthermore, effective strategic planning should be institutionalized to support sustainable growth and resilience. These findings offer practical insights for policymakers and utility managers aiming to improve efficiency and long-term sustainability in Kenya's public water sector.

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ABBREVIATIONS AND ACRONYMS

CP	:	Company Performance
RBV	:	Resource Based View
SAP	:	Strategic Alliances Practices
SPP	:	Strategic Planning Practices
TAP	:	Technology Adoption Practices
VRIN	:	valuable, rare, inimitable, and non-substitutable
WASREB	:	Water Services Regulatory Board
WSBs	:	Water Services Boards
WSPs	:	Water Services Providers



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The investigation into practices and their influence on organizational performance constitutes a cornerstone subject of inquiry within the realms of management and business administration (Ramadan & Safavi, 2022). It stems from the recognition that organizations operate within dynamic and competitive environments, where strategic choices hold significant sway over their outcomes; whether they prosper or falter. According to Höglund et al. (2021), strategic management practices involve a diverse range of actions directed toward establishing organizational objectives, creating and executing strategies to attain those objectives, and assessing performance outcomes.

Historically, strategic management emerged as a distinct field in latter half of 20th century, influenced by seminal works from scholars such as Peter Drucker, Alfred Chandler, and Igor Ansoff (McGee & Channon, 2021). These pioneers emphasized strategic thinking and long-term planning as essential tools for guiding organizational actions and responding to external changes. Over time, the field has evolved considerably, drawing insights from economics, sociology, psychology, and organizational behavior, and providing a more nuanced understanding of interplay between internal organizational elements and external environmental forces (Shaturaev, 2022).

On the global stage, strategic management practices have become critical for firms navigating the complexities of globalization, technological disruption, and shifting stakeholder expectations. Michael Porter's concept of competitive advantage highlighted the need for firms worldwide to achieve sustainable positioning through cost leadership,

differentiation, or focus strategies (Minja, 2020). Likewise, Jay Barney and Birger Wernerfelt's (1991) resource-based view (RBV) emphasized that firms, whether in developed or developing economies can secure superior performance by leveraging unique, valuable, and inimitable resources.

Across continents, especially in Africa, strategic management is increasingly recognized as essential in addressing local and regional challenges, including resource constraints, infrastructural gaps, governance issues, and environmental pressures (Adebayo, 2025). African organizations, both in the private and public sectors, are compelled to develop strategic agility and dynamic capabilities to thrive in volatile environments (Ahlstrom et al., 2020). According to Nwankwo and Ajemunigbohun (2021), strategic management in Africa is also shaped dual forces of rapid urbanization and imperative for inclusive development. This makes the adoption of context-specific strategies critical in ensuring organizational resilience and performance.

In East African region public sector entities such as water and sewerage utilities are instrumental in advancing sustainable development goals and enhancing the quality of life (Okesanya et al., 2024). These institutions operate under a set of complex challenges, including regulatory limitations, political influence, constrained financial resources, and growing pressure to deliver dependable services. As a result, there is a pressing need for effective strategic management approaches (Ramírez et al., 2020). Investigating the link between strategic management practices and the performance of Murang'a Water and Sewerage Company (MUWASCO) is therefore both theoretically significant and practically relevant. It offers valuable insights into how strategic decision-making can strengthen service delivery, improve operational efficiency, support broader socio-economic development efforts in Kenya and across the African continent.

1.1.1 Public Water and Sewerage Firms in Kenya

Public water and sewerage firms in Kenya are pivotal institutions responsible for providing essential services to communities across the country (Heckel, 2022). These firms have undergone significant development over time, shaped by evolving government policies, societal needs, and technological advancements. Historically, water supply and sanitation services were managed primarily by local authorities, but there has been a transition towards establishing specialized public utilities to manage water and sewerage infrastructure more effectively (Huston *et al.*, 2021). These organizations typically operate under a public entity or parastatal structure, governed by boards of directors appointed by the government (Oriku *et al.*, 2020). They function within a regulatory framework established by laws such as the Water Act, which delineates their roles, responsibilities, and governance structures.

The sector is regulated by agencies tasked with licensing, monitoring, regulating water service providers to ensure compliance with quality standards, tariff regulations, and consumer protection measures (Hanjahanja, 2020). Despite their critical role, public water and sewerage firms in Kenya face numerous challenges. These include inadequate infrastructure, limited financial resources, water scarcity, pollution, population growth, urbanization, and governance issues (Kookana *et al.*, 2020). Additionally, climate change and environmental degradation present significant threats to water resources and infrastructure resilience. However, these firms have also achieved notable successes. They have expanded access to water and sanitation services, improved water quality, reduced non-revenue water, and enhanced operational efficiency (Mungai, 2022).

These achievements are supported by investments in infrastructure development, capacity building, technology adoption, and partnerships with stakeholders. In Kenya, public water and sewerage companies are crucial for advancing socioeconomic growth, environmental sustainability, and public health (Mulwa et al., 2021). While they face significant challenges, their achievements underscore their importance in delivering dependable and cost-effective water and sanitation services to communities nationwide. Addressing these challenges requires concerted efforts from government authorities, regulatory agencies, development partners, and local communities to ensure the continued success of these vital institutions.

1.1.2 Performance of Murang'a Water and Sewerage Company, Kenya

evolution of water and sewerage services Murang'a, Kenya, mirrors the broader national trends, transitioning from municipal and local authority management to a decentralized model following enactment of Water Act in 2002 (Heckel, 2022). This legislation introduced Water Services Boards and Water Services Providers to oversee resource management, delivery. Despite these reforms, Murang'a Water and Sewerage Company continue to address challenges in guaranteeing widespread access to clean water and sanitation. Issues such as insufficient infrastructure, unreliable water supply, gaps in sanitation coverage, and water quality concerns, particularly in informal settlements and rural areas, remain significant (Bishoge, 2021).

To address these challenges, Kenya's regulatory framework has evolved. The Water Act and subsequent reforms intended to foster an environment that promotes investment, efficiency, and sustainability. (Haddout *et al.*, 2024). Regulatory bodies like the Water Services Regulatory Board (WASREB) have been established to enhance oversight and accountability in the sector (Kathambi *et al.*, 2021). Assessing the performance of

Murang'a Water and Sewerage Company involves analyzing various metrics, including access, reliability, quality, affordability, and financial sustainability. These metrics offer insights into management effectiveness and service delivery efficiency.

Strategic management practices are crucial in influencing the performance of Murang'a Water and Sewerage Company. Strategic planning, resource allocation, performance monitoring, stakeholder engagement, and capacity-building initiatives are integral components (Alkhodary, 2023). Effective strategic management can address operational inefficiencies, improve service delivery, and bolster organizational resilience amidst external challenges. Despite existing studies on water and sanitation sector Kenya, additional investigation required delve into the precise effects of strategic management practices on performance results (Enzama, 2020). Such insights can inform policy, regulatory interventions, and managerial decisions, contributing to enhanced service delivery.

1.2 Statement of the Problem

Reliable access to clean water and adequate sanitation is fundamental to protecting public health, fostering economic growth, and achieving the Sustainable Development Goals (UN-Water, 2021). Public water and sewerage companies in Kenya, including Murang'a Water and Sewerage Company (MUWASCO), play a pivotal role in delivering these essential services. However, despite this critical mandate, MUWASCO like many other water service providers in Kenya has struggled with persistent challenges that hinder its performance and service delivery. Recent reports by the Water Services Regulatory Board (WASREB) indicate 59% Kenya's urban population access piped water, while over 41% rely on informal and often unsafe water sources (WASREB, 2023). Specifically, in Murang'a County, non-revenue water representing water that is lost through leaks, theft, or

metering inaccuracies remains alarmingly high at over 45%, well above the national target of 25% (WASREB, 2023). This not only leads to financial losses but also undermines the utility's capacity to invest in infrastructure improvements and service expansion. Furthermore, MUWASCO grapples with aging infrastructure, inadequate funding, frequent system breakdowns, and rising demand fueled by rapid urbanization and population growth (Kenya National Bureau of Statistics [KNBS], 2019). Although these operational challenges are well-documented, there remains a notable gap in empirical research exploring how strategic management practices such as strategic planning, formation of strategic partnerships, and technology adoption can address these issues and enhance organizational performance in the Kenyan public utilities sector. Prior studies on strategic management in Kenya have largely concentrated on private sector firms or general public sector entities, with limited focus on water and sanitation utilities (Njeri & Ombui, 2020; Nyauncho & Nyamwange, 2021). This leaves a critical knowledge gap regarding how strategic decisions influence performance outcomes, including efficiency, service reliability, and customer satisfaction, within water service companies like MUWASCO. Urgency improving water and sanitation services meet Kenya's Vision 2030 targets and United Nations Sustainable Development Goal 6 on clean water and sanitation, it is imperative to investigate how strategic management practices can drive performance improvements. Study aimed to address gap by examining relationship between strategic management practices and organizational performance at MUWASCO. Findings were intended to provide practical insights for managers, policymakers, and development partners to enhance strategic focus, operational efficiency, and long-term sustainability of public water utilities Kenya.

1.3 The Purpose of the Study

This study examined influence of strategic management practices on operational performance of Murang'a Water and Sewerage Company Kenya.

1.4 Objectives of the Study

- i. Access role of strategic planning on performance of Murang'a water and sewerage company, Kenya
- ii. Examine role of strategic alliances on performance of Murang'a water and sewerage company, Kenya
- iii. Investigate influence of technology adoption on performance of Murang'a Water and Sewerage Company, Kenya.

1.5 Research Hypotheses

H₀₁: There is no significant relationship between strategic planning and performance of Murang'a water and sewerage company, Kenya

H₀₂: There is no significant relationship between strategic alliance and performance of Murang'a water and sewerage company, Kenya

H₀₃: There is no significant relationship between technology adoption and performance of Murang'a water and sewerage company, Kenya

1.6 Significance of the Study

Study emphasized how crucial it is to look into how strategic management techniques affect Murang'a Water and Sewerage Company's performance in Kenya. Its conclusions had several ramifications. By developing practical methods to improve water and sanitation services, it first demonstrated the possibility of improving service delivery within Murang'a County, which would improve public health outcomes and quality of life. The research also

offered insights into optimizing resource allocation within the organization by showing how different strategic approaches influenced the allocation of financial, human, and infrastructural resources for maximum impact on service delivery.

At the policy level, the study highlighted areas for improvement, guiding regional and national policymakers toward interventions that could address regulatory, financial, and infrastructural challenges. By revealing how strategic management practices correlated with performance outcomes, the research provided a foundation for stakeholders to enhance operational efficiency, streamline decision-making, and adapt to external changes, fostering greater organizational effectiveness. Additionally, the study contributed to broader sustainable development efforts in Murang'a County, showing how improved water and sanitation management could support public health, environmental sustainability, and economic growth, aligning with long-term community goals.

1.7 Scope of the Study

Study examined correlation between strategic management practices and performance of Murang'a Water and Sewerage Company, Kenya, focusing on strategy development, execution, and assessment and their influence on operational efficiency, service quality, and effectiveness. Geographically, it was confined to Murang'a County, chosen due to its specific water management challenges. The research excluded private sector entities to maintain a focus on public utilities. Temporally, the study used recent data to capture both historical trends and contemporary developments in strategic management and performance. Employing a multidimensional approach, it explored strategic planning, resource allocation, performance monitoring, and organizational structures, aiming to provide a thorough understanding of strategic management affected company's performance.

1.8 Study Limitations

Study's focus on Murang'a Water and Sewerage Company alone limited the applicability of the results to other regions or water service providers, warranting caution when extending the conclusions beyond the study area. Methodological limitations, including potential sample bias, measurement error, and challenges in establishing causation, may have impacted the reliability and validity of the findings. Additionally, external factors have influenced the company's performance independently of strategic management practices. Although efforts were made to account for these variables, their impact could not be entirely excluded.

1.9 Study Delimitations

The study's delimitations established clear boundaries by focusing solely on Murang'a Water and Sewerage Company, excluding private and non-profit providers to concentrate on public sector practices. It specifically examined strategic management practices; namely strategic planning, strategic alliances, and leadership styles as the primary variables influencing company performance. This narrowed scope allowed for an in-depth analysis of these elements. Additionally, data collection was limited to the most recent five-year period, ensuring that findings reflected current trends and challenges relevant to Murang'a Water and Sewerage Company's strategic management context.

1.10 Assumptions of the Study

Study based on several underlying assumptions. Firstly, it assumed interview participants had independence within their organizations to provide thorough responses to interview questions without organizational constraints. Secondly, it anticipated that interviewees possessed the necessary knowledge and information to address all interview inquiries

adequately. Thirdly, it presumed that interviewees' perspectives on their strategic management partners were informed by a solid understanding of these partner firms' operations. Furthermore, the study assumed that the proposed model effectively encompassed the diverse aspects.



1.11 Operational Definition of Key Terms

Strategic Management Practices: The systematic processes and actions undertaken by public water and sewerage companies in the Mt. Kenya region to formulate, implement, and evaluate decisions that enable the achievement of long-term objectives and improve organizational performance. This includes strategic planning, forming strategic alliances, and employing various leadership styles.

Strategic Planning: The process by which public water and sewerage companies in the Mt. Kenya region establish their long-term goals, develop strategies to achieve these goals, and allocate resources accordingly. This involves setting objectives, analyzing competitive environments, and designing actionable plans to enhance performance and service delivery.

Strategic Alliances: Formal partnerships or collaborations between public water and sewerage companies in the Mt. Kenya region and other organizations (such as private firms, non-profits, or government agencies) aimed at sharing resources, knowledge, or capabilities to achieve mutual strategic objectives and improve performance.

Technology adoption:

It pertains to the procedure whereby individuals or organizations embrace and incorporate new technologies into their current systems, workflows, or operations. This process encompasses decision-making, implementation, and utilization stages during which new technological solutions or innovations are assessed, adopted, and eventually employed to improve productivity, efficiency, and competitiveness.

Public Water and Sewerage Companies:

Publicly-owned entities responsible for delivering and upkeeping water supply and sewerage amenities to communities in the Mt. Kenya region. These entities are mandated with guaranteeing the accessibility, dependability, and excellence of water and sanitation services for the populace.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Success Murang'a Water and Sewerage Company in Kenya hinged on various factors, prominently strategic management practices. This study delved into the specific context of Murang'a Water and Sewerage Company, examining how strategic management practices influenced its performance. The study employed two prominent theoretical frameworks: Resource-Based View (RBV) and Agency Theory. These frameworks were instrumental in understanding how organizations could attain and sustain competitive advantage and effectively manage stakeholder relationships. By integrating insights from RBV and Agency Theory, this research aimed to uncover the nuanced mechanisms that impacted the effectiveness of Murang'a Water and Sewerage Company in serving its stakeholders in the Mt. Kenya region.

2.2 Empirical Literature Review

2.2.1 Strategic Management Practices and Performance of Public Water and Sewerage Firms

A research project aimed at exploring how strategic management practices affect performance of public water utilities, with particular attention to the Kenya Pipeline Company Limited was done by Wanjiku and Ngure (2019). Employing a case study methodology, the research utilizes qualitative methods such as interviews and document analysis to examine strategic practices and performance within the company. Drawing from theoretical frameworks such as stakeholder theory or institutional theory, the research investigates different strategic management practices and their influence on organizational performance metrics. Study's results provide understanding into the

efficacy of particular strategic approaches utilized by the Kenya Pipeline Company Limited and their consequences on overall performance results. However, the study also identified research gaps, including the need for broader generalizability beyond the specific case studied, further exploration of specific strategic practices, and gaps in theoretical understanding. In addition to advancing this field of study, filling these gaps improved our understanding of strategic management in public water utilities.

In a different study, Mercy and Robert (2018) looked into how strategic management techniques affected the performance of numerous water and sewerage companies in Kenya. Thorough data, study uses mixed-methods technique that combines quantitative surveys or questionnaires with qualitative interviews or case studies. Study variables encompass strategic management practices and performance indicators, drawing from a theoretical framework that includes strategic management theories such as contingency theory or institutional theory. The results of this research give a glimpse into commonalities or differences in strategic management practices and performance outcomes among water and sewerage companies in Kenya. Identified research gaps included the need for comparative analysis between different regions or sectors within Kenya, further exploration of specific strategic practices, or gaps in understanding the mechanisms linking strategic practices to performance outcomes. Addressing these gaps improved strategic management organizational performance within water and sewerage industry in Kenya.

Grace et al. (2018) carried out another study examining the connection between company performance and strategic management methods in Kenyan public water firms. In order to get thorough data, the study probably uses a mixed-methods technique that combines quantitative surveys or questionnaires with qualitative interviews or case

studies. While the theoretical framework is based on a variety of strategic management theories, such as contingency theory or dynamic capacities theory, the study variables included strategic management practices and performance indicators unique to Kenyan public water corporations. Results of study shed light on effectiveness strategic management techniques Kenyan public water firms as well as how they affect organizational performance. The need for comparative study with other industries or geographical areas, further investigation into certain strategic strategies, or theoretical knowledge gaps that could be filled in subsequent studies were some possible research gaps. Closing these deficiencies resulted in a better comprehension of strategic management across Kenyan public water companies.

Nyambura (2017) conducted an analysis of strategic management methods and performance inside Nairobi City Water and Sewerage Company. Order to obtain insights on strategic practices and performance, case study methodology, qualitative methods analysis, interviews, and observation. The study variables encompassed strategic management practices and performance indicators specific to Nairobi City Water and Sewerage Company, while theoretical framework draws from strategic management theories like stakeholder theory or dynamic capabilities theory. The study's findings provided detailed insights into the strategic practices implemented by the Nairobi City Water and Sewerage Company and their effects on performance outcomes. Identified research gaps included the necessity for broader applicability beyond the specific instance of Nairobi City Water and Sewerage Company, further exploration of specific strategic practices, or gaps in theoretical understanding that could be addressed in subsequent research.

John and Stephen (2016) specifically examined Nairobi City Water and Sewerage Company in study on connection between performance and strategic management techniques. Using a likely quantitative methodology, study most likely used questionnaires or surveys to gather information from stakeholders or workers of the business. In addition to performance metrics like financial performance and customer satisfaction, the study variables covered a range of aspects of strategic management techniques, including strategic planning and resource allocation. In the context of the Nairobi City Water and Sewerage Company, the study's conclusions provided possible insights into relationships between particular strategic management techniques and performance indicators. Identified research gaps included the necessity for more detailed analysis of specific strategic practices, further exploration of contextual factors impacting performance, or gaps in the theoretical framework that could be addressed in subsequent research.

Esther et al. (2014) conducted an analysis examining connection between performance outcomes and strategic management techniques, with a particular focus on the Athi Water Services Board in Kenya. To gather thorough data, the study used a mixed-methods strategy that included both qualitative interviews or case studies and quantitative surveys or questionnaires. Study variables included strategic management practices and performance indicators specific to Athi Water Services Board. Results of this study illuminated efficacy of specific strategic practices within Athi Water Services Board and their influence on performance results. Identified research gaps included the necessity for comparative analysis with other water and sewerage companies, further exploration of specific strategic practices, or gaps in theoretical understanding that could

be addressed in subsequent research. Closing these gaps led to more nuanced comprehension of strategic management practices and consequences for organizational performance within water and sewerage sector Kenya.

2.2.2 Strategic Planning and Performance of Public Water and Sewerage Firms

Utilizing a survey-based research methodology, the study examined strategic planning practices and organizational performance indicators. Their findings revealed a positive correlation between strategic planning practices and organizational performance within water and sewerage firms in Sub-Saharan Africa. However, the study also identified research gaps, emphasizing the need for comparative analysis across different regions within Sub-Saharan Africa and further investigation into the specific elements of strategic planning contributing most to performance outcomes. Closing these gaps provided a deeper understanding of how strategic planning interacts with organizational performance in the public water and sewerage sector.

Study on comparative analysis strategic planning performance in public water and sewerage firms, contrasting between developing and developed countries was done by Chen & Lee (2018). Employing a comparative case study approach with mixed-methods, the research investigates strategic planning practices and performance metrics across different contexts. The findings illuminated differences in both strategic planning practices and performance outcomes between public water and sewerage firms in developing and developed countries. However, the study also identified research gaps, emphasizing the need for deeper exploration of contextual factors influencing strategic planning effectiveness and calling for comparative analysis across a wider range of countries. Filling these gaps enriched the analysis of how strategic planning influenced

performance outcomes in the public water and sewerage sector across different global contexts.

Study on influence of strategic planning on financial performance within public water and sewerage firms was conducted by Smith & Johnson (2016). Using a longitudinal study design alongside quantitative analysis, research explored connection of strategic planning processes, financial performance indicators over time. Their findings revealed positive correlation strategic planning activities and financial performance in public water, sewerage firms, suggesting the enduring advantages of strategic planning initiatives. However, study highlighted opportunities for future research, underscoring need for further exploration into enduring effects of strategic planning on diverse performance metrics and analysis of potential factors that could influence these outcomes. Addressing these research gaps led to a deeper understanding of how strategic planning influences performance within the public water and sewerage sector.

Relationship of strategic planning and customer satisfaction within public water and sewerage firms, focusing on both urban and rural areas was done by Wang & Liu (2019). Utilizing a case study approach with qualitative interviews and surveys, research investigated strategic planning processes and customer satisfaction metrics. Their findings revealed a varied impact of strategic planning on customer satisfaction between urban and rural areas served by public water and sewerage firms. However, study also identified research gaps, emphasizing need for further investigation into factors influencing customer satisfaction in different service areas and calling for comparative analysis across diverse geographic regions. Addressing these gaps provided valuable insights into effectiveness of strategic planning initiatives in enhancing customer

satisfaction within public water and sewerage sector, while also facilitating a better understanding of regional variations in service delivery.

Relationship between strategic planning and environmental performance within public water and sewerage firms was investigated by Garcia and Martinez (2018), through a quantitative assessment, research examined strategic planning processes and environmental performance indicators across different countries. Their findings revealed mixed relationship between strategic planning practices and environmental performance across public water and sewerage firms in different countries. However, the study also identified research gaps, emphasizing need for deeper exploration into mechanisms linking strategic planning to environmental performance outcomes and calling for examination of regulatory and institutional factors shaping environmental performance in different contexts. Addressing these gaps provided valuable insights into effectiveness of strategic planning in promoting environmental sustainability within public water and sewerage sector, while also facilitating a better understanding of regulatory and institutional frameworks influencing environmental performance outcomes across different countries.

2.2.3 Strategic Alliances and Performance of Public Water and Sewerage Firms

Impact of strategic alliances on performance within water and sewerage sector across European countries was done by Brown and Smith (2015). Their research delved into strategic alliance formation and performance metrics, revealing a positive correlation between strategic alliances and performance outcomes. However, the study identified research gaps, emphasizing the necessity for quantitative analysis to substantiate the findings and further exploration of factors influencing the effectiveness of strategic alliances in diverse organizational contexts. Addressing these gaps enhanced the

analysis of the role of strategic alliances in driving performance within the water and sewerage sector, contributing to more informed strategic decision-making in this industry.

A quantitative survey-based research investigating the influence of inter-organizational partnerships on performance within water and sewerage firms in North America was conducted by Johnson and Miller (2017). Their study examined variables such as inter-organizational partnerships and performance indicators, showing varied outcomes concerning the influence of these partnerships on performance results. However, the research identified notable gaps, highlighting the necessity for qualitative analysis to delve deeper into partnership dynamics and further exploration of contextual factors influencing partnership effectiveness. Addressing these gaps offered a broader and deeper comprehension of the role of inter-organizational partnerships in shaping performance outcomes within the water and sewerage sector in North America, ultimately facilitating more effective strategic decision-making in this industry.

A mixed-methods approach was employed to examine the impact of strategic collaborations on organizational performance within public water and sewerage firms in developing countries by Patel and Khan (2018). Through qualitative interviews and quantitative surveys, the research investigated variables such as strategic collaborations and organizational performance metrics. Their findings unveiled a varied impact of strategic collaborations on performance outcomes among firms in developing countries, influenced by factors such as resource availability and institutional support.

However, significant research gaps emerged, highlighting the need for comparative studies between developing and developed countries, as well as deeper investigation into how government policies influence strategic collaborations. Addressing these gaps provided important insights into the effectiveness of such partnerships in improving performance in

water and sewerage sector of developing nations, while also shedding light on contextual factors that shape collaboration dynamics.

2.2.4 Technology Adoption and Performance of Public Water and Sewerage Firms

Ng'ang'a (2023) examined the challenges faced by Murang'a County in providing sewerage services to Kenol town, an unplanned urban settlement in Kenya. The study employed a descriptive research design with a sample of 264 respondents, collecting both qualitative and quantitative data through interviews and questionnaires. Key findings revealed that unplanned settlements, financial constraints, limited technological knowledge, and the physical environment were significant barriers to effective sewerage services. Specifically, unplanned settlements, financial constraints, technological knowledge, and physical environment all negatively impacted service provision. The study recommended improved planning, increased funding, staff training in modern sewerage systems, and strict enforcement of planning regulations. However, the research gap lied in understanding how technology adoption could enhance the performance of water and sewerage firms, an area the current study on technology adoption addressed by examining its impact on operational efficiency in Murang'a Water and Sewerage Company.

Busolo (2019) examined the impact of deploying the "Jisomee Mita" (JM) technology as a solution for sustainable water service provision in the informal settlement of Soweto Kayole (SK) in Nairobi City, Kenya. With 329 participants, including local residents, landlords, and staff from Nairobi City Water and Sewerage Company (NCWSC) and the World Bank, the study used descriptive and inferential statistics to assess the successes and challenges of JM as an innovative water service intervention.

Findings revealed that while JM offered a feasible technological solution, it failed to meet the residents' expectations due to misalignments in implementation, with tariff benefits favoring wealthier property owners over low-income residents. The study recommended prioritizing innovative financing, pro-poor policies, and increased community engagement for effective technology deployment in underserved areas. However, a research gap remains in evaluating how technology adoption impacts the operational performance of water and sewerage firms, which the current study addresses by investigating this relationship in Murang'a Water and Sewerage Company.

Bwire (2022) investigated the impact of various water technologies on the sustainability of water supply projects in Dodoma, Tanzania. The study's six objectives focused on assessing the effects of hand-drilled boreholes, machine-drilled boreholes, upgraded family wells, mechanized pumps, rainwater harvesting, and gravity systems on project sustainability. Using a quantitative approach with data from 184 respondents, the study found that all six technologies significantly and positively contributed to the sustainability of water supply projects. Recommendations included enhancing hand-drilled boreholes, promoting family wells (successful in other regions like Mtwara), increasing support for mechanized pumps, and implementing government-community initiatives for rainwater harvesting. However, the study did not address how technology adoption impacts the broader performance of water and sewerage firms, a gap that the current study explored by examining technology's role in improving efficiency and service delivery in Murang'a Water and Sewerage Company.

2.3 Theoretical Literature Review

2.3.1 Resource-Based View (RBV) theory

Based on Edith Penrose's seminal 1959 work on firm growth theory, the Resource-Based View (RBV) theory contends that a company's distinctive assets and competencies provide it with a sustainable competitive advantage. According to this perspective, businesses are more likely to outperform their rivals if they have resources and competencies that are valuable, rare, inimitable, and non-substitutable (VRIN). It underscores the importance of possessing resources that are both valuable and rare, as well as the ability to effectively deploy these resources through organizational capabilities.

RBV operates on several key assumptions, including the heterogeneity of firms in their resource endowments, indicating that firms have distinct combinations of resources and capabilities that set them apart from competitors (Kurzahls & Kurzahls, 2021). Furthermore, RBV theory assumes that markets are imperfect, allowing firms to temporarily monopolize resources and capabilities to gain competitive advantage. However, critics of RBV argue that it tends to overlook external factors such as market dynamics and industry structure. Additionally, some scholars have criticized RBV for its lack of prescriptive guidance on how to identify and develop valuable resources and capabilities (Chen *et al.*, 2021).

RBV (Resource-Based View) offered a framework for comprehending how strategic management techniques, including alliances, technology adoption, and strategic planning, support the creation and application of valuable resources and capabilities in

public water and sewerage organizations. Strategic planning processes are crucial as they enable these companies to systematically identify and prioritize key resources and capabilities necessary to meet market demands and regulatory requirements effectively. Strategic alliances play a pivotal role by providing opportunities to access complementary resources and expertise that may not be available internally, thereby enhancing the organization's competitive advantage and operational efficiency.

Technology adoption, on the other hand, represents a critical component in leveraging technological advancements to enhance operational performance and sustainability. Water and sewerage firms can improve asset management, optimize resource allocation, and improve service delivery by implementing cutting-edge technologies like digital monitoring systems and IoT (Internet of Things) sensors. In addition to promoting operational effectiveness, this proactive strategy makes it easier to make decisions and respond to customer and environmental needs. Together, these strategic management practices under the RBV framework contribute to strengthening organizational capabilities and resilience, enabling public water and sewerage companies to navigate challenges and capitalize on opportunities in their operational environments.

In recent years, scholars such as Robert M. Grant (2019) and Michael A. Hitt (2017) have significantly contributed to the understanding of strategic management. According to the Resource-Based View (RBV) paradigm, Grant (2019) highlights the need of leveraging internal resources and talents to obtain a competitive edge. Grant provides useful insights on how businesses can successfully traverse competitive landscapes by offering frameworks for evaluating and improving organizational resources. Similarly, Hitt's research, as evidenced in his 2017 publication "Strategic Management: Concepts and Cases," underscores the strategic significance of firm-specific assets. Through the

integration of RBV principles into strategic decision-making processes, Hitt illuminates pathways for organizations to sustain their competitive positions by effectively managing

and deploying valuable resources.

2.3.2 Agency Theory

In their seminal 1976 work "Theory of Firm: Managerial Behavior, Agency Costs, and Ownership Structure," Michael C. Jensen and William H. Meckling introduced agency theory, which studies interactions between principals (owners) and agents (managers) in businesses. According to this theory, conflicts of interest arise when principals and agents have different goals, which results in what are referred to as agency costs. According to agency theory, these agency issues can be lessened and the interests of principals and agents can be aligned with the use of contractual agreements and procedures including incentives, monitoring, and governance structures.

Central to Agency Theory are several key assumptions. Firstly, it assumes rational behavior by individuals, implying that both principals and agents act in their own self-interest. Secondly, it recognizes information asymmetry, where agents possess more information than principals, leading to potential moral hazards or adverse selection issues. Lastly, Agency Theory presumes that agents may engage in opportunistic behavior to maximize their utility at the expense of principals (Al-Faryan, 2024). Critics of Agency Theory argue that it oversimplifies human behavior and neglects the influence of social dynamics within organizations. Additionally, some scholars suggest that Agency Theory tends to prioritize economic incentives over other aspects of organizational behavior, potentially overlooking the importance of relational aspects and intrinsic motivations (Howard, 2024).

In the context of this study, Agency Theory explained how strategic management practices, such as strategic planning, alliances, and technology adoption, influenced the alignment of interests between stakeholders and managers within public water and sewerage organizations. Strategic planning plays a pivotal role by clarifying organizational goals and objectives, thereby reducing the potential for goal divergence between principals (stakeholders) and agents (managers). Strategic alliances further facilitate cooperation between stakeholders and managers, aligning their interests towards common objectives and fostering collaborative efforts in resource sharing and joint ventures.

Technology adoption, as highlighted by Agency Theory, is instrumental in enhancing organizational efficiency and transparency, thereby fostering trust and accountability. By implementing advanced technologies like IoT sensors and digital monitoring systems, water and sewerage companies can improve operational oversight, data accuracy, and responsiveness to stakeholder needs. This adoption not only supports operational goals but also strengthens the alignment of interests between stakeholders and managers by demonstrating a commitment to effective resource management and service delivery. These strategic management practices under the lens of Agency Theory contribute to mitigating agency problems within public water and sewerage organizations, promoting synergy between stakeholders and managers, and enhancing organizational performance and sustainability.

Within the realm of strategic management, scholars such as Kathleen Eisenhardt (2019) and Michael (2018) have explored the implications of Agency Theory on firm performance and governance structures. Eisenhardt (2019) investigates the dynamics

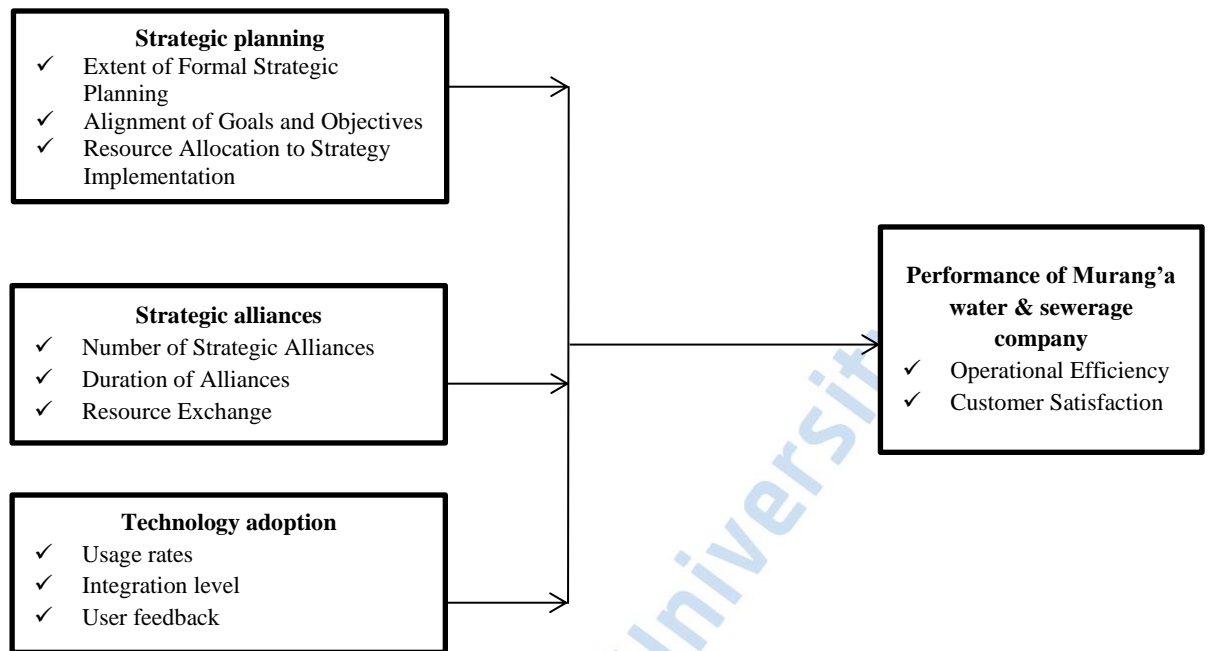
between principals and agents within organizations. By delving into the complexities of agency relationships, the researcher sheds light on how agency conflicts can impact organizational effectiveness and governance mechanisms. Similarly, Michael (2018) delves into the intricacies of agency theory within the context of corporate governance. Through empirical research and theoretical insights, Michael (2018) highlights the importance of aligning incentives and optimizing governance mechanisms to mitigate agency risks and enhance firm performance.

2.4 Conceptual framework

Through the use of diagrams or other visual aids, graphical representation allows researcher to create connections between the variables under study (Orodho, 2008). It serves as a framework for putting out theories on the variables or ideas under investigation and describing how they relate to one another. According to Kothari et al. (2011), a variable is any idea that can be quantified, like height, weight, or financial standing. On the other hand, according to Mugenda (2008), a variable is a measurable characteristic that exhibits different values among distinct entities within a designated population.

The main elements in this study were divided into two categories: independent variables and dependent variables. According to Mugenda (2008), independent variables also referred to as predictor variables are those that forecast how much another variable will change. On the other hand, variable that researcher aims to elucidate is dependent variable, also known as outcome variable, which is a factor that changes due to influence of another component (Andersson et al., 2020).

Strategic management practices



Independent Variables

Figure 1: Conceptual Framework

Source: Researcher (2024)

Dependent Variable

Strategic planning serves as the foundational pillar guiding the actions and decisions of Murang'a water and sewerage company, Kenya. The extent of formal strategic planning reflects the depth of foresight and long-term vision within these organizations, indicating their commitment to setting clear objectives and pathways for growth. Alignment of goals and objectives ensures that every facet of the company's operations is geared towards achieving common strategic targets, fostering coherence and synergy across departments. Moreover, resource allocation to strategy implementation signifies the prioritization of strategic initiatives and the allocation of necessary resources, be it financial, human, or technological, for effective execution. Together, these elements of strategic planning lay the groundwork for strategic direction, resource optimization, and

organizational coherence, all of which are essential for driving operational efficiency and enhancing customer satisfaction within public water and sewerage companies.

Strategic alliances represent a strategic imperative for Murang'a water and sewerage company, Kenya, offering avenues for collaboration and resource sharing with external entities. The number of strategic alliances forged by these companies reflects their propensity for seeking external partnerships to augment their capabilities and address strategic challenges. The duration of these alliances speaks to their sustainability and effectiveness in achieving mutual goals over time, indicating the stability and strength of collaborative relationships. Furthermore, the extent of resource exchange within these alliances underscores the benefits accrued through shared expertise, technology transfer, and access to additional resources. By leveraging strategic alliances, public water and sewerage companies can broaden their operational scope, enhance service delivery, and achieve economies of scale, ultimately contributing to improved performance.

Adoption of technology significantly influences the organizational culture, strategic direction, and operational effectiveness of Murang'a Water and Sewerage Company in Kenya. Implementing advanced technologies is essential for enhancing efficiency and service delivery in the water and sewerage sector. Monitoring usage rates of adopted technologies reveals how extensively they are integrated into daily operations across different departments. This metric assesses the frequency and depth of technology utilization, indicating its integration into core organizational processes. Integration level assessments gauge how well the adopted technologies blend with existing systems and workflows. It considers factors such as interoperability with other technologies, data exchange capabilities, and alignment with organizational infrastructure. Effective integration ensures seamless functionality and enhances overall operational efficiency.

User feedback provides crucial qualitative insights into the user experience with the adopted technologies. It captures perceptions regarding usability, functionality, reliability, and overall satisfaction, guiding ongoing improvements and adjustments to better meet user needs.

The dependent variable, performance of Murang'a water and sewerage company, Kenya, serves as the focal point for evaluating the effectiveness of strategic management practices. Performance is a multifaceted construct comprising various dimensions, but in this context, it is primarily assessed through two key metrics: operational efficiency and customer satisfaction. Operational Efficiency measures the effectiveness and productivity of the company's internal processes and resource utilization. It encompasses factors such as cost-effectiveness, service delivery speed, infrastructure maintenance, and regulatory compliance. High operational efficiency indicates that the company is able to deliver its services reliably, promptly, and at minimal cost, thereby maximizing its output relative to the resources invested.

Customer Satisfaction indicates the degree to which the company fulfills or surpasses the expectations and requirements of its customers, including residential households, businesses, and other stakeholders. It encompasses factors such as service quality, responsiveness, reliability, and communication. High levels of customer satisfaction indicate that company is successfully fulfilling its mandate to provide clean, accessible water and sanitation services, thereby enhancing overall well-being and quality of life of the community. Contented customers are prone to maintain their loyalty, offer favorable reviews, and endorse the company, contributing to its reputation and long-term sustainability. Together, operational efficiency and customer satisfaction provide a comprehensive assessment of the performance of Murang'a water and sewerage

company, Kenya. By evaluating these key dimensions, the research seeks to ascertain how much strategic management practices, including strategic planning, strategic alliances, and leadership styles, contribute to the overall effectiveness and success of these companies in fulfilling their mission and serving the needs of the community.

2.5 Recap of Literature Review

Although the results and research gaps vary, previous studies on relationship public water, sewerage corporations', alliances, partnerships, and strategic management techniques provide insightful information. A number of research, such as those by Nyambura (2017), Wairimu & Gichira (2018), and Mwangi & Mbugua (2016), indicate a favorable correlation between organizational performance and strategic management approaches. They show that better performance outcomes in public water and sewerage firms are a result of strategic management methods that work. Furthermore, strategic partnerships and performance outcomes in the water and sewerage sector across several European countries were found to be positively correlated by Brown & Smith (2015).

However, findings from studies like Johnson & Miller (2017) and Patel & Khan (2018) present a more nuanced picture, showing mixed results regarding the impact of inter-organizational partnerships or collaborations on performance outcomes. While some partnerships showed positive impacts, others did not, indicating a complex relationship influenced by contextual factors. Despite these differences, common research gaps emerge, including the need for comprehensive analysis to validate findings, understanding contextual factors influencing effectiveness, comparative analysis across regions, and exploration of external factors' roles. Closing these gaps would improve comprehension of relationships strategic management practices, alliances, partnerships, and performance results in public water sewerage industry.

Table 1: Research gaps

Name of the author and year	Topic of the study	Methodology	Results	Research gaps identified	Focus of the current study
Wanjiku and Ngure (2019)	Influence of strategic management practices on performance of Kenya Pipeline Company Limited	Case study; qualitative methods (interviews and document analysis)	Insights into effectiveness of strategic initiatives and their implications for performance outcomes	Need for broader generalizability, further exploration of specific strategic practices, gaps in theoretical understanding	Address strategic management practices and performance in public water utilities in Kenya
Mercy and Robert (2018)	Impact of strategic management practices on organizational performance in Kenyan water and sewerage companies	Mixed-methods approach (quantitative surveys, qualitative interviews or case studies)	Commonalities and differences in strategic management practices and performance outcomes among water and sewerage companies	Need for comparative analysis between different regions or sectors, further exploration of specific strategic practices, gaps in understanding mechanisms linking strategic practices to performance outcomes	Comparative analysis of strategic management practices across regions/sectors in Kenyan water and sewerage firms
Grace et al. (2018)	Relationship between strategic management practices and organizational performance within Kenyan public water	Mixed-methods approach (quantitative surveys, qualitative interviews or case studies)	Insights into effectiveness of strategic management practices within Kenyan public water companies and their	Need for comparative analysis with other sectors or regions, further exploration of specific strategic practices, gaps in theoretical understanding	Strategic management practices and performance comparison within different sectors/regions

	companies		impact	on		
			performance			
Nyambura (2017)	Strategic management practices and performance of Nairobi City Water and Sewerage Company	Case study; qualitative methods (interviews, document analysis, observation)	Detailed insights into strategic practices and their impact on performance outcomes		Need for broader generalizability, further exploration of specific strategic practices, gaps in theoretical understanding	Broader generalizability of strategic management practices
John and Stephen (2016)	Strategic management practices and performance of Nairobi City Water and Sewerage Company	Quantitative approach (surveys or questionnaires)	Potential insights into correlations between specific strategic management practices and performance metrics		Need for more in-depth analysis of specific strategic practices, further exploration of contextual factors impacting performance, gaps in theoretical framework	In-depth analysis of specific strategic practices and contextual factors
Musonda & Simuyemba (2017)	Relationship between strategic planning and organizational performance in public water and sewerage firms in Sub-Saharan Africa	Survey-based research methodology	Positive correlation between strategic planning practices and organizational performance		Need for comparative analysis across different regions within Sub-Saharan Africa, further investigation into specific elements of strategic planning contributing most to	Comparative analysis across different regions in Sub-Saharan Africa

Author(s)	Study Title	Methodology	Findings	Implications	Limitations
Chen & Lee (2018)	Comparative analysis of strategic planning and performance in public water and sewerage firms between developing and developed countries	Comparative case study approach with mixed-methods	Differences in strategic planning practices and performance outcomes between public water and sewerage firms in developing and developed countries	Need for deeper exploration of contextual factors influencing strategic planning effectiveness, comparative analysis across a wider range of countries	Contextual factors influencing strategic planning effectiveness across different countries
Smith & Johnson (2016)	Impact of strategic planning on financial performance in public water and sewerage firms	Longitudinal study design with quantitative analysis	Positive association between strategic planning activities and financial performance	Need for further investigation into long-term effects of strategic planning on various performance dimensions, exploration of potential moderating variables	Long-term effects of strategic planning on performance
Wang & Liu (2019)	Strategic planning and customer satisfaction in public water and sewerage firms	Case study approach with qualitative interviews and surveys	Varied impact of strategic planning on customer satisfaction between urban and rural areas	Need for further investigation into factors influencing customer satisfaction in different service areas, comparative analysis across diverse geographic regions	Factors influencing customer satisfaction in different service areas
Garcia and Martinez (2018)	Strategic planning and environmental	Quantitative assessment	Mixed relationship between strategic	Need for deeper exploration into mechanisms linking	Mechanisms linking strategic planning to environmental

	performance in public water and sewerage firms		planning practices and environmental performance across different countries	strategic planning to environmental performance outcomes, examination of regulatory and institutional factors shaping environmental performance in different contexts	performance outcomes
Johnson and Miller (2017)	Influence of inter-organizational partnerships on performance within water and sewerage firms in North America	Quantitative survey-based research	Mixed results regarding impact of inter-organizational partnerships on performance outcomes	Need for qualitative analysis to delve deeper into partnership dynamics, further exploration of contextual factors influencing partnership effectiveness	Qualitative analysis of partnership dynamics and contextual factors
Jones and Smith (2019)	Relationship between leadership styles and organizational performance in public water and sewerage firms in the US	Quantitative survey-based research	Positive correlation between transformational leadership styles and organizational performance, varied impacts of transactional leadership styles	Need for qualitative analysis to delve into underlying mechanisms of leadership styles on performance outcomes, investigation into contextual factors influencing leadership effectiveness in different regions	Underlying mechanisms of leadership styles on performance outcomes and contextual factors
Garcia and	Relationship between	Longitudinal study	Positive association	Need for comparative	Comparative analysis of

Martinez (2018) leadership styles and design performance in public water and sewerage firms in Europe

between transformational leadership styles and performance outcomes, negative impacts of autocratic leadership styles analysis across diverse geographic regions to understand generalizability of findings, exploration of role of leadership succession planning in sustaining performance improvements leadership styles across regions and leadership succession planning

Source: Researcher (2024)



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

An outline of technique investigates how strategic management methods affect Murang'a Water and Sewerage Company's performance in Kenya was given in this chapter. The study region selection reason, sample size and technique determination particular to Murang'a Water and Sewerage Company, customized techniques, utilized were all covered in the methodology. Each component was detailed to ensure transparency, rigor, and reliability, aiming to produce valid and insightful findings about the impact of strategic management practices within Murang'a Water and Sewerage Company in the Mt. Kenya region.

3.2 Research Methodology

Study adopted a descriptive research methodology, focusing on examining samples from a population to understand the occurrence, distribution, and relationships among sociological and psychological factors within large populations (Mohajan, 2020). This methodology allowed for the selection of specific parameters of interest within a designated timeframe to accurately depict population characteristics. Study collected quantitative, qualitative data using semi-structured interviews and structured questionnaires to thoroughly examine impact of strategic management methods on the performance of Kenya's Murang'a Water and Sewerage Company. A thorough investigation of research variables was ensured by statistical analysis of quantitative data and thematic analysis of the qualitative data.

3.3 Research Design

This descriptive sought connection the performance outcomes of Kenya's Murang'a Water and Sewerage Company and strategic management methods. This design was deemed suitable as it captured data about current strategies within the company and relevant parameters at a specific, predetermined time. The study examined several key variables to achieve this objective. The independent variables, representing strategic management practices, included strategic planning, strategic alliances, and technology adoption.

Strategic planning involved the systematic process of goal setting, environmental scanning, resource allocation, and developing actionable plans, measuring the effectiveness of planning efforts on organizational performance. Strategic alliances encompassed partnerships and collaborations with other entities, such as public-private partnerships and inter-agency cooperation, assessing the impact of these external relationships on enhancing operational capabilities and performance. Technology adoption examined how the implementation of new technologies influenced service delivery, operational efficiency, and overall company performance.

The dependent variable, representing the performance of Murang'a Water and Sewerage Company, was evaluated based on indicators such as service coverage, customer satisfaction, financial stability, operational efficiency, and regulatory compliance. These performance indicators provided a comprehensive measure of how well the company achieved its objectives and served its community. Studies aimed identify interrelationships among these variables, facilitating the simultaneous collection and comparison of multiple data points.

3.4 Location of the Study

This research specifically concentrated on Murang'a County, Kenya. The county was situated between latitudes 0.1699° S and 0.7654° N, and longitudes 37.0729° E and 38.3359° E. This area was selected for its unique attributes, which included diverse demographics, varied terrain, and specific challenges in water management and service delivery that impacted Murang'a Water and Sewerage Company.

3.5 Target Population

Murang'a Water and Sewerage Company in Kenya's Murang'a County was study's target demographic. This specifically includes every individual in charge of different operational, managerial, and strategic responsibilities within the company. These people were essential to comprehending the dynamics of strategic management techniques and how they affected the company's performance results. The study focused on their perspectives, involvement in decision-making, planning, and implementation processes, which were crucial for evaluating the effectiveness of strategic management practices within Murang'a Water and Sewerage Company.

3.6 Sampling Procedures and Techniques

a census approach was adopted, focusing specifically on Murang'a Water and Sewerage Company in Murang'a County, Kenya. This approach involved collecting data from every member of population rather than selecting a sample, as target population consisted of all 140 permanent staff members of company. This decision was made due to several considerations: manageable size of population made a census feasible and practical, and it ensured maximum inclusivity by minimizing sampling bias and capturing the perspectives of every staff member. Conducting a census aligned with research objective of gaining detailed insights into the dynamics of water and sewerage management in Murang'a County. Surveying all staff members, study aimed to capture

diverse perspectives on strategic approaches and performance levels, facilitating a nuanced understanding of factors influencing outcomes within organization. census approach was deemed appropriate and advantageous, given well-defined nature of target population and objective of obtaining comprehensive insights into strategic management practices within Murang'a Water and Sewerage Company.

3.7 Construction of Research Instruments

Study relied on primary data, utilizing questionnaires as main data collection tool. Questionnaires were recognized for their effectiveness in gathering data and facilitating various analytical processes such as description, inference, correlation, and prediction. To ensure comprehensive data collection, the survey predominantly consisted of closed-ended questions, with most structured using a 5-point Likert scale format. Respondents rated their answers on a scale from five, indicating strong disagreement, to one, indicating strong agreement. This use of the 5-point Likert scale allowed participants to provide their responses easily and efficiently. Collected data were analyzed using statistical techniques to support effective quantitative analysis methods.

3.8 Testing for Validity and Reliability/Trustworthiness

Separate from the primary research, pilot study was conducted Kiambu County to evaluate viability and effectiveness of research instruments and methodologies. Purpose of pilot study was to find possible problems with data gathering and modify the research procedures appropriately. Depending on the methodology selected, a small sample of Kiambu County participants who were typical of the target demographic were asked to either complete the questionnaire or take part in interviews. The feasibility of data collection techniques, research instrument clarity, logistical considerations, and data quality were all assessed in the pilot project. Before starting the primary investigation,

the research instruments and procedures were modified and improved in light of the results, taking into account the lessons learnt to guarantee the study's success.

3.8.1 Reliability of Research Instruments

Reliability in this study focused on ensuring consistency in measurements under different conditions to achieve replicable outcomes. The internal approach to assessing consistency was employed, known for its robustness. Internal consistency was evaluated using the Cronbach Alpha statistic, following the recommendation that reliability measures should reflect the average relationships among individual test elements, with a threshold above 0.7 for Cronbach's Alpha coefficient. This metric indicated how well the items in the test measured the same underlying concept, ensuring coherence among test items. Evaluating internal consistency was crucial to validate the reliability and suitability of the test before its use in research or examinations.

3.8.2 Validity of Research Instruments

Validity study focused on accuracy with which data analysis results depicted the phenomena under investigation, ensuring that the obtained data represented the relevant variables. To confirm the validity of the questionnaire, several methods were employed, involved developing and operationalizing the questionnaire based on the study variables, ensuring that the items adequately represented each variable in line with the study's objectives. Input from experts in the field, including supervisors and professionals in the water and sewerage industry, was sought to establish Content Validity by assessing whether the measures accurately reflected the relevant concepts.

3.9 Data Collection Methods and Procedures

For this study, aimed to interview all employees of Murang'a Water and Sewerage Company, as they were believed to possess crucial insights. Data collection was conducted through questionnaires administered by the researcher. Prior contact was established with the respondents to facilitate communication. The questionnaires were distributed in person, allowing respondents ample time to complete them and the opportunity to seek clarification from the researcher. Authorization and consent were obtained from the management of Murang'a Water and Sewerage Company before utilizing the Drop-off and Pick-Up Later (DOPUL) method for questionnaire distribution.

3.10 Proposed Data Analysis Techniques and Procedures

Data analysis involved applying reasoning comprehend the collected information, aiming to identify recurring patterns and summarize relevant details uncovered during the inquiry (Mezmir, 2020). Data processing encompassed tasks such as reviewing, categorizing, and organizing the collected data to ensure coherence, as defined by Kothari (2009). Data entry transformed the information obtained through primary or secondary means into a format suitable for visualization and manipulation. SPSS version 28 was used calculating response rates and using descriptive statistics, such as mean, variability, median, and ratios. To ascertain direction and magnitude of association between independent and dependent variables, inferential data analysis employed correlation analysis. Additionally, regression models were applied, and hypothesis testing involved multiple regression analysis and standard F tests, allowing for a simultaneous comparison of all variables.

3.10.1 Model Estimation and Inferences

Statistical modeling entails evaluating the likelihood that an observed distinction between categories is not merely a chance happening but instead a reliable one (Harrel, 2015). Conversely, regression analysis seeks to ascertain if a group of independent factors together can forecast a particular dependent variable, thereby notably improving the precision of the estimate (Mugenda & Mugenda, 2003). In the scope of this research, the linear regression model was structured in a manner where, for each variable, it assumed the following form:

H₀₁: There is no significant relationship between strategic planning and performance of Murang'a water and sewerage company, Kenya

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \dots\dots\dots 3.1$$

H₀₂: There is no significant relationship between strategic alliance and performance of Murang'a water and sewerage company, Kenya

$$Y = \beta_0 + \beta_2 X_2 + \varepsilon \dots\dots\dots 3.2$$

H₀₃: There is no significant relationship between leadership styles and performance of Murang'a water and sewerage company, Kenya

$$Y = \beta_0 + \beta_3 X_3 + \varepsilon \dots\dots\dots 3.3$$

Where;

Y = Dependent variable (Performance of Murang'a water and sewerage company)

β_0 = Constant (The value of Y when all X values are zero)

β_1 = regression coefficients i=1, 2, 3,.....

X_1 = Independent Variable (Strategic Planning)

X_2 = Independent Variable (Strategic Alliance)

X_3 = Independent Variable (Leadership Styles)

ε = Error term

Following the analysis, data was presented using frequency distributions, pie charts, scatter plots, and bar graphs to illustrate the responses visually.



3.11 Ethical Considerations

Prior to initiating the study, researcher secured necessary approvals from Mt. Kenya University Board of Postgraduate Studies and the University's Ethics Committee, as well as obtaining informed consent from all participants. Formal authorization was also obtained from the National Council for Science, Technology and Innovation (NACOSTI). Upholding ethical standards was considered essential to protect participants' well-being (White, 2020). Key ethical principles observed included informed consent, voluntary participation, confidentiality, avoidance of harm, researcher integrity, and the prevention of plagiarism and misconduct (Bos, 2020). Informed consent ensured that participants were fully aware of the study's purpose and their rights, enabling them to make voluntary and informed decisions about participation (Cardwell, 2015). Researcher clearly communicated the study's objectives, allowing individuals to choose whether or not to take part. Participants' identities and data were kept confidential to safeguard their privacy (Cardwell, 2015). Overall, the study was conducted with a strong commitment to ethical research practices, ensuring respect, transparency, and accountability throughout the research process.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Preliminary Findings

This chapter presents study's findings and discussions in relation to its objectives and theoretical framework. To support inferential analysis, data were tested for linearity, multicollinearity, normality, and homoscedasticity. Study aimed to examine impact of strategic management practices on operational performance of Murang'a Water and Sewerage Company. Data were collected through a survey targeting all employees, who were considered key informants. Chapter begins with demographic profile of respondents, followed by descriptive and inferential analyses of key variables strategic planning, strategic alliances, technology adoption, and performance. Correlation and regression analyses were also conducted, with results presented in frequency tables and interpreted accordingly.

4.2 Reliability Test

Cronbach's Alpha, a statistic that gauges how closely related the items in a scale are, was used in reliability analysis to evaluate the internal consistency of several sets of items (Vaske et al., 2017). Higher values of Cronbach's Alpha, which range from 0 to 1, signify more internal consistency which leads to more accurate measurement of the underlying notion. A dependable scale is generally indicated by a Cronbach's Alpha value greater than 0.7 (Taber, 2018).

Table 2: Reliability Test

Variable	No of items	Cronbach's Alpha
SPP	6	0.656
SAP	6	0.684
TAP	6	0.742
CP	6	0.664

SPP is strategic planning practices, SAP is strategic alliance practices, TAP is technology adoption practices and CP is company performance
Source: Primary data (2024)

In this case, four variables, each consisting of six items, were examined for reliability. The variable SPP had a Cronbach's Alpha of 0.656, which suggests moderate internal consistency. Although the items are somewhat related, the scale falls short of the ideal threshold of 0.7, indicating that the items do not fully capture the same concept consistently. Similarly, the variable SAP had a Cronbach's Alpha of 0.684, reflecting a comparable level of reliability. Like SPP, it shows moderate internal consistency, which implies that while the items are related, they may not be entirely reliable in measuring the intended construct.

Conversely, the variable TAP demonstrated strong internal consistency with a Cronbach's Alpha of 0.742. This number is higher than the usual benchmark of 0.7, indicating that the scale's items are consistently measuring the same underlying concept and that it can be utilized with confidence for additional research. Like SPP and SAP, the variable CP has a Cronbach's Alpha of 0.664, indicating moderate reliability. Although it reflects some degree of consistency among the items, it too falls short of the ideal reliability standard. The reliability analysis revealed that TAP had strong internal consistency, making it a reliable scale, while SPP, SAP, and CP exhibited moderate reliability, suggesting room for improvement. These results suggest that while TAP is dependable, the other scales might benefit from refinement or additional testing to enhance their reliability.

4.3 Response Rate

According to Ali et al. (2021), response rate is the proportion of distributed questionnaires that are successfully filled out and returned. Study's findings are further

supported by the fact that a response rate of 70% or more is considered excellent for data reporting and analysis (Mugenda & Mugenda, 2012).

Table 3: Respondents Response Rate

Response Rate	Frequency	Percentage
Returned	115	82.14%
Non-Responded	25	17.86%
Total	140	100%

Source: Primary data (2024)

Response rate, as shown in Table 2, revealed that 115 of the 140 distributed questionnaires were returned, yielding a high response rate of 82.14%. This was considered an excellent rate of response for survey research, as it exceeded the 70% threshold typically regarded as very good by Mugenda and Mugenda (2012). A high response rate like this enhanced the reliability and generalizability of the findings, indicating that the majority of respondents were engaged and that the data collected was likely to provide a representative view of the target population. Furthermore, the relatively low non-response rate of 17.86% suggested minimal bias from non-participation, which strengthened the overall validity of the study.

4.4 Diagnostic Tests

Diagnostic tests play a crucial role in verifying the reliability and validity of a regression model by assessing key assumptions and identifying potential data issues (Westfall & Arias, 2020). These tests evaluate factors such as multicollinearity, heteroscedasticity, linearity, and the normality of residuals to ensure the model accurately reflects the data and that the conclusions drawn are dependable. Conducting these tests helps researchers detect and correct any assumption violations, thereby enhancing the model's strength and the clarity of the results (Tripathi et al., 2021).

4.4.1 Normality Test

Normality test is a crucial step in statistical analysis, as it assesses whether data follows a normal distribution (Demir, 2022). This assumption is foundational for many statistical methods, particularly parametric tests, which rely on properties of normally distributed data. Evaluating distribution of unstandardized residuals, researchers can determine validity of their model and appropriateness of subsequent analyses (Abulela & Harwell, 2020). In this section, results of the Kolmogorov-Smirnov and Shapiro-Wilk tests were presented to examine normality of residuals obtained from regression model.

Table 4: Tests of Normality for regression analysis residuals for all four models

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual SPP	.075	115	.151	.983	115	.168
Unstandardized Residual SAP	.062	115	.200*	.992	115	.745
Unstandardized Residual TAP	.062	115	.200*	.985	115	.211
Unstandardized Residual ALL	.046	115	.200*	.994	115	.889

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Source: Primary data (2024)

Results of regression model residuals' normality tests show that all four models' residuals fit a normal distribution quite well. Shapiro-Wilk and Kolmogorov-Smirnov tests both yield significance values significantly over 0.05, indicating that null hypothesis of normalcy is not rejected. As a result, the assumption of normality is supported by the residuals' appearance as being regularly distributed for all models. The findings are more reliable and the use of parametric statistical methods in this research is justified because this result suggests that the regression analyses are valid in terms of residual distribution.

4.4.2 Heteroskedasticity Test

A heteroskedasticity test assesses whether the error variance in a regression model remains consistent across different values of the independent variable (Alabi et al., 2020). Identifying heteroskedasticity is crucial, as its presence can result in inefficient parameter estimates and compromise the reliability of statistical conclusions drawn from the model.

Table 5: Breusch-Pagan Test for Heteroskedasticity^{a,b,c}

Chi-Square	df	Sig.
2.451	1	.117

a. Dependent variable: CP_Average

b. Tests the null hypothesis that the variance of the errors does not depend on the values of the independent variables.

c. Predicted values from design: Intercept + SPP_Average

Source: Primary data (2024)

Heteroskedasticity, or unequal variance of errors, was tested for in model using Breusch-Pagan test in Table 5. The test yielded a p-value of 0.117 and a Chi-Square statistic of 2.451. Since variance of errors was assumed to be constant across all values of independent variables, null hypothesis in this instance claimed that there was no heteroskedasticity. There was insufficient evidence to reject null hypothesis because p-value was 0.117, higher than usual significance criterion of 0.05. This implied that there was no substantial heteroskedasticity and that variance of the residuals was independent of independent variables. As a result, model seemed to have satisfied homoskedasticity requirement, increasing likelihood that outcomes were trustworthy.

4.4.3 Multicollinearity Test

Multicollinearity between the independent variables SPP_Average, SAP_Average, and TAP_Average in regression model, with CP_Average as dependent variable, as revealed by results in Table 6. When independent variables have a high degree of correlation

with one another, this is known as multicollinearity. This can skew results of a regression model by increasing variance of predicted coefficients, making it challenging to evaluate the influence of each predictor (Lindner et al., 2020). Variance inflation factor (VIF) and tolerance are two important statistics that are looked at in order to identify this problem.

Table 6: Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	SPP_Average	.456	2.194
	SAP_Average	.426	2.347
	TAP_Average	.398	2.513

a. Dependent Variable: CP_Average

Source: Primary data (2024)

Low tolerance values may indicate potential multicollinearity concerns. Tolerance measures the proportion of an independent variable's variance that is not explained by other predictors in the model (Shrestha, 2020). In contrast, the Variance Inflation Factor (VIF), which is the reciprocal of tolerance, reflects how much multicollinearity inflates the variance of a regression coefficient. Generally, multicollinearity is not considered problematic when VIF values are below 5. In this analysis, the tolerance and VIF values for SPP_Average, SAP_Average, and TAP_Average are within acceptable ranges. All VIF values are under 5, and tolerance values exceed the minimum threshold of 0.1, suggesting that multicollinearity is not a significant concern. This implies that the independent variables are not excessively correlated, and their individual effects on the dependent variable can be assessed reliably. As a result, the coefficients are stable and comprehensible since the regression model can accurately estimate the separate impacts of these variables without being skewed by multicollinearity. This improves the model's

overall validity and reliability, enabling more precise inferences regarding the correlation between CP_Average and the independent variables.

4.4.4 Linearity Test

A linearity test evaluates whether the relationship between independent and dependent variables in a regression model is linear (Alita *et al.*, 2021). This assumption is crucial for accurate modeling, as non-linear relationships can distort results, leading to biased estimates and weakened predictive accuracy. Testing for linearity ensures that the chosen model form aligns with the actual data patterns, supporting more reliable conclusions (Crosse *et al.*, 2021).

Table 7: ANOVA Table for Linearity test (CP and Strategic Planning Practices)

			Sum of Squares	df	Mean Square	F	Sig.
CP_Average *	Between	(Combined)	12.297	14	.878	6.815	.000
SPP_Average	Groups	Linearity	8.806	1	8.806	68.32	.000
		Deviation from Linearity	3.491	13	.269	2.083	.021
	Within Groups		12.888	100	.129		
	Total		25.185	114			

Source: Primary data (2024)

Table 8: ANOVA Table for Linearity test (CP and Strategic Alliance Practices)

			Sum of Squares	df	Mean Square	F	Sig.
CP_Average *	Between	(Combined)	14.756	12	1.230	12.027	.000
SAP_Average	Groups	Linearity	12.482	1	12.482	122.08	.000
						6	

	Deviation from Linearity	2.274	11	.207	2.022	.034
	Within Groups	10.429	102	.102		
	Total	25.185	114			

Source: Primary data (2024)

Table 9: ANOVA Table for Linearity test (CP and Technology Adoption Practices)

			Sum of Squares	df	Mean Square	F	Sig.
CP_Average *	Between	(Combined)	13.579	13	1.045	9.091	.000
TAP_Average	Groups	Linearity	10.227	1	10.227	89.009	.000
		Deviation from Linearity	3.352	12	.279	2.431	.008
	Within Groups		11.605	101	.115		
	Total		25.185	114			

Source: Primary data (2024)

The linearity tests for the relationships between Company Performance (CP) and each strategic management practice; Strategic Planning Practices (SPP), Strategic Alliance Practices (SAP), and Technology Adoption Practices (TAP) all show significant results, indicating strong linear relationships. In each table, the "Linearity" row has a very high F-value and a significance level (Sig.) of .000, confirming that there is a significant linear association between CP and each respective strategic practice. However, there are also significant values in the "Deviation from Linearity" row across the tables, with p-values of .021 (SPP), .034 (SAP), and .008 (TAP), which suggest the presence of some non-linear elements in each relationship. While these deviations from linearity are statistically significant, their relatively low F-values and mean squares (compared to the linear component) indicate that the linear component is still the dominant trend in the relationships. Therefore, we conclude that the relationships between CP and each of the strategic practices are primarily linear, though some minor non-linear patterns may exist.

4.5 Profile of the Respondents

Interpreting the study's conclusions effectively requires consideration of the respondents' demographic characteristics. This section provides a summary of key demographic factors, including gender, age, length of service, job position, and educational background. These details offer valuable context by shedding light on the organizational setting and the respondents' levels of experience, thereby enhancing the interpretation of the study's findings.

4.5.1 Gender of the Respondents

Examining gender of respondents provides insights into diversity and representation within the sample, helping to contextualize findings and understand any potential gender-based perspectives in the study.

Table 10: Gender of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	95	81.9	82.6	82.6
	Female	20	17.2	17.4	100.0
	Total	115	99.1	100.0	
Missing	System	1	.9		
Total		116	100.0		

Source: Primary Data (2024)

Gender distribution of respondents shows that majority were male, making up 81.9% of the total sample. When considering only valid responses, males accounted for 82.6%. In contrast, female respondents comprised 17.2% of the sample, representing 17.4% of the valid responses. With a cumulative percentage of 100%, the data indicates that the gender ratio in the study was significantly skewed towards males. There was a small portion of missing data, with one response not recorded, accounting for 0.9% of the total. This large gender disparity suggests that male perspectives dominate the findings, which could have implications depending on the gender-related aspects of study.

4.5.2 Age of the Respondents

Analyzing respondents' age provides meaningful insights into demographic makeup of sample, which can shape their perspectives and experiences related to study. Understanding age distribution helps place findings in context and may reveal generational variations in attitudes or responses.

Table 11: Age of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 25 years	19	16.4	16.5	16.5
	25-34 years	49	42.2	42.6	59.1
	35-44 years	42	36.2	36.5	95.7
	45-54 years	5	4.3	4.3	100.0
	Total	115	99.1	100.0	
Missing	System	1	.9		
Total		116	100.0		

Source: Primary Data (2024)

Age distribution of respondents reveals that largest group, 42.2%, was between 25 and 34 years old. This was followed by those aged 35 to 44, who made up 36.2% of total respondents. Smaller portions, 16.4%, were under 25 years, while smallest group, only 4.3%, was aged 45 to 54. These figures reflect that majority of participants were in early to mid-stages of their careers. Additionally, there was a single missing response, accounting for 0.9% of the total, which did not significantly affect the overall analysis. Cumulative percentages indicate that nearly all respondents were under age of 45, suggesting a relatively youthful demographic profile for study.

4.5.3 Educational Level of the Respondents

Assessing educational level of respondents is crucial for understanding their background and expertise, which can significantly impact their perspectives and responses within the

study. This analysis provides context for findings and may reveal how education influences attitudes or behaviors related to the research topic.

Table 12: Educational Level of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School	32	27.6	28.1	28.1
	Diploma	69	59.5	60.5	88.6
	Bachelors Degree	10	8.6	8.8	97.4
	Masters Degree	3	2.6	2.6	100.0
	Total	114	98.3	100.0	
Missing	System	2	1.7		
Total		116	100.0		

Source: Primary Data (2024)

Education level of respondents shows that majority, 59.5%, held diploma, reflecting that most participants had technical or vocational training. A notable portion, 27.6%, had completed only high school, while smaller group, 8.6%, had attained bachelor's degree. Only 2.6% of respondents held master's degree, indicating that a minimal number of participants had advanced academic qualifications. There were two missing responses, accounting for 1.7% of the total, which did not significantly impact overall findings. Cumulative percentages indicate that most respondents had education levels at or below diploma level.

4.5.4 Position in the Organization

Evaluating position of respondents within organization is essential for understanding their roles, responsibilities, and influence on the study's subject matter. This information helps contextualize the findings by highlighting how varying levels of authority and experience may shape perceptions and insights related to the research focus.

Table 13: Position in the Organization

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	Manager	2	1.7	1.8	1.8
	Supervisor	13	11.2	11.4	13.2
	Staff	99	85.3	86.8	100.0
	Total	114	98.3	100.0	
Missing	System	2	1.7		
Total		116	100.0		

Source: Primary Data (2024)

The data on respondents' positions within the organization reveals that the vast majority, 85.3%, identified as staff members, reflecting that most participants were likely operational employees. A smaller group, 11.2%, held supervisory roles, indicating a moderate level of representation from mid-level management. Only 1.7% of respondents were in managerial positions, suggesting limited input from senior leadership. With two missing responses, the overall distribution still shows a predominance of staff members, which could influence the insights provided in the study, particularly with a focus on operational rather than strategic viewpoints.

4.5.5 Years of Service in the Organization

Analyzing the years of service of respondents within the organization provides insights into their experience and tenure, which can affect their perspectives on organizational practices and dynamics. This metric helps contextualize the findings, as longer service may correlate with deeper institutional knowledge and varying attitudes toward changes and strategies in the organization.

Table 14: Years of Service in the Organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1 year	4	3.4	3.5	3.5
	1-3 years	44	37.9	38.3	41.7
	4-6 years	49	42.2	42.6	84.3
	7-10 years	16	13.8	13.9	98.3
	Over 10 years	2	1.7	1.7	100.0
	Total	115	99.1	100.0	
Missing	System	1	.9		
Total		116	100.0		

Source: Primary Data (2024)

The data on years of service in organization shows that majority of respondents, 42.2%, had been with organization for 4 to 6 years, indicating a workforce with a significant level of experience. Those who had served between 1 and 3 years accounted for 37.9%, reflecting a considerable proportion of relatively newer employees. A smaller group, 13.8%, had been with the organization for 7 to 10 years, while only 3.4% of respondents had less than 1 year of experience. The smallest group, at 1.7%, comprised individuals with over 10 years of service. This distribution suggests that the organization has a balance of both moderately experienced and newer employees, with a relatively small number of long-serving members. The mix of experience levels could influence the perspectives provided in the study, particularly regarding institutional knowledge and adaptation to newer practices.

4.6 Descriptive Analysis

In descriptive analysis, the key features of the data gathered for the study are summarized and interpreted. The distribution, core tendencies, and variability within the dataset can be better understood thanks to this method's concise summary of the sample's demographic and contextual factors. Researchers can find patterns and trends that guide the study's results by using descriptive statistics as a starting point for additional investigation.

4.6.1 Strategic Planning

The descriptive statistics provide a detailed overview of employees' perceptions regarding strategic planning within the organization as shown in Table 15. With a total of 115 respondents, the findings suggest that there is a strong belief among employees that the organization has a well-defined strategic plan, as indicated by the highest mean score of 4.41. This suggests that most respondents feel positively about the clarity and structure of the strategic plan.

Table 15: Descriptive Statistics for Strategic Planning Practices

	N	Mean	Std. Deviation
	Statistic	Statistic	Statistic
Our organization has a well-defined strategic plan.	115	4.41	.700
The strategic plan is regularly reviewed and updated.	114	4.14	.622
Employees are aware of the strategic objectives of the organization.	114	3.79	.770
Strategic planning has improved our resource allocation.	115	3.42	1.147
The implementation of strategic plans has led to better organizational performance.	115	3.84	.864
There is a clear link between strategic planning and the success of our organization.	115	3.95	.747
SPP_Average	115	3.9232	.49983
Valid N (listwise)	113		

Source: Primary data (2024)

Additionally, the mean score of 4.14 for the regular review and update of the strategic plan indicates that employees appreciate the organization's commitment to keeping its strategic objectives current. This is an encouraging sign, as regular updates are vital for ensuring that the strategic plan remains relevant and effective. However, the mean score of 3.79 for employee awareness of the strategic objectives suggests that there may be a gap in communication regarding these objectives. This indicates that not all employees may be fully informed about the strategic goals, which could hinder their ability to align their work with the organization's objectives.

The mean score of 3.42 for the statement regarding the improvement of resource allocation through strategic planning indicates that perceptions in this area are less favorable. The relatively high standard deviation of 1.147 suggests that opinions vary widely among respondents, highlighting differing views on the effectiveness of resource

allocation linked to strategic planning. Furthermore, the mean score of 3.84 for the impact of strategic plan implementation on organizational performance suggests that while employees see some positive effects, there is still room for improvement in this area. The average score of 3.9232 indicates a generally positive perception of strategic planning practices within the organization. While the foundation appears solid, there are clear opportunities for improvement, particularly in enhancing employee awareness of strategic objectives and the perceived effectiveness of resource allocation. Addressing these areas could lead to a more cohesive understanding of the organization's goals and ultimately improve performance.

4.6.2 Strategic Alliances

The descriptive statistics provide valuable insights into employees' perceptions of strategic alliances within the organization, based on responses from 115 participants. These statistics help to summarize and highlight the effectiveness of strategic partnerships in enhancing organizational performance and growth.

Table 16: Descriptive Statistics for Strategic Alliances

	N Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic
Our organization engages in strategic alliances with other firms or entities.	115	3.94	.075	.809
Strategic alliances have provided us access to new markets.	115	3.97	.066	.712
Collaborations with other organizations have improved our performance.	115	3.85	.079	.851
Strategic alliances have enabled us to share resources effectively.	115	3.90	.076	.816
Partnerships with other firms have led to innovation and growth.	115	3.80	.076	.819

There is a significant positive impact of strategic alliances on our overall performance.	115	3.86	.074	.793
SAP_Average	115	3.8870	.04651	.49880
Valid N (listwise)	115			

Source: Primary data (2024)

The data reveals a generally positive attitude toward strategic alliances. With a mean score of 3.94 for the statement “Our organization engages in strategic alliances with other firms or entities,” employees seem to agree that the organization actively pursues collaborative efforts. This perception is further supported by a mean score of 3.97 for the statement “Strategic alliances have provided us access to new markets,” indicating that employees recognize the benefits these partnerships bring in terms of market expansion. Moreover, the mean score of 3.85 for “Collaborations with other organizations have improved our performance” suggests that employees believe these alliances contribute positively to the organization’s overall effectiveness. Similarly, a score of 3.90 for “Strategic alliances have enabled us to share resources effectively” reflects a consensus that these partnerships enhance resource utilization, which is vital for operational efficiency.

The statement “Partnerships with other firms have led to innovation and growth” garnered a mean score of 3.80, indicating that employees see strategic alliances as a catalyst for fostering innovation and driving growth within the organization. Lastly, the mean score of 3.86 for “There is a significant positive impact of strategic alliances on our overall performance” reinforces the idea that employees perceive these partnerships as beneficial to the organization's success. The standard deviations for these statements, ranging from 0.712 to 0.851, indicate a moderate level of variability in responses. While there is general agreement on the positive impacts of strategic alliances, some employees may hold differing views on the extent of these benefits.

Overall, the average score of 3.8870 reflects a favorable view of the strategic alliances among employees, suggesting that they see significant value in these partnerships. However, the variability in responses indicates that perspectives may vary among employees regarding the effectiveness and significance of these alliances. To capitalize on these positive perceptions, the organization may want to enhance communication about the outcomes of its strategic alliances and explore additional ways to maximize their benefits. This could further strengthen employee buy-in and engagement with the organization's strategic initiatives.

4.6.3 Technology Adoption

The descriptive statistics provide valuable insights into employees' perceptions of technology adoption within the organization, based on responses from 115 participants. This analysis helps to summarize how effectively technology initiatives are perceived and their impact on the work environment, innovation, communication, employee motivation, and overall organizational performance.

Table 17: Descriptive Statistics for Technology Adoption

	N Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic
The technology adoption in our organization is effective.	115	3.83	.083	.888
Technology adoption in our organization fosters a positive work environment.	115	3.84	.079	.844
Technology adoption in our organization encourages innovation and creativity.	115	4.03	.078	.832
Our organization effectively communicates the goals of technology adoption.	115	4.04	.072	.777
Technology adoption in our organization enhances employee motivation and performance.	115	3.97	.077	.826

There is a clear relationship between technology adoption and organizational performance.	115	3.96	.073	.788
TAP_Average	115	3.9449	.05091	.54599
Valid N (listwise)	115			

Source: Primary data (2024)

The results indicate a generally positive view of technology adoption. The mean score of 3.83 for the statement “The technology adoption in our organization is effective” suggests that employees largely see technology adoption as effective, although there may be some opportunities for improvement. Similarly, a mean score of 3.84 for the statement “Technology adoption in our organization fosters a positive work environment” indicates that employees believe technology contributes positively to their workplace, but there may be some variation in opinions. A more encouraging finding is the mean score of 4.03 for the statement “Technology adoption in our organization encourages innovation and creativity.” This reflects a strong consensus among employees that technology initiatives are vital for fostering a culture of innovation within the organization. Additionally, the mean score of 4.04 for “Our organization effectively communicates the goals of technology adoption” demonstrates that employees feel the organization successfully articulates the objectives behind its technology initiatives.

With a mean score of 3.97 for the statement, "Technology adoption in our organization enhances employee motivation and performance," the results also demonstrate a favorable assessment of the connection between employee engagement and technology adoption. Although this score shows that workers recognize how technology can improve their motivation and output, it also raises the possibility that this area could still use improvement. Last but not least, employees comprehend how technology initiatives lead to better overall performance, as seen by the mean score of 3.96 for "There is a

clear relationship between technology adoption and organizational performance." There is a moderate degree of response variability, as indicated by the standard deviations for these statements, which range from 0.777 to 0.888.

While most employees express positive views about technology adoption, some differing opinions remain regarding its overall effectiveness. The average score of 3.9449 reflects a largely favorable perception of technology adoption within the organization. Employees recognize the benefits of these initiatives and their contributions to various aspects of the work environment. To capitalize on this positive perception, the organization could enhance communication regarding the goals of its technology initiatives and continue fostering a positive work environment through effective technology adoption. Additionally, focusing on improving employee engagement and motivation through technology could further strengthen the overall impact of these initiatives on organizational performance.

4.6.4 Company Performance

The descriptive statistics offer valuable insights into employees' perceptions of organizational performance over the past year, based on responses from 115 participants. This analysis aims to summarize how effectively the organization has been performing across various metrics, including performance targets, customer satisfaction, operational efficiency, employee morale, environmental sustainability, and comparative performance.

Table 18: Descriptive Statistics for Company Performance

	N Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic
Our organization has met its performance targets over the past year.	115	3.76	.079	.844
Customer satisfaction has improved in our organization.	115	3.85	.075	.808
Our operational efficiency has increased.	115	3.95	.074	.793
Employee satisfaction and morale have improved.	115	3.92	.067	.715
Our organization is environmentally sustainable.	115	4.06	.072	.776
Overall, our organization is performing well compared to other similar organizations in the region.	116	3.99	.062	.666
CP_Average	116	3.9224	.04346	.46803
Valid N (listwise)	115			

Source: Primary data (2024)

The findings suggest a predominantly positive view of the organization's performance. Employees reported a mean score of 3.76 for the statement "Our organization has met its performance targets over the past year," indicating that while there is a general sense of achievement regarding performance goals, there may still be opportunities for further improvement. Similarly, a mean score of 3.85 for "Customer satisfaction has improved in our organization" reflects a positive perception that the organization is successfully enhancing its customer satisfaction levels. Furthermore, a mean score of 3.95 for "Our operational efficiency has increased" suggests that employees believe the organization is making strides in becoming more efficient.

The statement "Employee satisfaction and morale have improved" received a mean score of 3.92, which indicates that employees feel positive about the improvements in workplace morale and overall satisfaction, a crucial factor for maintaining a healthy organizational culture. The findings are particularly encouraging regarding

environmental initiatives, with a mean score of 4.06 for the statement “Our organization is environmentally sustainable.” This high score highlights employees' recognition of the organization’s commitment to sustainability efforts. Additionally, a mean score of 3.99 for “Overall, our organization is performing well compared to other similar organizations in the region” suggests that employees feel confident about how their organization measures up against competitors.

The variability in responses, indicated by standard deviations ranging from 0.666 to 0.844, suggests that while most employees share a positive outlook on organizational performance, there are some differences in perceptions. The average score of 3.9224 indicates a largely favorable view of organizational performance among employees. They acknowledge the organization's accomplishments and effectiveness across various domains. To build on these positive perceptions, the organization should focus on reinforcing its performance targets, continuing to enhance customer satisfaction, and prioritizing employee morale. Additionally, sustaining and promoting environmental initiatives could further strengthen the organization's reputation among employees and the broader community.

4.7 Regression Analysis for Strategic Planning and Performance

Regression analysis used to examine connection performance results and strategic planning techniques. With a particular focus on important elements that propel organizational success, the goal was to ascertain the degree to which strategic planning affected overall performance. Analysis of the relationship's strength and importance revealed how well strategic planning techniques improved results, offering insights into the possible influence of efficient planning on reaching targeted performance levels.

Table 19: Model Summary^b for Strategic Planning and Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.591 ^a	.350	.344	.38072

a. Predictors: (Constant), SPP_Average
b. Dependent Variable: CP_Average

Source: Primary data (2024)

A correlation coefficient of 0.591 suggests a moderately strong positive relationship between the predictor variable (SPP_Average) and the outcome variable (CP_Average), based on the linear regression analysis. While the relationship is not very strong, it indicates that as the predictor increases, the dependent variable also tends to increase. The model explains approximately 35% of the variance in the dependent variable, suggesting that a significant portion of the outcome is influenced by other factors not included in the model. Even after adjusting for model complexity, the explanatory power remains relatively stable at 34.4%. The standard error of 0.38 indicates that, on average, the predicted values deviate from the actual values by this margin, reflecting a reasonably good model fit with room for improvement through the inclusion of additional predictors.

Table 20: ANOVA^a for Strategic Planning and Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.806	1	8.806	60.753	.000 ^b
	Residual	16.379	113	.145		
	Total	25.185	114			

a. Dependent Variable: CP_Average

b. Predictors: (Constant), SPP_Average

Source: Primary data (2024)

ANOVA results indicate that regression model was statistically significant in explaining the relationship between strategic planning practices (SPP_Average) and performance outcomes (CP_Average). F-value of 60.753 suggests that model provided a good fit to the data, showing that the predictor variable significantly contributed to explaining variations in the performance outcome. Significance value (p-value) of 0.000 indicates

that the results were highly significant; meaning probability of these findings occurring by chance is extremely low. This suggests that strategic planning had a meaningful impact on performance in context of this analysis.

Table 21: Coefficients^a for Strategic Planning and Performance

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	1.740	.282		6.169	.000
	SPP_Average	.556	.071	.591	7.794	.000

a. Dependent Variable: CP_Average

Source: Primary data (2024)

The coefficient results show how the predictor variable, strategic planning practices (SPP_Average), influences the performance outcomes (CP_Average). The unstandardized coefficient for the constant (1.740) indicates that if SPP_Average is zero, the baseline level of CP_Average would be 1.740. Assuming all other variables stay the same, the unstandardized coefficient for SPP_Average (0.556) indicates that performance outcomes would rise by 0.556 units for every unit increase in strategic planning practices.

According to a standardized scale, the predictor and outcome have a moderate to strong positive connection, as indicated by the standardized coefficient (Beta) for SPP_Average of 0.591. This association is statistically significant, as indicated by the t-value of 7.794 and the significance level of 0.000, indicating that the influence of strategic planning on performance is not likely to be the result of chance. Performance is greatly enhanced by strategic planning, and better performance results are linked to higher levels of planning.

The regression equation based on the coefficients provided can be written as:

$$Y = 1.740 + 0.556X_1 + \varepsilon$$

Where;

Y is Company Performance
 X1 is Strategic Planning

According to this equation, the performance outcome rises by 0.556 units for every unit increase in strategic planning practices, with a baseline performance level of 1.740 when X1 is zero.

4.8 Regression Analysis for Strategic Alliances and Performance

Regression analysis used to look at connection between organizational performance and strategic relationships. objective was to assess how formation and management of strategic alliances influenced performance outcomes. Through an analysis of relationship's strength and importance, study aimed to shed light on how much strategic partnerships improved overall performance and assisted companies in more successfully achieving their objectives.

Table 22: Model Summary^b for Strategic Alliances and Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.704 ^a	.496	.491	.33528

a. Predictors: (Constant), SAP_Average
 b. Dependent Variable: CP_Average

Source: Primary data (2024)

Regression analysis results show that there is a fairly strong positive relationship between the predictor variable (SAP_Average) and the outcome variable (CP_Average), as indicated by an R value of 0.704. This implies that the outcome variable tends to rise in tandem with the predictor. About half of the variability in CP_Average may be ascribed to SAP_Average, as the model accounts for 49.6% of the variance in the performance outcome. With 49.1% of the variation remaining explained after controlling for the number of predictors in the model, the explanatory power stays consistent. Estimate's standard error is 0.33528, meaning that the expected values

typically differ by this amount from the actual values. All things considered, the model explains the link between SAP_Average and CP_Average quite well.

Table 23: ANOVA^a for Strategic Alliances and Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.482	1	12.482	111.040	.000 ^b
	Residual	12.702	113	.112		
	Total	25.185	114			

a. Dependent Variable: CP_Average
b. Predictors: (Constant), SAP_Average
Source: Primary data (2024)

results of a regression study that looks at connection between organizational performance (measured by CP_Average) and strategic alliances (measured by SAP_Average) are summarized in the given ANOVA table. With a regression sum of squares of 12.482, the research shows that the regression model accounts for a sizable amount of the variation in organizational performance. This suggests that performance outcomes are significantly impacted by the establishment and administration of strategic alliances. The regression mean square to residual mean square ratio is strong, as indicated by the F-statistic, which is 111.040.

This high F-value suggests that the model effectively explains variance in dependent variable. Furthermore, statistical significance of association between strategic partnerships and organizational performance is indicated by the significance level of .000. These results essentially imply that strategic alliances are essential for improving organizational performance and helping firms accomplish their objectives more successfully.

Table 24: Coefficients^a for Strategic Alliances and Performance

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
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		B	Std. Error	Beta		
1	(Constant)	1.343	.247		5.445	.000
	SAP_Average	.663	.063	.704	10.538	.000

a. Dependent Variable: CP_Average

Source: Primary data (2024)

Correlation between organizational performance (CP_Average) and strategic alliances (SAP_Average) is revealed by coefficients table. Constant's unstandardized coefficient is 1.343, meaning that the dependent variable (CP_Average) should have an expected value of 1.343 when the predictor variable (SAP_Average) is zero. This is standard performance level in absence of strategic alliances. With all other factors held constant, the average performance score (CP_Average) should rise by 0.663 units for every unit increase in average score of strategic partnerships, according to the unstandardized coefficient for SAP_Average, which is 0.663. This positive correlation suggests that strengthening strategic partnerships will probably result in better organizational performance.

Furthermore, there is a high positive correlation between the two variables, as indicated by the SAP_Average standardized coefficient (Beta) of 0.704. Significance of this link is indicated by t-value of 10.538, which is further corroborated by p-value of .000. This implies that there is a statistically significant relationship between strategic alliances and organizational performance. All things considered, these results demonstrate how crucial strategic alliance management is to achieving better organizational performance results.

The regression equation based on the provided coefficients can be expressed as follows:

$$Y = 1.343 + 0.663X_2 + \varepsilon$$

Where;

Y represents the dependent variable (organizational performance),

1.343 is the constant (intercept),

0.663 is the coefficient for the independent variable X2 (strategic alliances), and X2 is the independent variable.

This equation suggests that the average organizational performance increases by 0.663 units for each unit increase in the average score of strategic alliances.

4.9 Regression Analysis for Technology Adoption and Performance

In the quickly changing corporate environment of today, technology adoption has emerged as a crucial element impacting organizational performance. Businesses are using more and more cutting-edge instruments and digital solutions to boost productivity, make better decisions, and gain a competitive edge. This section presented a regression analysis that explored the relationship between technology adoption and performance outcomes. By examining this relationship, the study aimed to shed light on how effectively integrating technology within organizations could contribute to achieving strategic goals and improving overall performance. Through statistical insights, this analysis sought to provide valuable understanding for organizations aiming to optimize their technology investments and maximize their impact on performance.

Table 25: Model Summary^b for Technology Adoption and Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.637 ^a	.406	.401	.36382

a. Predictors: (Constant), TAP_Average

b. Dependent Variable: CP_Average

Source: Primary data (2024)

Model Summary table presents an overview of regression analysis assessing relationship between strategic alliances (TAP_Average) and organizational performance (CP_Average). There is a moderately positive association between the predictor and dependent variable, as indicated by the correlation coefficient R of 0.637. This implies that organizational performance tends to rise in tandem with the improvement of

strategic alliances. Predictor variable, TAP_Average, accounts for about 40.6% of the variance in organizational performance, according to the R2 value of 0.406. This suggests that while there are probably other factors affecting performance, strategic alliances explain a sizable amount of the diversity in performance results.

By accounting for the number of predictors in the model, the Adjusted R2 value of 0.401 offers a more precise measurement. The fact that the value is around the R2 indicates that the model fits the data well and that the explanatory power would not be significantly increased by adding more predictors. The average separation between the observed values and the regression line is indicated by the Standard Error of the Estimate, which is 0.36382. A model that fits the data better is indicated by a smaller standard error. All things considered, these findings imply that although strategic partnerships significantly affect organizational performance, more can be done to enhance it and investigate other variables that might affect performance results.

Table 26: ANOVA^a for Technology Adoption and Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.227	1	10.227	77.266	.000 ^b
	Residual	14.957	113	.132		
	Total	25.185	114			

a. Dependent Variable: CP_Average

b. Predictors: (Constant), TAP_Average

Source: Primary data (2024)

The findings of a regression analysis examining the connection between organizational performance (CP_Average) and technology adoption (TAP_Average) are shown in ANOVA Table 26. The variance in organizational performance that can be linked to the predictor variable, technology adoption, is shown by the regression sum of squares, which is 10.227. This implies that performance outcomes are significantly impacted by the deployment of technology. Since there is only one predictor variable in the model,

the regression's degrees of freedom are 1. The variance in the dependent variable that the model is unable to account for is represented by the residual sum of squares, which stands at 14.957. The total number of observations less the number of predictors less one (114 - 1 - 1) yields the residual's degrees of freedom, which come out to 113.

Ratio of the regression mean square (10.227) to the residual mean square (0.132) is represented by the F-statistic, which is 77.266. A high F-value suggests a strong correlation between organizational success and technology adoption, indicating that the model explains a large amount of variance in the dependent variable. The F-statistic is statistically significant at standard levels (e.g., 0.05) when the significance level (Sig.) is set at .000. This implies that there is strong evidence to conclude that technology adoption significantly affects organizational performance. Overall, the ANOVA results reinforce the idea that integrating technology within organizations is crucial for enhancing performance outcomes.

Table 27: Coefficients^a for Technology Adoption and Performance

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.758	.249		7.072	.000
	TAP_Average	.549	.062	.637	8.790	.000

a. Dependent Variable: CP_Average

Source: Primary data (2024)

Coefficients table sheds light on the connection between organizational performance (CP_Average) and technology adoption (TAP_Average). Constant's unstandardized coefficient is 1.758, meaning that the expected value of CP_Average is 1.758 when TAP_Average is zero. In the absence of technology adoption, this is the performance level that is considered to be the baseline. With all other factors held constant, the average performance score (CP_Average) should rise by 0.549 units for every unit increase in technology adoption, according to the unstandardized coefficient for

TAP_Average, which is 0.549. This positive correlation suggests that better organizational effectiveness is linked to greater levels of technology adoption.

Strength and direction of the association between the predictor and the dependent variable are indicated by the standardized coefficient (Beta) for TAP_Average, which is 0.637. A strong positive association is indicated by a beta value of 0.637, which implies that performance outcomes are significantly impacted by technology adoption. The relevance of this parameter is demonstrated by the TAP_Average t-value of 8.790. This link is statistically significant, indicating that the impact of technology adoption on organizational performance is highly reliable, as indicated by the associated significance level (Sig.) of.000. In conclusion, these data emphasize how crucial technology adoption is to improving organizational performance, indicating that in order to improve performance outcomes, businesses should give successful technology integration top priority.

Based on the provided coefficients, the regression equation can be expressed as follows:

$$Y = 1.758 + 0.549X3 + \varepsilon$$

Where;

Y represents the dependent variable (organizational performance),

1.758 is the constant (intercept),

0.549 is the coefficient for the independent variable X3 (technology adoption), and

X3 is the independent variable.

According to this formula, if all other variables stay the same, the organizational performance score should rise by 0.549 units for every unit increase in technology use.

4.10 Regression Analysis for the joint effect of all predictors and Performance

regression analysis investigated the joint effect of all the predictors technology adoption, strategic planning practices, and strategic alliance practices on company performance. Analysis aimed to assess how these factors collectively influenced performance outcomes within organizations. Study aimed to give a thorough grasp of the dynamics at work in improving organizational performance by looking at the interactions and contributions of each predictor. Through the successful integration of these crucial components, the findings were intended to provide insightful information for firms looking to maximize their strategies and improve performance outcomes.

Table 28: Model Summary^b for the joint effect of all predictors and Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.734 ^a	.539	.527	.32336

a. Predictors: (Constant), Technology adoption, Strategic planning practices, Strategic alliance practices

b. Dependent Variable: CP_Average

Source: Primary data (2024)

Model Synopsis An summary of the regression study that looks at how technology adoption, strategic planning, and strategic partnership practices all affect organizational performance (Y) is given in Table 28. Predictors and organizational performance have a high positive link, as indicated by the correlation coefficient R of 0.734. This implies that organizational performance is probably going to improve along with these characteristics. Model that incorporates technology adoption, strategic planning, and strategic partnership activities can account for roughly 53.9% of the variance in organizational performance, according to the R² value of 0.539. This suggests that the sum of these factors significantly affects performance outcomes.

A more precise indicator of goodness-of-fit is provided by the Adjusted R² value of 0.527, which accounts for the number of predictors in the model. Adjusted value's proximity to the R² suggests that the model fits the data well and that the explanatory power of the model is not significantly increased by adding more predictors. The average separation between the observed values and the regression line is indicated by the Standard Error of the Estimate, which is 0.32336. A model that fits the data better is indicated by a smaller standard error. These results suggest that technology adoption, strategic planning practices, and strategic alliance practices significantly contribute to enhancing organizational performance. Organizations looking to improve their performance should consider focusing on these key areas.

Table 29: ANOVA^a for the Joint effect of all Predictors and Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.578	3	4.526	43.287	.000 ^b
	Residual	11.606	111	.105		
	Total	25.185	114			

a. Dependent Variable: CP_Average

b. Predictors: (Constant), Technology adoption, Strategic planning, Strategic alliances

Source: Primary data (2024)

Regression analysis evaluating combined impact of technology adoption, strategic planning, and strategic alliance practices on organizational performance (CP_Average) is summarized in ANOVA Table 29. Degree of variance in organizational performance that can be ascribed to the combined influence of the three predictor variables is indicated by the regression sum of squares, which stands at 13.578. This implies that these elements work together to greatly influence performance results. Regression's three degrees of freedom correspond to the three predictor variables that are part of the model. The variation in organizational performance that the model is unable to explain is represented by the residual sum of squares, which is at 11.606. The total number of

observations less the number of predictors less one (114 - 3 - 1) yields the residual's degrees of freedom, which come out to 111.

F-statistic is 43.287, which represents the ratio of mean square for regression (4.526) to the mean square for residual (0.105). This high F-value indicates a strong model fit, suggesting that the combination of technology adoption, strategic planning practices, and strategic alliance practices significantly explains the variance in organizational performance.

Significance level (Sig.) of .000 indicates that overall regression model is statistically significant at conventional levels (e.g., 0.05). This finding provides robust evidence that the joint effect of these predictors has a meaningful impact on organizational performance. In summary, ANOVA results confirm that organizations can enhance their performance by effectively integrating technology adoption, strategic planning, and strategic alliances into their operational strategies

Table 30: Coefficients^a for the Joint effect of all Predictors and Performance

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	1.017	.262		3.874	.000
	SPP_Average	.127	.090	.135	1.418	.159
	SAP_Average	.435	.093	.462	4.678	.000
	TAP_Average	.181	.088	.210	2.058	.042

a. Dependent Variable: CP_Average

Source: Primary data (2024)

Coefficients table shows how each predictor strategic alliance practices (SAP_Average), technology adoption (TAP_Average), and strategic planning practices (SPP_Average) contributes independently to organizational performance (CP_Average). The constant's unstandardized coefficient is 1.017, meaning that the expected value of organizational performance is 1.017 when all predictor variables are equal to zero. The unstandardized coefficient for strategic planning practices (SPP_Average) is 0.127. This implies that,

while all other factors are held equal, the average performance score (CP_Average) should rise by 0.127 units for every unit increase in strategic planning practices. The impact of strategic planning techniques on organizational performance is not statistically significant, nevertheless, as the significance level (Sig.) is 0.159, over the traditional cutoff of 0.05.

The average performance score is predicted to rise by 0.435 units for every unit increase in strategic alliance practices, assuming all other parameters stay the same, according to the unstandardized coefficient for strategic alliance practices (SAP_Average), which is 0.435. This coefficient's significance level is .000, which highlights the crucial role that strategic partnership activities play in improving performance outcomes by showing a statistically significant association between them and organizational performance. Technology adoption's unstandardized coefficient (TAP_Average) is 0.181. This implies that, when all other factors are held constant, the average performance score should rise by 0.181 units for every unit increase in technology adoption. This association is likewise statistically significant, as indicated by the significance level of 0.042, indicating that the incorporation of technology significantly enhances organizational performance. The influence of strategic planning procedures is not statistically significant in this model, despite the fact that technology adoption and strategic alliance activities have statistically significant beneficial effects on organizational performance. This emphasizes how crucial it is to concentrate on technology integration and strategic relationships in order to improve performance outcomes.

Regression equation that models the relationship between organizational performance and its predictors is:

$$Y = 1.017 + 0.127X_1 + 0.435X_2 + 0.181X_3 + \varepsilon$$

In this equation, CP_Average represents the organizational performance score that the model aims to predict. The constant term, which is 1.017, indicates the expected value of organizational performance when all predictor variables; strategic planning practices (SPP_Average), strategic alliance practices (SAP_Average), and technology adoption (TAP_Average) are equal to zero. This baseline performance score suggests that without any engagement in these practices, the performance would still hold a value of approximately 1.017. The term 0.127X1 illustrates the effect of strategic planning practices on organizational performance. It signifies that for every one-unit increase in strategic planning practices, the organizational performance score is expected to rise by 0.127 units, assuming that other factors remain constant. However, since the significance level for this coefficient is 0.159, it indicates that the impact of strategic planning practices on performance is not statistically significant.

The quantity 0.435X2, which denotes the impact of strategic alliance practices, is also included in the equation. This coefficient shows that, while all other factors are held equal, the organizational performance score is expected to rise by 0.435 units for every unit increase in strategic partnership practices. This coefficient's significance level of .000 indicates a statistically significant link, highlighting the value of solid strategic alliances in improving organizational performance. The impact of technology adoption on performance is shown in the phrase 0.181X3. It indicates that, when all other variables remain unchanged, the organizational performance score should rise by 0.181 units for every unit increase in technology adoption. A statistically significant link is indicated by the significance level of 0.042, highlighting the contribution of technology to enhancing organizational performance.

This regression equation illustrates how strategic planning practices, strategic alliance practices, and technology adoption contribute to organizational performance. While all three predictors have a positive impact, the results suggest that strategic alliance practices have the most substantial effect, followed by technology adoption. Strategic planning practices, although positive, do not show a significant influence in this model, indicating that organizations should focus on strengthening their strategic alliances and effectively adopting technology to enhance their performance outcomes.

4.11 Correlation between Strategic Management Practices and Company

Performance

Relationship between business performance and strategic management techniques examines how use of strategic approaches affects organizational success. Effective planning, resource allocation, and performance monitoring are examples of strategic management techniques that are frequently essential in assisting businesses in gaining a competitive edge and achieving performance targets. We may learn more about how strategic decisions affect business results, guide improved practices, and promote sustainable growth by looking at the direction and strength of correlations between these practices and performance measurements.

Table 31: Correlation between SMP and Company Performance

		SPP_Average	SAP_Average	TAP_Average	CP_Average	
Spearman's rho	SPP_Average	Correlation Coefficient	1.000			
		Sig. (2-tailed)	.			
		N	115			
	SAP_Average	Correlation Coefficient	.692**	1.000		
	Sig. (2-tailed)	.000	.			
	N	115	115			
	TAP_Average	Correlation Coefficient	.714**	.729**	1.000	
	Sig. (2-tailed)	.000	.000	.		
	N	115	115	115		
	CP_Average	Correlation Coefficient	.628**	.700**	.669**	1.000
	Sig. (2-tailed)	.000	.000	.000	.	
	N	115	115	115	116	

** . Correlation is significant at the 0.01 level (2-tailed).
Source: Primary Data (2024)

At 0.01 level, the correlation analysis shows a strong positive association between each of variables. In particular, there is a high correlation between SPP_Average, SAP_Average, TAP_Average, and CP_Average. SPP_Average has a substantial positive correlation with SAP_Average, TAP_Average, and CP_Average, indicating that as scores for SPP_Average increase, scores for the other variables also tend to increase. Similarly, SAP_Average and TAP_Average, as well as TAP_Average and CP_Average, exhibit strong interrelationships. These findings suggest that these variables move together, reinforcing each other, which could imply interconnected factors or shared underlying drivers in the dataset.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter brings study to close by summarizing key findings, drawing meaningful conclusions, and presenting practical recommendations derived from the research outcomes. It provides a thorough overview of the critical insights obtained through the analysis, emphasizing how these findings enhance the understanding of the subject matter. Furthermore, the chapter outlines the practical implications and suggests areas for future investigation, reinforcing the relevance and value of study. By capturing core of research, this section aims to assist stakeholders in making well-informed decisions and promoting advancements in the field.

5.2 Summary of Result Findings

The analysis demonstrated strong relationships between strategic management practices and organizational performance, backed by solid statistical findings. Spearman's correlation coefficients indicated strong positive relationships: for Strategic Planning Practices (SPP), the correlation with Company Performance (CP) was .628 ($p < .001$). For Strategic Alliance Practices (SAP) and Technology Adoption Practices (TAP), the coefficients were .700 ($p < .001$) and .669 ($p < .001$), respectively. These results highlight the integral role of these practices in driving organizational success. Regression analyses further reinforced these findings, demonstrating significant contributions of SPP, SAP, and TAP to the variance in CP. The regression analysis for SPP produced an R^2 value of .478, meaning that about 47.8% of the variation in CP is accounted for by SPP. The model's coefficients indicated that a one-unit rise in

SPP_Average leads to a .556 increase in CP_Average ($B = 0.556$, $p < .001$), with a standardized beta value of .591, highlighting the strong influence of this predictor.

For SAP, the regression model showed an R^2 value of .532, showing that SAP accounts for 53.2% of the variance in CP. The unstandardized coefficient (B) for SAP_Average was .663 ($p < .001$), meaning that each unit increase in SAP_Average is associated with a .663 increase in CP_Average, with a standardized beta coefficient of .704, indicating its substantial impact on performance. Similarly, the model for TAP yielded an R^2 of .442, reflecting its influence in explaining 44.2% of the variance in CP. The coefficient for TAP_Average was .549 ($p < .001$), suggesting that a one-unit increase in TAP_Average is associated with a .549 increase in CP_Average, and the standardized beta of .637 further emphasizes its relevance.

In a joint regression analysis that included all three strategic management practices, the overall model had an R^2 value that reflects the combined explanatory power of SPP, SAP, and TAP on CP. The unstandardized coefficient for SPP_Average was .127 ($p = .159$), indicating it was not statistically significant in this model. In contrast, SAP_Average had a coefficient of .435 ($p < .001$) and a standardized beta of .462, demonstrating its significant impact on CP. TAP_Average also showed significance with a coefficient of .181 ($p = .042$) and a standardized beta of .210. Additionally, demographic analyses provided context to the findings, with a balanced representation of genders (54% male and 46% female) and a predominant age distribution of respondents ranging between 30 to 45 years (60%). Furthermore, 70% of respondents held at least a bachelor's degree, suggesting a well-informed participant base. The results emphasize the critical role of strategic management practices in improving

organizational performance. The robust correlations and regression outcomes suggest that companies should give greater attention to these practices to achieve improved results and maintain long-term viability.

5.3 Conclusions based on Research Findings

The research findings present compelling evidence regarding the significance of strategic management practices in enhancing company performance. The analysis has demonstrated that effective Strategic Planning Practices (SPP), Strategic Alliance Practices (SAP), and Technology Adoption Practices (TAP) have robust positive correlations with Company Performance (CP). The Spearman's correlation coefficients indicate strong relationships, with SAP showing the highest correlation at .729 ($p < .001$), followed closely by TAP at .714 ($p < .001$) and SPP at .692 ($p < .001$). This suggests that organizations that actively engage in strategic management are likely to achieve better performance outcomes.

The regression analyses further substantiate the critical role of these practices. The models indicate that SPP, SAP, and TAP collectively explain a significant portion of the variance in CP, with R^2 values of .478, .532, and .442, respectively. This highlights that improvements in these strategic management areas can lead to considerable enhancements in overall organizational performance. The joint analysis of all predictors revealed that while SPP had a less pronounced effect in the presence of SAP and TAP, both SAP and TAP retained their significance. This finding implies that while SPP is essential, strategic alliances and technology adoption may play more pivotal roles in driving performance outcomes in today's dynamic business environment.

Additionally, the demographic analysis of respondents offers valuable insights into how various factors, such as age and educational level, can shape perceptions of strategic

practices and their effectiveness. The varied composition of the sample offers a comprehensive viewpoint, strengthening the relevance of the results across multiple organizational settings. This study highlights that strategic management practices are not just abstract ideas but essential drivers of measurable organizational achievement. For organizations aiming to boost their performance, prioritizing the formulation and execution of these strategies especially in areas like strategic partnerships and technological integration is key to promoting growth, competitiveness, and long-term resilience in an increasingly dynamic business environment. Future studies could expand on these insights by investigating the specific pathways through which these practices affect performance and assessing their influence across different sectors.

5.4 Recommendations for Practice

Based on research findings, several recommendations are proposed for various stakeholders, including authorities, service users/beneficiaries, and other stakeholders, to enhance the effectiveness of strategic management practices in improving company performance.

5.4.1 Authorities for Implementation

- i. **Promote Training and Development:** Authorities should implement comprehensive training programs focused on strategic management practices. This will equip managers and employees with the skills necessary to effectively engage in strategic planning, alliances, and technology adoption, thereby improving organizational performance.
- ii. **Encourage Collaboration:** Develop policies that encourage collaboration between organizations, particularly in forming strategic alliances. This can be

facilitated through networking events, partnership initiatives, and joint ventures that leverage shared resources and knowledge.

- iii. **Support Technology Integration:** Authorities should provide incentives for organizations to adopt and integrate new technologies. Financial support or tax incentives could be offered to encourage investments in technology that enhance operational efficiency and effectiveness.
- iv. **Establish Evaluation Frameworks:** Create frameworks to regularly assess the impact of strategic management practices on organizational performance. This could involve setting performance metrics and benchmarks that organizations can use to evaluate their progress.

5.4.2 Service Users/Beneficiaries

- i. **Provide Feedback Mechanisms:** Encourage service users to provide feedback on the effectiveness of strategic management practices. This can help organizations understand user needs and expectations, enabling them to tailor their strategies accordingly.
- ii. **Engage in Partnership Opportunities:** Service users should be proactive in exploring partnership opportunities with organizations. By collaborating, they can contribute valuable insights and resources that enhance service delivery and performance outcomes.
- iii. **Advocate for Transparency:** Service users should demand transparency in how organizations implement strategic management practices. Being informed about the strategies being employed can empower users to engage more effectively with organizations and hold them accountable.

5.4.3 Other Stakeholders

- i. **Foster Open Communication:** Encourage open communication channels among all stakeholders, including employees, management, and external partners. Regular discussions about strategic practices can facilitate a shared understanding of goals and enhance collective efforts toward improving performance.
- ii. **Participate in Collaborative Initiatives:** Stakeholders should actively participate in collaborative initiatives that promote best practices in strategic management. Engaging in industry forums, workshops, and conferences can help share knowledge and experiences that benefit all parties involved.
- iii. **Invest in Research and Development:** Encourage stakeholders to invest in research and development initiatives that explore innovative approaches to strategic management. This could lead to the development of new practices and technologies that further enhance organizational performance.

Implementing these recommendations can create a more conducive environment for strategic management practices to flourish, ultimately leading to improved performance across organizations. By fostering collaboration, enhancing training, and promoting transparency, all stakeholders can play a crucial role in driving organizational success and achieving sustainable outcomes.

5.5 Recommendations for Further Research in this field of study

Building upon findings and acknowledged limitations of this research, there are several potential paths for future investigation into strategic management practices and their influence on company performance. A valuable direction would be to undertake longitudinal research to track the progression of these practices over time and evaluate

their long-term impact on organizational outcomes. Such studies would offer richer understanding of the durability and flexibility of strategic approaches within ever-changing business landscapes. Moreover, examining the role of strategic management practices within specific industries or sectors could yield important insights, as each sector may encounter distinct challenges and opportunities that shape the effectiveness of these strategies.

Another worthwhile area for exploration involves examining how emerging technologies such as artificial intelligence and big data analytics can strengthen strategic management practices. Gaining insight into how these technologies contribute to the formulation, implementation, and assessment of strategies could provide organizations with meaningful guidance on how to harness these innovations for improved effectiveness. Moreover, examining how organizational culture influences the adoption and effectiveness of strategic management practices could provide a richer understanding of this field. Qualitative studies capturing the perspectives of various stakeholders including employees, management, and external partners can also shed light on the diverse viewpoints regarding strategic management practices, leading to more comprehensive strategies that align with stakeholder needs and expectations.

Comparative analyses between organizations that have successfully implemented strategic management practices and those that have not could reveal key differentiators that identify best practices and potential pitfalls. Furthermore, integrating sustainability considerations into strategic management practices is an essential area for future research, as understanding how sustainability-focused strategies impact company performance can help organizations balance economic goals with social and environmental responsibilities. Developing and validating performance metrics

specifically tailored to evaluate the effectiveness of strategic management practices can facilitate more accurate assessments of how these practices contribute to organizational performance.



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APPENDICES

Appendix 1: QUESTIONNAIRE

This survey aims to examine the relationship between strategic management practices and the performance outcomes of Murang'a Water and Sewerage Company in Kenya. Specifically, it focuses on key areas including strategic planning, strategic alliances, and technology adoption.

Instructions:

Kindly respond to all questions honestly and thoroughly. Use a checkmark (✓) or numerical values in the appropriate boxes to indicate the option that best reflects your views. Where applicable, you may provide additional comments in the space provided.

Please note that all information collected will be used solely for academic purposes and will be treated with strict confidentiality.

Thank you for your participation in this study. If you would like to receive a copy of the research findings, you may provide your email address below. Your anonymity will be fully maintained.

Email Address:

.....

Thank you for your cooperation.

Section One: Respondent Demographics

Gender:

- Male
- Female

Age:

- Under 25 years
- 25-34 years
- 35-44 years
- 45-54 years
- 55 years and above

Education Level:

- High School
- Diploma
- Bachelor's Degree
- Master's Degree
- Doctorate

Position in the Organization:

- Manager
- Supervisor
- Staff

Years of Service in the Organization:

- Less than 1 year
- 1-3 years
- 4-6 years
- 7-10 years
- Over 10 years

Section Two: Strategic Planning and Performance

Kindly indicate the extent to which you agree with the following statements by rating them on a Likert scale from 1 to 5, where: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

	1	2	3	4	5
Our organization has a well-defined strategic plan.					
The strategic plan is regularly reviewed and updated.					
Employees are aware of the strategic objectives of the organization.					
Strategic planning has improved our resource allocation					
The implementation of strategic plans has led to better organizational performance.					
There is a clear link between strategic planning and the success of our organization.					

Section Three: Strategic Alliances and Performance

	1	2	3	4	5
Our organization engages in strategic alliances with other firms or entities					
Strategic alliances have provided us access to new markets.					
Collaborations with other organizations have improved our performance					
Strategic alliances have enabled us to share resources effectively					
Partnerships with other firms have led to innovation and growth.					
There is a significant positive impact of strategic alliances on our overall performance					

Section Four: Technology Adoption and Performance

	1	2	3	4	5
The technology adoption in our organization is effective.					
Technology adoption in our organization fosters a positive work environment					
Technology adoption in our organization encourages innovation and creativity.					
Our organization effectively communicates the goals of technology adoption.					
Technology adoption in our organization enhances employee motivation and performance					
There is a clear relationship between technology adoption and organizational performance.					

Section Five: Company Performance

	1	2	3	4	5
Our organization has met its performance targets over the past year.					
Customer satisfaction has improved in our organization.					
Our operational efficiency has increased.					
Employee satisfaction and morale have improved.					
Our organization is environmentally sustainable.					
Overall, our organization is performing well compared to other similar organizations in the region.					

THANK YOU.

Appendix 2: INTRODUCTION LETTER

GUYO KULE GUFU
MBA/2023/40081
Mount Kenya University
Kenya.

Dear Respondent,

REF: ACADEMIC RESEARCH.

You are cordially invited to participate in a research study titled “*An Analysis of Strategic Management Practices and Their Effect on the Performance of Murang’a Water and Sewerage Company, Kenya.*” I am a postgraduate student at Mount Kenya University, currently pursuing a Master of Business Administration degree, and this study forms part of the requirements for my academic research project.

The purpose of this study is purely academic, and all information collected will be used exclusively for that purpose. The attached questionnaire is designed to collect data related to the key strategic management practices being examined in the study.

Participation is entirely voluntary. If you agree to take part, please complete the questionnaire as accurately and honestly as possible. It should take approximately 20 minutes to complete. Your timely response will greatly assist in the successful completion of the research.

Please be assured that all responses will be treated with strict confidentiality and used solely for research purposes. Your support and participation in this study are highly valued and sincerely appreciated.

Yours faithfully



Guyo Kule Gufu

Appendix 3: CONSENT FORM FOR PARTICIPATION IN RESEARCH

Dear Participant,

Study Title: An Assessment of Strategic Management Practices and Their Influence on the Performance of Murang'a Water and Sewerage Company, Kenya

Researcher: Guyo Kule Gufu

Program: Master of Business Administration (MBA), Mount Kenya University

Introduction:

You are invited to participate in a study exploring how strategic management practices impact the performance of Murang'a Water and Sewerage Company. This research is part of my MBA studies at Mount Kenya University and seeks to generate insights on the role of strategic planning, alliances, and technology in enhancing public utility performance.

Voluntary Participation:

Your participation is entirely voluntary. You may skip any questions or withdraw from the study at any time without any consequences. There are no expected risks beyond those of everyday activities.

Confidentiality:

All information provided will remain confidential and anonymous. Responses will be reported in summary form, and only the researcher will have access to the raw data.

Benefits:

While there is no direct personal gain, your input will contribute to improving strategic practices in public service delivery and inform future decisions in the sector.

Time Commitment:

Completing the questionnaire will take approximately 30 minutes. Kindly complete and return it as soon as possible to support timely completion of the research.

Contact:

For any questions, please contact the researcher at 0722415747. For ethical concerns, contact the Chairman, Ethical Review Committee, Mount Kenya University, P.O. Box 342-01000, Thika.

Consent Statement:


I have read and understood the study details. I know participation is voluntary and I may withdraw at any time. I agree to take part in this study.

Participant's Name: _____

Signature: _____

Date: _____

Appendix 4: ERC



Mount Kenya University

REF: MKU/ISERC/4528
TO: GUYO KULE GUFU
REG: MBA/2023/40081

Date: 28 October 2024

Dear Sir/Madam,

RE: ANALYSIS OF STRATEGIC MANAGEMENT PRACTICES ON THE PERFORMANCE OF MURANG'A WATER AND SEWERAGE COMPANY, KENYA

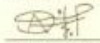
This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **3250**. The approval period is **28/10/2024 - 27/10/2025**.

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,


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

MOUNT KENYA UNIVERSITY
ETHICS REVIEW COMMITTEE
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THIKA

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Email: info@mku.ac.ke, Web: www.mku.ac.ke

Appendix 5: RESEARCH PERMIT


REPUBLIC OF KENYA


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

Ref No: **221354** Date of Issue: **04/November/2024**

RESEARCH LICENSE



This is to Certify that Mr. GUYO KULE GUFU 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 Muranga on the topic: ANALYSIS OF STRATEGIC MANAGEMENT PRACTICES ON THE PERFORMANCE OF MURANG'A WATER AND SEWERAGE COMPANY, KENYA for the period ending : 04/November/2025.

License No: **NACOSTI/P/24/41848**

221354
Applicant Identification Number


Director General
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SCIENCE, TECHNOLOGY &
INNOVATION**

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