KNOWLEDGE MANAGEMENT AND STRATEGY IMPLEMENTATION IN PUBLIC SERVICE ORGANISATIONS IN KENYA: A CASE STUDY OF KEBS

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A Thesis Report Submitted to the School of Business and Education in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Business Administration of Kirinyaga University

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DECLARATION

This thesis is my original work and has not been presented for examination in any other University.

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DEDICATION

This thesis is dedicated to my husband, Anthony; my children, Sean, Phil, and Rufus; and my parents, Angelica, Michael, Stephen, and Jane, whose steadfast support and encouragement have been invaluable throughout my academic journey.

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ABBREVIATIONS AND ACRONYMS

AI	Artificial Intelligence
ATICS	Advanced Technology Intelligence Centre
BETA	Bottom-Up Economic Agenda
BIPM	Bureau International de Poids et Measures
EAC	East African Community
GOK	Government of Kenya
ICT	Information Communication Technology
IT	Information Technology
ISO	International Organisation for Standardisation
KMA	Knowledge Management Africa
KEBS	Kenya Bureau of Standards
KIPPRA	Kenya Institute of Public Policy Analysis
KM	Knowledge Management
MSMEs	Micro Small and Medium Enterprises
M365	Microsoft 365
NEP	National Enquiry Point
NSC	National Standards Council
PSOs	Public Service Organisations
RBVT	Resource Based View Theory
SMCA	Standards, Metrology and Conformity Assessment
SMT	Strategic Management Theory
TLT	Transformational Learning Theory
SI	International Systems of Units
VIF	Variance Inflation Factor
WTO	World Trade Organisation

ABSTRACT

Public sector organisations in Kenya continue to experience weaknesses in strategy implementation arising from fragmented knowledge generation, limited knowledge sharing and retention, inadequate utilization of institutional knowledge, poorly integrated repositories, and insufficient alignment of knowledge management (KM) practices with strategic priorities. This study therefore examined the influence of KM on strategy implementation in Kenya's public sector, using the Kenya Bureau of Standards (KEBS) as a case study. Specifically, it determined the effects of knowledge generation, collaborative knowledge flow, knowledge utilization, knowledge repositories, and KM technology on strategy implementation and assessed the mediating role of management support. The study was justified by the limited institution-level empirical evidence linking KM practices directly to strategy execution in Kenya, despite increasing risks of institutional knowledge loss, duplication of effort, delayed decision-making, and uneven public service delivery. Its scope covered KEBS employees at different management levels in regional offices countrywide, with the pilot study conducted at the Nakuru office. The inquiry was guided by the Resource-Based View, Social Capital Theory, Transformational Learning Theory, and Strategic Management Theory. A pragmatic, mixed-methods approach integrating descriptive, case study, and correlational designs was adopted. The target population was 1,080 employees, from whom 292 respondents were selected through stratified proportionate and simple random sampling; 217 complete questionnaires were returned, representing a 74.3% response rate. Primary data were collected through structured questionnaires and in-depth interviews, while secondary data were obtained from policy documents, institutional reports, and relevant literature. Quantitative data were analysed using descriptive statistics, Pearson correlation, and multiple regression in SPSS, whereas qualitative data were analysed thematically. The findings established that knowledge management practices positively and significantly influence strategy implementation. The overall regression model demonstrated a strong and significant relationship between knowledge management and strategy implementation ($R = .787$, $R^2 = .547$), indicating that 54.7% of the variation in strategy implementation was explained by knowledge management practices. Specifically, knowledge generation ($\beta = .460$), collaborative knowledge flow ($\beta = .680$), knowledge utilization ($\beta = .740$), knowledge repositories ($\beta = .690$), and knowledge management technology ($\beta = .542$) exerted positive and significant effects on strategy implementation. Among these variables, knowledge utilization and knowledge repositories emerged as the strongest predictors of strategy implementation

Furthermore, management support significantly strengthened the relationship between knowledge management and strategy implementation, highlighting the critical role of managerial commitment in enhancing the effectiveness of knowledge management initiatives. The study recommends that KEBS periodically review and update its Knowledge Management Policy to align with organizational and national objectives, providing clear guidance on knowledge generation, flow, utilization, repositories, and technologies, while defining governance, responsibilities, resources, monitoring, and reporting. Effective implementation should be supported through leadership commitment, staff sensitization, continuous capacity building, adequate resourcing, and investment in secure digital platforms. Strengthening knowledge-sharing mechanisms, promoting utilization across functions, enhancing repositories, and benchmarking best practices across the public sector are emphasized as critical enablers of successful strategy execution.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Public Service Organisations operate in a complex and demanding environment and strategy implementation has become a crucial component of organisational success. While formulating a strategic plan is important, it is the successful implementation of that plan that determines whether an organisation meets its goals and delivers value to stakeholders. Organisations, particularly in the public sector, are under growing pressure to deliver efficient and effective services amid rising expectations, innovation, globalization, technological advancements, and evolving stakeholder needs. To facilitate strategy implementation and achieve strategic objectives in organisations, Knowledge Management (KM) has increasingly been recognized as a critical enabler. Through the generation, knowledge flow, utilization. and storage of knowledge, knowledge management facilitates informed decision-making, organisational learning, coordination of activities, and effective strategy implementation. Consequently, organisations with effective knowledge management practices are more likely to achieve their strategic objectives than those where knowledge is poorly managed. Aligning internal capabilities, including knowledge management, with strategic objectives is critical for strategy implementation.

Strategy implementation is more than executing tasks it involves aligning people, processes, structures, technologies, and organisational culture toward the realization of strategic objectives. Strategy implementation largely depends on an organization's ability to leverage both explicit and tacit knowledge embedded in its systems, processes, and employees (Donate & De Pablo, 2015).

. Knowledge management facilitates the dissemination of strategic information, promotes organisational learning, enhances employee capabilities, and supports evidence-based decision-making, all of which influence successful strategy implementation. Failure to implement strategies effectively often results in lost opportunities, wasted resources, and underperformance. To contextualize this issue, it is important to examine how strategy implementation is approached globally, regionally, and locally, with a focus on public sector institutions.

1.1.1 Global Perspective on Strategy Implementation

Globally, governments and public sector organisations are increasingly embracing strategic management to enhance strategy implementation and organisational performance. Evidence from previous studies indicated that strategy implementation had received less scholarly attention than strategy formulation, despite its critical importance to organizational performance and competitiveness (Vigfusson et al., 2021; Aaltonen & Ikavalko, 2002; Alharthy et al., 2017).

Further, Vigfusson et al. (2021) and Blahova and Knapkova (2010) revealed that strategy implementation is an exceedingly tough process and its research history has been disjointed and thus there is need for in-depth exploration of the variable. This study aims to explore how KM and strategy implementation relates with a focus on how the former influences the latter in the public sector. In addition, various scholars identified the need for further research on the factors that influenced strategy implementation in organizations (Vigfusson et al., 2021; Atkinson, 2006; Beer & Eisenstat, 2000).

Strategic implementation, which involves putting plans into action and ensuring that organisational objectives are achieved, is a fundamental pillar of public sector reforms in many countries. Hoglund et al. (2018) noted that strategy implementation entailed the translation of strategic plans into operational activities, supported by appropriate resource allocation, leadership, and monitoring mechanisms. Public institutions in developed countries, particularly in Europe and North America, have adopted sophisticated strategic management frameworks that integrated knowledge management systems to support effective decision-making and enhanced service delivery (Stewart, 2021). Furthermore, organizations with well-integrated knowledge management systems achieve higher efficiency and effectiveness in strategy execution (Donate & De Pablo, 2015).

Technology has become an enabler of strategy implementation. Organisations leverage digital tools and knowledge-sharing platforms to improve coordination, monitor progress, and ensure accountability. Arseneault (2023) argued that organisations globally are using knowledge management systems to respond effectively to changing environments, increase efficiency, and promote innovation. Strategic implementation in this context is increasingly data-driven, collaborative, and results-oriented. Despite these advances, challenges such as resistance to change, bureaucratic inertia, and lack of stakeholder engagement still affect the implementation of strategic plans even in developed economies. Nonetheless, lessons from global practices underscore the importance of aligning strategy with knowledge management, leadership, culture, and performance measurement.

1.1.2 Regional Perspective on Strategy Implementation

In the African context, the implementation of strategies in public sector institutions has been hindered by structural inefficiencies, political interference, limited resources, and poor

governance. Apart from these challenges, many African public organisations lack effective mechanisms for capturing, sharing, and applying knowledge in strategic decision-making processes. While many African governments have adopted strategic plans aimed at reforming public service delivery, execution remains inconsistent. knowledge management has the potential to address these challenges by facilitating knowledge sharing, enhancing collaboration, preserving institutional memory, and supporting evidence-based policy implementation. Additionally, globalization and regional integration have introduced new dynamics, requiring public sector organisations to become more responsive and innovative.

knowledge management remains underutilized in many African countries, despite its potential to improve strategy implementation. There is growing recognition that managing knowledge assets both tacit and explicit is key to enhancing policy execution, organisational learning, and service delivery. Pyun and Gamassou (2018) emphasized the need for capacity building, leadership development, and digital transformation to support strategic initiatives across the continent.

1.1.3 Kenyan Perspective on Strategy Implementation

At the national level, in Kenya, public sector institutions have increasingly embraced strategic planning as part of wider public sector reforms aimed at improving accountability, transparency, and service delivery. However, challenges associated with strategy implementation continue to undermine the realization of desired outcomes. One of the key factors contributing to these challenges is the limited integration of knowledge management into organisational processes and strategic management practices. The situation in Kenya mirrors the challenges observed in many African countries. The Kenyan government had yet to efficiently integrate knowledge management across most of its agencies, despite generating

substantial amounts of knowledge that remained underutilized (Okemwa & Smith, 2014; Ondari-Okemwa, 2007).

Despite growing awareness of the value of knowledge management, many government institutions still lacked a strategic focus on its implementation (Ndiege & Wamuyu, 2019). Mwai (2012) observed that public sector organisations in Kenya, have a limited application of knowledge management which has implications for strategy implementation. Mwai (2012) noted that unlike organisations in many developed countries, public sector institutions in Kenya rarely integrate knowledge management into core strategic functions. Consequently, employees often experience difficulties accessing critical knowledge required for decision-making and implementation of strategic initiatives. rarely embed knowledge management into core functions like strategy implementation, unlike their counterparts in Asia and Western countries. In contrast, private institutions in Kenya have made significant strides in adopting knowledge management for innovation and competitive advantage. Wanyama (2018) likened knowledge to organisational capital, stating that it enhances performance and sustainability, both of which are essential to strategy implementation.

Bureaucracy was identified by Esterhuizen et al. (2012) and Wanyama (2018) as a persistent challenge in Kenya's public sector, as it delayed decision-making and hindered the timely implementation of strategic initiatives. Furthermore, more than 50% of the workforce in public institutions comprised senior employees nearing retirement. The loss of experienced employees without adequate knowledge transfer mechanisms placed valuable institutional knowledge at risk as noted by Yusuf (2014). Technological infrastructure also poses limitations. Owira and Ogolla (2014) noted that although ICT platforms existed to support communication and coordination, they were often outdated or poorly integrated.

According to Yusuf (2014), inadequate implementation and governance of these systems undermined the efficiency of knowledge management practices in the public service.

Nevertheless, there is a growing shift towards embracing knowledge management and strategic management in Kenya. Wanyama (2018) reported that institutions had begun to recognize the need for real-time knowledge-sharing systems and updated operational structures to adapt to a dynamic environment. Despite these challenges, there is growing recognition of the role of knowledge management in improving organisational performance and strategy implementation. Public institutions are increasingly investing in digital systems, knowledge-sharing mechanisms, and organisational learning initiatives to enhance service delivery and adapt to dynamic environmental changes. Therefore, this study seeks to investigate the influence of knowledge management on Strategy Implementation in the Kenyan public sector.

1.1.4 Kenya Bureau of Standards

Kenya Bureau of Standards (KEBS) is a public sector organisation (PSO) that was instituted in 1974 and is mandated under Chapter 496 of the laws of Kenya. (KEBS, 2023). According to Onyango (2012), public sector organisations are institutions established by the state to formulate, implement and attain public goals. These organisations are also referred to as state corporations, and they sometimes have a commercial goal despite being recognized and mandated to achieve societal objectives. According to Onyango (2012), public sector organisations in Kenya are established governed and regulated by the provisions of State Corporation Act Chapter 446. The Act states that state corporations are public bodies established by an Act of Parliament or any other written law.

The mandate of KEBS focuses on Standardization, Metrology and Conformity Assessment (SMCA) in trade and industry in the country. Kenya Bureau of Standards plays a crucial role

in quality of goods, consumer protection and trade facilitation in Kenya and across the continent and globally. The corporation achieves its mandate by offering testing and calibration facilities, standards development, product certification, import inspection, market surveillance, training on quality and providing certification of Quality Management Systems through the Kenya Bureau of Standards National Quality Institute and Certification body respectively (KEBS, 2023). In addition, Kenya Bureau of Standards serves as the National Enquiry Point (NEP) for standards, technical regulations, guidelines and conformity assessment procedures, responding to enquiries from local industry and from foreign investors and World Trade Organisation (WTO) member states.

The organisational structure of Kenya Bureau of Standards includes a board of Directors also called National Standards Council (NSC) led by a chairperson. The President of the Republic of Kenya appoints the Chairperson of the Council while other council members are appointed by the Minister in charge of Trade, Investment and Industry. (CAP 496) The council competitively appoints a Managing Director who oversees daily administration of the corporation in accordance with formulated NSC guidelines. The functions of Kenya Bureau of Standards are categorized into five technical directorates including: Standards Development, Quality assurance and Inspection, Market Surveillance, Metrology, Testing and Research. Support services directorates include Human Resource and Administration, Legal and Finance and Strategy. KEBS has seven operation zones which are Headquarter (Nairobi), Lake Region (Kisumu), Coastal Region (Mombasa), South Rift Region (Nakuru), Mt. Kenya Region (Nyeri), North Rift Region (Eldoret) and North-Eastern Region (Garissa). KEBS, being a PSO, operates under the results-based management system (performance contracting) that was introduced by the government in the year 2005. This system is largely guided by performance contracts developed in accordance with the organisation's strategic plan (Onyango 2012). This

study examined the current knowledge management situation at Kenya Bureau of Standards and explored how knowledge management affects implementation of strategy in the organisation. The study also assessed how knowledge management technology (such as Microsoft 365) affects strategy implementation in public sector in Kenya.

1.2 Statement of the Problem

Strategy implementation in Kenya's PSOs continue to face significant challenges, primarily due to deficiencies in knowledge management practices. Studies indicate that ineffective knowledge sharing, limited knowledge retention, and poor knowledge utilization contribute to delays, inefficiencies, and suboptimal policy outcomes (KIPPRA, 2021). According to Government of Kenya (2022), knowledge management is a critical enabler of strategy implementation because it facilitates the generation, flow, utilization, and storage necessary for informed decision-making and effective execution of organisational objectives. This Policy identifies knowledge as a strategic national resource and emphasizes the need for public institutions to establish mechanisms for knowledge management.

According to KIPPRA (2021), Kenyan public sector organisations (PSOs) continued to face challenges in aligning strategic objectives with effective knowledge management practices despite the growing recognition of knowledge management as a critical success factor in organisational performance

Ndiege and Wamuyu (2019) found that knowledge management practices in County Governments were largely isolated, informal, uncoordinated, and inadequately documented. The study further established that policy frameworks supporting knowledge management were inadequate and that technological solutions for managing organisational knowledge were limited. These deficiencies constrained the effective utilization of knowledge for decision-

making and service delivery, thereby potentially affecting the implementation of strategic plans.

Although previous studies have examined knowledge management practices and organisational performance in Kenya, limited empirical attention has been given to the specific influence of knowledge management on strategy implementation in public sector institutions. Consequently, there remains insufficient evidence on how knowledge generation, flow, utilization and storage contribute to or constrain the successful execution of strategic plans in the Kenyan public sector. This knowledge gap limits the ability of managers and policymakers to develop evidence-based interventions aimed at strengthening strategy implementation through improved knowledge management practices.

Given the increasing demand for efficient service delivery, accountability, and achievement of strategic objectives in the public sector, there is a need for empirical research on the relationship between knowledge management and strategy implementation. Therefore, this study seeks to examine the influence of knowledge management on strategy implementation at the Kenya Bureau of Standards. The findings of the study are expected to contribute to the existing body of knowledge and provide practical insights for enhancing strategy implementation through effective knowledge management practices in Kenya's public sector.

1.3 Purpose of the Study

The primary purpose of the study was to examine the influence of knowledge management on strategy implementation in public sector organisations in Kenya. The study sought to evaluate how knowledge generation, collaborative knowledge flow, knowledge utilization, knowledge repositories, and knowledge management technologies impact the successful execution of strategic plans in public institutions.

1.4 Research Objectives

1.4.1 General Objective

The main objective of this study was to determine the influence of knowledge management on strategy implementation in public sector organizations in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study.

1.4.2 Specific Objectives

The specific objectives were:

I. To determine the effect of knowledge generation on strategy implementation in public sector in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study.

II. To establish the influence of knowledge collaborative flow on strategy implementation in public sector in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study.

III. To find out the influence of knowledge utilization on strategy implementation in public sector in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study.

IV. To establish the effect of knowledge repository on strategy implementation in public sector in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study.

V. To determine the effect of knowledge management technology on strategy implementation in public sector in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study.

VI. To determine the mediating effect of management support on the relationship between knowledge management and strategy implementation in the public sector in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study.

1.5 Research Questions

I. What is the effect of knowledge generation on strategy implementation in the public sector in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study?

II. What is the influence of collaborative knowledge flow on strategy implementation in the public sector in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study?

III. What is the influence of knowledge utilization on strategy implementation in the public sector in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study?

IV. What is the effect of knowledge repositories on strategy implementation in the public sector in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study?

V. What is the effect of knowledge management technology on strategy implementation in the public sector in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study?

VI. What is the mediating effect of management support on the relationship between knowledge management and strategy implementation in the public sector in Kenya, using the Kenya Bureau of Standards (KEBS) as a case study?

1.6 Research Hypotheses

I. H_{01}: Knowledge generation has no significant effect on strategy implementation in public sector in Kenya.

II. H_{02}: Knowledge collaborative flow has no significant influence on strategy implementation in the public sector in Kenya.

III. H_{03}: Knowledge utilization has no significant influence on strategy implementation in the public sector in Kenya.

IV. H_{04}: Knowledge repository has no significant effect on strategy implementation in the public sector in Kenya.

V. H_{05}: Knowledge management technology has no significant effect on strategy implementation in the public sector in Kenya.

VI. H_{06}: Management support has no significant mediating effect on the relationship between knowledge management and strategy implementation in the public sector in Kenya.

1.7 Justification of the Study

Knowledge management has increasingly been recognized as a critical driver of organizational effectiveness and successful strategy implementation. However, despite the growing emphasis on knowledge management in public sector reforms, limited empirical evidence existed on how knowledge management influenced strategy implementation within public sector organizations in Kenya. While previous studies had examined knowledge management practices and organizational performance, few had specifically explored the relationship between knowledge management and strategy implementation in public institutions. This created a knowledge gap that limited the ability of managers and policymakers to develop evidence-based interventions aimed at improving strategy execution.

The study was further justified by the strategic importance of the Kenya Bureau of Standards in supporting national development through standardization, quality assurance, testing, certification, and conformity assessment services. As the national standards body, the Kenya Bureau of Standards operates in an environment that requires effective generation, sharing, storage, and utilization of knowledge to support decision-making and the achievement of strategic objectives. Understanding how knowledge management influences strategy implementation within the Kenya Bureau of Standards was therefore important in identifying practices that could enhance organizational effectiveness and service delivery.

Additionally, increasing demands for efficiency, accountability, innovation, and responsiveness in the public sector has heightened the need for institutions to leverage organizational knowledge as a strategic resource. Examining the influence of knowledge management on strategy implementation was therefore necessary to provide empirical evidence that could inform efforts aimed at strengthening strategic management practices within the Kenya Bureau of Standards and other public sector organizations in Kenya.

1.8 Significance of the study

For the Kenya Bureau of Standards, the study provided empirical evidence on how knowledge management influenced strategy implementation and offered insights for strengthening organizational performance, decision-making, and service delivery. The findings benefited policymakers and public sector managers by providing information that could support the development and implementation of policies, frameworks, and practices that enhanced knowledge management and strategy execution in public sector organizations. In addition, the study provided useful lessons for private sector organizations seeking to improve organizational performance through effective knowledge management practices. Academically, the study contributed to the existing body of knowledge-on-knowledge management and strategy implementation in the Kenyan public sector and provided a basis for future research in the area.

1.9 Scope of the Study

The study was conducted at KEBS Kenya. The target population comprised employees of KEBS at all levels of management across different regions, including the Coast Region (Mombasa), Headquarters (Nairobi), Lake Region (Kisumu), North-Eastern Region, North Rift Region (Eldoret), and Mount Kenya Region (Nyeri). According to KEBS human resource

records (2024), the organisation had a total of 1,080 employees across all its regions and branches, who constituted the target population for the study. Research data and information were collected from KEBS offices countrywide, while a pilot study to test the research instruments was conducted at the KEBS Nakuru Branch. The respondents included senior management, departmental heads, and junior employees who provided data relevant to the study objectives. The study commenced in February 2024 and was concluded in December 2025. The period was adequate for data collection, analysis, and report writing in accordance with the study objectives.

1.10 Limitations of the Study

The study faced several limitations. First, the study was conducted at Kenya Bureau of Standards, and therefore the findings may not be fully generalizable to all public sector organizations in Kenya due to differences in organizational structures, mandates, and operational environments.

The study relied on responses obtained through questionnaires and interviews, which were subject to respondent bias, inaccurate reporting, or withholding of information.

Some respondents may have been constrained by time and workload, which could have affected the completeness of the information provided. Despite these limitations, measures were taken to enhance the validity and reliability of the findings through appropriate research procedures and assurance of respondent confidentiality.

1.11 Delimitations of the Study

The study was delimited to the Kenya Bureau of Standards as a representative public sector organization in Kenya. The study focused specifically on the influence of knowledge management on strategy implementation. The dimensions of knowledge management examined were knowledge generation, collaborative knowledge flow, knowledge utilization,

knowledge repositories, and knowledge management technology. In addition, the study assessed the mediating effect of management support on the relationship between knowledge management and strategy implementation. The study targeted employees of Kenya Bureau of Standards involved in strategic management and organizational operations.

1.12 Assumptions of the Study

This study made the assumption that Kenya Bureau of Standards' personnel who were the study respondents were willing to participate in the research and provide reliable/truthful information. Another assumption was that the respondents had basic knowledge/understanding about the study phenomenon or research topic and they could express themselves sincerely without any omissions. It was also assumed that public service organisations experience related knowledge management and strategic implementation issues and hence to some degree the study findings would act as reference for other institutions in the public sector. Further, it was assumed that financial and time resources would be available to undertake the study appropriately.

1.13 Operational Definition of Terms

Knowledge: is comprised of distinctive bits of facts and insights that empower institutions to respond to industry, and customer needs accurately besides distinguishing it from other organisations in a sector (Ong et al., 2015).

Knowledge management: is defined as the generation, sharing, utilization and storage of information in an organisation to help it undertake its mandate effectively and be competitive in the industry it operates in (Meihami & Meihami, 2014).

Strategy: is a plan that purposively defines how an organisation will create and sustain a competitive advantage in the market through selection of a set of activities which provide a unique blend of value with the aim of achieving its organisational goals and objectives (Porter, 2017).

Strategy implementation: is the mobilization of resources and motivation of staff and related decision-making process to carry out activities planned for in a strategy (Pearce & Robinson, 2007).

Knowledge generation: is the process of producing information which may occur through methods such as formal trainings, informal means for instance talking with knowledgeable persons or technological methods such as social media (Wanyama, 2018).

Knowledge collaborative flow: entails sharing or disseminating information from one source to different people. It allows collaboration between experts and people with limited knowledge to enable information flow through observation, groupware, and workflow systems (Reich et al., 2014; Nazari, 2012).

Knowledge utilization: is the application of knowledge in undertaking tasks and operations and in decision-making processes. It involves converting information and know-how from theory to practice (Burya, 2020; Birasnav, 2014).

Knowledge repository: entails storing/keeping information in a place where it can easily be available and accessible to employees for utilization in their daily activities (Alegre, 2013).

Knowledge management technology: Refers to information technologies that facilitate knowledge creating and capturing, sharing, application and storage (Virkus, 2011).

Policy: Refers to an official written document entailing proposed set of principles, procedures and rules that guide operations, practices and behavior to achieve goals in an institution or government (United Nations, 2020).

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This literature review chapter provides an in-depth examination of existing research, theories, and methodologies relevant to the study's key themes. It explores the critical areas that inform research on knowledge management and its influence on strategy implementation in public sector organisations. The review synthesizes scholarly works focusing on concepts such as knowledge generation, knowledge collaborative flow, knowledge utilization, knowledge repositories, and the application of knowledge management technologies such as Microsoft 365 in enhancing public sector strategy execution.

2.2 Theoretical Literature Review

This section presents the theoretical frameworks underpinning the study and establishes the link between the study variables and existing theoretical perspectives. The study is anchored on four key theories: Resource-Based View Theory, Transformational Learning Theory, Social Capital Theory, and Strategic Management Theory. Strategic Management Theory serves as the primary theoretical anchor because it emphasizes knowledge as a critical resource in organisational strategy formulation and implementation. The theory is grounded in the concepts of competence-based competition and dynamic capabilities, which are essential for embedding knowledge management in strategic processes. It posits that knowledge is a fundamental determinant of organisational performance and competitive advantage, aligning with the assumption that effective knowledge management drives strategy implementation.

2.2.1 Resource-Based View Theory

The Resource-Based View (RBV) theory posits that the resources available to an organisation fundamentally determine its competitive advantage and performance (Bromiley & Rau, 2016).

The resource-based view theory puts emphasis on an organization's internal resources and competencies alluding to them as the foundation of sustainable competitive benefit and operating performance (Salazar & Armando, 2017). According to Salazar and Armando (2017), this theory focuses on an internal –out approach explaining that resources such as employee's knowledge and skills, corporate culture, leadership among others are the key to a successful organization. This theory emerged in the 1980s and 1990s, with key contributions from Wernerfelt, Hamel, Prahalad, and Barney, who argued that organizations should focus on their internal capabilities to gain a sustainable competitive edge (Hitt et al., 2016). RBV classifies resources into tangible and intangible assets, both of which can be leveraged to enhance an organization's strategic implementation (Jurevicius, 2013). Among these resources, knowledge is considered one of the most critical intangible assets that influence an organization's ability to implement strategies effectively (Nonaka, 1994). The theory suggests that organizations should develop unique, inimitable resources, such as specialized knowledge and expertise, to maintain long-term success (Kogut & Zander, 1996).

One of the central tenets of RBV is that knowledge is a strategic resource that enhances an organization's decision-making and operational efficiency (Connor, 2002). Organizations that can effectively generate, store, and utilize knowledge gain a competitive advantage, as knowledge is often rare, valuable, and difficult for competitors to replicate (Zack, 1999). The theory emphasizes that organizations must identify and develop their core competencies by leveraging their internal knowledge base (Bromiley & Rau, 2016). In the context of this study, knowledge management plays a crucial role in strategy implementation, as it enables organizations to optimize decision-making and enhance operational performance (Reich et al., 2014). The ability to harness and apply knowledge effectively ensures that strategies are

implemented in a structured and efficient manner, leading to improved organizational outcomes (Hitt et al., 2016).

RBV also highlights the importance of knowledge generation in achieving strategic objectives (Wernerfelt, 1984). Knowledge generation involves creating new information, insights, and expertise that can enhance decision-making and drive innovation (Barney, 1991). This process is critical in public sector organizations, where knowledge serves as a fundamental resource for policy formulation and service delivery (Kivunja, 2018). The ability of public service organizations such as the Kenya Bureau of Standards to generate and disseminate knowledge determines their effectiveness in implementing strategies that align with national and institutional goals (Bromiley & Rau, 2016). Organizations that prioritize knowledge generation foster a culture of continuous improvement and innovation, which enhances their ability to respond to emerging challenges and opportunities (Jurevicius, 2013).

Another significant aspect of RBV is knowledge utilization, which refers to the application of knowledge in decision-making and operational processes (Nonaka, 1994). According to RBV, organisations that effectively utilize knowledge can enhance their strategic execution and overall performance (Kogut & Zander, 1996). Knowledge utilization involves integrating insights gained from research, experience, and best practices to optimize strategic initiatives (Zack, 1999). In the context of Kenya Bureau of Standards, the effective utilization of knowledge ensures that policies and regulations are implemented efficiently, leading to improved service delivery and compliance with national standards (Bromiley & Rau, 2016). The RBV framework suggests that organisations should invest in systems and processes that facilitate knowledge sharing and application to enhance strategic implementation (Connor, 2002).

Moreover, RBV posits that organisations with distinctive knowledge and expertise gain a sustainable competitive advantage (Barney, 1991). Public sector organisations must develop mechanisms to retain and manage knowledge to enhance their strategic execution (Reich et al., 2014). The ability to harness knowledge enables organisations to improve their internal capabilities, optimize resource allocation, and enhance service delivery (Hitt et al., 2016). The theory further asserts that knowledge should be systematically stored and retrieved to facilitate continuous learning and adaptation (Nonaka, 1994). Organizations that fail to institutionalize knowledge management risk inefficiencies and inconsistencies in their strategic implementation processes (Kogut & Zander, 1996).

It is the argument of the resource-based view theory that resources are only valuable when aligned and embedded with other factors such as practices, procedures and assets (Salazar & Armando, 2017). In this regard, this theory is applicable in the current study which posits that knowledge is a fundamental internal resource in an organization and knowledge management is one of the basic organizational practices that drive strategy implementation. Therefore, it is the position of the resource-based view theory that a resource is not valuable independently of other resources and is not rare by itself thus embeddedness to other resources is important (Lujan, 2017). The current study arguments that knowledge management is a useful resource in influencing strategy implementation and when it is utilized together with other resources, it impacts on competitiveness and performance.

The Resource-Based View (RBV) theory provides a strong theoretical foundation for understanding the role of knowledge as a strategic organizational resource that enhances decision-making, innovation, and competitive advantage. This theory is relevant to knowledge generation on strategy implementation, as outlined in the first specific objective of the study,

which seeks to determine the effect of knowledge generation on strategy implementation in the public sector in Kenya. According to RBV, knowledge generation is a vital internal capability that empowers organisations to adapt, innovate, and respond effectively to changing environments. By treating knowledge as a unique, valuable, and inimitable resource, RBV highlights its role in enabling organisations like KEBS to execute strategies effectively. The study, therefore, leveraged RBV to examine how the creation of new knowledge supports strategic processes, positioning knowledge generation as a crucial factor in enhancing institutional performance and achieving sustainable development in the public sector.

Despite its relevance, RBV has limitations, particularly its limited emphasis on social relationships, networks, and technological advancements in knowledge management (Zack, 1999). While RBV underscores the importance of knowledge as a strategic resource, it does not fully address how technology and social networks facilitate knowledge storage, retrieval, and dissemination (Connor, 2002; Hitt et al., 2016). In the modern organisational landscape, people and technology play crucial roles in knowledge management, influencing how organisations generate, share, and utilize knowledge (Bromiley & Rau, 2016). Given this gap, this study integrated Social Capital Theory to provide a more comprehensive explanation of the role of social relationships and networks in knowledge management and their effect on strategy implementation.

The Resource-Based View Theory provides a strong foundation for understanding knowledge as a strategic organisational resource that contributes to effective strategy implementation. The theory emphasizes that valuable and unique resources are important sources of organisational advantage. However, there is a growing view that the mere possession of knowledge is insufficient to guarantee successful strategy implementation. Rather, organisations must establish mechanisms for generating, sharing, and applying knowledge if they are to derive

value from it. This perspective suggests that organisational success depends not only on the availability of knowledge but also on the organisation's capacity to transform that knowledge into actionable outcomes.

Despite its strengths, RBV has been criticised for its strong emphasis on internal resources while paying less attention to organisational relationships, collaboration, and technological factors that influence knowledge management practices. Consequently, although the theory explains why knowledge generation an important strategic capability is, it provides limited insight into how knowledge flows across organisational networks and supports collective action. Nevertheless, RBV remains relevant to this study because it highlights knowledge generation as a critical organisational capability that can enhance innovation, improve decision-making, strengthen organisational learning, and ultimately support effective strategy implementation.

2.2.2 Social Capital Theory

The main proposition of social capital theory is that relationships are important, and social networks are invaluable assets in society and more so in an organization (Claridge, 2018). Developed by Nahapiet and Ghoshal (1998), the theory explains how social relationships and networks facilitate the creation, exchange, and utilization of knowledge within an organisation. Social capital is such a fundamental aspect in society that some researchers describe it as the grease of the fabric of the society and the driver of functional and efficient modern economies (Ansari et al., 2012). According to social capital theory, the significance of social factors in the functioning of society and an economy cannot be underscored, a reason why people want to share things and receive from others (Claridge, 2018). This theory argues that humans are social beings and they always strived to work together for mutual action (Claridge, 2018). It is

the proposal of this study that efficient knowledge management and strategic management heavily rely on shared information, norms and trust among other social exchanges as elaborated later.

In the public sector, where bureaucratic structures and hierarchical decision-making often impede effective communication, knowledge collaborative flow is essential for successful strategy execution (Inkpen & Tsang, 2005). According to Social Capital Theory, organisations with strong social capital characterized by trust, shared norms, and connectedness are better positioned to exchange and integrate knowledge, leading to improved strategic outcomes. This study applies the theory to analyze how the presence of social networks and trust-based relationships among employees and stakeholders in Kenya's public service organisations fosters knowledge flow and enhances strategy implementation. Existing research has largely focused on the role of social capital in governance and stakeholder engagement, with limited attention to its impact on knowledge management in strategy execution. By addressing this gap, the study provides empirical insights into how social capital influences the effectiveness of strategic initiatives in public institutions.

Social capital comprises three key dimensions which are structural, relational, and cognitive. They collectively shape knowledge collaborative flow (Nahapiet & Ghoshal, 1998). The structural dimension encompasses the overall network ties that facilitate interactions, while the relational dimension includes trust and shared norms that promote cooperation (Tsai & Ghoshal, 1998). The cognitive dimension relates to shared goals and understanding, which enhance the ease of knowledge exchange (Wasko & Faraj, 2005). In the context of Kenya's public sector, these dimensions determine how effectively employees collaborate to drive

strategic initiatives. However, studies have not sufficiently linked these dimensions to successful strategy implementation in government institutions, a gap this research seeks to fill.

Organisations with high levels of social capital are more effective in facilitating knowledge exchange, which is crucial for strategy implementation (Burt, 2000; Lin, 2001). In Kenya's public service, fragmented communication and siloed decision-making structures hinder the successful execution of strategic initiatives (Wachira & Ngugi, 2019). This study will evaluate how strengthening social capital within government institutions can enhance knowledge flow and improve strategy implementation outcomes. By examining these factors, the research aimed to provide recommendations on fostering a collaborative knowledge-sharing environment in the public sector.

Social Capital Theory offers an important perspective on the role of social relationships in facilitating knowledge collaborative flow. Unlike RBV, which focuses primarily on internal resources, Social Capital Theory emphasizes the importance of trust, networks, and shared norms in enabling the exchange of knowledge among organisational members. This perspective suggests that the effectiveness of knowledge management depends not only on the availability of knowledge resources but also on the quality of relationships through which knowledge is transmitted.

However, although the theory provides a useful explanation for knowledge sharing, it tends to assume that strong social relationships automatically lead to effective knowledge exchange. In practice, organisational structures, technology, and individual motivation may also influence knowledge flow. Consequently, Social Capital Theory may not adequately explain knowledge management in environments where digital technologies increasingly mediate communication

and collaboration. Despite this limitation, the theory is relevant to the study because it provides a useful framework for examining how collaborative knowledge flow influences strategy implementation within public sector organisations.

2.2.3 Transformational Learning Theory

Transformational Learning Theory (TLT) was developed by Jack Mezirow in 1978 and has since evolved as a fundamental framework for understanding how individuals and organizations acquire and apply knowledge (Mezirow, 2009). The theory posits that learning occurs when individuals experience a shift in their perspectives, leading to changes in cognition, beliefs, and behaviors (Christie et al., 2015). According to Mezirow (2009), transformational learning is triggered by a "disorienting dilemma," which compels individuals to critically reflect on their assumptions and adapt their understanding to new realities. According to Taylor (2001), transformative learning can also be an outcome of buildup of changes in meaning attitudes, beliefs and patterns over sometime. A distinctive aspect of transformative learning is that a person changes their terms of reference by analytically reflecting on their norms and views and deliberately adopt new ways of doing things (Kathleen, 2004).

This theory is found on a constructivist approach where human beings must make or rather construct meanings of things and situations (Kathleen, 2004). According to Bamber and Hankin (2011) transformative learning theory argues that individuals have to make their own interpretations of things and situations instead of acting on beliefs, outlooks and opinions of other people. It is the preposition of the current study that strategic management is a carefully analyzed process where knowledge is generated, shared, utilized and stored with the aim of transforming processes, practices and systems. It is worth noting that the process of knowledge

management embeds cognitively unlearning and changing habits to become better and improve situations (Bamber & Hankin, 2011). Smith (2021) adds that this theory is relevant to strategic management, as effective strategy implementation requires organizations to continuously learn, adapt, and apply new knowledge in response to changing environments. In the context of this study, transformational learning is crucial in understanding how organizations generate, share, and utilize knowledge to improve strategy execution.

Transformative Learning Theory is built on three key dimensions: psychological, convictional, and behavioral transformation (Mezirow, 2009). Psychological transformation involves changes in self-perception; convictional transformation refers to shifts in beliefs and values, while behavioral transformation entails the adoption of new practices and habits (LaMorte, 2019). In organizational settings, these dimensions manifest in the way employees and managers approach strategic decision-making and implementation. For instance, when employees are introduced to new knowledge management practices, they must undergo psychological and convictional shifts before they can effectively change their behaviour (Christie et al., 2015). This aligns with the research objectives focusing on knowledge generation, collaborative knowledge flow, and knowledge utilization in strategy implementation.

The theory emphasizes that learning is a social and interactive process that requires knowledge sharing and collaboration (Mezirow, 2009). In organizations, transformational learning occurs when employees engage in dialogue, reflect on past experiences, and integrate new knowledge into their strategic initiatives (Smith, 2021). This is particularly relevant to public sector organizations like the Kenya Bureau of Standards (KEBS), where successful strategy implementation depends on continuous knowledge exchange among stakeholders (LaMorte,

2019). The ability of organizations to facilitate transformational learning determines their capacity to adapt to regulatory changes, technological advancements, and evolving market demands (Christie et al., 2015).

One of the key applications of Transformational Learning Theory in this study is its relevance to knowledge collaborative flow, which refers to the seamless sharing of knowledge among individuals and teams within an organisation (Mezirow, 2009). Organizations that foster a culture of learning and collaboration enable employees to continuously refine their skills and align their work with strategic goals (LaMorte, 2019). Transformational learning plays a critical role in ensuring that knowledge is not only acquired but also effectively applied to enhance decision-making and operational efficiency (Smith, 2021). By fostering a learning-oriented culture, organizations can improve communication, reduce resistance to change, and enhance overall strategy implementation (Christie et al., 2015).

Moreover, TLT highlights the importance of reflection in the learning process, which is essential for organisations aiming to improve strategy execution (Mezirow, 2009). Employees and decision-makers must critically evaluate past strategies, identify areas of improvement, and integrate new insights into future plans (LaMorte, 2019). This reflective learning process ensures that organisations remain agile and responsive to emerging challenges, ultimately leading to better strategic outcomes (Whalen, 2020). For Kenya Bureau of Standards, the ability to reflect on past strategy implementations and adjust future initiatives based on lessons learnt is crucial in enhancing regulatory compliance and service delivery (Christie et al., 2015). Furthermore, transformational learning theory posits that knowledge utilization is a key indicator of successful learning (Mezirow, 2009). Organisations that effectively apply acquired knowledge to their strategic initiatives are more likely to achieve their objectives and sustain

long-term growth (Smith, 2017). Knowledge utilization involves integrating new information into daily operations, decision-making processes, and problem-solving activities (LaMorte, 2019). This aspect of Transformational Learning Theory aligns with the research objective focusing on how knowledge utilization influences strategy implementation in organisations. The ability to apply knowledge effectively ensures that strategic plans are executed efficiently, reducing operational inefficiencies and enhancing overall performance (Christie et al., 2015).

This theory is highly relevant to understanding the effect of knowledge repositories on strategy implementation in the public sector, particularly in organisations like the Kenya Bureau of Standards. Transformational Learning Theory emphasizes the critical role of learning in transforming individual and organisational behavior, a process that is fundamental to successfully implementing strategies. In the context of this study, knowledge repositories serve as central points for the collection, storage, and dissemination of knowledge, enabling continuous learning and adaptation. Transformational learning, as proposed by Mezirow (2009), occurs when individuals and teams critically reflect on past experiences, challenge assumptions, and integrate new knowledge into strategic processes. The creation and effective utilization of knowledge repositories facilitate this reflective learning process by providing a structured environment for employees to access and apply critical knowledge, thus enhancing strategic decision-making and operational efficiency (Whalen, 2020).

In public sector organisations like Kenya Bureau of Standards, where knowledge exchange and collaboration are key to regulatory compliance and service delivery, transformational learning is crucial for fostering a culture of learning. Knowledge repositories, by providing easy access to relevant information and best practices, allow employees to refine their skills, adapt to changing environments, and align their actions with organisational objectives. This continuous

cycle of learning, reflection, and application is essential for the successful implementation of strategies. Furthermore, the reflective aspect of Transformational Learning Theory ensures that knowledge repositories do not simply store information but also facilitate the integration of lessons learnt from past strategy implementations, thus improving future strategic initiatives.

Moreover, transformational learning theory highlights the importance of knowledge utilization as an indicator of successful learning. As organisations like Kenya Bureau of Standards utilize knowledge stored in repositories, they are able to enhance decision-making, reduce inefficiencies, and implement strategies more effectively. This aligns directly with the research objective, which seeks to establish how knowledge repositories impact strategy implementation by ensuring that acquired knowledge is systematically integrated into daily operations and decision-making processes. By fostering a learning-oriented culture, knowledge repositories become critical tools for achieving strategic goals and ensuring long-term organisational success.

Despite its strengths, Transformational Learning Theory has limitations, particularly in its focus on individual learning rather than organisational learning as a collective process (Mezirow, 2009). While the theory provides valuable insights into how individuals transform their thinking, it does not explicitly address how institutions can systematically embed learning into their strategic frameworks (LaMorte, 2019). To address this gap, this study incorporates Strategic Management Theory, to provide a more comprehensive understanding of knowledge management in strategy implementation (Smith, 2021). By integrating these perspectives, the research offers a holistic view of how organisations generate, share, and apply knowledge to drive strategic success (Christie et al., 2015).

Transformational Learning Theory contributes significantly to the understanding of how individuals and organisations acquire, interpret, and apply knowledge to improve performance.

The theory expands the discussion beyond knowledge possession by emphasizing learning, reflection, and behavioral change as prerequisites for effective utilisation of knowledge. This perspective is particularly relevant in public sector organisations where successful implementation of strategy often requires employees to adapt to new processes, technologies, and operational requirements.

Despite its strengths, the theory has been criticized for focusing mainly on individual transformation while offering limited explanation of how organisational systems and structures support collective learning. Furthermore, it pays less attention to strategic and environmental factors that influence organisational performance. As a result, while the theory explains how learning influences knowledge repositories and knowledge utilization, it requires supplementation by broader strategic perspectives to fully explain strategy implementation. Nevertheless, its emphasis on continuous learning and knowledge application makes it highly relevant to the current study.

2.2.3 Strategic Management Theory

Strategic Management Theory (SMT) provides a framework for understanding how organisations develop and implement strategies to achieve competitive advantage and long-term success (David & David, 2017). The theory posits that strategic planning, execution, and evaluation are critical processes that enable organisations to navigate dynamic business environments and sustain performance (Hill et al., 2014). According to Chandler (1962), strategy involves determining long-term organisational goals, adopting courses of action, and allocating necessary resources for implementation. This theory is highly relevant to the current study, as it underscores the role of knowledge management in shaping strategy implementation outcomes. By leveraging knowledge as a strategic resource, organisations can enhance

decision-making, optimize resource utilization, and drive sustainable growth (Ansoff et al., 2018).

Strategic management is built upon two core concepts: competence-based competition and dynamic capabilities (Teece et al., 1997). Competence-based competition emphasizes that an organisation's success depends on its ability to develop and leverage unique competencies that differentiate it from competitors (Barney, 1991). These competencies include knowledge, skills, technology, and innovative capabilities that contribute to superior performance (Grant, 1996). On the other hand, the dynamic capabilities perspective argues that organisations must continuously adapt and reconfigure their resources in response to external changes to maintain a competitive edge (Teece, 2018). From the perspective of Strategic Management Theory, Knowledge Management Technology constitutes a strategic resource that enables organizations to effectively manage knowledge assets in support of strategy implementation. Through technologies such as knowledge repositories, document management systems, intranets, and collaborative platforms, organizations can generate, share, store, and utilize knowledge required for strategy implementation. Consequently, Knowledge Management Technology enhances organizational capabilities, improves coordination, and supports the successful implementation of strategy. This aspect is particularly important in environments characterized by rapid technological advancements and evolving consumer preferences.

A key principle of SMT is that knowledge is a fundamental determinant of organisational performance and competitiveness (Nonaka & Takeuchi, 1995). Organisations that integrate knowledge management into their strategic processes can improve operational efficiency, enhance innovation, and foster a culture of continuous improvement (Hitt et al., 2016). Knowledge serves as a foundation for informed decision-making, enabling organisations to

identify market trends, anticipate risks, and develop proactive strategies (Porter, 1980). This aligns with the research objectives, which examine the influence of knowledge on strategy implementation, particularly in public institutions like the Kenya Bureau of Standards (KEBS). By embedding knowledge management in strategic planning, organisations can enhance regulatory compliance, streamline service delivery, and improve overall performance (David & David, 2017).

One of the central components of SMT is the strategy formulation process, which involves defining organisational objectives, analysing internal and external environments, and selecting appropriate strategic actions (Hill et al., 2014). Knowledge plays a crucial role in this process by providing insights into market conditions, competitive dynamics, and operational capabilities (Grant, 1996). According to Mintzberg et al. (2005), effective strategy formulation requires a balance between deliberate planning and emergent learning. Organisations must be flexible enough to adapt their strategies based on new knowledge and changing circumstances. This perspective underscores the importance of knowledge generation and collaborative knowledge flow in ensuring that strategies remain relevant and effective (Teece, 2018).

In addition to formulation, strategy implementation is a critical aspect of SMT that determines the success of organisational plans (David & David, 2017). Implementation involves translating strategic plans into actionable initiatives, allocating resources, and monitoring progress (Hill et al., 2014). Knowledge utilization is particularly significant in this phase, as employees must apply acquired knowledge to execute strategic tasks effectively (Nonaka & Takeuchi, 1995). Organisations that foster a knowledge-driven culture empower their workforce with the necessary skills, information, and decision-making autonomy to implement strategies successfully (Ansoff et al., 2018). Furthermore, collaborative knowledge flow

enhances coordination among departments, ensuring that strategic initiatives are aligned across the organisation (Barney, 1991).

Another important concept in SMT is strategic alignment, which refers to the synchronization of organisational goals, resources, and activities to achieve optimal performance (Kaplan & Norton, 2004). Strategic alignment requires continuous knowledge exchange between different levels of management and stakeholders to ensure that strategic objectives are effectively communicated and executed (Grant, 1996). In public sector organisations like Kenya Bureau of Standards, strategic alignment is essential for regulatory compliance, quality assurance, and service delivery (David & David, 2017). By integrating knowledge management into strategic alignment processes, organisations can enhance transparency, accountability, and operational efficiency (Porter, 1980). Moreover, SMT highlights the role of leadership in driving strategic success (Hitt et al., 2016). Effective leaders facilitate knowledge sharing, foster innovation, and create an organisational culture that supports strategic objectives (Mintzberg et al., 2005). According to Bass (1990), transformational leadership is particularly relevant in strategic management, as it emphasizes vision, motivation, and the continuous development of employees' capabilities. Leaders who prioritize knowledge management initiatives enable organisations to build adaptive capacities, respond to environmental changes, and sustain competitive advantage (Teece, 2018). This aligns with the research objective that examines the influence of knowledge utilization on strategy implementation outcomes.

This theory is relevant to understanding the influence of knowledge utilization on strategy implementation in the public sector, as it emphasizes the crucial role of knowledge in shaping organisational performance and decision-making. SMT suggests that knowledge is a strategic resource that organisations can leverage to enhance their competitive advantage, optimize

resources, and achieve long-term success. By focusing on how knowledge is used in the implementation of strategic initiatives, this study examines how the integration of knowledge management practices within strategic processes impacts the effectiveness of strategy execution in Kenya's public sector. Specifically, it explored how knowledge utilization, through processes like informed decision-making, resource allocation, and cross-departmental coordination, can drive successful strategy implementation. The study draws on SMT to highlight how organisations like the Kenya Bureau of Standards can enhance regulatory compliance, streamline service delivery, and improve overall performance by effectively utilizing knowledge throughout the implementation phase. Furthermore, SMT's emphasis on strategic alignment and leadership underscores the importance of ensuring that knowledge is shared across all levels of the organisation, fostering a culture of collaboration and continuous improvement. This theoretical framework, therefore, provided valuable insights into the mechanisms through which knowledge utilization influences the realization of strategic goals in public sector organisations.

Strategic Management Theory provides the overarching framework for this study because it directly explains the relationship between organisational resources and strategy implementation. Unlike the preceding theories, which focus on specific dimensions of knowledge management, SMT integrates knowledge generation, collaborative knowledge flow, knowledge utilization, and strategic alignment into a broader strategic context. The theory therefore provides a comprehensive explanation of how knowledge contributes to organisational performance and successful strategy execution.

However, scholars differ on the extent to which strategic success is driven by organisational resources alone. While proponents of SMT emphasize strategic planning and resource deployment, dynamic capability theorists argue that organisations must continuously adapt and

reconfigure their resources in response to changing environments. This suggests that strategy implementation requires not only the availability of knowledge but also the capability to continually apply and adapt that knowledge. Consequently, SMT complements the other theories by providing an integrative perspective through which the various dimensions of knowledge management can be linked to strategy implementation.

The theory was therefore adopted as the anchoring theory for the study because it provides the most comprehensive explanation of how knowledge management practices influence strategy implementation in PSOs.

In conclusion, the theories are complementary rather than competing. A multi-theoretical approach was adopted because no single theory adequately explains all the dimensions of knowledge management and their influence on strategy implementation. RBV explains why knowledge generation is important as a strategic resource, Social Capital Theory explains how knowledge collaboratively flows within the organisation, Transformational Learning Theory explains how knowledge is retained through repositories and transformed into actionable learning, while Strategic Management Theory explains how knowledge utilization and knowledge management technologies support the execution of organisational strategies. Together, the theories provide a holistic theoretical foundation for the conceptual framework by explaining the influence of knowledge generation, knowledge collaborative flow, knowledge utilization, knowledge repositories, knowledge management technology, and management support on strategy implementation at the Kenya Bureau of Standards.

2.3 Conceptual Framework

A conceptual framework is a map that illustrates how the independent variables relate with the dependent variable while expounding on the indicators or parameters of each variable. This study had five independent variables (including knowledge generation, knowledge collaborative flow, knowledge utilization, knowledge repository and knowledge management technology) one mediating variable, management support and one dependent variable namely strategy implementation. A conceptual framework illustrates the relationship between the independent, mediating, and dependent variables of a study and the indicators used to measure them. This study examined the influence of knowledge management on strategy implementation, with knowledge generation, knowledge collaborative flow, knowledge utilization, knowledge repositories, and knowledge management technology as the independent variables, management support as the mediating variable, and strategy implementation as the dependent variable.

Knowledge generation was expected to provide new knowledge, ideas, and insights that supported informed decision-making and innovation. Effective knowledge collaborative flow facilitated the sharing of information, expertise, and experiences among employees, thereby improving coordination and execution of strategic activities. Knowledge utilization promoted the application of available knowledge in decision-making, problem-solving, and operational processes. Knowledge repositories preserved institutional knowledge and facilitated access to relevant information when required. knowledge management technology enabled efficient generation, flow, utilization and storage and retrieval of knowledge through digital platforms, thereby supporting strategy implementation.

Management support was expected to moderate these relationships through leadership commitment, resource allocation, enabling policies, and technological infrastructure that facilitated effective knowledge management practices. Consequently, strong management support was expected to strengthen the influence of KM practices on strategy implementation. The framework is further elaborated in figure 2.1

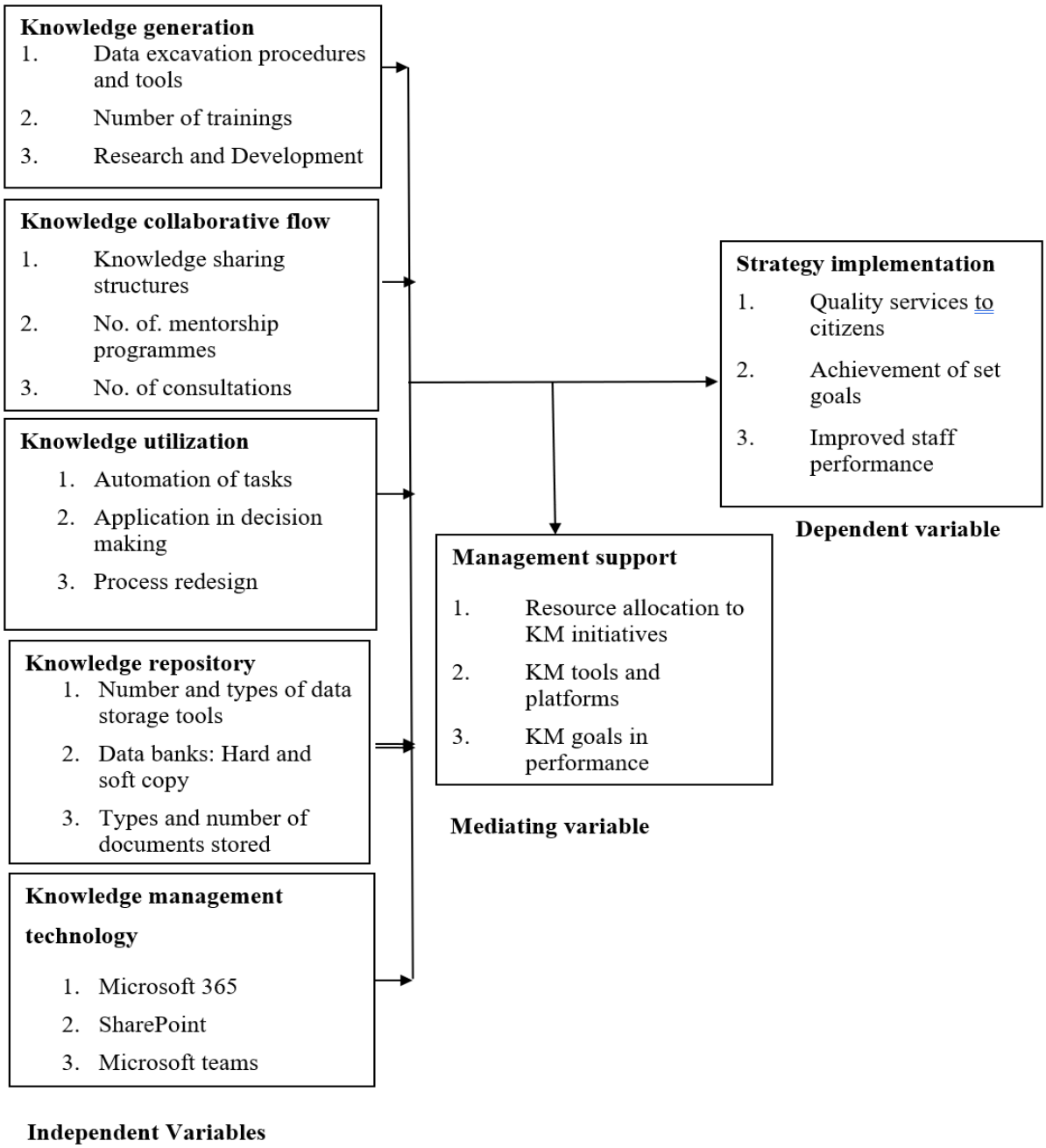

Figure 2.1 Conceptual Framework

2.4 Empirical Literature

Knowledge management plays a crucial role in enhancing strategy implementation in public sector organisations by fostering knowledge generation, flow, utilization, storage and technology. Several studies have explored the link between knowledge management practices and organizational effectiveness, particularly in the public sector. However, gaps remain in understanding the direct impact of knowledge management on strategy implementation, especially within the Kenyan context. This section reviewed empirical studies on knowledge management in PSOs and highlighted research gaps that justified the study.

2.4.1 Knowledge Management Practices in Public Service Organisations in Kenya

Knowledge management in public service organisations in Kenya is a structured process aimed at capturing, sharing, applying and storing knowledge to enhance service delivery (GOK, 2022). Public sector institutions have established policies and frameworks to support knowledge management, including the creation of dedicated knowledge management units and the integration of knowledge-sharing mechanisms into organizational processes (Salleh et al., 2020).

Kithuka (2020) argued that the Kenyan public service is characterized by different knowledge management practices that work in harmony to ensure data collection, flow and storage with the ultimate aim of driving smooth delivery of services. Documentation and record management are one of the foundational practices in many public sector organizations where important reports, policy documents and guidebooks are preserved to retain institutional memory. Organizations maintained libraries and data centres in various forms, including physical and digital repositories, through which public servants and members of the public could access information. Mentorship programmes also constituted a common knowledge

management practice, facilitating the transfer of both tacit and explicit knowledge from senior officers to junior officers within public sector organizations. Furthermore, considerable efforts had been made to transform knowledge management systems from physical to digital platforms (Kithuka, 2020).

Despite these efforts, research has indicated that knowledge management practices in the Kenyan public sector remain inconsistent, primarily due to bureaucratic structures and a lack of strategic alignment with institutional objectives (Metho, 2015). Metho (2015) further argued that institutions with weak knowledge management systems often struggle with effective strategy implementation, leading to inefficiencies in service provision. This inconsistency has undermined the potential benefits of knowledge management, such as improved decision-making, enhanced innovation, and increased efficiency in public service delivery. Without a well-structured approach to knowledge management, public institutions risk inefficiencies that hinder the realization of their strategic goals.

Knowledge sharing played a vital role in fostering collaboration, innovation, and informed decision-making in the public sector, making it a critical component of knowledge management (Salleh et al., 2020). Effective knowledge sharing enables government agencies to leverage institutional memory, minimize redundancies, and enhance service delivery by applying best practices across departments. In Kenya, the knowledge management Africa–Kenya Chapter (KMA) has been instrumental in facilitating knowledge-sharing initiatives among stakeholders, including government agencies, research institutions, and private sector organisations (KMA, 2023). The institution seeks to bridge the gap between knowledge creators and end-users, thereby promoting socio-economic development through informed policy and decision-making. However, despite these initiatives, empirical evidence suggests that knowledge-

sharing practices in Kenyan public institutions remain fragmented and are often not systematically integrated into formal strategic frameworks (GOK, 2022). This fragmentation results in information silos, where critical knowledge is not adequately transferred across government entities, leading to inefficiencies in service provision. The absence of structured knowledge-sharing mechanisms also limits opportunities for collaboration, reducing the effectiveness of policy implementation and organisational learning.

To address these challenges, the Kenyan government has made efforts to institutionalize knowledge management by developing a knowledge management Policy aimed at standardizing knowledge management practices in public institutions (GOK, 2022). The policy emphasizes the need for organisations to establish internal knowledge management units, train employees in knowledge utilization, and leverage technology for efficient knowledge storage and retrieval (GOK, 2022). By formalizing knowledge management practices, the policy seeks to enhance institutional efficiency and support informed decision-making in the public sector. However, while the policy provides a strong foundation for knowledge-driven governance, its implementation has faced several challenges, including inadequate funding, resistance to change, and a lack of technical expertise (Khuram, 2016). Many public institutions struggle with limited financial resources, making it difficult to invest in knowledge management systems and infrastructure. Additionally, resistance to change among employees further complicates the adoption of knowledge management practices, as some workers perceive new systems as disruptive to established routines.

Khuram (2016) conducted a study in India examining the relationship between knowledge management and innovation, revealing that outdated ICT systems, hierarchical organisational structures, and an ageing workforce often hinder the effective adoption of knowledge-driven

strategies. Although the study provided valuable insights into the challenges associated with knowledge management, it primarily focused on innovation rather than strategy implementation. This presents a research gap, as limited studies have explored the direct relationship between knowledge management and strategy implementation in Kenya's public sector. Given the growing importance of knowledge-driven governance, there is need for further research to assess how knowledge management practices can be effectively integrated into public sector strategy implementation frameworks. This study sought to address this gap by analysing how knowledge management influences the execution of strategic initiatives in Kenyan public institutions, with a particular focus on the Kenya Bureau of Standards Understanding the impact of knowledge management on strategy implementation can provide insights into best practices that can be adopted to improve efficiency, decision-making, and service delivery in public service organisations.

2.4.2 Knowledge Management and Strategy Implementation

According to Kithuka (2020), knowledge management and strategy implementation are profoundly intertwined. Kithuka (2020), elaborated that while strategy management established the direction of an institution, knowledge management provided the foundation apparatus that drove the implementation of organizational strategies by generating, sharing and applying knowledge or intellectual assets. Kithuka (2020) indicated that strategy gave direction to strategic goals including competencies, knowledge and expertise that an institution needs to prioritize and hence knowledge management must align with an organization's strategy. In this regard, organizational strategy prescribes the kind of knowledge that is critical for an organization. For example, if an organization's strategy is to dominate being a low-cost lead in a business environment, knowledge management has to emphasise on capturing and ensuring flow of process- efficiency knowledge. On the other hand, if an organization's strategy is to

focus on innovation, then it has to deliberately focus its knowledge on searching for novel ideas and inter-departmental collaboration.

Muzam (2023) also agreed that knowledge management and strategic management were complementary aspects that worked in harmony to convert high-level objectives into actionable, information-driven outcomes. Muzam (2023) elaborated that while strategic management focused on where an organization was heading, knowledge management focused on what was needed to get there. The goal of knowledge management in relation to strategic management was to generate, organize, and share intellectual assets in both documented and experiential forms, while ensuring that the right employees had access to the right information at the right time.

Cerchione et al. (2020) argued that knowledge management acted as the foundation of strategic management by converting raw facts into actionable knowledge, thereby enabling organizations to identify market trends, innovate, and sustain competitive advantage. They further noted that while strategic management sought to define the long-term objectives of an organization, knowledge management identified and provided the information required to achieve those objectives. According to Cerchione et al. (2020), one of the key aspects of strategic management was strategy formulation, which involved planning. This process entailed a critical assessment of internal competencies and the external business environment, with a focus on customer insights, competitor information, and industry trends in order to develop tailored organizational objectives. Muzam (2023) noted that the integration of knowledge relating to customers, competitors, and their capabilities was both inevitable and significant in this process. During strategy formulation, organizations also critically analyzed

their unique internal competencies, including employee skills, proprietary technologies, and other strategic resources, which leaders utilized in developing and implementing strategies.

The role of knowledge management in enhancing organizational performance has been widely studied, but its specific impact on strategy implementation within the Kenyan public sector remains under explored. Owira and Ogolla (2014) argued that effective strategy execution required organizations to systematically manage and apply knowledge to align operational activities with strategic goals. The authors examined the use of knowledge management systems in public sector organisations in Kenya and focused on the role of ICT in facilitating knowledge generation and sharing. Their study revealed that ICT-based knowledge management systems improve service delivery by enhancing communication, information accessibility, and decision-making processes. However, while the study highlighted the significance of knowledge management systems in promoting efficiency, it did not explicitly address how knowledge management influences strategy implementation. Moreover, the study did not focus on the Kenya Bureau of Standards, which presents a contextual gap that this research aimed to fill by examining how knowledge management practices impact strategy execution within Kenya Bureau of Standards.

Salleh et al. (2020) found that the effectiveness of knowledge management in public sector organizations was largely influenced by how well knowledge-sharing mechanisms were integrated into strategic initiatives. Yusuf (2014) conducted a study on factors influencing knowledge management practices in Kenyan state corporations, specifically within the National Treasury. The findings indicated that knowledge management played a crucial role in enhancing organisational efficiency by improving access to information and promoting a knowledge-sharing culture. However, the study did not explore the direct contribution of

knowledge management to strategy execution, instead it focused on broader challenges associated with knowledge management adoption. Given that Kenya Bureau of Standards operates under a different mandate from the National Treasury, the findings of Yusuf (2014) may not be directly applicable to Kenya Bureau of Standards, presenting a contextual limitation that this research sought to address. By investigating how knowledge management supports the execution of strategic initiatives in Kenya Bureau of Standards, this study aimed to provide insights into how knowledge-based processes can enhance public sector performance.

According to the Government of Kenya (GOK, 2022), the application of knowledge management in strategy execution had not been comprehensively analyzed, despite its recognition as a key driver of organizational success, particularly within public institutions in Kenya. Riungu (2015) examined the relationship between knowledge management and organizational performance in Kenya's mobile telecommunications sector. The author found out that knowledge management practices such as knowledge storage and retrieval positively impacted firm performance. However, the study did not examine strategy implementation as a key variable, instead focused on the broader aspect of organisational performance. Additionally, the research was conducted in the private sector, where market-driven incentives influence knowledge management adoption differently compared to the public sector. This sectorial distinction presented another gap that this study addressed by investigating the effect of knowledge management on strategy implementation within a public service organisation, the Kenya Bureau of Standards.

Khuram (2016) argued that the execution of strategic initiatives in public institutions required a structured approach to knowledge management to ensure that relevant information was effectively captured, stored, and applied in decision-making processes.

Despite the development of policies such as the Knowledge Management Policy by the Government of Kenya, implementation challenges persisted, limiting the potential impact of knowledge management on strategy execution (GOK, 2022). Studies conducted in other regions, such as that of Khuram (2016) in India, identified outdated ICT systems, hierarchical organisational structures, and an aging workforce as key barriers to knowledge-driven strategies. While this finding provided valuable insights, the study primarily focused on innovation rather than strategy implementation and left a gap in understanding how knowledge management influenced public sector strategic implementation. By focusing on Kenya Bureau of Standards, this research sought to bridge this gap by assessing the extent to which knowledge management practices contribute to the successful implementation of strategic initiatives within public service organisations in Kenya.

2.4.3 Knowledge Generation and Strategy Implementation in Public Service

Knowledge generation plays a crucial role in ensuring the successful implementation of strategies in public service organisations. The Knowledge Management Policy Kenya defined knowledge generation as a continuous process involving the transformation of tacit and explicit knowledge into new knowledge through mechanisms such as socialization, externalization, amalgamation, and internalization (GOK, 2022). These mechanisms enable public institutions to generate insights, develop solutions, and adapt to changing operational environments, which in turn strengthens their ability to implement strategies effectively. Bista (2020) emphasized that knowledge generation stems from various sources, including professional experiences, personal interactions, and analytical engagements. Employees acquire knowledge through their day-to-day activities, observations, and problem-solving tasks, making knowledge generation an integral part of organisational learning. Zack (2019) noted that organizations that fostered a

culture of knowledge sharing and innovation were more likely to enhance their strategic capabilities and maintain operational efficiency.

Zack (2019) further posited that knowledge generation is influenced by an organisation's ability to promote collaboration and information exchange. In public service organisations, employees acquire and generate knowledge through teamwork, mentorship programmes, training initiatives, and exposure to best practices in the industry. Choi and Lee (2002) observed that successful strategy implementation depended on an organization's ability to understand its strengths, competitive landscape, and operational challenges.

Therefore, organisations that actively promote knowledge generation are better positioned to develop and execute strategies that align with their goals. Furthermore, public institutions rely on knowledge-driven decision-making to optimize service delivery and policy implementation, making knowledge generation a fundamental aspect of strategic success.

Leach and Liu (2003) highlighted that knowledge generation was a continuous and interrelated process in strategy building, integrating past and present knowledge to create new insights. The authors noted that it involved both individual and collective efforts, with employees contributing ideas and disseminating knowledge through structured mechanisms. Their study demonstrated that knowledge sharing and capture were essential for preserving insights to support strategy execution, though their study primarily addressed knowledge generation within strategy formulation rather than implementation. The current study extends this perspective by examining how knowledge management as a whole, including knowledge generation, collaborative flow, utilization, repositories, and technology impact the implementation of strategies in public service organisations.

Research further indicated that knowledge generation enhances operational effectiveness, leading to improved strategic outcomes (Dayan et al., 2017). Public service organisations that establish robust knowledge generation processes benefit from increased efficiency, innovation, and adaptability in executing their strategic plans. Choi and Lee (2002) argued that newly generated knowledge fosters continuous improvement by enabling organisations to refine their operational models, mobilize resources effectively, and engage employees in achieving strategic objectives. Additionally, knowledge generation supports problem-solving and innovation, allowing public institutions to develop policies and programmes that address emerging challenges in governance and service delivery.

The role of knowledge generation in strategy implementation is particularly evident in institutions that leverage structured knowledge management systems. Salleh et al. (2020) argued that public sector organizations that integrate knowledge management into their strategic processes are more likely to achieve their objectives efficiently.

This is because knowledge generation enables decision-makers to anticipate challenges, develop proactive strategies, and align organisational activities with long-term goals. Moreover, knowledge generation fosters a culture of learning and continuous improvement, where employees are encouraged to contribute new ideas, share experiences, and engage in evidence-based decision-making. According to the Government of Kenya (GOK, 2022), the presence of knowledge-sharing platforms, research departments, and innovation hubs further enhances the capacity of public institutions to generate and utilize knowledge effectively.

Despite the recognized importance of knowledge generation, some public service organisations still face challenges in institutionalizing effective knowledge management practices. Metho (2015) highlighted that institutions lacking proper knowledge management structures often

struggle with inefficiencies in strategy implementation. Weru (2020) further indicated that effective strategy implementation is dependent on internal organisational capabilities such as management support, capacity building and structured knowledge flow. Without mechanisms to capture, store, and share knowledge, organisations risk losing valuable insights, leading to poor decision-making and ineffective execution of strategic plans. Khuram (2016) also noted that factors such as outdated technology, bureaucratic structures and resistance to change hinder the effective generation and utilization of knowledge in public institutions. These challenges underscore the need for policies and frameworks that promote knowledge generation as a core component of strategic planning and execution in public service organisations.

Knowledge generation is a critical factor in the successful implementation of strategies in public service organisations. By fostering an environment that supports knowledge sharing, collaboration, and continuous learning, institutions can enhance their strategic capabilities and improve service delivery. Studies by Zack (2019), Choi and Lee (2002), and Dayan et al. (2017) all highlighted the link between knowledge generation and organisational performance, demonstrating that institutions that prioritize knowledge generation are better equipped to execute their strategies effectively. Public service organisations must, therefore, invest in knowledge management systems, research initiatives, and training programmes to strengthen their capacity for knowledge generation and ensure sustainable strategic success.

2.4.4. Knowledge Utilization and Strategy Implementation in the Public Sector

Knowledge utilization is a fundamental component of strategy implementation in the public sector, as it enables organisations to leverage knowledge resources for improved decision-making and operational efficiency. According to the Knowledge Management Policy Kenya,

knowledge utilization involves the application of knowledge in organisational functions to enhance productivity and performance at both individual and institutional levels (GOK, 2022). It is a crucial process in strategic management, as it ensures that leaders and employees make informed decisions based on existing knowledge assets. Iyer (2017) elaborated that knowledge utilization entails the application of both tacit and explicit knowledge in performing organisational tasks, driving innovation, and creating new knowledge or products. By effectively using knowledge, public service institutions can optimize their operations, improve service delivery, and enhance the overall success of strategic initiatives.

Empirical research conducted by Bista (2020) in Finland underscored the significance of knowledge in strategy creation, demonstrating that knowledge serves as a critical resource in strategic planning. The study utilized a literature review approach and found that individual competencies, combined with organisational knowledge, influence the formulation of strategies. While the study by Bista (2020) focused on sales professionals and primarily examined knowledge's role in strategy formulation, the present study shifts its focus to public service organisations and emphasizes the role of knowledge utilization in strategy implementation. This distinction is essential, as public sector organisations operate in complex environments where the effective application of knowledge is necessary for achieving strategic goals. The findings highlight that organisations must not only generate knowledge but also actively integrate it into their decision-making and operational processes to ensure successful strategy execution. Gladys (2020) highlighted the importance of human resource factors such as competency in Kenyan public sector which plays a critical role in strategy implementation.

The relationship between knowledge utilization and strategic management was also supported by Nonaka and Ichijo (2007), who argued that knowledge was central to the entire strategy

development process. Their study highlighted how organisations relied on knowledge at various stages of strategic planning, from conceptualization to execution.

The current study builds on this perspective by asserting that strategy implementation, in particular, depends heavily on knowledge utilization. While Nonaka and Ichijo (2007) examined knowledge application in organisations broadly, the current study narrows its scope to the public sector in Kenya, focusing specifically on how knowledge utilization influences the execution of strategic initiatives. Public service organisations must establish structured knowledge management frameworks that facilitate the use of accumulated expertise in addressing operational challenges and achieving long-term strategic objectives.

McKee (1992) reinforced the idea that knowledge forms the foundation of institutional strategy, as strategies are developed and implemented by managers and leaders who apply their expertise in practice. Drucker (1993) further elaborated that managers utilize different types of knowledge which include team mobilization, communication, and the development of implementation structure in order to translate strategic plans into actionable initiatives. This highlights the dynamic nature of knowledge utilization in strategy implementation, where effective leadership is essential in ensuring that knowledge is appropriately applied in the organisational context. In public sector institutions, managers must harness knowledge resources to drive reforms, improve service delivery, and achieve policy objectives, underscoring the need for continuous learning and knowledge-sharing mechanisms.

A study conducted by Nazari (2012) in Iran explored the practical application of knowledge management in organisations and its impact on various institutional processes. The study emphasized that knowledge management was a critical practice for organisations seeking to enhance intelligent performance because it fostered innovation and problem-solving.

Nazari (2012) argued that knowledge is instrumental in addressing emerging challenges in an organisation's business environment, particularly when employees actively engage in knowledge generation, sharing, and utilization. While this study provided a broad overview of knowledge management, the current research focused specifically on the role of knowledge utilization in strategy implementation within public service organisations in Kenya. The study sought to demonstrate that effective knowledge management is essential for achieving organisational goals and demonstrated that effective knowledge management played a critical role in achieving organisational goals while enhancing and sustaining performance and service delivery in the public sector.

Kohlbacher (2008) similarly highlighted the importance of professional experience and both tacit and explicit knowledge in strategy-making. However, the study focused primarily on knowledge utilization at the strategy formulation stage, leaving a gap in understanding its role in strategy implementation. The present study addresses this gap by emphasizing the critical role knowledge plays during the strategy implementation phase, where organisations translate strategic plans into tangible outcomes. By integrating knowledge utilization into the strategy implementation process, public service organisations can enhance their adaptability, improve decision-making, and ensure that policies and programmes are effectively executed.

Dayan et al. (2017) conducted a study in Australia examining the influence of knowledge management in strategy formulation and execution. The study concluded that strategy implementation cannot be achieved without effective knowledge utilization. Although this study aligns with the current research in emphasizing the importance of knowledge in strategic management, it did not focus on public sector organisations in Kenya. The present study seeks to bridge this gap by examining how Kenyan public service institutions leverage on knowledge

resources and apply knowledge in executing their strategic initiatives. This is particularly relevant given the unique challenges faced by public organisations, including bureaucratic inefficiencies, resource constraints, and the need for policy-driven decision-making.

Knowledge utilization is a critical enabler of strategy implementation in public service organisations. Effective application of knowledge enhances organisational performance, supports informed decision-making and fosters innovation. Studies by Iyer (2017), Nonaka and Ichijo (2007), Dayan et al. (2017), and Weru et al. (2020) all emphasised that knowledge is indispensable in strategic management. Knowledge utilization played a fundamental role in decision-making, problem-solving, innovation, and competence development, thereby facilitating the execution of strategic plans (Dayan et al., 2017; Iyer, 2017; Weru et al., 2020). The current study contributes a unique perspective by focusing specifically on public sector institutions in Kenya, highlighting the need for robust knowledge management practices to ensure the successful execution of strategic initiatives. This current study hypothesises that knowledge management is a key driver of implementation of strategies in organizations. Public service organisations must therefore invest in generation of knowledge, knowledge utilization frameworks, training programmes, and knowledge-sharing platforms and repositories to optimize strategy implementation and achieve sustainable development goals.

2.4.5 Role of Knowledge Repository in Strategy Implementation in the Public Sector

The challenge of an ageing workforce nearing retirement is a pressing concern in the public sector, as highlighted by various studies (Wanyama, 2018; Sonnet et al., 2014). This challenge is further exacerbated by ineffective knowledge transfer mechanisms, leading to a loss of institutional knowledge when experienced staff exits the workforce (Sonnet et al., 2014). Consequently, there is a critical need for structured knowledge storage systems to preserve and

transfer organisational knowledge, ensuring continuity in strategy implementation. Knowledge repositories play a crucial role in addressing this gap by systematically capturing, storing, and making institutional knowledge accessible for future reference. Without such repositories, public sector organisations risk losing valuable insights that could enhance decision-making and operational efficiency.

Several studies have emphasized the importance of knowledge in driving the strategy implementation process, reinforcing the need for well-maintained knowledge repositories. Bista (2020), Dayan et al. (2017), and Nonaka and Ichijo (2007) argued that organisations must develop robust knowledge management practices to safeguard institutional memory and ensure seamless knowledge transfer. Ogendo (2014) noted that institutions with effective knowledge management frameworks incorporated structured repositories to facilitate access to critical information. These repositories enhanced institutional capacity by allowing employees, both new and experienced, to retrieve and apply stored knowledge in their roles. Muhoya (2016) added that when knowledge is stored in accessible formats, employees can reference past experiences and best practices, making it easier to execute strategic initiatives. Given that knowledge serves as a key ingredient in strategy implementation, particularly in communication, planning and execution. Forecasting organisations must establish well-structured knowledge repositories to support these processes.

The role of knowledge repositories extends beyond mere storage to ensure that knowledge is actively utilized in organisational decision-making and strategic execution. Kalkan and Denizhan (2005) conducted a study in Turkey examining knowledge management practices in multinational organisations. Their study revealed the distinction between tacit and explicit knowledge. According to Kalkan and Denizhan (2005), tacit knowledge referred to knowledge

acquired through personal experience and remaining largely unspoken; although difficult to document, it played a vital role in decision-making and problem-solving. In contrast, explicit knowledge is systematically stored in documents such as reports, manuals, and databases, making it easier to share and apply. The study emphasized that successful organisations invest in knowledge repositories to capture both forms of knowledge, ensuring that critical insights are preserved for future use.

The importance of knowledge repositories in strategy implementation is particularly relevant in public sector organisations, where decision-making processes rely heavily on institutional knowledge. Without structured knowledge storage systems, public institutions face challenges in maintaining continuity when personnel changes occur. Ogendo (2014) asserted that organisations with well-developed repositories were better equipped to adapt to transitions, as they could retrieve historical knowledge and apply it to current strategic initiatives. This is particularly crucial for government agencies, where policy implementation often spans multiple years and requires consistency in approach. Knowledge repositories thus serve as vital tools for sustaining strategic initiatives, enhancing institutional learning, and ensuring policy continuity.

In addition to preserving institutional memory, knowledge repositories enhance organisational efficiency by streamlining access to information. Muhoya (2016) highlighted that employees performed better when they had access to structured knowledge repositories, as these systems enabled them to make informed decisions and execute strategies effectively. By centralizing knowledge, organisations reduce redundancy, minimize errors, and improve coordination among departments. This ultimately leads to more effective strategy implementation, as employees can align their activities with organisational objectives based on historical insights

and best practices. In public sector organisations, where strategy execution often involves multiple stakeholders, having a reliable knowledge repository ensures that all actors are working from a shared understanding of institutional priorities.

The importance of knowledge repositories with regard to strategy implementation is further demonstrated by showing how dysfunctional repositories have a negative impact on execution of plans. Knowledge repositories overloaded with information, as well as those containing outdated knowledge, caused confusion among users and led to the use of erroneous information in decision-making. The excess information made it difficult for staff to identify content relevant to strategic goals, resulting in poor operational decisions, increased implementation errors, and ultimately derailing strategy implementation (Vigfusson et al., 2021).
Candido and Santos (2015) asserted that when knowledge repositories accrued knowledge that does not align to the existing organizational objectives, the result is emphasis on irrelevant actions, waste of time and resources, delays in execution and ultimately failed strategy implementation.

Despite their importance, many public sector organisations face challenges in developing and maintaining knowledge repositories. Sonnet et al. (2014) noted that public institutions often lack structured mechanisms for documenting and storing knowledge, leading to gaps in institutional memory. This underscores the need for deliberate efforts to create, maintain, and update knowledge repositories as part of strategic management. Smith (2021) noted that investing in knowledge management infrastructure, such as digital repositories and document management systems, significantly enhanced the effectiveness of strategy implementation.
Additionally, organisations should establish policies that encourage knowledge sharing, ensuring that valuable insights are not lost when employees retire or transition to other roles.

Knowledge repositories play a fundamental role in strategy implementation within the public sector by preserving institutional knowledge, enhancing decision-making, and improving operational efficiency. Studies by Bista (2020), Ogendo (2014), Odunga et al. (2020) and Kalkan and Denizhan (2005) underscored the importance of structured knowledge storage in facilitating knowledge transfer and ensuring continuity in strategic execution. While public institutions face challenges in maintaining robust repositories, investing in knowledge management systems can significantly enhance their ability to implement and sustain strategic initiatives. The current study sought to examine the influence of knowledge repositories on strategy implementation at the Kenya Bureau of Standards contributing to the broader discourse on knowledge management in public sector organisations.

2.4.6 Knowledge Management Technology and Strategy Implementation in the Public Sector

Knowledge management technologies (KM technologies) are specialized information technologies (IT) designed to facilitate the creation, capture, sharing, application, and storage of knowledge within organisations (Becerra-Fernandez & Sabherwal, 2010). While these technologies share similarities with traditional IT systems, they focus more on knowledge management rather than just information processing (Virkus, 2011). According to Virkus (2011), KM technologies are integral components of knowledge management systems and include artificial intelligence (AI) tools for knowledge acquisition, electronic discussion forums, decision support systems, case-based reasoning systems, computer-based simulations, databases, expert systems, management information systems, expertise locator systems, video conferencing, and information repositories. The integration of these technologies in the public sector is essential for ensuring that knowledge is effectively managed and leveraged to support strategy implementation.

Darin (2021) reported that adoption of knowledge management technologies offered numerous advantages, including improved accessibility to organisational knowledge, enhanced employee productivity, and the ability to customize information based on institutional needs. By providing employees with quick and efficient access to relevant knowledge, these technologies enable faster and more informed decision-making, ultimately facilitating smoother strategy implementation. Additionally, when the right knowledge is applied in executing tasks and serving the public, service quality improves which is a key factor in successful strategy execution in public sector organisations. Lau (2022) further emphasized that artificial intelligent driven knowledge management tools can capture and retain tacit knowledge, which is often passed informally from experienced employees to newer staff members, ensuring that critical institutional knowledge is preserved even as workforce dynamics change.

As noted by Arseneault (2023), Microsoft 365 (M365) was widely adopted in both private and public sector organisations as a comprehensive platform for knowledge dissemination and storage. Jain (2024) further observed that the platform enhanced knowledge accessibility and supported effective knowledge sharing and retention, enabling organisations to leverage knowledge for competitive advantage. Lau (2022) noted that the platform integrated various features, including Microsoft Teams, SharePoint, Power Automate, and Delve, which collectively supported knowledge sharing, collaboration, and repository functions. Through these features, M365 facilitates real-time knowledge exchange and learning, enabling employees to access institutional knowledge regardless of their location. This is particularly crucial in the public sector, where policy implementation and service delivery rely on effective knowledge management and strategic coordination.

The core components of M365 provide a structured approach to knowledge management, supporting collaboration and strategy execution in organisations. Arseneault (2023), indicated that Microsoft Teams act as a central hub for teamwork, incorporating chat functions, meetings, and document collaboration, all of which streamlined knowledge-sharing processes. Stewart (2022) noted that SharePoint, another key component of M365, served as a foundation for file management, content collaboration, and intranet functions, ensuring that knowledge was systematically stored and easily accessible. Furthermore, Power Automate enhanced efficiency by automating repetitive tasks and workflows, reducing operational bottlenecks and enabling employees to focus on strategic activities. Delve, powered by machine learning, promoted knowledge discovery by suggesting relevant content based on user interactions and behaviour, thereby facilitating continuous learning and knowledge retention within the organisation (Hilger, 2022).

O'Dell and Hubert (2021) argued that collaboration was a fundamental aspect of effective strategy implementation, particularly in structured institutions such as public sector organisations. The increasing prevalence of distributed workforces and remote work environments has made real-time collaboration a crucial factor in knowledge management (Jain, 2024). Hilger (2022) explained that M365 enabled formal and informal knowledge sharing through SharePoint, allowing employees to interact in real time and across different geographical locations. This fostered a culture of continuous learning and collaboration, which was essential for implementing strategies efficiently. The integration of various KM tools within M365 ensured that employees could connect, share, and apply knowledge seamlessly, enhancing the overall effectiveness of strategy execution (Stewart, 2022).

Among the key components of M365, SharePoint is one of the most extensively utilized tools for knowledge management and strategy implementation. Hilger (2022) described SharePoint as a platform that offered online site templates, document tracking, and repository functions, enabling organisations to store and retrieve knowledge for future reference. SharePoint also provides a collaborative workspace where employees can engage in discussions, share insights, and contribute to collective knowledge-building efforts. Stewart (2022) argued that SharePoint facilitated deeper knowledge internalization, enhanced communication, and promoted teamwork by linking individuals through online spaces. These capabilities improved productivity and coordination within organisations, directly supporting the execution of strategic initiatives.

Another significant advantage of M365 is its ability to capture, discover, and share high-quality information through Microsoft Teams. Stewart (2022) highlighted that Teams enhanced collaboration by allowing employees to engage in discussions, share files, and work on projects collectively, thereby fostering an environment conducive to knowledge-driven strategy implementation. The ability to store and retrieve knowledge efficiently also contributes to improved productivity, timeliness, and service quality, key elements of an effective knowledge management framework as argued by (Arseneault, 2023). Additionally, KM technologies ensure that knowledge is stored in formats that are easily accessible, reducing information silos and promoting knowledge transparency across organisational departments.

Knowledge management technologies, particularly M365, play a critical role in facilitating strategy implementation in the public sector. Research by Becerra-Fernandez and Sabherwal (2010), Virkus (2011), and Stewart (2022) underscored the importance of integrating KM technologies to enhance knowledge sharing, collaboration, and decision-making. As public

institutions increasingly recognize the value of structured knowledge management systems, adopting platforms such as M365 can significantly improve the efficiency and effectiveness of strategy execution. This study aims to assess the impact of KM technologies, with a specific focus on M365, on knowledge management and strategy implementation in Kenyan public service organisations.

2.5 Critique of Literature

The reviewed literature provided valuable insights into the relationship between knowledge management and strategy implementation. However, several conceptual, empirical, and methodological limitations were identified across the major themes of the study. With regard to knowledge generation, studies by Barney (1991), Wernerfelt (1984), and Kivunja (2018) emphasized the importance of knowledge creation in enhancing organisational learning, innovation, and decision-making. However, these studies focused largely on the value of knowledge as a resource and provided limited evidence on how generated knowledge directly contributed to strategy implementation, particularly within public sector organisations. As a result, the link between knowledge generation and strategy implementation remains insufficiently explored.

Regarding knowledge collaborative flow, studies by Nahapiet and Ghoshal (1998), Tsai and Ghoshal (1998), Wasko and Faraj (2005), and Wachira and Ngugi (2019) underscored the importance of social networks, trust, and collaboration in facilitating knowledge sharing. However, much of the literature assumed that the existence of social networks automatically translated into effective knowledge exchange. Limited attention was given to organisational barriers such as bureaucracy, resistance to change, and poor communication structures that may constrain knowledge flow and affect strategy implementation.

The literature on knowledge utilization, particularly by Nonaka (1994), Zack (1999), and Kogut and Zander (1996), recognized that knowledge created value when applied in decision-making and organisational processes. Nonetheless, many studies have focused on organisational effectiveness and performance outcomes rather than examining how knowledge utilization specifically influences strategy implementation. Consequently, the pathways through which knowledge application contributes to strategic execution remain underexplored.

Similarly, studies on knowledge repositories emphasized the role of preserving organisational knowledge and supporting learning (Mezirow, 2009; Whalen, 2020). While these studies acknowledged the importance of storing and retrieving knowledge, they provided limited evidence on how repositories facilitate strategy implementation. Literature therefore offers insufficient understanding of how stored knowledge is accessed and utilized to support strategic decision-making and organisational objectives.

Concerning knowledge management technology, studies by Sabherwal (2010), Virkus (2011), Arseneault (2023), and Jain (2024) highlighted the capabilities of technologies such as Microsoft 365, SharePoint, Microsoft Teams, and other collaborative platforms in supporting knowledge sharing and communication. However, much of this literature focused on the expected benefits of these technologies while providing limited empirical evidence on their contribution to strategy implementation within public sector organisations. Furthermore, challenges relating to resource constraints, employee adoption, organisational culture, and infrastructure limitations received insufficient attention.

The literature also provided limited discussion of management support as a mediating variable. While studies on strategic management and transformational leadership acknowledged the

importance of leadership commitment in organisational success (Bass, 1990; David & David, 2017; Hitt et al., 2016), few studies explicitly examined how management support strengthened or weakened the relationship between knowledge management practices and strategy implementation through resource allocation, policy support, employee motivation, and organisational culture.

Finally, literature on strategy implementation identified factors such as leadership, organisational capabilities, strategic alignment, and resource allocation as critical determinants of implementation success (Kaplan and Norton, 2004; David and David, 2017; Hill et al., 2014). However, most studies examined these factors independently and did not sufficiently integrate knowledge generation, collaborative knowledge flow, knowledge utilization, knowledge repositories, and knowledge management technology into a single framework for explaining strategy implementation outcomes.

Overall, the reviewed literature demonstrates the importance of knowledge management in organisations but provides limited empirical evidence on how knowledge generation, knowledge collaborative flow, knowledge utilization, knowledge repositories, knowledge management technology, and management support collectively influence strategy implementation. Moreover, the studies tend to examine these dimensions in isolation, creating a need for an integrated investigation of their combined effect on strategy implementation. This study addressed this gap through a case study of the Kenya Bureau of Standards (KEBS).

2.6 Research Gaps

Despite the growing body of literature on knowledge management technologies, an empirical gap remained. Most previous studies focused on the influence of knowledge management

practices on organisational performance, service delivery, employee productivity, and knowledge sharing, with limited attention given to strategy implementation. Although knowledge management was widely acknowledged as an important organisational capability, insufficient empirical evidence existed on how knowledge generation, collaborative knowledge flow, knowledge utilization, knowledge repositories, and knowledge management technology influenced strategy implementation in public sector organisations in Kenya.

A contextual gap is also evident in literature since most studies have been conducted in developed countries and private sector environments, where technological infrastructure and organisational capacities differ significantly from those of public institutions in developing countries. Consequently, there is limited understanding of how knowledge management technologies influence strategy implementation in Kenyan public sector organisations, particularly within state corporations such as Kenya Bureau of Standards.

A methodological gap exists because most previous studies have examined knowledge management practices in relation to organisational performance, employee productivity, or service delivery, with limited focus on strategy implementation. Previous studies have largely treated knowledge management dimensions independently, providing little evidence on how knowledge generation, collaborative knowledge flow, knowledge utilization, knowledge repositories, and knowledge management technology collectively influence strategy implementation. This study addressed this gap by examining the combined effect of these knowledge management dimensions on strategy implementation at the Kenya Bureau of Standards.

A theoretical gap exists as existing studies have examined knowledge management technologies from either technological or knowledge-sharing perspectives without integrating them into broader strategy implementation frameworks. As a result, there is limited understanding of how knowledge management technologies interact with other knowledge management dimensions, such as knowledge generation, collaborative knowledge flow, knowledge repositories, and knowledge utilization, to influence strategy implementation. This study addressed these gaps by examining the influence of knowledge management technologies, alongside other knowledge management dimensions, on strategy implementation at the Kenya Bureau of Standards.

2.7 Summary of the Chapter

This chapter analysed relevant studies on knowledge management, with a focus on the public sector, and reviewed prior research on how the different stages of knowledge management affect strategic management. In addition, the theoretical frameworks underpinning the study (Resource-Based View Theory, Social Capital Theory, Transformational Learning Theory, and Strategic Management Theory) were explained and their applicability to the study highlighted. Lastly, the conceptual framework that guides the study was discussed, highlighting the dependent and independent variables and the indicators for each variable.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology that was used to examine the role of knowledge management in strategy implementation in the public sector, specifically focusing on the Kenyan public service organisations. The chapter provides a detailed description of the research design, the population and sampling procedures, data collection methods, and data analysis techniques. The chapter also addresses the ethical considerations that guided the research process. The methodology was structured to ensure that the study effectively addressed the research objectives and provides a comprehensive understanding of how knowledge management influence strategy implementation in public sector institutions.

3.2 Research Philosophy

There are several research philosophies, including positivism, interpretivism, and pragmatism. Interpretivism emphasizes understanding and interpreting the meanings, experiences, and perceptions that individuals associate with social phenomena (Alharahsheh & Pius, 2020).

(Alharahsheh & Pius, 2020). Interpretivism research philosophy argues that it is only through subjective interpretation of data about a phenomenon in their natural settings that objective findings can be realized (Carson et al., 2001). Interpretivism makes the assumption that reality is socially created and that people may view the same condition differently or rather reality is not objective but subjective (Alharahsheh & Pius, 2020). While this interpretivism philosophy may have been partly relevant in this study, the research required a more flexible approach.

Similarly, positivism is founded on the argument that answers can only be determined using a specific constructive method. According to Alharahsheh and Pius (2020) positivism argues that reality is objective, determined and autonomous from individual's perception. Researchers using positivism claim that there is only one/a single truth which can be revealed through

observation and measurement (Neuman, 2011). Positivism is generally appropriate for use in quantitative research. While the positivist approach may have been relevant in addressing the study's research objectives, it however lacked the flexibility of allowing utilization of many methods simultaneously which is provided for in the pragmatic approach.

Therefore, the study adopted pragmatism research philosophy, which emphasizes the use of both qualitative and quantitative approaches to address research questions comprehensively. Pragmatism is an approach that is adopted on whatever works in practice rather than being fixed to one philosophical perspective about reality (Thanh & Thanh, 2015). This research paradigm incorporates both qualitative and quantitative methods to ensure that reality is captured both through measurable means as well as perceptions of people (Thanh & Thanh, 2015). Pragmatism indicates that ideas and beliefs are judged by their usefulness and practical outcomes.

Pragmatism rejects the dichotomy between positivism and interpretivism by advocating for methodological pluralism, where the choice of methods is driven by the research problem rather than rigid philosophical traditions. Given that this study sought to determine the influence of knowledge management on strategy implementation in public sector organisations in Kenya, pragmatism allowed for a balanced integration of objective measurements (quantitative data) and subjective insights (qualitative data) to provide a more holistic understanding of the phenomenon.

From a pragmatism perspective, the study acknowledged that knowledge management practices can be measured using structured instruments such as surveys and analysed using statistical techniques. This approach ensured objectivity, reliability, and generalizability of

findings. Quantitative data enabled the researcher to test hypotheses, establish relationships between variables, and draw conclusions based on numerical evidence. The application of descriptive and inferential statistics provided empirical insights into how knowledge generation, collaborative flow, utilization, repositories, and technology influence strategy implementation in the public sector.

3.3 Research Design

The study adopted mixed-methods research design, integrating both quantitative and qualitative approaches. The mixed-methods approach was appropriate because it enabled the collection of both numerical and qualitative data, thereby providing a comprehensive understanding of the influence of knowledge management on strategy implementation at Kenya Bureau of Standards. Quantitative data facilitated the measurement of relationships among the study variables, while qualitative data provided explanations and deeper insights into the findings.

The study incorporated descriptive, correlational, and case study research designs. The descriptive research design was adopted because it enabled the researcher to systematically collect, organize, summarize, and present data on the study variables. This facilitated an understanding of the characteristics of knowledge generation, knowledge collaborative flow, knowledge utilization, knowledge repositories, knowledge management technology, management support, and strategy implementation at Kenya Bureau of Standards, thereby providing a basis for subsequent analysis.

The correlational research design was used to establish the nature and strength of the relationships between the knowledge management dimensions and strategy implementation.

The design directly addressed the study objectives that sought to determine the effect of knowledge generation, knowledge collaborative flow, knowledge utilization, knowledge repositories, and knowledge management technology on strategy implementation, as well as the mediating effect of management support.

The case study design was adopted because the study focused on the Kenya Bureau of Standards as a public sector organisation. The design enabled an in-depth examination of the study variables within their real-life organisational context and facilitated the generation of detailed insights on how knowledge management influences strategy implementation at KEBS.

By combining these designs, the study was able to provide descriptive information on the study variables, establish relationships among them, and generate in-depth contextual insights required to address the study objectives.

3.4 Target Population

The target population for this study comprised of employees of Kenya Bureau of Standards across different regional offices, including Coast Region, Headquarters (Nairobi), Lake Region, North-eastern Region, North Rift Region, and Mt. Kenya Region, totaling 1,080 employees. South Rift region, which has 34 employees, was not included in the main study because it served as a pilot test site. The justification for selecting KEBS was that it is a key public service organisation in Kenya, responsible for setting and implementing standards. This makes it an ideal institution to analyse the role of knowledge management in strategy implementation.

This is indicated in Table 3.1.

Figure 3.1: Target Population per Region

Region	Number of employees
Coast Region	148
Headquarters	745
Lake Region	72
Northeastern Region	24
North Rift Region	55
Mt. Kenya Region	36
Total	1080

Source: (KEBS HR records, 2024).

3.5 Sample and Sampling Methods

To determine the sample size, Ajay and Micah's (2014) formula was used, resulting in a final sample size of 292 respondents. The study adopted the sample size determination formula proposed by Ajay and Micah (2014) because it is appropriate for studies involving a finite and known population, such as the 1,080 employees of Kenya Bureau of Standards. The formula provided a simple and practical approach for determining a representative sample size while controlling sampling error through the use of a specified precision level. In addition, the formula has been widely applied in social science and management research involving finite populations. Although Cochran's formula is widely used in sample size determination, it is generally more appropriate for large populations and typically requires finite population correction when the target population is known and limited. Therefore, the Ajay and Micah (2014) formula was considered more suitable for determining the sample size for this study.

Similarly, the Krejcie and Morgan approach relies on predetermined sample size tables rather than direct computation, while Yamane's formula produces estimates comparable to those generated by the Ajay and Micah approach. Therefore, the Ajay and Micah (2014) formula was deemed appropriate because it allowed for the direct calculation of a statistically reliable sample size for the known target population while maintaining the desired level of precision.

A precision level of 5% (e = 0.05) was adopted to ensure that the sample estimates closely reflected the population parameters while maintaining a manageable sample size for data collection. The formula therefore enabled the study to achieve reliable findings with an acceptable margin of error and confidence in the generalizability of the results.

The sample was selected using stratified proportionate sampling, ensuring that all Kenya Bureau of Standards regional offices are adequately represented. The sample size for each region was determined using Kothari's formula, which distributes the sample proportionally across different regions based on the number of employees. Stratified proportionate sampling ensures that all regions are adequately represented, making the findings more generalizable.

Simple random sampling was used to select respondents, reducing selection bias, while purposive sampling was employed for key informants, ensuring that only experienced personnel in knowledge and strategy management were interviewed. This combination of sampling techniques enhances the reliability and validity of the study findings.

$$n = \frac{N}{1 + N(e^2)}$$

Where

n=sample size

N=Target Population

e=Precision level

The sample was selected using stratified proportionate sampling, ensuring that all Kenya Bureau of Standards regional offices were adequately represented. The sample size for each region was then determined using Kothari's (2009) formula:

$$i = n \times \frac{N}{P}$$

Where

i=sample for a given region

n=overall sample size (292)

N=Population of the region

P=Total population (1080)

Table 3.1: Sample Size of the Study

Region	Number of Employees (N)	Sample Size (i)
Coast Region	148	40
Headquarters (Nairobi)	745	202
Lake Region	72	20
Northeastern Region	24	6
North Rift Region	55	15
Mount Kenya Region	36	9
Total	**1080**	**292**

Source: (Researcher, 2024)

3.6 Data Collection Methods

This study employed both primary and secondary data collection methods to ensure a comprehensive dataset. The primary data collection methods included questionnaires, interviews, and observations, which are commonly used in social sciences research to collect both qualitative and quantitative data (Creswell & Creswell, 2018). These methods are essential for gathering first-hand evidence on knowledge management practices and strategy implementation at Kenya Bureau of Standards. Various data collection instruments, including structured questionnaires, interview guides, and observation checklists, were developed to ensure a systematic approach to gathering data (Saunders, Lewis, & Thornhill, 2019). The researcher used open- and close-ended questionnaires to collect primary data from top, middle, and junior-level employees at Kenya Bureau of Standards. This provided both numerical and descriptive insights into knowledge management practices.

Interviews are particularly useful for capturing subjective aspects such as beliefs, opinions, and behaviour regarding knowledge management, which may not be effectively collected through questionnaires alone (Bryman, 2016). Additionally, observations were made on various organisational aspects, including the existing knowledge management systems, collaboration efforts among employees, and the accessibility of strategic documents. Direct observation enhanced the depth and reliability of qualitative research findings as observed by (Yin, 2018). Observations complement other data collection methods by allowing the researcher to directly examine behaviors and organisational practices in their natural settings (Flick, 2014).

Secondary data collection methods were employed to supplement the primary data. The researcher compiled a structured document review checklist containing a list of relevant secondary data sources, a recommended approach in case study research (Stake, 1995). This included internal corporate documents such as knowledge management policies, strategic plans, published journals, books, and reports from Kenya Bureau of Standards. Additionally, the organisation's website and other publicly available sources were reviewed to gather useful data that aligns with the study objectives. For instance, under the objective of knowledge generation, data on research outputs by Kenya Bureau of Standards employees and existing repositories were examined to provide historical context and validate primary findings (Patton, 2015).

3.7 Validity of Research Instruments

To ensure content validity, the research instruments were reviewed by experts in knowledge management and strategy implementation. Expert review/validation is a widely recognized approach to improving the relevance and accuracy of research instruments (Zikmund, Babin, Carr, & Griffin, 2013). The researcher consulted supervisors and other professionals to refine

the questionnaires and interview guides, and ensured they comprehensively captured relevant aspects of the study (Neuman, 2014). The instruments were revised based on expert feedback to eliminate ambiguity, enhance clarity, and align the questions with the study objectives (Cohen, Manion, & Morrison, 2018).

Moreover, the researcher conducted a pre-test of the questionnaire through a pilot study to assess its validity before full-scale data collection. The pilot study was conducted at Nakuru, KEBS' South Rift branch, which has 34 staff members. A pilot sample of 15 respondents was selected, representing approximately 5.14% of the main study sample of 292 respondents. The pilot sample size was considered adequate because it fell within the 5-10% range recommended by Kothari (2004) for pilot studies. This aided in identifying flaws in the questionnaire, such as unclear wording, redundancy, or irrelevance (Saunders et al., 2019). Adjustments were made based on the feedback received to improve the instrument's effectiveness. The pilot study respondents did not participate in the main study to prevent bias, a best practice highlighted by Creswell and Creswell (2017).

3.8 Reliability of Research Instruments

To assess the reliability of the research instrument, the study employed Cronbach's alpha coefficient, which is a widely accepted measure of internal consistency. Cronbach's alpha assesses the extent to which questionnaire items measuring the same construct produce consistent responses (Nunnally & Bernstein, 1994). The reliability test was conducted using data obtained from the pilot study, and the resulting coefficients were used to determine the consistency of the instrument.

Cronbach's alpha (α) is computed using the formula:

$$\alpha = \frac{k}{k-1} \times \left[1 - \frac{\sum s^2}{\sum s^2_{sum}}\right]$$

Where

α is the Cronbach alpha

k is number of items

$\sum s^2$=variance of individual items

$\sum s^2_{sum}$ =variance of summed scores

A Cronbach's alpha value of 0.7 and above was considered acceptable for reliability, as recommended by Tavakol and Dennick (2011). If any of the questionnaire items yielded an alpha coefficient value below 0.7, the questions were-examined for potential errors or ambiguity and revised accordingly. Ensuring high reliability guarantees that the questionnaire produces consistent and replicable results (Hair et al., 2019).

3.9 Data Collection Procedures

Before data collection began, the researcher obtained a letter of introduction from the university's School of Business and Education which assisted in applying for a research permit from the National Commission for Science, Technology, and Innovation (NACOSTI). These documents were presented to participants to enhance credibility and encourage their cooperation, a recommended ethical practice in research (Denscombe, 2014). The researcher clearly explained the purpose and significance of the study to respondents, addressing any concerns they had (Cohen et al., 2018). To uphold ethical standards, informed consent was obtained electronically through the Google Form, where participants were required to indicate their willingness to participate before accessing the questionnaire. This ensured voluntary participation and confidentiality of responses, as emphasized by Bryman (2016).

For primary data collection, the researcher uploaded the questionnaire online by putting the questions on Google form and then sent an invite for participation to different employees of

the organisation. The invites were sent to employees from various Kenya Bureau of Standards departments, and the researcher kept inviting other respondents and sending e-mail reminders to those who did not respond immediately. Interviews were conducted in person where possible, while phone interviews were used for respondents who were unavailable for face-to-face meetings, ensuring flexibility in data collection (Yin, 2018). The study collected qualitative data through key informant interviews where 18 key informants were interviewed using the tool attached as Appendix II. The informants were purposively selected using their position, which the researcher regarded as an advantage in terms of being knowledgeable enough about their organisation and the research topic. The informants were coded with abbreviation KI (key informant) and a number (for example 01, 02, 03 and so on). Only employees in the senior management and managerial levels were involved as key informants and they held different positions such as director, regional manager, manager and principal officer.

The procedure for collecting secondary data first entailed developing a checklist of materials/data sources that would be reviewed. Then secondary data was gathered by reviewing relevant corporate documents, visiting the Kenya Bureau of Standards website, and consulting applicable online sources (Bell, 2022). The researcher searched the internet for published information related to knowledge management and strategy implementation, extracted relevant information and synthesized it being keen to cite the authors. Observations were made regarding existing knowledge management technologies, document-sharing practices, and evidence of collaborative efforts such as internal communication records and virtual meetings (Patton, 2015). The integration of these diverse data collection procedures ensured a holistic and rigorous approach to addressing the research objectives (Creswell, 2014).

3.9.1 Operationalization of Variables

This research considered two types of variables: independent and dependent variables. The six independent variables consisted of different phases of knowledge management, namely knowledge generation, collaborative flow, utilization, repository, and knowledge management technology. The dependent variable was strategy implementation. Independent variables were operationalized through their respective knowledge management phases and their impact on strategy implementation. Strategy implementation was measured through service quality, goal achievement, staff performance, and operational efficiency (Meihami & Meihami, 2014).

The study employed both objective and perceptual measures to operationalize the study variables. Objective indicators such as the number of trainings, mentorship programmes, consultations, documents, repositories, and knowledge management tools were obtained from organisational records and measured using ratio scales. Perceptual indicators were measured using a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. For variables measured using multiple Likert-scale items, composite indices were computed by calculating the mean score of all items under the respective construct. Higher composite scores indicated stronger presence or effectiveness of the construct. The composite indices were subsequently used in descriptive, correlation, and regression analyses to examine their influence on strategy implementation. All quantitative indicators were measured using a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. For each construct, a composite index was computed by calculating the mean score of all items measuring the respective variable. The resulting composite scores represented knowledge generation, knowledge collaborative flow, knowledge utilization, knowledge repositories, knowledge management technology, management support, and strategy implementation, and were subsequently used in descriptive and inferential statistical analyses. Qualitative data

obtained from key informant interviews were analysed using thematic analysis, whereby responses were coded, categorized into themes, and interpreted in line with the study objectives.

A detailed operationalization of these variables is provided in Table 3.3

Table 3.2: Operationalisation of Variables

Variable	Indicator	Measurement Criteria	Source/Reference	Scale
Knowledge Generation	Data excavation procedures and tools	Number of tools used for data excavation and their effectiveness in gathering knowledge	Survey/Interview with staff	5-point Likert scale,
	Number of trainings	Frequency of training sessions conducted annually	Records from HR/Training dept.	5-point Likert scale,
	Research and Development	Number of R&D projects or initiatives within a specified period	Organisational reports	5-point Likert scale
	Respondents opinion		Survey	

Variable	Indicator	Measurement Criteria	Source/Reference	Scale
Knowledge Collaborative Flow	Number of knowledge sharing structures	Count of formal and informal structures (e.g., meetings, seminars) for knowledge exchange	Observations/Interviews	5-point Likert scale,
	Mentorship programmes	Number and frequency of mentorship programmes for knowledge transfer	Survey/Interview with employees	5-point Likert scale,
	Number of consultations	Frequency and number of consultations between departments or experts	Records from collaboration platforms	5-point Likert scale,
	Respondents' Opinion		Survey	

Variable	Indicator	Measurement Criteria	Source/Reference	Scale
Knowledge Utilization	Resource allocation	Percentage of budget allocated for KM activities or technology	Financial reports, budget documents	5-point Likert scale,
	Automation of tasks	Number of tasks automated using KM technologies	Observations/Records	5-point Likert scale,
	Application in decision making	Frequency and context in which KM insights are used in strategic decisions	Interviews/ Survey responses	5-point Likert scale,
	Participants' Opinion		Survey	
Knowledge Repository	Number and types of data storage tools	Types of data storage tools (e.g., cloud, physical, hybrid) and the	Survey/Document analysis	5-point Likert scale,

Variable	Indicator	Measurement Criteria	Source/Reference	Scale
		number of tools used		
	Data banks: Hard and soft copy	Quantity and types of data stored in physical and digital formats	Records from IT department	5-point Likert scale,
	Types and number of documents	Count of documents (reports, manuals, policies) stored in the repository	Document analysis	5-point Likert scale,
	Participants' views		Survey	
Knowledge Management Technology	Microsoft 365	Frequency and extent of use of Microsoft 365 features (Teams, SharePoint, etc.)	Survey/Observations	5-point Likert scale,

Variable	Indicator	Measurement Criteria	Source/Reference	Scale
	SharePoint	Number of active users and document management features used in SharePoint	IT department usage data	5-point Likert scale,
	Microsoft Teams	Usage frequency of Teams for meetings, collaboration, and knowledge sharing	Survey/Interview with staff	5-point Likert scale,
	Respondents' opinions	Liker Scale	Survey	
Strategy Implementation	Quality services to citizens	Feedback from citizens on service quality and satisfaction	Citizen surveys/Reports	5-point Likert scale,
	Achievement of set goals	Degree of completion of strategic objectives	Strategic plan documents	5-point Likert scale,

Variable	Indicator	Measurement Criteria (percentage achieved)	Source/Reference	Scale
	Improved staff performance	Employee performance metrics (e.g., productivity, engagement)	HR performance reviews	5-point Likert scale,
Management Support	Resource allocation	Percentage allocation in the total budget	Budget	5-point Likert scale,
	Knowledge Management tools	Number of knowledge management platforms in use	ICT	5-point Likert scale,
	Knowledge management objectives in performance	Number of objectives in organisational performance	Performance Metrics	5-point Likert scale,
	Respondents' Opinions	Likert Scale	Survey	

3.9.2 Data Analysis Methods

3.9.2.1 Diagnostic Checks

Test for Normality of Data

(a) Test for Skewness and Kurtosis

The researcher further tested the data collected for Skewness and Kurtosis to determine the shape of its distribution.

The formula is

$$Skewness = \frac{\sum(x - \underline{x})^3}{(n-1)s^3}$$

Where

x=the observed value

$\underline{x}$ is the mean

n is the sample size

s is the standard deviation

The formula for Kurtosis is

$$kurtosis = \frac{\sum(x - \underline{x})^4}{(n-1)s^4}$$

Skewness measures the symmetry of a distribution, while kurtosis measures the degree of peakedness or flatness relative to a normal distribution. According to Hair et al. (2019), skewness values between ±2 and kurtosis values between ±8 are generally considered acceptable for demonstrating univariate normality.

(b) Test for Multicollinearity

Multicollinearity refers to a situation where independent variables in a study are highly correlated, potentially distorting the results of regression analysis. This study tested for multicollinearity using Pearson's correlation coefficient to assess the degree of correlation

among the independent variables: knowledge generation, knowledge flow, knowledge utilization, knowledge repository, and knowledge management technology. Pearson's correlation coefficient (r) is considered statistically significant at the 0.01 level (two-tailed). A high correlation coefficient (r) approaching 1 indicates a strong positive correlation, while a value close to -1 suggests a strong negative correlation. An r-value near 0 implies no correlation between the variables (Berman, 2016).

c) Variance Inflation Factor

If multicollinearity is detected—where two or more independent variables exhibit a high correlation (typically $r > 0.8$)—further diagnostic tests such as the Variance Inflation Factor (VIF) will be conducted to confirm its presence. A VIF value exceeding 10 will indicate serious multicollinearity concerns, necessitating corrective measures such as variable transformation or combining correlated variables.

The study utilized both qualitative and quantitative data analysis techniques to ensure a comprehensive interpretation of findings. Qualitative data collected through interviews, open-ended questions in questionnaires and observations were analyzed using thematic and content analysis. The researcher identified emerging themes based on content, perspective, and relevance, categorizing the data according to the study objectives. This qualitative analysis provided deeper insights by contextualizing why and how data was the way it is. Qualitative data expounds the underlying reasons for a phenomenon therefore strengthening quantitative data. The use of both qualitative and quantitative data is called triangulation, and it enhances the validity of results of a study.

3.9.3 Descriptive Analysis

Descriptive analysis entailed summarizing data using percentages, frequency distributions, and measures of central tendency including mean and standard deviation. These statistics provided a general overview of knowledge management practices within Kenya Bureau of Standards and the perceptions of employees regarding knowledge generation, knowledge collaborative flow, utilization of knowledge, repositories, and knowledge management technology in relation to strategy implementation. The results were presented in summary tables and bar charts to facilitate easy interpretation and comparison.

Inferential analysis was conducted through correlation and regression analysis to test hypotheses and examine relationships between variables. Before conducting inferential analysis, the data was cleaned, coded, and entered into SPSS. Correlation analysis used Pearson's correlation coefficient (*r*) to determine the strength and direction of relationships between independent and dependent variables in the sample. Pearson's correlation coefficient is widely used in statistical analysis to measure the degree of association between two continuous variables, ranging from -1 (strong negative correlation) to +1 (strong positive correlation), with 0 indicating no correlation.

$$r = \frac{n\sum xy - \sum x \sum y}{\sqrt{(\sum x^2 - (\sum x)^2)(\sum y^2 - (\sum y)^2)}}$$

Where

n=number of observations

x=independent variable

y=Dependent variable

$\sum xy$=sum of the product of x and y

A correlation coefficient near +1 indicates a strong positive relationship, a coefficient near -1 indicates a strong negative relationship, and a coefficient close to **0** suggests no correlation. Regression analysis further explored the impact of knowledge management components on strategy implementation by estimating the extent to which independent variables predicted variations in the dependent variable. The relationship between each independent variable and the dependent variable was analysed using simple linear regression, expressed as:

$$y = mx + b$$

Where:

y = Dependent variable

x = Independent variable

m = slope

b = intercept

To assess the combined effect of all independent variables on the dependent variable, multiple linear regressions were performed using the model:

$$\gamma = \beta o + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \varepsilon$$

Where:

γ = Strategy Implementation

β_0= Constant term

β_1, β_2, β_3, β_4, β_5, β_6= Regression coefficients

x_1= Knowledge Generation

x_2= Knowledge Flow

x_3= Knowledge Utilization

x_4= Knowledge Repository

x_5 = Knowledge management technology

x_6 = Management Support

ϵ= Error term

The significance of the regression coefficients was tested using p-values and t-statistics, where a p-value below 0.05 indicated a statistically significant relationship between the variables. Quantitative data analysis involved descriptive and inferential statistics using Microsoft Excel and the Statistical Package for Social Sciences (SPSS).

3.9.4 Hypothesis Testing

The researcher used t-test to determine whether the research hypothesis was true or not (Sekaran & Bougie, 2016). A one-sample t-test was used to determine whether the sample mean differed significantly from a predetermined test value. The test involved comparing the sample mean with the hypothesized population mean to establish whether there was sufficient evidence to reject the null hypothesis. The one-sample t-test statistic was calculated using the following formula:

$$t = \frac{\bar{x} - \mu}{\frac{S}{\sqrt{n}}}$$

Where:

x = calculated mean,

μ = designated/specified value,

S= sample's standard deviation

n= sample size (Sekaran & Bougie, 2016).

The level of significance was set at 0.05. The p-value obtained from the one-sample t-test was compared with the significance level ($\alpha = 0.05$) to determine whether the null hypothesis should be rejected. If the p-value was less than or equal to 0.05, the result was considered statistically significant, and the null hypothesis was rejected in favour of the alternative hypothesis.

Conversely, if the p-value was greater than 0.05, the result was not considered statistically significant, and the null hypothesis was not rejected.

3.10 Ethical Considerations

The researcher adhered to key ethical principles, including informed consent, confidentiality, anonymity, and beneficence, throughout the study. Participation was entirely voluntary, and respondents were informed of the right to withdraw at any stage without facing any consequences. To ensure informed consent, participants were presented with a detailed consent form before data collection, explaining the study's purpose, their rights, and how their data would be used. To maintain confidentiality and anonymity, the questionnaire was coded responses instead of personal identifiers such as names. All collected data was securely stored and accessed only by authorized individuals. The principle of beneficence was upheld by ensuring that participants faced no harm, whether physical, psychological, or social as a result of their involvement in the research. Additionally, all sources used throughout the study, including literature reviews, were properly cited to uphold academic integrity and prevent plagiarism.

The researcher used Google Forms for data collection. To address ethical considerations related to data privacy and confidentiality, respondents were informed of the purpose of the study, participation was voluntary, and the collected data was securely stored and accessed only by the researcher. The data were subsequently exported to Google Sheets and later to SPSS for cleaning, analysis, and generation of tables and charts used in the study.

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CHAPTER FOUR
FINDINGS, INTERPRETATIONS AND DISCUSSIONS

4.1 Introduction

Chapter Four presents and analyses the findings of the study in line with the study objectives. The chapter provides a summary of the data collected, presents the results, and interprets the findings. The results are presented using frequency distribution tables, bar charts, pie charts, correlation tables, and regression tables, among other statistical outputs. Where appropriate, the findings are discussed in relation to relevant empirical literature.

4.2 Response rate

The study targeted top management, middle management and junior employees of Kenya Bureau of Standards across various regional offices of the organisation. It targeted 292 respondents from the Coast Region, Headquarters (Nairobi), Lake Region, Northeastern Region, North Rift Region and Mt. Kenya region. A total of 217 questionnaires were returned out of the 292 targeted respondents, corresponding to a response rate of 74.3% as illustrated in Figure 4.1. Only fully completed questionnaires were used for data analysis; questionnaires with incomplete responses were excluded to ensure consistency and reliability of the findings. This response rate was considered adequate for analysis and presentation because Sekaran and Bougie (2016) indicate that a response rate that exceeds 70% is satisfactory for analysis.

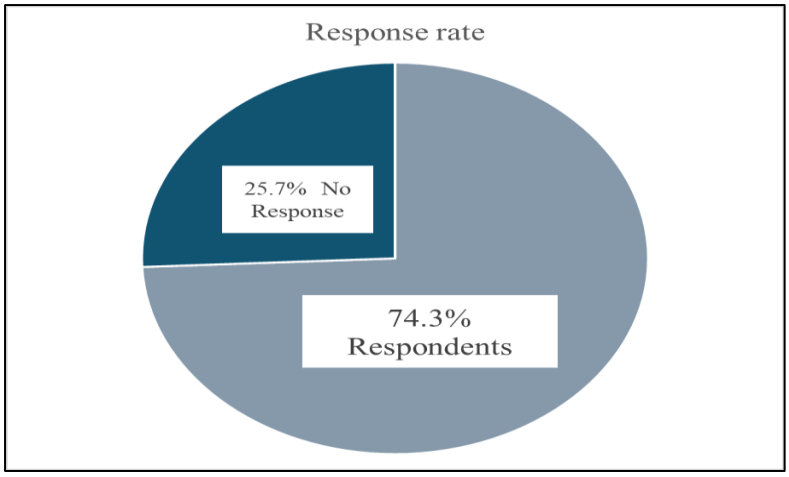

Figure 4.1: Response Rate

4.2.1 Respondent's Information

4.2.1.1 Respondents per Region

The majority of the respondents were from Head Office, accounting for 43.72% of the total respondents. Respondents from the Coast Region and Mt. Kenya Region represented 15.08% and 14.57%, respectively. Other regions of the organisation, including the Northeastern, Lake Region, and North Rift regions, were also represented. The distribution of respondents by region is presented in Figure 4.2.

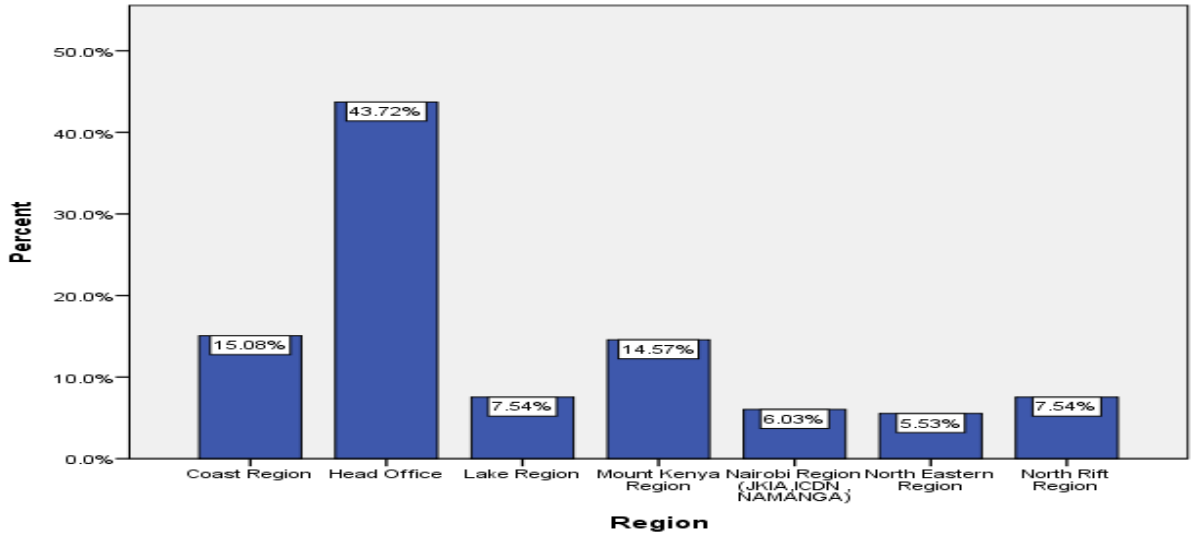

Figure 4.2: Respondents per Region

These findings indicate that respondents were drawn from various regions of the organisation, thereby providing diverse perspectives from across Kenya Bureau of Standards.

4.2.1.2 Department

Respondents were drawn from different departments within the organisation. Testing Department had the highest representation, accounting for 21.15% of the respondents, followed by Quality Assurance Department at 15.38% and Administration Department at 9.62%. Figure 4.3 presents the distribution of respondents across the various departments.

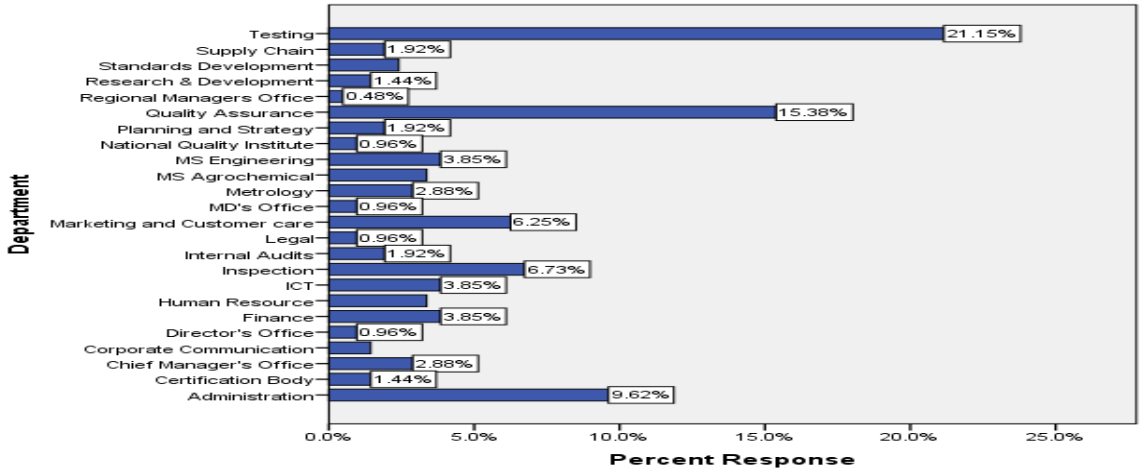

Figure 4.3: Respondents per Department

These findings indicate that respondents were drawn from all departments of the organisation, implying that the study captured a broad range of views and experiences.

4.2.1.3 Respondents' Position

The findings revealed that most (42.51%) of the respondents were officers or senior officers while 16.91% were principal officers. 12.56% were managers and 11.11% assistant managers. Regional/Chief managers, support staff and interns also participated in the survey as illustrated in Figure 4.4.

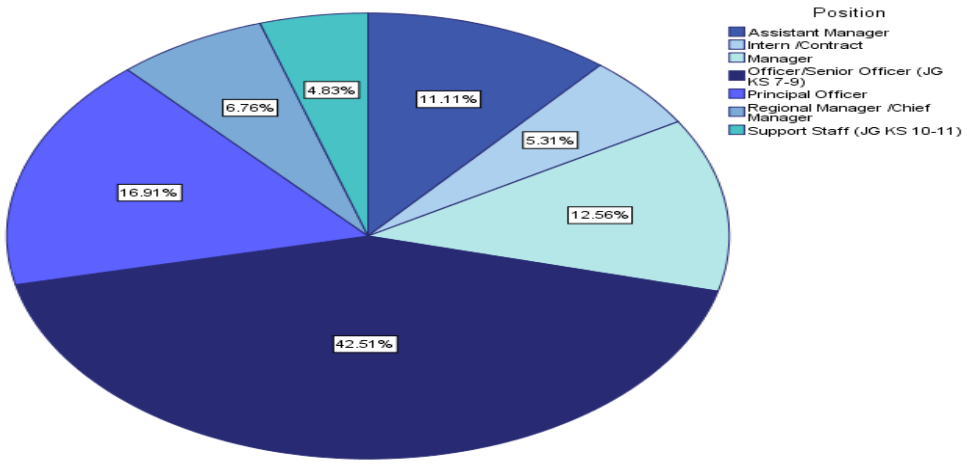

Figure 4.4: Respondents Position

This finding infers that most of the respondents from the organisation occupied a position which enabled /allowed them to have and provide relevant information or experience about knowledge management and strategy implementation.

4.3 Demographic Characteristics

The results revealed that most respondents were between 30 and 50 years of age. Specifically, 37.86% were aged 30-40 years, while 35.44% were aged 40-50 years. Respondents aged 50-60 years accounted for 17.48% of the sample, whereas those aged 20-30 years constituted 9.22%.

Age distribution is important because age is often associated with work experience, familiarity with organisational processes, and exposure to organisational technologies. The predominance of respondents aged 30-50 years suggests that most participants were likely to possess adequate experience and organisational knowledge to provide informed views on knowledge generation, collaborative flow, knowledge utilization, repositories, and knowledge management technologies. The inclusion of respondents aged 50-60 years further enriched the study by incorporating perspectives from employees with substantial institutional experience and tacit knowledge**.**

therefore, providing insights into knowledge retention and the need for structured repositories and mentorship. Overall, the spread across age categories implies that the data capture both mid-career and more experienced perspectives, strengthening the credibility of the results on knowledge management and strategy implementation.

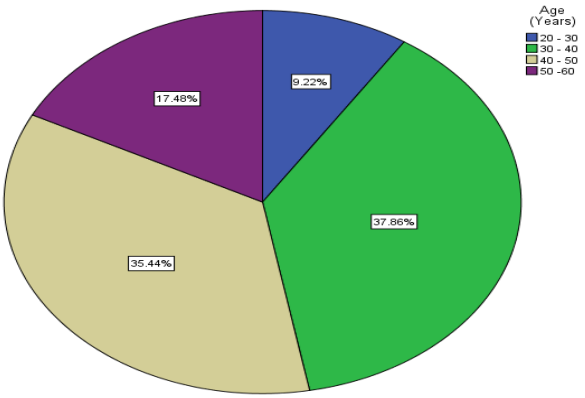

Figure 4.5: Respondents Age

Respondents Education Level

The findings revealed that the respondents were highly educated, with more than 84.01% having attained a university degree. The majority of the respondents were bachelor's degree holders, while 27.05% held master's degrees. A smaller proportion (1.40%) had attained a Doctor of Philosophy (PhD), the highest academic qualification, while the remaining respondents were Diploma holders. Figure 4.5 presents the distribution of respondents by level of education.

Respondents' education level is relevant because knowledge management and strategy implementation involve technical and managerial concepts that require adequate comprehension of organisational processes and tools. The predominantly university-level profile (bachelor's and master's degrees) therefore suggests that most participants were well positioned to interpret the questionnaire items and provide credible views on knowledge

generation, knowledge flow, utilization, repositories and knowledge management technologies in Kenya Bureau of Standards.

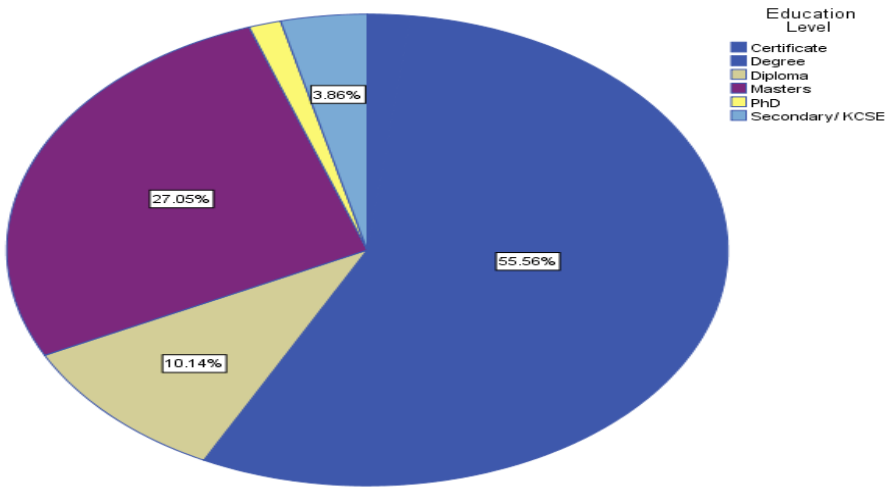

Figure 4.6: Respondent's Education Level

The results on education status indicated that the respondents were sufficiently equipped to comprehend the questionnaire items and provide informed responses. Given that knowledge management and strategy implementation are conceptually demanding and often require familiarity with organisational processes, a predominantly graduate-level respondent profile strengthens the credibility and usefulness of the findings. Specifically, the high proportion of respondents with university qualifications suggests a stronger capacity to interpret organisational knowledge practices (generation, flow, utilization, storage and technology) and relate them to strategy implementation experiences within Kenya Bureau of Standards. Education level is therefore an important determinant of respondents' ability to understand research items and provide consistent and meaningful responses (Wario, 2012).

4. 4 Descriptive Statistics

This section presents descriptive statistics for the study variables and respondents' background information. Descriptive analysis was used to summarize the questionnaire data and provide

an overview of knowledge management practices at Kenya Bureau of Standards and the perceived level of strategy implementation. The results were presented using frequencies and percentages for categorical variables and means and standard deviations for Likert-scale items, in line with the study objectives. The section first presents the response rate and reliability test results, followed by the respondents' demographic and work-related characteristics. It then presents the objective-based descriptive findings on knowledge generation, knowledge collaborative flow, knowledge utilization, knowledge repositories, and knowledge management technology.

4.4.1 Test Results for Validity and Reliability

The researcher tested the questionnaire and the interview guide for validity and reliability prior to data collection. Validity was tested through a pilot study involving 15 respondents which corresponded to 5.14% of the sample size. On the other hand, reliability of the research instrument was calculated using the Cronbach alpha for the scales used for all the knowledge management sub-constructs/variables and strategy implementation utilizing a formula shown in subsection 3.6.2. Knowledge generation had the lowest Cronbach coefficient value of 0.740 while knowledge repositories yielded the highest value of 0.930. The coefficients of the various variables were as presented in Table 4.1.

Table 4.1: Cronbach's Coefficient Results

Variable Scale	Cronbach's Coefficient(α)
Knowledge generation	0.740
Knowledge collaborative flow	0.820
Knowledge management technology	0.784
Knowledge repositories	0.930

Management support	0.800
Strategy implementation	0.870

The results revealed that the variable scales utilized in this research were reliable because the values of Cronbach coefficient were greater than 0.740. A Cronbach coefficient value of 0.700 is normally accepted as the standard minimum value for assessment of reliability (Diedenhofen & Musch, 2016).

4.4.2 Effects of Knowledge Generation Influence on Strategy Implementation (SI)

4.4.2.1 Thematic Analysis of Qualitative Data on Knowledge Generation in KEBS

The researcher sought information on knowledge generation from the key informants and the results indicated that the organisation implemented knowledge management practices that created knowledge/information.

4.4.2.2 Data Excavation Procedures and Tools

Through thematic analysis of qualitative data collected in the study, findings revealed that there were different methods of generating data and knowledge in the organisation. The interviewees indicated that knowledge is generated through procedures such as development of standards, collection of standards levy, calibration, testing of products, quality assurance, import inspection, market surveillance, training, system certification, customer reviews, and evaluation.

4.4.2.3 Development of Standards

The results showed that development of standards was one of the procedures that generated knowledge in the organisation. The interviewees indicated that Kenya Bureau of Standards in

collaboration with relevant local stakeholders develop standards that are used locally and in partnership with the East African Community (EAC) partner states for regional standards and also internationally at ISO level. This is a collaborative process and is done through consensus. A lot of knowledge generation and management in general happen throughout this process.

This finding is in agreement with that of Ikonya (2015) who revealed that standards generate knowledge by mobilizing expertise from different stakeholders. According to Ikonya (2015), during the process of standards development, specialists from various industries, government, non-government institutions, academia and other institutions come together to share information and experience a process that creates new knowledge. Moseti (2018) also agreed that the process of standards development promotes cooperation between relevant stakeholders as it encourages through consultations, debates and problem resolving. This leads to learning between stakeholders and generates new insights. Besides, the discussions and debates held by actors during standards development are documented and they are rich in tacit knowledge making them available for other people in future (Cheruiyot & Mugambi, 2016). This is confirmation that agrees with the current study's finding that development of standards actually generate knowledge.

The finding of this study that standard development creates information also corresponds to that of Cheruiyot and Mugambi (2016) who indicated that during formation of standards, the actors/stakeholders involved often identify information gaps which encourage more research and even innovations thereby generating new knowledge. It is also important to note that after development of standards, they are implemented, a process that make actors gain experience and stimulate feedback from their users thereby forming a series of learning and knowledge generation (Moseti, 2018). Therefore, this study has established that standards development is a process that generates knowledge by mobilizing experts, validating practices, documenting

new information, identifying gaps and creating a ring for constant feedback from users and other actors.

4.4.2.4 Standards Levy

Key informants indicated that the process of collecting Standards Levy generates substantial data and information that supports KEBS' regulatory and service delivery mandate. The Standards Levy is a monthly remittance payable by eligible manufacturers to the Kenya Bureau of Standards under the Standards Act (Cap. 496) (section 10B (1)). Under the Standards Levy Order, 2005, the levy is charged at 0.2% of the turnover of goods manufactured and offered for sale each month, excluding Value Added Tax (VAT), Excise Duty and discounts (where applicable). In practice, levy administration entails registration of manufacturers, capture of firm and products, determination of levy obligations based on declared turnover, issuance of assessments and invoices, follow-up on payments, and reconciliation of remittances. These processes generate structured datasets on the profile of regulated industry sector and revenue performance over time.

Standards Levy collections not only provide an important source of internal revenue to support implementation of strategic activities (such as standards development, market surveillance and enforcement) but also function as a knowledge source that strengthens evidence-based planning and decision-making at Kenya Bureau of Standards.

The results of this study indicated that collection of standards levy creates knowledge a finding that agree to that of Kiama (2023) who revealed that levy revenue plays a fundamental role in funding technical research and testing of products in an organization both of which generate new data and information.

Moreover, the findings of the current study are in concurrence with those of Ikonya (2015) during the collecting of levy, the concerned organization collects related industry information

such as production volumes, categories of products, exports, and imports among others thereby generating knowledge on the same.

4.4.2.5 Calibration

According to the key informants in this study, data is also generated through calibration. Calibration is the science of measurement which assures product consistency, quality and conformance to standards in the industry. Through this process, information on product quality, uniformity and adherence to set standards is created.

In the context of this study, calibration contributes to knowledge generation because it produces traceable measurement data and documented evidence that can be analysed, shared, and reused across the organisation. Each calibration activity yields records such as instrument identification details, calibration results and corrections, measurement uncertainty, environmental conditions (e.g., temperature and humidity), pass/fail decisions against specified tolerances, and traceability information to national or international measurement standards. When consolidated over time, these records form an institutional dataset that enables KEBS to detect trends in instrument drift, recurring nonconformities, and common sources of measurement error (KEBS, 2024). Such evidence supports risk-based planning of surveillance and inspection activities, prioritization of laboratory maintenance and investment, and targeted training or corrective actions. Calibration outputs therefore move beyond a single service transaction to become a continuous feedback mechanism that strengthens organisational learning, improves reliability of testing and certification decisions, and enhances credibility of conformity assessment outcomes and elements that ultimately support effective strategy implementation through consistent service quality and accountability.

4.4.2.6 Testing

The key informants in this study indicated that testing of products generates information and knowledge. According to a key informant (coded KI 03), the process of testing produced knowledge about their properties, quality status, conformity to standards, composition (chemical, structural) among other information.

In addition to generating technical findings about product properties, testing produces structured datasets become organisational knowledge resources for planning, regulation, and continuous improvement. At Kenya Bureau of Standards each test request typically generates a chain of documented information including sample reception details (source/client, batch or consignment identifiers, sampling method, and chain-of-custody), laboratory work orders, test methods and applicable standards, instrument identifiers, raw measurements and calculations, quality control checks (e.g., blanks, controls, duplicates, reference materials), deviations (if any), and final results with acceptance decisions. These records provide evidence for certification, enforcement, or advisory actions and enable the organisation to demonstrate consistency, reliability, and defensibility of its conformity assessment decisions. Over time, the accumulation of test results across product categories (food, construction materials, cosmetics, engineering products, etc.) forms a valuable knowledge base on the prevalence of non-compliance, recurring defects, seasonal variations, and emerging risks, information that can guide targeted market surveillance, prioritization of high-risk commodities, and refinement of inspection programmes.

Testing also supports knowledge generation through interpretation and communication of results to internal and external stakeholders (KEBS, 2024). For example, test reports, nonconformity notices, and trend summaries translate laboratory findings into actionable guidance for manufacturers, regulators, and KEBS technical directorates. Internally, testing data feeds into knowledge repository known as Laboratory information management

information system (LIMS), enabling retrieval of historical results for comparative analysis, audit readiness, and institutional memory. When testing outcomes are reviewed alongside customer complaints, import inspection outcomes, and market surveillance findings, KEBS is able to triangulate evidence and identify systemic issues in supply chains, production practices, or regulatory compliance. This strengthens strategic implementation by supporting evidence-based decisions on resource allocation (e.g. laboratory capacity, equipment upgrades, specialist training), process redesign, and performance monitoring. Consequently, testing functions not only as a laboratory service but also as a continuous learning mechanism that improves service quality, enhances public confidence, and strengthens the effectiveness of KEBS' standardization and conformity assessment mandate.

4.4.2.7 Quality Assurance

Informants revealed that quality assurance department generates information of products (such as food and agricultural products, household items cosmetics, construction and engineering materials) and information on quality and compliance to specifications of standards in parameters that include but not limited to microbiological, nutritional, pesticide residue information. This information is generated during product certification process. Example quote on quality analysis as indicated by a respondent (coded KI 08) is that "Quality assurance is an important generator of products knowledge which guides relevant departments in the organisation to ensure products meet both local and international standards." The informant added that knowledge generation is a fundamental component in enabling the organisation to achieve its goals on quality control and conformance to specifications of relevant standards.

Informant KI 08 also indicated that the relationship between Kenya Bureau of Standards quality assurance and manufacturers is also a key pathway through which knowledge is generated and applied in practice. Quality assurance interventions with manufacturers occur through activities

such as product certification, factory inspections and audits, verification of process controls, review of quality documentation (e.g., batch records, test reports, supplier certificates), assessment of labelling and claims, and confirmation of compliance to relevant Kenyan/Regional Standards and technical regulations. These engagements produce structured information on manufacturing practices, recurring quality defects, critical control points, common causes of nonconformity (e.g., contamination risks, inadequate process validation, raw material variability, packaging failures, or weak hygiene controls), and the effectiveness of corrective actions. Where nonconformities are identified, KEBS issues corrective action requests, provide compliance guidance, recommend process improvements or intensify surveillance and follow-up verification. Over time, the resulting inspection/audit reports, certification decisions, corrective and preventive action (CAPA) records, and compliance histories form an evidence base that supports risk profiling of manufacturers, prioritization of regulatory attention, and targeted sensitization programmes. This manufacturer-facing quality assurance function therefore strengthens strategy implementation by improving compliance levels in industry, enhancing consistency of product quality in the market, and providing actionable intelligence for standards review, training, and market surveillance planning.

4.4.2.8 Market Surveillance /monitoring compliance

According to informant (coded KI 02), market surveillance is one of the methods of generating information on whether products in the market meet specifications of relevant standards as per the law. This activity is carried out by surveilling products being offered for sale in the market and subjecting them to both physical inspection and testing. Consumer complaints and whistleblower information on substandard goods are handled by the market surveillance directorate, and this also generates critical information on products in the market.

Market surveillance is typically implemented through planned and risk-based activities aimed at verifying compliance of goods available to consumers with applicable standards and technical regulations. In practice, surveillance teams undertake activities such as market mapping (identifying outlets, supply chains and product categories), risk profiling and prioritization (based on historical nonconformities, consumer complaints, import inspection intelligence, and known high-risk commodities), routine and targeted inspections, sample selection and acquisition, and documentation of observations at the point of sale or distribution. Surveillance sampling produces documented evidence including sampling forms, product and batch identifiers, supplier/manufacturer details, location and date, photographs, field observations, and chain-of-custody records to support traceability. Samples are then submitted to KEBS laboratories for testing against relevant standards, and results are used to support decisions such as advisory notices, corrective actions, product recalls, seizure/destruction, prosecution, or engagement with manufacturers and traders for compliance improvement. These activities therefore link field intelligence with laboratory evidence to provide a defensible basis for enforcement and consumer protection actions.

From a knowledge management perspective, market surveillance generates valuable datasets that are aggregated and analyzed to inform organisational learning and strategic decision-making. Each surveillance case contributes data on compliance rates by sector, common failure parameters, geographic distribution of noncompliance, recurrence patterns by manufacturer/importer, and effectiveness of enforcement actions. When captured in structured registers and information systems, these records enable KEBS to develop early-warning signals on emerging risks (e.g., counterfeit trends, adulteration patterns, or new products with unclear specifications), refine risk-based inspection plans, and allocate resources more efficiently across regions and product categories. Market surveillance outputs also provide feedback to standards development and revision (where requirements are unclear or frequently violated),

complement import inspection by confirming whether noncompliant imports are reaching local markets, and inform training and stakeholder sensitization programmes by highlighting the most persistent compliance gaps. Consequently, market surveillance functions not only act as a compliance monitoring tool but also as a continuous intelligence-generating mechanism that strengthens evidence-based planning, improves service delivery outcomes, and supports effective strategy implementation through enhanced consumer protection and trade integrity.

Processes of inspections, monitoring and audits create data and information on the compliance of industries with relevant standards. Different kinds of knowledge are generated during surveillance including common challenges and emerging opportunities for strategy changes, improvement and relevant training. When training is identified as a common problem during surveillance, then the revenue collected from levy can be used to disseminate technical knowledge to employees and customers therefore generating more knowledge.

4.4.2.9 Import Inspection

According to informants interviewed in the course of this study, KEBS generates knowledge on the status of products through import inspection of products before goods leave the country of origin. This is done through Pre- Export Verification of Conformity (PVOC). Inspection is also carried out at the points of entry or border points. Information generated using these two processes indicates conformity or non-conformity to specifications of relevant standards and informs on the next step.

Import inspection is a rich source of operational and regulatory data because it produces a complete documentary trail for each consignment. In practice, PVOC and border/port inspections generate datasets covering importer and supplier identity, country of origin, product description, quantities, batch/lot identifiers, declared standards or technical regulations, certificates of conformity, inspection and sampling reports, photographs and physical

observations, laboratory test requests and results (where sampling is done), and final clearance or rejection recommendations. These records create an evidence base that supports traceability and accountability in conformity assessment decisions, while also enabling KEBS to demonstrate due diligence in protecting consumers and facilitating legitimate trade. When systematically captured and stored (for example through internal information systems), import inspection records can be analysed to identify patterns such as repeat offenders, high-risk products, non-compliance hotspots by commodity or origin, and common documentation gaps thus strengthening risk-based planning and resource targeting.

Import inspection also strengthens knowledge generation through feedback loops with other KEBS functions. For instance, trends in import nonconformities inform market surveillance priorities (e.g., what to monitor locally), laboratory capacity planning (e.g., which tests are most demanded), and standards development or revision (e.g., where current requirements are unclear or frequently misapplied). Information obtained during inspections on recurring quality defects, emerging products not well covered by existing standards is shared with technical committees and used to update guidance, public advisories, and stakeholder training programmes. At the strategic level, timely and reliable import inspection data supports performance monitoring (turnaround times, compliance rates, enforcement outcomes), which improves coordination with partner agencies at border points, and enhances KEBS' credibility in trade facilitation and consumer protection. Consequently, import inspection functions not only as a compliance checkpoint but also as a continuous learning mechanism that generates actionable intelligence for decision-making and effective strategy implementation.

4.4.2.10 Management System Certification

According to informants, management system certification typically involves a structured conformity assessment process in which KEBS evaluates an organisation's management system against the requirements of an applicable standard (for example ISO 9001 for quality management systems, ISO 14001 for environmental management systems, ISO 45001 for occupational health and safety management systems, ISO/IEC 27001 for information security management systems, and ISO 22000 for food safety management systems, among others). The process commonly generates information at multiple stages: application review and contract, audit planning and risk assessment, document/Stage 1 audit (to assess documented policies, procedures and readiness), on-site/Stage 2 audit (to verify implementation and effectiveness), audit findings and nonconformity classification, corrective action plans and verification, certification decision, and periodic surveillance and recertification audits. Throughout these stages, auditors collect and validate objective evidence such as process maps, documented procedures, records, internal audit reports, management review minutes, performance indicators, training records, customer feedback logs, calibration and maintenance records, and evidence of compliance with relevant legal and regulatory requirements. The resulting audit reports and certification decisions therefore constitute a robust evidence trail on how an organisation is managed and how consistently it controls its processes.

From a knowledge management perspective, management system certification generates structured organisational data that is used to inform learning and strategic decisions within KEBS and across the wider quality infrastructure. For KEBS, each audit produces datasets on common process weaknesses, recurring nonconformities, corrective action effectiveness, sector-specific compliance gaps, and maturity levels of management practices across clients. In this way, management system certification is not only a service that grants a certificate but also a continuous evidence-generating mechanism that supports organisational learning,

strengthens credibility of conformity assessment, and enhances effective strategy implementation through improved service quality, accountability, and targeted interventions.

4.4.2.11 Training

The results of the interviews with key informants revealed that KEBS was prudent in training its staff to ensure acquisition of new knowledge. The informants indicated that through the National Quality Institute the organisation undertakes technical and management systems training for the industry.

Training generates knowledge in both explicit and tacit forms because it deliberately packages expertise into learning content and then validates competence through structured evaluation. In practice, KEBS training activities (for staff and external stakeholders) produce documented knowledge artifacts such as training needs assessments, curricula and course outlines, lesson plans, presentations and manuals, case studies drawn from inspection/testing experiences, practical demonstration guides, attendance registers, pre- and post-training assessment results, feedback forms, and certificates of participation or competence. The training themes often cut across KEBS' mandate areas, including standards interpretation and implementation, conformity assessment procedures, laboratory and metrology practices, management system standards (e.g., ISO 9001, ISO 14001, ISO 45001, ISO/IEC 17025), internal auditing, risk management, customer service, ethics and integrity, occupational safety, and ICT/knowledge management tools such as Microsoft 365 (Teams, SharePoint and related workflows). These artifacts and records constitute structured datasets that are analyzed to determine priority competence gaps, training effectiveness, and the relationship between capacity-building and service outcomes (e.g., reduced nonconformities, improved turnaround times, and more consistent decision-making).

Beyond the formal outputs, training also facilitates knowledge generation by converting tacit know-how from experienced officers into shareable organizational knowledge. Facilitators and subject matter experts translate lessons learnt from testing, calibration, inspection, and certification assignments into examples, checklists, and standard operating guidance that can

be reused by new staff and across regional offices. When training outputs are captured in institutional repositories (e.g., shared folders, SharePoint sites, learning databases, or departmental knowledge banks), they strengthen institutional memory and reduce dependence on individual employees, which is an important consideration given staff turnover and retirement risk. Training further strengthens collaborative knowledge flow by creating networks of practice among trainees and trainers, enabling follow-up consultations, mentorship, and peer learning. Strategically, the knowledge generated through training supports implementation by improving staff capability, standardizing work practices, enhancing compliance with procedures and standards, and enabling more effective deployment of knowledge management technologies. Consequently, training functions not only as capacity building but also as an evidence-driven mechanism for continuous improvement, performance monitoring, and alignment of human capital with KEBS' strategic priorities.

4.4.2.12 Research and Development

Research and development (R&D) is a deliberate knowledge generation function that supports KEBS' regulatory mandate by producing evidence needed for standards development, conformity assessment, and continuous improvement of services. In practice, R&D activities generate both primary and secondary data through applied studies, problem-solving assignments, method development and validation, and investigations prompted by emerging risks in the market. R&D work is guided by a policy and involves structured data collection approaches such as product surveys, targeted sampling plans, laboratory tests, stakeholder consultations, literature reviews, and analysis of historical testing and inspection data. The outputs typically include research reports, technical briefs, validated test methods, datasets, prototypes or process improvements, and recommendations that can be adopted by technical directorates and industry stakeholders.

R&D also contributes to knowledge generation by translating technical evidence into organizational learning and actionable guidance. For instance, findings from research can inform revision or development of standards (where gaps are identified), strengthen market surveillance priorities (by highlighting high-risk commodities or prevalent noncompliance patterns), and improve laboratory effectiveness (through improved methods, reference materials, and more efficient workflows). Importantly, R&D work produces traceable records such as research protocols, datasets, analyses, peer reviews, and lessons learnt. These are curated within knowledge repositories for reuse in future assignments, audits, and decision-making. When these outputs are shared through internal forums, technical committees, and training programmes (including those delivered through the National Quality Institute), they enhance staff competence and promote consistent interpretation of standards and conformity assessment decisions across regions.

At the strategic level, R&D provides an evidence base that supports planning, prioritization, and performance monitoring. R&D therefore strengthens strategy implementation by enabling evidence-based decision-making, fostering innovation in service delivery, and enhancing the credibility and relevance of KEBS interventions to industry, regulators, and consumers. This way, R&D functions act as a continuous knowledge production mechanism that helps KEBS adapt to changing market conditions while maintaining the integrity of standards, metrology, and conformity assessment services.

4.4.2.13 Customer Review

Respondents revealed that customer reviews provide KEBS with an opportunity to obtain feedback information about quality of products consumed /available in the market as well as services provided by the organisation. This is important in validation and early detection of

problems and correction process in alignment to organizational strategic goals as Figure 4.7 depicts.

Respondents revealed that customer review processes generate systematic service-performance data captured from customer experience across the full-service cycle. In practice, feedback is obtained through multiple channels such as customer satisfaction surveys at service counters, online or email-based feedback forms, call center interactions, social media and website feedback, suggestion boxes, follow-up calls after service completion, and formal complaint letters, focused discussion groups. Each of these channels yield structured and unstructured information on aspects such as service timeliness (turnaround time), clarity of requirements and communication, staff professionalism, costs and transparency, accessibility of services across regions, and perceived credibility of test reports/certificates. Feedback is captured using standardized tools (e.g., survey instruments with Likert scales, complaint registers, or customer relationship management logs), it is analyzed by service type (testing, calibration, certification, import inspection), region, customer category, or product sector and it reveal trends and recurring service gaps.

From a knowledge management perspective, customer reviews function as an external knowledge input that supports continuous improvement and evidence-based decision-making. Customer complaints and compliments provide early-warning signals on operational bottlenecks, potential integrity risks, and emerging market issues (e.g., suspected substandard goods, misleading product claims, or service delivery inconsistencies across offices). Customer feedback enables KEBS to identify root causes and implement corrective and preventive actions (CAPA), revise procedures, strengthen customer communication, and target staff training or mentorship needs. Customer reviews support strategy implementation by strengthening accountability to citizens and industry, improving service delivery outcomes, and ensuring that KEBS' strategic priorities remain responsive to customer needs and market

realities. In summary, the figure 4.7 below indicates methods of knowledge generation in KEBS.

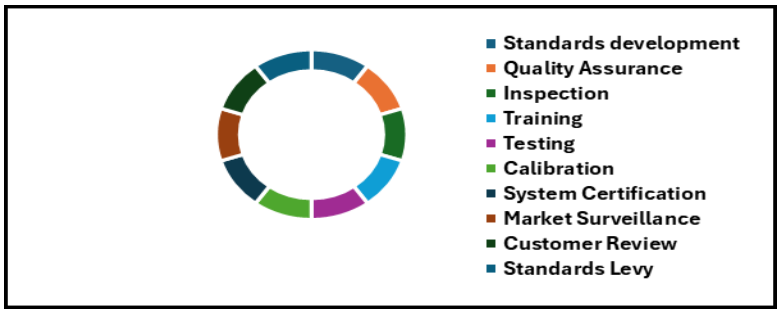

Figure 4.7: Methods of Knowledge Generation in KEBS.

4.4.2.14 Quantitative Results on Knowledge Generation and SI

Knowledge Generation Affects Delivery of Quality Services in the Organisation.

The results of the study showed that knowledge generation and collection influences delivery of quality services in the organisation with 47.34% agreeing and 33.82 % strongly agreeing with the statement. 11.11% were not sure while 1.92% disagreed and 5.80% strongly disagreed that knowledge generation affects delivery of quality services in KEBS. The results are further illustrated in Figure 4.8.

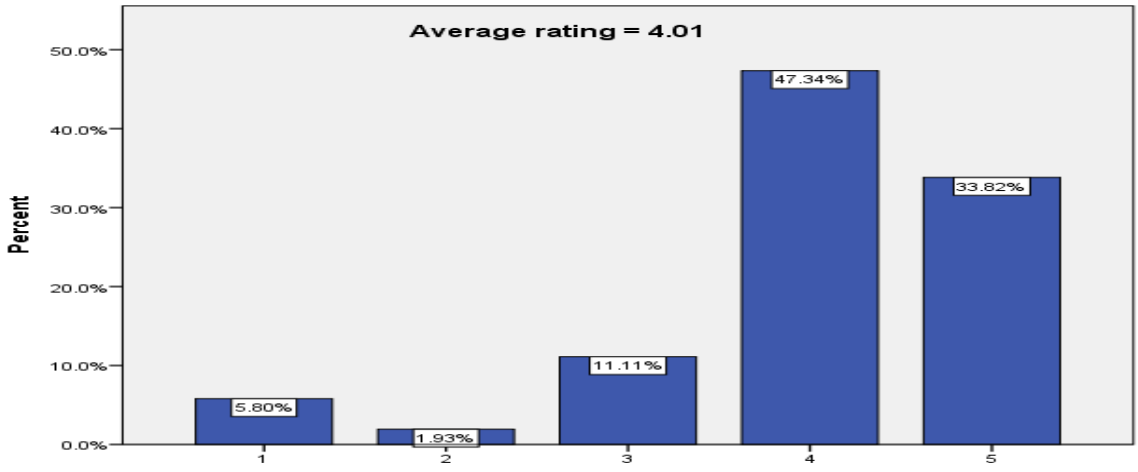

Figure 4.8: Perception on Influence of Knowledge Generation and Quality of Services

This study found that knowledge generation influences delivery of quality services in an organisation as a finding that agrees to that of Singh et al. (2020) who indicated that knowledge generation stimulates innovation or new ideas which lead to development of new services and improvement of existing ones thereby enhancing quality. The study findings are also in consistent with those of Alshanty and Emeagwali (2019) who revealed that creation of new knowledge propels transformation of ideas and insights into improved services and products.

4.4.2.15 Knowledge Generation Influences Achievement of Goals Set in the Organisation

The respondents were also asked to provide views on whether knowledge generation influences achievement of goals set in the organisation. Most of the respondents, as represented by 47.34%, agreed, 33.82% strongly agreed, 11.1% were neutral. 5.80% strongly disagreed while 1.9% disagreed that knowledge generation affects achievement of goals set in the organisation as depicted in Figure 4.9.

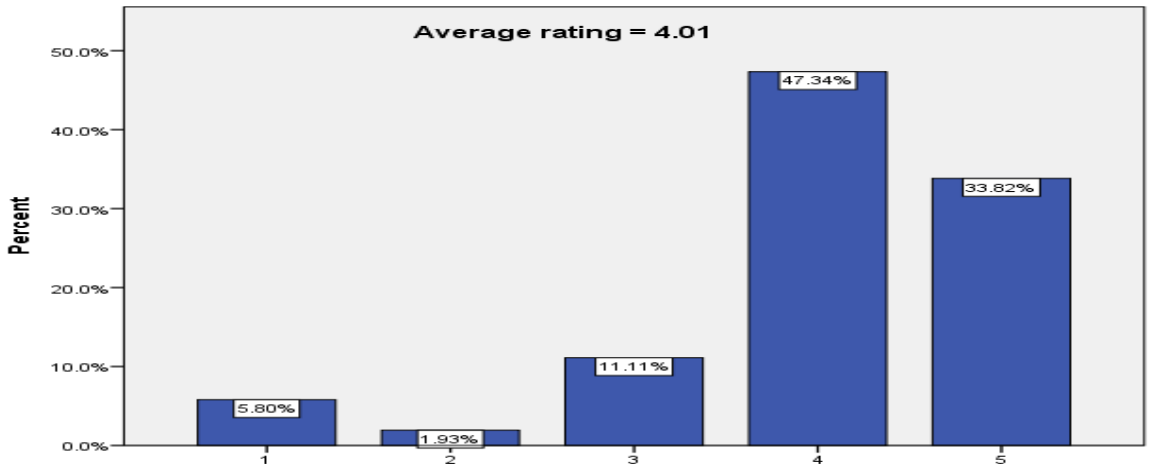

Figure 4.9: Perspectives on Influence of Knowledge Generation on Achievement of Goals

The research finding that knowledge generation influence achievement of goals is supported by results of a study by Mustapha and Bin (2023) that showed that generation of new knowledge is important in problem-solving because it fuels new approaches of addressing

challenges. Problem solving is important in the process of accomplishing tasks towards realizing set goals. Further, this finding concurs with conclusions of a study by Li Sa et al. (2020) who indicated that knowledge generation creates novel ideas which lead to development of best practices which enhance efficiency of achieving goals.

4.4.2.16 Knowledge Generation Affects Staff Performance in the Organisation

The researcher asked the respondents to indicate their level of agreement or disagreement with the statement that "knowledge generation affects staff performance in the organisation". The responses provided revealed that a total of 75.96% of the respondents were in agreement with the statement (37.02% agreed while 38.94% strongly agreed). 5.77 % disagreed and 6.73% strongly disagreed. This indicates that most of the respondents agree that generation of knowledge is a key influencer of employee performance in their organisation as depicted in Figure 4.10.

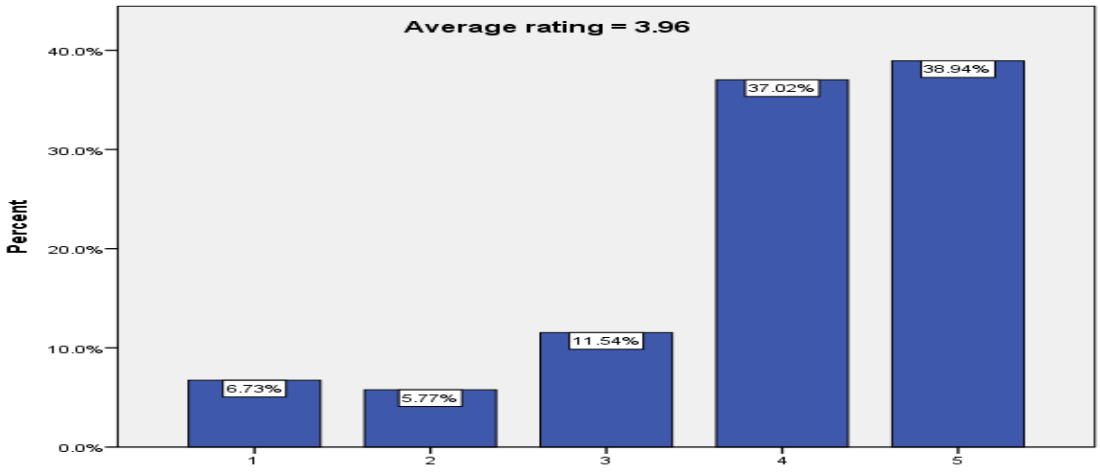

Figure 4.10: Perspectives on Effect of Knowledge Generation on Staff Performance

This finding is consistent with that of Langat and Kwasira (2016), who found that knowledge generation through training and development enhances employee performance by improving employees' ability to perform their duties effectively. Similarly, Omune and Nyang'au (2021) observed that learning generates new knowledge and skills among employees, thereby

improving the efficiency and effectiveness with which they perform their roles and responsibilities. These findings suggest that knowledge generation enhances employee performance by equipping staff with the competencies required to execute their tasks more effectively.

4.4.2.17 Knowledge Generation Influences Efficiency of Operations in the Organisation

The findings of the study revealed that most of the respondents were of the opinion that knowledge generation affects operations in the organisation as demonstrated by 83.16% of them. However, 9.66% of the respondents were neutral while 6.28% of the participants disagreed that knowledge generation influence efficiency of operations as Figure 4.11 below.

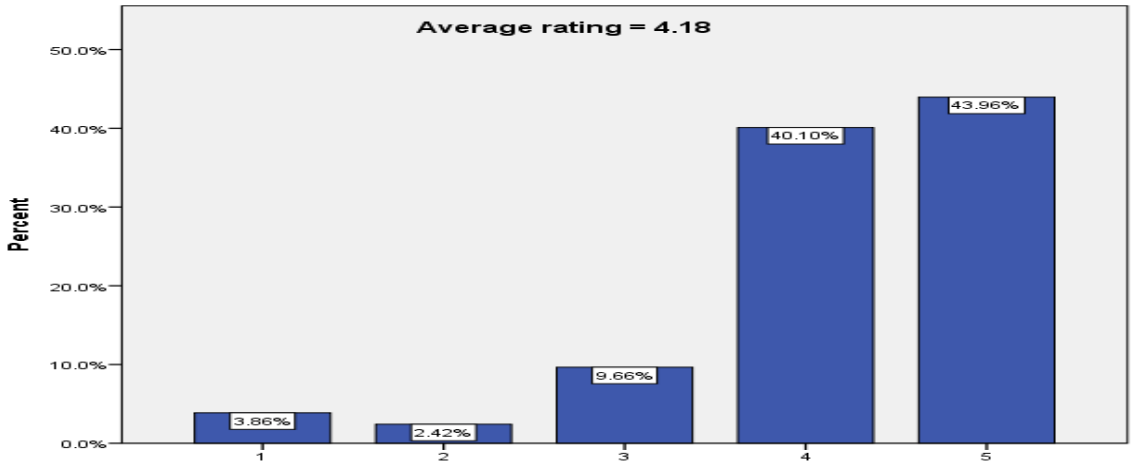

Figure 4.11: Perceptions on Influence of Knowledge Generation on Efficiency of Operations

The results of this study resonates with that of Gates (2024), who pointed out that new knowledge and information guides employees on how to undertake their tasks in a better and faster manner which translates to efficiency. The findings are also consistent with those of Qadri et al. (2021) who illustrated that organisations with increased levels of knowledge generation demonstrate greater effectiveness and capacity to outshine their competitors.

4.4.2.18 Knowledge Generation Influences Strategy Implementation

The respondents were asked to indicate the level at which they agreed to the statement that knowledge generation influences strategy implementation in their organisation. The findings established that a total of 83.66% agreed with the statement. 41.83% of the respondents agreed to it while an equal proportion (41.83%) strongly agreed that knowledge generation influences strategy implementation. Nevertheless, while 11.06% were neutral, 3.37% strongly disagreed and 1.92% of the respondents disagreed. The average rating mean) on this statement was 4.16 indicating that generally the respondents were in agreement with this statement. This is further illustrated in Figure 4.12.

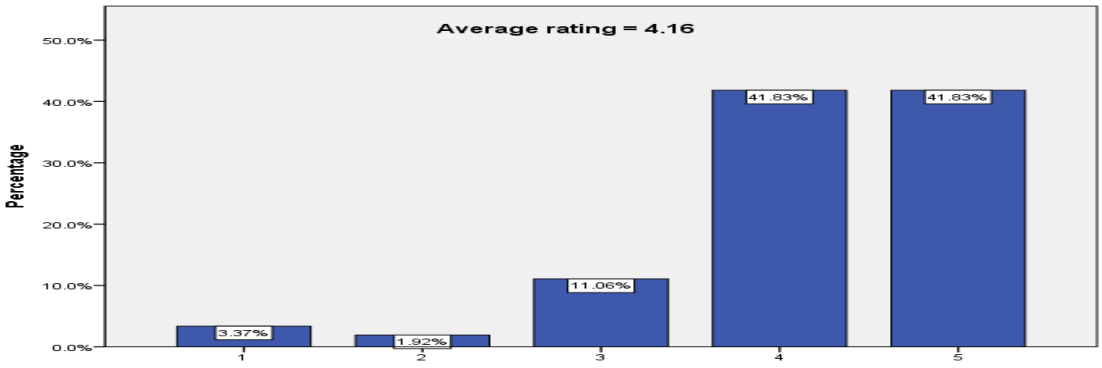

Figure 4.12: Knowledge Generation Influences Strategy Implementation

This study found out that knowledge generation influences strategy implementation, a finding which is in harmony with that of Mustapha and Bin (2023) who underscored a significant association between knowledge generation and informed decision making which improve strategy implementation. The research results are also in agreement with those of Estate (2018) who highlighted that knowledge generation influences effectiveness and problem solving both of which are critical in strategy implementation.

4.4.2.19 Summary Findings on Knowledge Generation and Strategy Implementation (SI)

The Likert Scale opinions on knowledge generation and strategy implementation statements were summarized into mean scores and standard deviations as shown in Table 4.2. The findings in Table 4.2 indicate that most of the respondents agreed that knowledge generation influences strategy implementation (Mean = 4.16, SD = 0.94), knowledge generation affects delivery of quality services had (Mean = 4.01, SD = 1.026), knowledge generation influences achievement of goals set had (Mean = 4.01, SD 0.98=), Knowledge generation affects staff performance in the organisation had Mean 3.96, SD=1.16), Knowledge generation influences efficiency of operations in the organisation Mean 4.18, SD = 0.97). A computation of the average mean score of all the statements was 4.09 indicating agreement while the overall standard deviation was 1.01 indicating moderate variability in responses as depicted in Table 4.2.

Table 4.2: Mean Scores and Standard Deviation for Knowledge Generation

Statement	**Mean**	**Standard deviation**
Knowledge generation influences strategy implementation	4.17	0.941
Knowledge generation affects delivery of quality services in the organisation.	4.01	1.026
Knowledge generation influences achievement of goals set in the organisation	4.01	0.980
Knowledge generation affects staff performance in the organisation	3.96	1.160
Knowledge generation influences efficiency of operations	4.18	0.976
Overall Score	**4.09**	**1.01**

4.4.2.20 Triangulation of Quantitative and Qualitative Findings on Knowledge Generation

The quantitative findings indicated that knowledge generation positively influenced strategy implementation at KEBS, as reflected by the high levels of agreement regarding its effect on service quality, achievement of organisational goals, staff performance, operational efficiency, and overall strategy implementation (overall mean = 4.09). These findings were supported by qualitative 4results, which revealed that knowledge was generated through standards development, standards levy administration, calibration, testing, quality assurance, market surveillance, import inspection, training, research and development, and customer reviews.

The qualitative findings complemented the quantitative results by demonstrating how these activities generated information that supported decision-making, innovation, organisational learning, service improvement, and regulatory compliance. Together, the quantitative and qualitative findings converged in demonstrating that knowledge generation plays a significant role in enhancing service quality, improving performance, increasing operational efficiency, and facilitating successful strategy implementation at KEBS.

These findings imply that knowledge generation is a critical enabler of strategy implementation at KEBS. The high level of agreement suggests that employees rely on knowledge obtained through research, training, standards development, testing, and customer feedback to support decision-making and execution of strategic activities. From the Resource-Based View Theory, knowledge constitutes a valuable organisational resource that enhances organisational capability. Practically, the findings suggest that continued investment in knowledge creation initiatives can strengthen innovation, service delivery, and achievement of strategic objectives at KEBS.

4.4.3 Effect of Knowledge Collaborative flow and Strategy Implementation at KEBS

4.4.3.1 Thematic Analysis of Qualitative Data on Knowledge Flow in KEBS Knowledge Sharing Structures

The results of this study revealed that there were both formal and non-formal knowledge flow structures in the organisation. KEBS as an organisation has a robust system for enabling seamless flow of information both hierarchically and horizontally. The study established that there existed well planned structures that disseminate and facilitate information flow in the organisation. These included Communities of Practice, Post-Project Reviews, mentorship sessions and centralized knowledge repositories as elaborated herein.

4.4.3.2 Communities of Practice (COPs)

Communities of Practice act as structures for knowledge flow in KEBs. The respondents of this study indicated that they were members of such groups who meet frequently to have discussions and share expertise both in and across their departments. This promotes flow of information from experienced staff to subordinate staff besides promoting collaboration in the organisation. The results of this study are in agreement with those of Forbes (2017) who described a Community of Practice (CoP) as a group of individuals sharing mutual professional interests, proficiency and interact often to learn, resolve challenges and improve their skills.

According to the findings of this study, the organisation facilitates formation of groups of employees working on specific issues and projects. The interviewees indicated that they were assigned to work in groups either within or across their departments and organizations in specific project. This way, CoPs acted as platforms where employees exchanged experiences, best practices and specialized skills a finding that agrees to that of Forbes (2017), who indicated that CoPs are platforms that facilitate sharing of knowledge and skills.

Further the interviewees indicated that CoPs enabled them to tap knowledge from experienced or senior employees who act as reservoirs of tacit knowledge, a finding that resonates to that of Noruzy (2013) who indicated that Communities of practice promote preservation of tacit knowledge which is entrenched in individuals experiences because it is hard to document. CoPs promote dissemination of tacit knowledge through enabling debates, consultations, storytelling and collaboration. The respondents of the study also pointed that CoPs kept them updated about novel developments in their different fields as the communities allowed them to interact frequently through forums such as workshops, conferences and online discussions a finding that Huie et al. (2020) agree with by highlighting that communities of practice encourage continuous learning and keeps affiliates informed of new advancements.

The respondents of this study also pointed out that the communities of practice acted as platforms where knowledge that led to innovation and problem solving was shared collaboratively. This resonates with the thoughts of Kucharska (2017) who revealed that CoPs enhances collaboration of members from various backgrounds, bringing different perspectives and ideas together a factor that promotes creativity and innovation to get solutions.

4.4.3.3 Post- Project Reviews

The study findings revealed that post-project reviews also served as data sharing tools in the organisation. The study participants explained that the management holds official and informal sessions after the implementation of specific projects to allow employees to discuss success stories and challenges experienced. This serves as a forum where best practices and lessons learnt are shared and documented for future use. The findings of this study concurred with that of Smith (2018) who highlighted that post project reviews act as tools of knowledge flow retrospectively.

Further, the findings of the study agree with those of Carmeli et al. (2013) who revealed that post project reviews disseminate knowledge by recording lessons learnt during the implementation of a project. According to Carmeli et al. (2013), project managers and officers document what worked, what did not work and why it did not work in a project and the documented lessons serve as a resource for other project managers in future. The lessons and best practices are also shared between teams working on a project. The results of the study also agree with those Santhose and Lawrence (2022) who argued that project reviews expose process flaws and opportunities for upgrading to employees. This way, they communicate to staff on what to improve during project and strategy implementation in future. According to Chang et al. (2009), post project reviews also provide a forum through which project team members deliberate on different issues and share insights that may not be formally recorded during the project and hence facilitating collaborative knowledge flow.

4.4.3.4 Centralized Knowledge Banks

KEBS has centralized knowledge bases which act as repositories of data and information for use by the employees. As indicated by informants, the organisation has a variety of digital platforms and online knowledge banks that enable dissemination and flow of information both horizontally and vertically. The institution centralized systems use platforms like KEBS Management Information System (KIMS) utilized by Quality Assurance to process permits for product certification, Market Surveillance to plan and execute surveillance plans, Standards levy to register manufacturers for levy obligations. Norming system is used for leave applications and processing allowances. Laboratory Management Information System (LIMS) is used by Testing department to process information on samples from sample collection to reporting of test results. The entropy system is used to manage Management System audits,

host procedures for different departments, policies and corporate guidance documents. Sage ACCPAC is used by Finance and Procurement to process purchases and payments.

It was also established from this research that technologies such as Share Point and MS-Teams are used in the organisation as tools that facilitate knowledge flow. Further, the findings revealed that the institution has documented standard operating procedures and best practices which promote information flow.

The findings of this study are in agreement with those of Abili et al. (2011), who elaborated that centralized knowledge banks promote knowledge flow by offering repositories where information can easily be accessed. The banks ensure that updated information is centralized and available to different actors both in and out of the organization. Centralized data banks ensure sharing of accurate knowledge every time it is required thereby promoting continuous learning (Abili et al., 2011). Therefore, centralized knowledge banks promote flow of information in an organization by ensuring institutional knowledge is accessible, searchable, reusable and obtainable to different users from one source.

4.4.3.5 Mentorship

It was established that mentorship was also used as a channel of knowledge flow in KEBs. The management of the institution has established structured methods of relationship building to allow for exchange of skills, insights and expertise between the employees. Mentors and mentees are paired and allowed to interact in order for information to flow form the mentor to mentee. According to the key informants and respondents, newly employed staff were paired with experienced staff during work to promote transfer of tacit knowledge.

The findings of this research concur with those of Abubakar et al. (2019), who indicated that mentorship facilitates consistent and systematic deliberations where concepts, criticism, opinions and best practices are shared. Abubakar et al. (2019), adds that mentors introduce

mentees to their workmates, teams and professional bodies thereby enlarging chances for knowledge exchange besides triggering the curiosity in mentees to explore for more knowledge and utilize what they learn. Therefore, mentorship fosters continuous learning, promotes collaboration and collaborative flow of information.

Besides, the results are also in agreement with those of Almeida and Soares (2014), who indicated that mentorship provides a platform for bridging experience gaps. According to Almeida and Soares (2014), mentors have intense experience which is passed on to the mentees through undertaking complex tasks together. This way, mentorship enables the mentees to tap onto the skills and expertise of their supervisors, thereby learning in the process.

The structures through which knowledge is shared in KEBs are further illustrated herein.

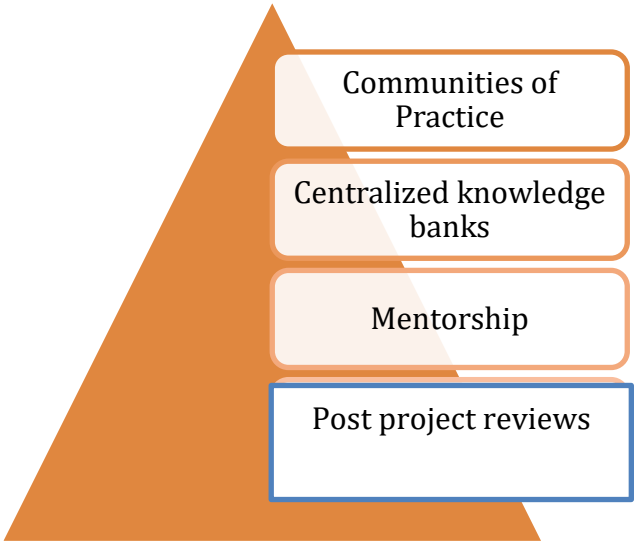

Figure 4.13: Knowledge Sharing Structures

4.4.3.6 Types of Information Flow

The informants indicated that there are various types of information flow in the organisation namely: downward flow upward flow horizontal flow and external flow.

4.4.3.7 Downward Flow

The results of the study revealed that the organization has structures that allow for movement of information from high ranks to lower ranks. According to key informant (coded KI 02), the organisation utilizes email system and memos that allow for movement of information hierarchically downwards. Further the informer pointed out that management holds frequent/regular meetings as well as ad-hoc meetings where they share information with staff. These meetings can be physical or virtual. The informers explained that top management through these meetings passes information to junior employees on different matters such as organisation objectives policies and instructions.

The key informants revealed that information such as policies, feedback directives; organizational objectives and announcements were released by senior management to junior employees.

The key informants indicated that information that flowed downwards not only provided guidance to employees to perform their roles efficiently but also ensured that all staff members understood the organizational goals. According to Cheney (2011), downward flow of information serves to provide guidance, assign roles and communicate decisions from management and supervisors to the other employees, a finding that agrees to the opinions of the informants participating in the study. Cheney (2011) added that downward flow of information is characterized by formality where proven procedures and official channels are used to pass information from top to lower levels. In this type of communication there is partial feedback because generally there is no chance for responding but follow. Therefore, downward information dissemination aids in promoting clarity, ensuring control and guidance to guarantee that staff activities align with the organization's objectives.

4.4.3.8 Upward Flow

The key informants indicated that there are mechanisms/platforms for junior employees to pass information to management including MS online tools, emails (MS-Outlook), reports and meetings. According to Diehr and Gueldenberg (2017), upward flow information moved from lower level (staff) up the hierarchy to the management. The informants indicated that junior staff reported work/project progress to their respective managers. This finding is in agreement with that of Canary (2011) who revealed that upward communication is critical in enabling staff to share views, criticism, issues and progress of their work thereby improving decision making process and promoting a good organizational culture.

According to Rashid, M. (2023), upward flow of information enhanced staff engagement because it cultivated a culture of openness and trust where employees shared information with their seniors enabling them to make informed decisions founded on the views and insights shared.

The informants of this study indicated that the organization's management provided various methods that allowed staff to communicate upwards including open door policies, comment boxes, staff surveys, performance reports and feedback meetings with managers. The informants explained that upward communication promoted transparency and improved employees' confidence because they felt valued by their managers and employer. It is the preposition of this research that, upward communication enhances strategy implementation by allowing staff to ask for guidance and clarification from their seniors.

It is important to note that upward communication may be barred by challenges which may eventually influence strategy implementation negatively if not addressed.

However, according to Rashid (2023), in upward communication staff may experience digital fatigue where they become overwhelmed with numerous chats, emails, reports and notices. This can make employees feel overloaded and become unwilling to participate in providing

feedback and reports to their seniors. Besides, when employees provide feedback and write reports to managers who do not respond to them, they may feel disregarded and unappreciated, these situations may make them stop engaging in upward communication (Canary, 2011).

Further, employees may view some information as sensitive and hence hesitate to share it due to privacy concerns and such information may be important in execution of tasks/strategies. Any barrier to upward flow of information is likely to impede strategy implementation and the management should work hard to eliminate the barriers for successful execution of strategic goals.

4.4.3.9 Horizontal Flow

The key informants pointed out that the organisation had mechanisms of allowing flow of information between departments regarded as horizontal flow. Systems like LIMS are utilized by both Testing as well as Quality Assurance, Market Surveillance and Import Inspection and helps pass critical information on sample testing. According to Abecassiset al., (2021), indicated that horizontal flow of information is significant in ensuring coordination, collaboration both of which ensure teamwork towards common strategic goals on an organisation a key factor in successful Strategic Implementation.

The findings of this study agree to those of Canary (2011), external flow of information who indicated that horizontal flow of knowledge ensures exchange of information between employees, teams and divisions operating at similar institutional level. This way, horizontal flow of communication plays an important role in strategy execution because execution demands cooperation across various divisions rather than sequestered efforts. Horizontal flow of data facilitates enhancement of cooperation among staff ensuring that employee activities or operations are aligned to organizational strategies.

Besides, the results of this research also agree with those of Keyton (2011), who revealed that horizontal flow of information facilitates inter departmental exchange of data thereby allowing staff to discover problems and resolve them faster. In summary, horizontal flow of information facilitate interdivisional problem resolving and cooperation between departments (Hyson, 2011).

4.4.3.10 External Flow

The finding of the study also revealed that KEBS have system mechanisms such as websites, social media sites and newsletters where information is passed to consumers and stakeholders. The various forms of information flow are as shown in Figure 4.14.

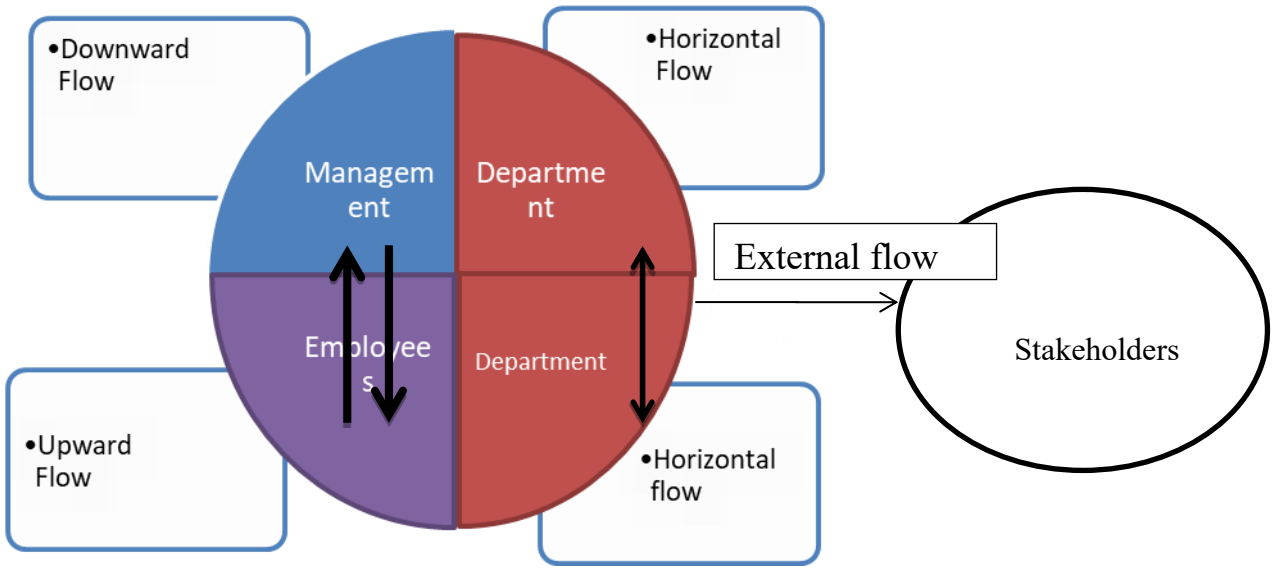

Figure 4.14: Forms of Information Flow

The organisation also has an independent organ KEBS NQI (National Quality Institute) which promotes flow of information through training staff and external clients /industry players on technical aspects as well as management system standards. The significance of information flow in strategy implementation cannot be underscored as it enhances coordination and decision making of strategic and operational decisions.

The key informants indicated that the organization has mechanisms that allow for flow of data and knowledge between an organization and its stakeholders including consumers, dealers, government, opponents, investors and the public. The mechanisms enable flow of data into the institution where consumer feedback and objections, market research information, supplier data and state regulations are communicated to actors outside the organization.External flow of information also ensures that messages intended for advertising and marketing, financial reports, product or service data to consumers are communicated to relevant recipients.

In general, external flow of information affects strategy implementation by assisting managers to comprehend market trends and consumer requirements. This type of information flow and ensures that the stakeholders have a good relationship with external actors. According to Tourish (2011), teamwork and collaboration among the employees and with actors outside organization are critical in successful implementation of plans. In essence, organizations.

4.4.4 Quantitative Analysis of Knowledge Flow Data in KEBS

4.4.4.1 The Organisation has Systems/Procedures that Promote Knowledge Flow.

The researcher asked the participants to show the extent to which they agreed or disagreed with the statement that the organisation has systems/procedures that promote knowledge flow by rating their level of agreement or disagreement as follows (1-Strongly Disagree, 2-Disagree, 3-Not Sure, 4-Agree, 5-Strongly Agree). The study revealed the existence of systems and procedures that promote flow of knowledge at KEBS. Majority of the respondents, 43.96%, strongly agreed with the statement while 38.16% agreed. In total, 82.12% of the respondents agreed to the statement while only 8.22% disagreed and 9.66% were neutral as depicted in Figure 4.15.

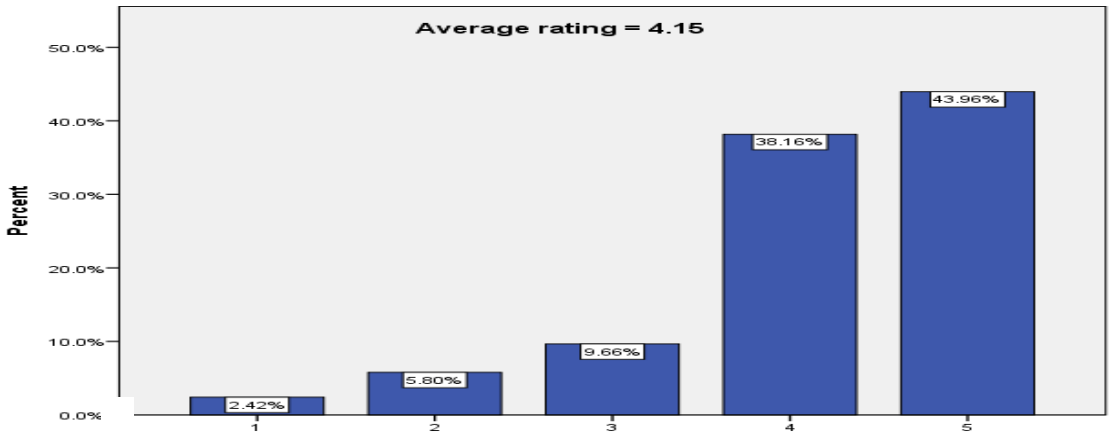

Figure 4.15: Opinions on Existence of Knowledge Flow Systems

The role of systems in regard to facilitating implementation of tasks and strategies cannot be underscored as a study by Bureau of Labor Statistics 2022) revealed that technological developments are able to drive productivity up to a level of about 4.6%. According to BLS (2022), knowledge management systems, including those that promote knowledge flow, are technology based and this could influence strategy implementation a great deal. Further, Gates (2024) indicated that knowledge flow and sharing improve access to information resulting in better efficiency.

4.4.4.2 Perceptions of Training Employees on Different Issues

The study established that the organisation provides training for its staff with most of the respondents (represented by 58.45%) strongly agreeing with the statement that the organisation trains its employees in diverse issues while 27.54 % agreed and only 3.38% were in disagreement. The overall rating of this statement was 4.39 implying that there was agreement that KEBS is excellent at providing employee training. This is further illustrated in Figure 4.16.

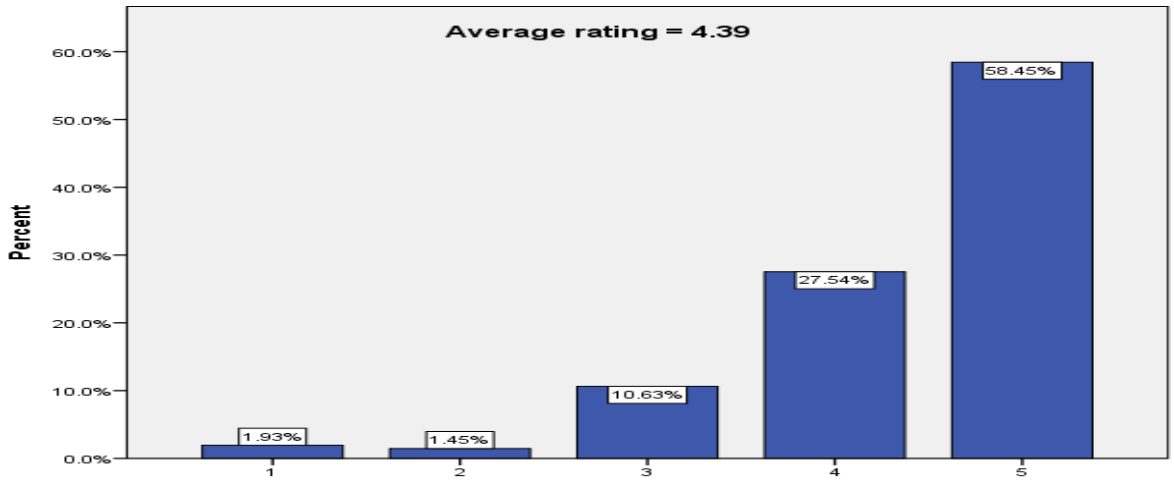

Figure 4.16: Perceptions on Training of Employees on Different Issues

According to Gagliardi et al. (2014), training is a significant means of building the capacity of employees to translate knowledge into actions or tasks during their work which eventually influence implementation of strategy.Study informants interviewed indicated that the organisation has developed a skills matrix guide which is utilized to determine employee's skill gaps in accordance with their job descriptions. Once the gaps are identified, the managers organize relevant training whereby each staff undergoes one or two training courses every year. The interviewees also indicated that six months after the training, the staff are evaluated for knowledge and skills gained to check the effectiveness of the training. Trainings are approved through norming system, and evaluation is done through Microsoft Power App.

4.4.4.3 The Organisation Provides Mentorship Opportunities for its Staff

The research showed that most of the respondents agreed that the organisation offers mentorship opportunities to its employees (as denoted by 38.83% of them who agreed and 30.58% who strongly agreed). Further, 18.93% of the respondents were neutral while 8.25% of them disagreed and 3.40% strongly disagreed as shown in Figure 4.17.

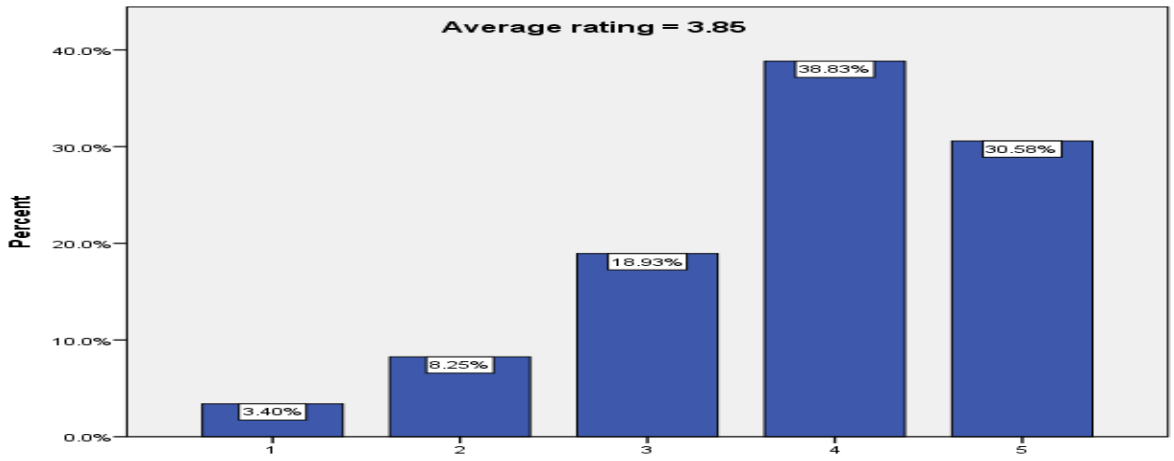

Figure 4.17: Views on Organization's Provision of Mentorship Opportunities

The study results are in agreement with those of Davenport and Prusak (2018) who indicated that mentorship facilitates learning of the mentees from the mentor thereby enhancing job-specific knowledge and skills of the mentee. As one of the study interviewees explained, strategy implementation requires that both the leaders/managers and the employees have essential and specialized knowledge and skills to accomplish relevant tasks.

4.4.4.4 The Organisation Provides an Environment that Promotes Teamwork

The researcher sought the opinion of the respondents on whether the organisation provided an environment that promotes teamwork. The responses showed that majority (total 75.6%) of the respondents where 43.2% agreed and 37.4% strongly agreed to the statement. On the other hand, 3.4% disagreed and 2.4% strongly disagreed that the organisation offered an environment that is conducive for teamwork while 13.6% were neutral as shown in Figure 4.18:

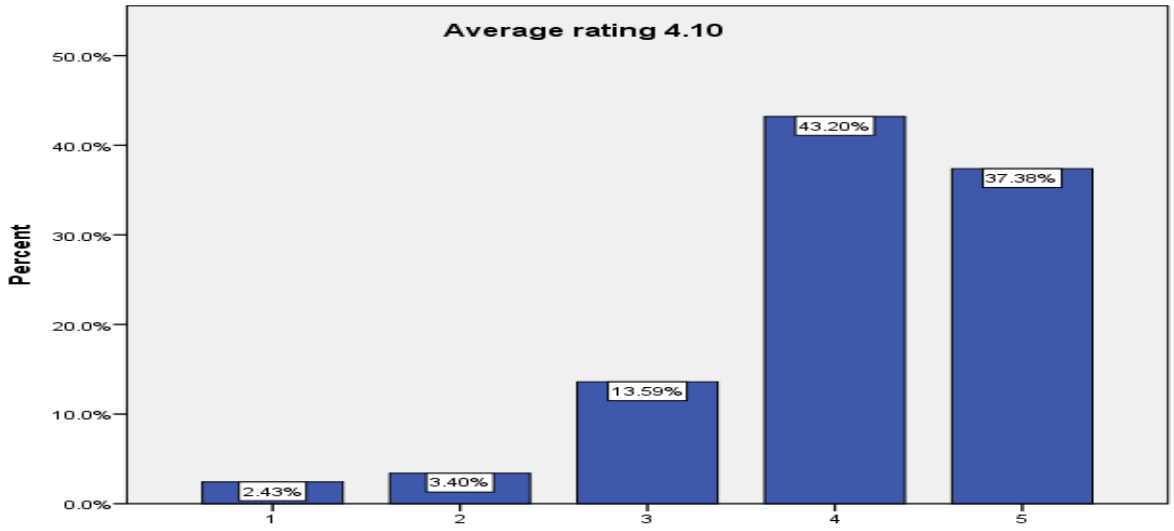

Figure 4.18: Perspectives on Provision of an Environment that Promotes Teamwork

According to Gates (2024) teamwork essentially involves cooperation and coordination among the employees which allow for sharing of ideas and learning that facilitate faster attainment of goals thereby enhancing strategy implementation.

4.4.4.5 Existence of Consultative Mechanisms for Employees' use

The researcher asked the participants to rate their level of agreement or disagreement to the statement, "Consultative mechanisms for use by employees exist in the organisation". Majority (44.39%) of the participants in this study indicated the existence of consultative mechanisms for use by staff in KEBS by agreeing to the statement while 29.27% strongly agreed. Thus, the total percentage of respondents in agreement was 73.66%. However, 17.56% were neutral while 5.37% disagreed and 3.41% strongly disagreed with the statement and the average rating was 3.91 as shown in Figure 4.19.

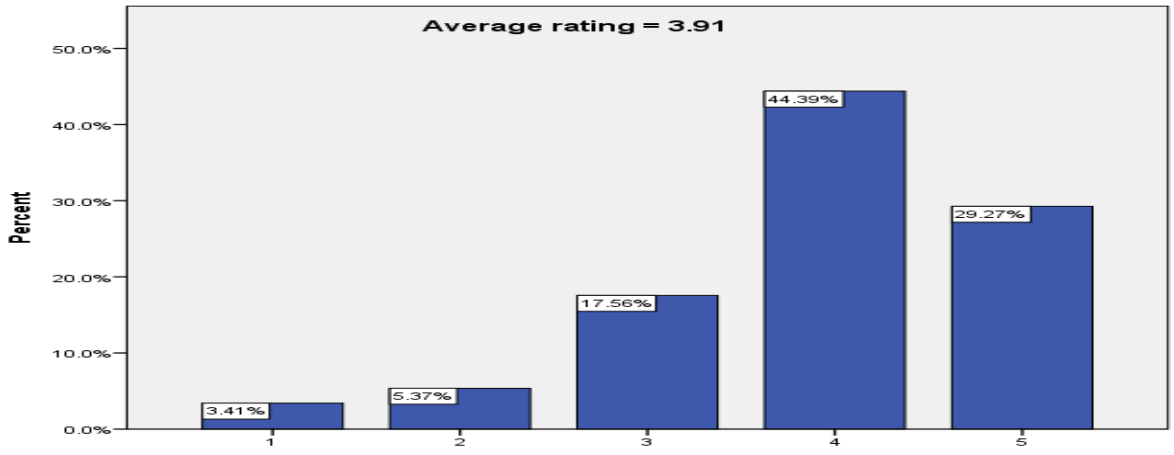

Figure 4.19: Views on Existence of Consultative Mechanisms for Employees' use

This research found that KEBS provided consultative mechanisms for use by its staff thereby promoting a supportive work environment that allows for knowledge sharing and learning and hence effectiveness. This finding is in harmony with that of Hislop et al. (2018) who revealed that consultation promotes effectiveness of completing tasks and realization of goals thus stimulating strategy implementation.

4.4.4.6 Summary of Knowledge Flow and strategy Implementation Findings

The Likert scale answers provided by the respondents on knowledge flow and strategy implementation were analyzed and presented as depicted in Table 4.3. The results revealed that majority of respondents agreed that knowledge flow affects strategy implementation (Mean = 4.15, SD = 0.98) and were in consensus that the organisation has systems and procedures that promote knowledge flow (Mean = 4.11, SD= 0.90). Further, the employees agreed that the organisation builds their capacity through training in various subjects (Mean = 4.35, SD = 1.00) besides providing mentorship opportunities (Mean = 3.76, SD = 0.88). The results also showed that most of the participants agreed that KEBs provides an environment that promotes teamwork (Mean = 4.01, SD= 0.98) and mechanisms for consultation (Mean 3.79, SD, 0.84). In summary, the average of the mean of the responses was 4.08 which implied that the

respondents agreed that knowledge flow influences strategy implementation while the standard deviation mean yielded a value of 0.96 which signified that the responses were varied but moderately distributed. This is further illustrated in Table 4.3.

Table 4.3: Mean and Standard deviations for Knowledge Flow Indicators

Statement	Mean	Standard Deviation
The organisation has systems/procedures that promote knowledge flow.	4.15	0.983
The organisation trains its employees in diverse fields.	4.39	0.879
The organisation provides mentorship opportunities for its staff.	3.85	1.055
The organisation provides an environment that promotes teamwork.	4.10	0.927
Consultative mechanisms for use by employees exist in the organisation.	3.91	0.993
Average	**4.08**	**0.967**

The research found that the general statistics were (Mean = 4.08, SD = 0.967) and it was in agreement that knowledge flow has an influence on strategy implementation. The research also found out that the organisation has systems and procedures that facilitate knowledge flow and this influences strategy implementation. This finding concurs with that of Gates (2024) who revealed that strong knowledge flow systems enhance access to information thereby improving staff productivity and performance. This ultimately improves strategy implementation in an organisation. The findings also agree to those of a study by Al-Hakim and Hassan (2013) who demonstrated that knowledge sharing fosters improved engagement and motivation among employees, both of which improves their performance hence affecting strategy

implementation. In addition, the research established that KEBS provides an environment that promotes teamwork and has consultative mechanisms, both of which support strategy implementation. This finding is in correspondence to that of Hislop et al. (2018) who indicated that knowledge flow or knowledge management practices in general nurtured a supportive job environment and fostered job satisfaction which promoted effectiveness of accomplishing tasks. This promotes achievement of set objectives and goals thus enhancing strategy implementation.

Hislop et al. (2018) also indicated that mentorship plays a crucial role in effective strategy implementation by providing a supportive environment for learning, skill development and knowledge sharing, ultimately improving employee performance and engagement. This is a finding that the current research found factual as 76.5% of the respondents indicated that mentorship enabled both existing and new staff to learn swiftly from experienced employees.
The quantitative findings established that knowledge collaborative flow positively influenced strategy implementation at KEBS, as evidenced by the high levels of agreement that the organisation had systems and procedures that promote knowledge flow (Mean = 4.15), provided employee training (Mean = 4.39), offered mentorship opportunities (Mean = 3.85), promoted teamwork (Mean = 4.10), and had consultative mechanisms for employees (Mean = 3.91). The overall mean score of 4.08 indicated that respondents generally agreed that knowledge collaborative flow contributes to strategy implementation.

4.4.4.7 Triangulation of Knowledge Collaborative flow and Strategy Implementation at KEBS

The findings support Social Capital Theory, which emphasizes the value of social relationships, networks, trust, and collaboration in facilitating knowledge exchange. The existence of

communities of practice, mentorship programmes, teamwork, and consultative mechanisms at KEBS demonstrates how social interactions facilitate knowledge sharing and enhance coordination during strategy implementation.

The qualitative findings supported these results by revealing the existence of various knowledge-sharing structures, including Communities of Practice, post-project reviews, centralized knowledge repositories, mentorship programmes, and formal communication channels that facilitated downward, upward, horizontal, and external knowledge flow. Key informants further indicated that these structures enhanced collaboration, consultation, learning, and exchange of expertise across departments and organisational levels.

The qualitative findings complemented the quantitative results by explaining how training, mentorship, teamwork, consultative mechanisms, and information-sharing systems enabled employees to access and share knowledge necessary for effective decision-making, coordination, and execution of strategic activities. The convergence of the quantitative and qualitative findings therefore suggests that effective knowledge collaborative flow enhances organisational learning, improves employee capability, strengthens coordination, and ultimately contributes to successful strategy implementation at KEBS.

The findings indicate that strategy implementation at KEBS does not depend solely on the availability of knowledge but also on how effectively that knowledge is shared across departments and organisational levels. The existence of Communities of Practice, mentorship programmes, teamwork structures, and consultative mechanisms enhances coordination and reduces information silos. From the perspective of Social Capital Theory, these findings demonstrate the importance of social networks and relationships in facilitating knowledge exchange necessary for effective implementation of organisational strategies.

4.5.1 Effect of Knowledge Utilization and Strategy implementation (SI)

4.5.1.1 Thematic Analysis of Knowledge Utilization

4.5.1.2 Automation of Tasks

This research revealed that KEBS utilized knowledge in the automation of various tasks. The participants of the study indicated that tasks that were repetitive were automated to ease work. One of the key informants coded (KI 04), explained that tasks such as trainings of employees was automated. The management used knowledge management tools that were able to do training assessment needs for employees and recommend trainings required frequently. The tools eased the process by cross-checking previous trainings undertaken ensuring accuracy and consistency. The study also indicated that many other tasks were automated including testing of products, customer reviews, granting of leaves, payment of employee's salaries among others.

According to Denner and Diaz (2011), knowledge is utilized in automation of tasks by offering the information, guidelines and decision-making logic that permit systems to accomplish work without frequent human involvement. The finding of Rudawska (2013), agree to the views of the current study which found out that knowledge was used in automating activities. Rudawska (2013) adds that computerized systems utilize stored information in form of procedures to accomplish tasks with minimal human participation.

The findings of Centobelli and Ndou (2019) also agreed with those of the current study by arguing that knowledge is utilized in process guidance whereby it defines the stages required to accomplish tasks. This ensures that there is consistency and accuracy every time to reduce human related error. It is also important to indicate that knowledge is utilized by sophisticated automation systems to detect and resolve problems (Denner & Diaz, 2011). For example, an automated scam detection system relies on stored knowledge and historical data to analyse incoming transactions and identify suspicious activities in a bank. This demonstrates that

knowledge serves as a key input for automation, enabling technology-driven systems to support decision-making and organisational efficiency. Therefore, this study concludes that knowledge is the basis upon which automation is instituted.

4.5.1.3 Application of Knowledge in Decision Making

Knowledge utilization is a fundamental constituent of many essential processes that facilitate strategy implementation including decision making. From the key informants it was established that various kinds of knowledge are utilized at different phases of strategy implementation. One of the key informants (coded KI 14) commented that, "different forms of knowledge such as communication know how, knowledge on mobilizing teams, motivating people to adhere to set protocols among others are used by the management during execution of strategies."

One of the key informants (coded KI 05) indicated that, "employees use information and the knowledge they possess in decision making during the different phases of strategy implementation." The informant indicated that knowledge is an ingredient of execution of strategies and evaluation of the success of the strategies based on objectives set. Further, knowledge utilization was cited as being important in problem solving where an informant (coded KI 12) indicated that solving challenges that may arise during implementation of strategic plans require critical thinking where staff must employ knowledge.

Figure 4.20 shows various activities which key informants indicated utilize knowledge during strategy implementation.

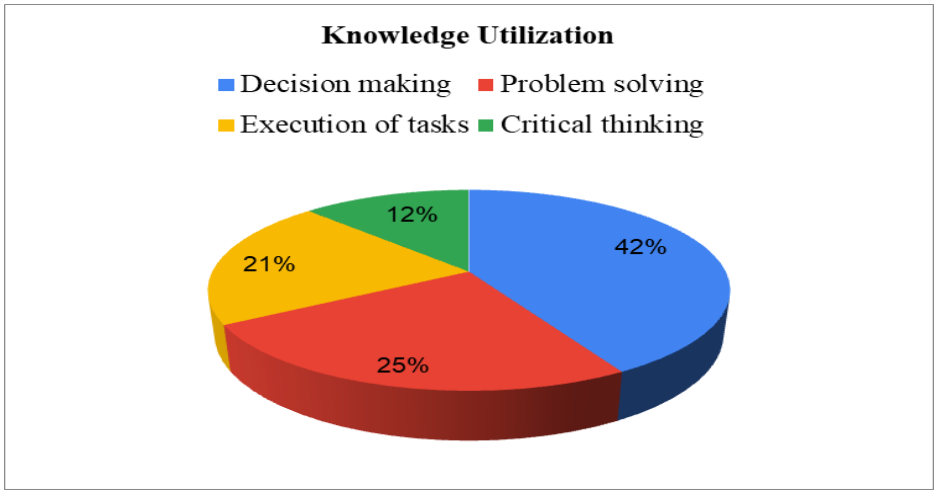

Figure 4.20: Activities of Strategy Implementation which Utilize Knowledge

From the informants' responses, KEBS can be regarded as a knowledge intensive organisation because it is a heavy consumer of knowledge in its operations and service delivery. This finding is in concurrence with that of Diehr and Gueldenberg (2017), who elaborated that a knowledge intensive firm is one which majorly relies on human and organisational resources including experts (highly skilled and educated personnel) and application of expertise to deliver services to its clients. The role of KEBS in ensuring compliance with standards and to assure quality is one that requires integration of well-organized knowledge and utilization of knowledge to achieve it.

Further, the key informants revealed that KEBS is involved in the process of client relationship management (CRM) which significantly utilizes knowledge. This is further confirmed by the organisation's strategic plan (2023-2027) which indicates that one of its core values is customer focus, a value that requires use knowledge use to achieve. According to Abecassis, et al. (2021), organisational processes such as product developments and CRM are greatly knowledge demanding requiring intensive exploitation of knowledge.

4.5.1.4 Analysis of Quantitative Data on Knowledge Utilization

Respondent's Perceptions on Knowledge Utilization and Strategy Implementation

The researcher sought to know the perception of participants on whether knowledge utilization influences strategy implementation and found out that more than 80% of them perceived knowledge utilization as having an influence on implementation. However, 10.10% of participants were not sure while 3.36% disagreed that knowledge utilization had an effect on strategy implementation as Figure 4.21 shows.

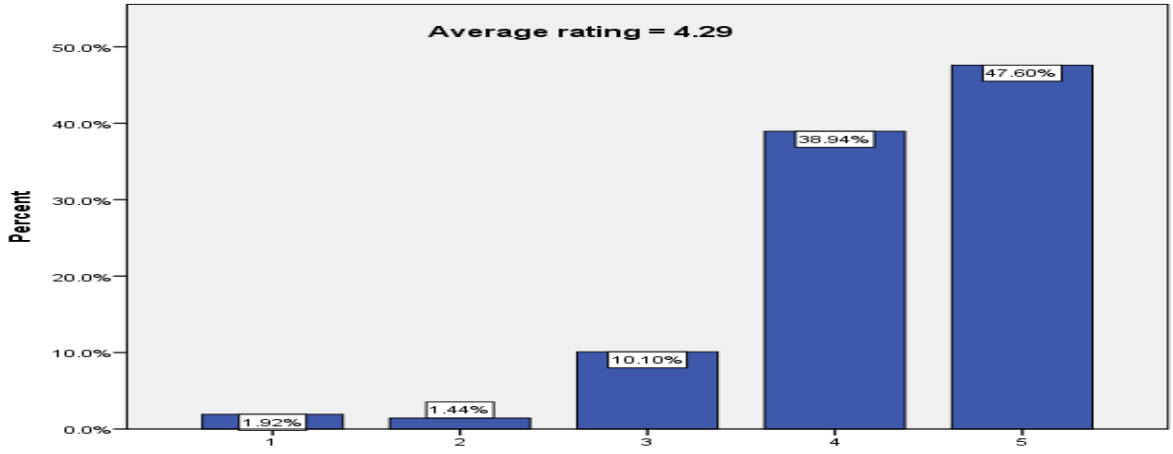

Figure 4.21: Respondent's Perceptions on Influence of Knowledge Utilization on SI

According to Bista (2019), knowledge is not only a fundamental source of organisational strategy but also a facilitator of strategy implementation in an organisation. Gates (2024) agreed to this view by revealing that knowledge management plays a key role in strategy formulation which is the first step in strategy implementation. Further, this view is supported by Kohlbacher (2008), who argued that it is the knowledge and experiences of staff both from the past and current circumstances that transform into organisational strategies.

The perception of the employees that knowledge utilization has an influence on strategy implementation agreed with that of Gelena and Mylana (2013) who noted that knowledge utilization has a significant influence on implementation of plans. According to Gelena and

Mylana (2013), knowledge is utilized in making decisions that drive both strategic and operational activities during execution of strategies. Managers use relevant knowledge to align strategic objectives of an organization with daily activities aimed at executing the strategies. The findings of this study also agreed to those of Centobelli and Ndou (2019) who indicated that application of expertise and knowledge are the ingredients required in achieving strategic objectives. Further, knowledge is applied in solving challenges that emerge during the process of strategy implementation because effective use of knowledge detects problems and finds solutions to those problems enabling organizations to quickly adapt and improve their situations. According to Dalkir (2017), lessons learned from previous projects constitute an important source of organisational knowledge that helps employees avoid repeating mistakes and improve future performance. This enhances the effectiveness and success of strategy implementation.

4.5.1.5 Knowledge Utilization Affects Delivery of Quality Services in the Organisation.

The results showed that 44.44% of the respondents strongly agreed that knowledge utilization affects quality service delivery in an organisation while 42.03% agreed. However, 3.38 % strongly disagreed while 1.93% disagreed and 8.21% were not sure as Figure 4.22 shows.

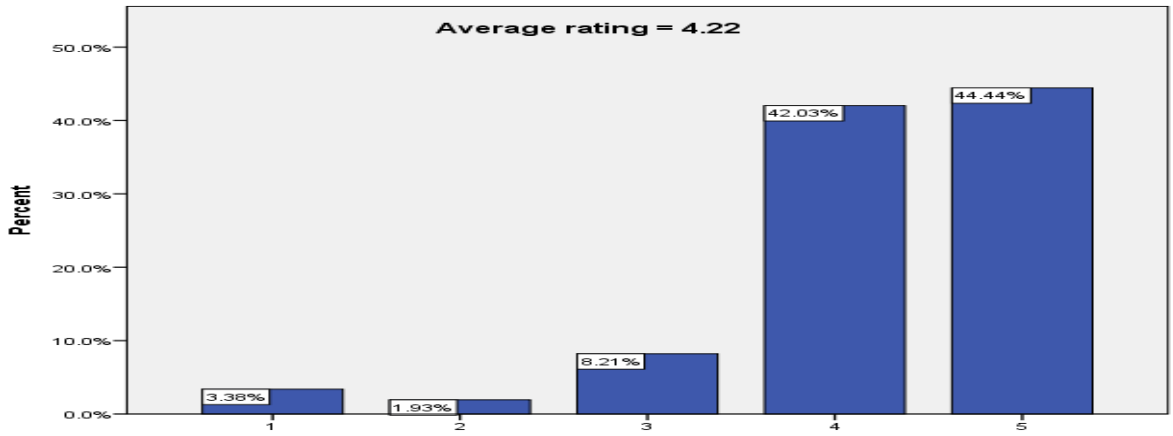

Figure 4.22: Perceptions on Effect of Knowledge Utilization on Quality Service Delivery

This finding agrees with Hislop et al. (2018) who found out that knowledge utilization expedites faster and effective delivery of service to customers which enhances quality. Majority of the respondents in this study agreed that knowledge utilization affects quality service delivery a finding that agree to views by Pee and Kankanhalli (2016) who argued that staff and leaders of public organizations apply information to make informed decisions based on accuracy previous experiences and best practices which eliminate faults and improves quality of services offered.

Further, this research results agree to those of Kassa and Ning (2023) who revealed that knowledge utilization enables employees undertake their roles faster and efficiently thereby providing timely services. Kassa and Ning (2023) also added that application of information facilitates institutions to implement proven approaches and standards that ensure consistent delivery of services and improved consumer satisfaction. Efficient, quick and consistent services are elements of quality service delivery.

In addition, the results of this study resonated

with those of Denner and Diaz (2011) who argued that use of available information leads to identification of opportunities for upgrading and developing innovative and different service solutions. This way, knowledge utilization enhances service delivery. It is also notable that application of existing knowledge enables staffs to draw upon existing expertise and past encounters to better address problems which make resolution of client concerns and operational challenges faster (Denner & Diaz, 2011). Improved problem solving ensures that client needs are dealt with on time, which increases consumer satisfaction, which is an element of quality service delivery.

The current research findings are also supported by those of Pee and Kankanhalli (2016) who denoted that continuous access and utilization of knowledge enhances staff competence including their skills and confidence during their work. Competent employees are empowered

to provide high-quality services. Therefore, knowledge utilization is a significant element in ensuring quality service delivery since it enables conversion of expertise into activities which drive delivery of services.

4.5.1.6 Knowledge Utilization Influences Achievement of Goals Set in the Organisation.

The results of this study revealed that knowledge utilization affects accomplishment of goals in an organisation with most (52.66%) of the respondents strongly agreed with the statement while 36.71% agreed and the overall average rating was 4.36 indicating agreement. However, 6.76 % of the respondents were neutral and 3.87% disagreed. This is further illustrated in Figure 4.23.

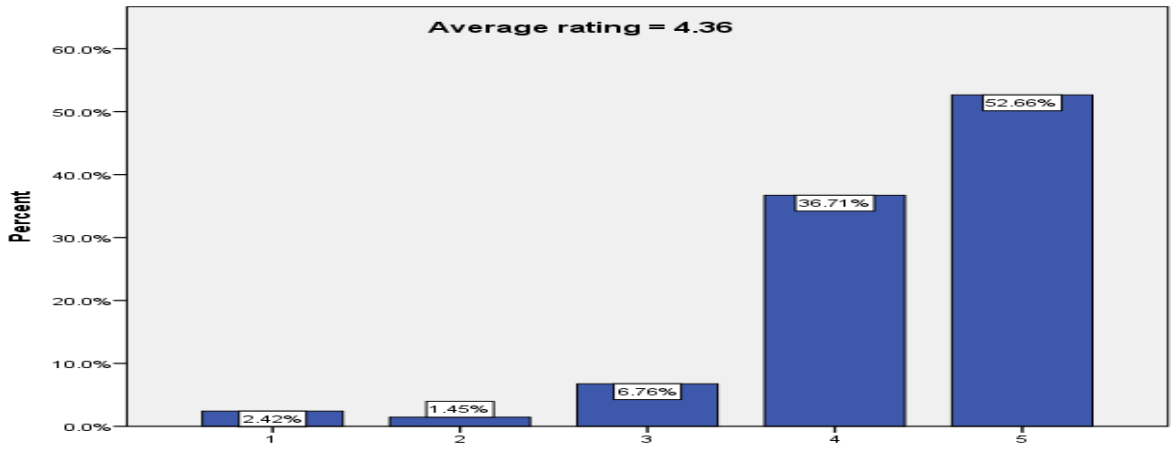

Figure 4.23: Viewpoints on Effect of Knowledge Utilization on Achievement of Goals

The findings of this study are supported by Calipha et al. (2018) who indicated that it is paramount for employees to use /employ their knowledge and experience in the process of changing goals/objectives into action. Calipha et al. (2018) added that successful strategies demand that staff utilize knowledge of the current situation and the future in order to gain a competitive edge. Further, according to one of the interviewees, knowledgeable employees are required to implement strategies because they need to know the goals and objectives of their organisation.

The results of this study are also in agreement with those of Mullei and Misuko (2019), who found that knowledge utilization has a positive and significant influence on organizational performance. Organizational performance is a measure of achievement of goals. Further, the findings of the study concur with those of Zahidul et al (2007) who revealed that knowledge use has a positive relationship with organizational effectiveness which according to this study determines achievement of goals and ultimately strategy implementation.

The findings also resonate with those of Randeree (2006) who noted that application of relevant knowledge in undertaking roles ensures there is efficiency and productivity which lessens cost and saves time and hastens progress towards achievement of set objectives. Randeree (2006) also indicated that knowledge exploitation enables employees to critically assess situations and develop innovative solutions which accelerate achievement of goals.

4.5.1.7 Knowledge Utilization Impacts Decision Making on the Organisation.

The findings of this study revealed that knowledge use and application have an influence on decision making in an organisation. Majority of the respondents, as represented by 83.66%, agreed that knowledge utilization has an impact on the process of decision making with only 3.84% of them disagreeing with this view and 12.50% were not sure. This is further illustrated in Figure 4.24.

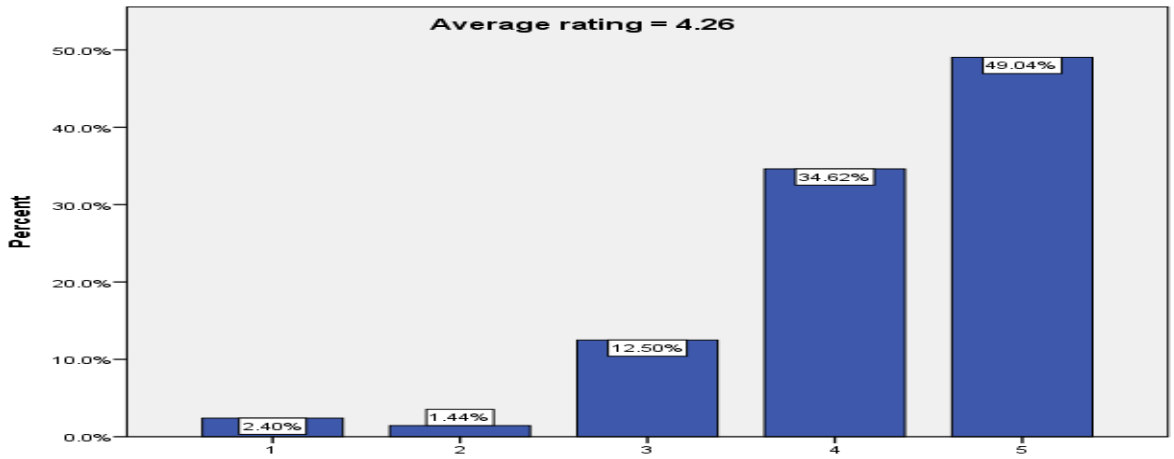

Figure 4.24: Knowledge Utilization Impacts Decision Making in the Organisation

According to Bista (2019), good knowledge management practices promote effective knowledge flow and utilization which result in better decision making among employees, both of which are critical in strategy implementation. By streamlining the process of finding information, a searchable knowledge management system assists staff to work more efficiently, allowing them more time for critical thinking in decision-making, such as analysis and evaluation, which enhances the quality and strategic value of their choices (Stepien, 2024).

4.5.1.8 Knowledge Utilization Aids in Process Design/ Redesign in the Organisation.

The research sought to find the perception of respondents on utilization of knowledge in process design/redesign. The results revealed that 83.65% agreed that knowledge utilization facilitated process design/ redesign as Figure 4.25 depicts. This was in concurrence with Becerra-Fernandez et al. (2008) who indicated that knowledge use is dependent on an individual's perspective and the analysis of specific action and that employees may use knowledge in process design and redesign in their routine work.

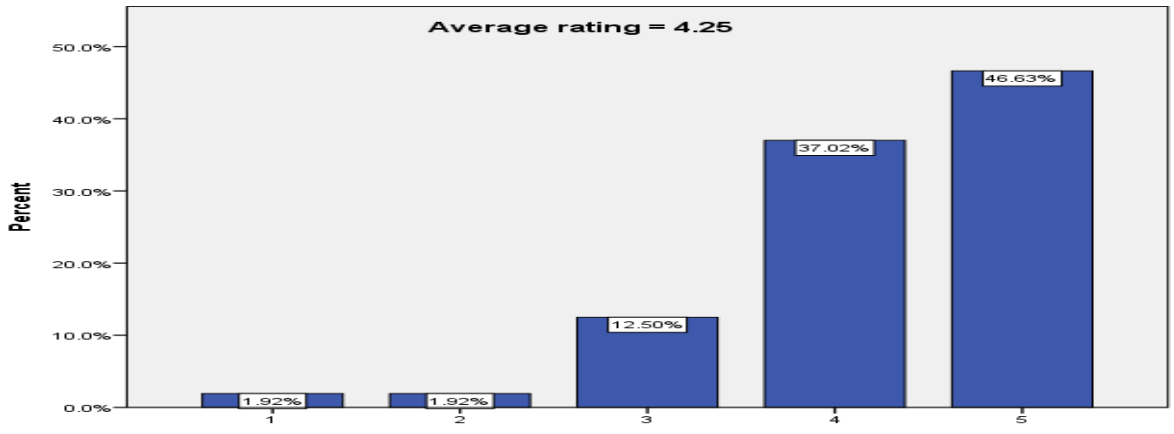

Figure 4.25: Perceptions on Effect of Knowledge Utilization Aids on Process De/Redesign

The respondents in this study indicated that knowledge utilization influence process design and redesign a finding that agreed to that of Stepien (2024) who revealed that knowledge utilization

is a driver of creativity and innovation. Stepien (2024) elaborated that innovativeness is a key component of process and product design and even redesign and ultimately change which are crucial in strategy implementation.

The results of the study also agreed with those of Jehan et al. (2020) who revealed that knowledge application which mostly depends on the experience of an employee plays a crucial role in the implementation of strategies. With regard to the current study, staff who have extensive backgrounds in the design of products are likely to produce quality products which is a measure of success in implementation of strategies targeting improvement in quality (Ahmad, 2015). The depth of experience and knowledge utilization can influence how well employees understand and adopt strategies, making it a vital factor in the successful implementation.

The average means and standard deviations of knowledge utilization and each indicator of strategy implementation were obtained and presented in Table 4.4.

Table 4.4: Mean and Standard for Knowledge Utilization

Statement	Mean	Standard Deviation
Knowledge utilization influences strategy implementation	4.29	0.853
Knowledge utilization affects delivery of quality services in the organisation.	4.22	0.929
Knowledge utilization influences achievement of goals set in the organisation.	4.36	0.863
Knowledge utilization impacts decision making in the organisation	4.26	0.907
Knowledge utilization aids in process design/ redesign in the organisation	4.25	0.886
Average	**4.28**	**0.888**

Table 4.4 shows that all the sub-constructs had mean scores slightly greater than 4. The statement that knowledge utilization affects achievement of goals in the organisation had the highest mean value (of 4.30) out of the possible 5. This depicts that the respondents strongly agreed that utilization of information is a fundamental element in attainment of goals during strategy implementation. The average mean for all sub-constructs was 4.28 indicating agreement while the standard deviation was 0.888 implying that the data was mostly concentrated around the mean.

4.5.1.9 Triangulation of Quantitative and Qualitative Findings on Knowledge Utilization

The quantitative findings revealed that respondents strongly agreed that knowledge utilization influenced strategy implementation at KEBS (Mean = 4.29, SD = 0.853). Respondents further

agreed that knowledge utilization enhanced achievement of organisational goals (Mean = 4.36), decision-making (Mean = 4.26), process design and redesign (Mean = 4.25), and delivery of quality services (Mean = 4.22). The overall mean score of 4.28 indicated a strong perception that knowledge utilization contributed to effective strategy implementation.

The qualitative findings supported these results by demonstrating how knowledge was applied in key organisational processes. Key informants indicated that knowledge was utilized in automation of tasks, decision-making, customer relationship management, problem-solving, process improvement, and strategy execution. They further noted that employees relied on their expertise, experience, technical knowledge, and organizational information to execute strategic activities, resolve operational challenges, and improve service delivery.

The qualitative findings complemented the quantitative results by explaining the practical ways through which knowledge utilization enhanced strategy implementation. For instance, automation improved efficiency and consistency of operations, while knowledge-based decision-making enabled managers and employees to align activities with organisational goals. Similarly, the application of knowledge in process redesign, problem-solving, and customer service contributed to improved quality of services and achievement of strategic objectives. The convergence of the quantitative and qualitative findings therefore suggests that effective utilization of organisational knowledge is critical in enhancing operational efficiency, improving decision-making, facilitating innovation, and supporting successful strategy implementation at KEBS.

The findings indicate that the value of knowledge lies not merely in its creation or storage but in its application. The high mean scores on decision-making, goal achievement, and process redesign suggested that KEBS converts available knowledge into actionable outcomes that

support strategy implementation. Practically, this implies that organisations should focus on creating mechanisms that encourage employees to apply available knowledge in solving operational challenges and improving organisational processes.

4.6.1 Knowledge Repository Influences Strategy Implementation.

4.6.1.1 Thematic Analysis of Qualitative Data on Knowledge Repository

Knowledge/Data Storage Tools

According to the key informants, departments in KEBS use various systems to generate and store data thereby acting as data banks. Key interviews revealed that the Testing and Metrology department use Laboratory Information Management System (LIMS) to analyze, generate, store and disseminate information to clients as mentioned by key informants (coded KI 02, KI 07, KI 13 and KI 15). Some key informants revealed that Quality Assurance (QA) department uses a system known as KEBS Information Management System (KIMS) to gather data from industries, input it, store and use it to issue permits for product certification. This system is also used by standards levy department to monitor payment of standards levy from manufacturers. According to key informants (coded KI 03, KI 05, KI 14 and KI 17), market surveillance directorate utilizes KIMS to do work plans, initiate market surveillance activities and write their reports. The informants (such as KI 12, KI 18) also indicated that the Human Resource Department has a system called Norming which is used to request, approve trainings, apply for leave and approve for the same. In addition, finance and supply chain departments use software known as Sage ACCPAC. These departments utilize this software for financial transactions to manage account payables and receivables and inventory respectively.

The key informants also revealed that KEBS utilizes Entropy software which is a repository for policies, procedures, and corporate guidance documents. The Entropy software thus

organizes and stores this data. Marketing and Customer Care department also utilize Entropy to monitor customer complaints, which remain active until resolution is finalized by the relevant party. Planning and Strategy department use Entropy system to manage internal audits for Quality management system of which KEBS is certified to and is implementing. This includes ISO 9001:2015, ISO 37001:2016, ISO 22301:2019 and ISO 27001:2022. Legal Directorate utilizes Legal Information Management System (LEMIS) to manage and organise legal information related to legal documents, regulations and contracts. All departments utilize M365 applications like MS-Teams for virtual meetings, SharePoint to generate and store information, Power App to manage training evaluations as well as One Drive as a knowledge repository.

4.6.1.2 Analysis of Quantitative Data on Knowledge Repository

Knowledge Repository Influences Strategy Implementation

The respondents were asked to provide their opinion by agreeing or disagreeing with the statement that knowledge repository influences strategy implementation. A total of 75.61 % agreed with the statement (37.07%, agreed, 38.54% strongly agreed) with only 5.36% of the respondents dissenting. However, it is notable that 19.02 % of the participants were neutral and this is further illustrated in Figure 4.26.

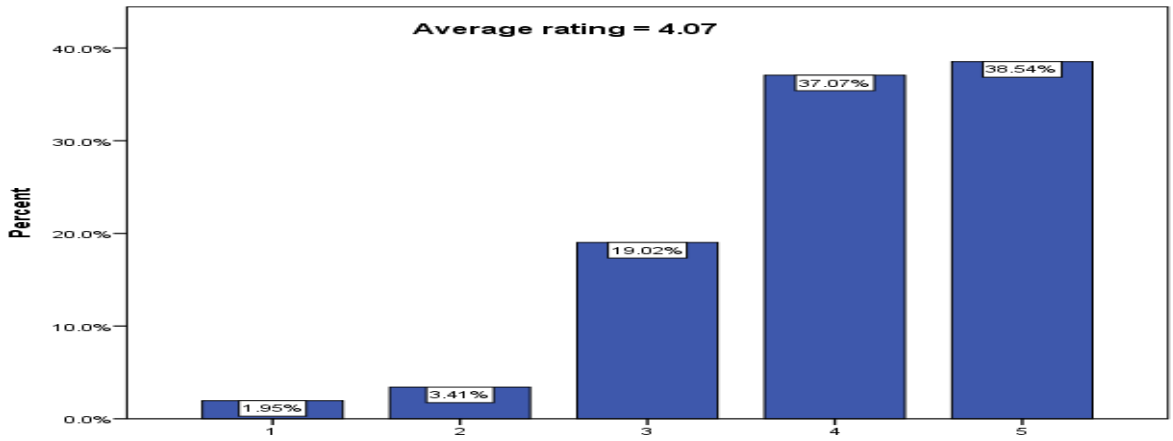

Figure 4.26: Respondents' Perception on Knowledge Repository Influences Strategy Implementation

The findings of this study are consistent with those of Mustapha and Seman (2023) who elaborated that repositories act as references both in the current and future times. Stepien (2023) indicated that managers and junior employees get knowledge from the institutional repositories during decision making processes. Knowledge repositories also promote continuous learning and development among employees which equip them with knowledge and skills required for strategy implementation (Stepien, 2023).

The opinions of the respondents also resonated with those of Ansari et al. (2012), who noted that information depositories allow access to important information which ensures that employees have a common understanding of the strategies to be implemented. According to Ansari et al. (2012), repositories promoted both communication and good decision making as it enabled workers and managers to use stored information and reports to make decisions that aligned to strategic goals. The findings also support those of Canary (2011) who denoted that repositories also provided a source of reference for junior and inexperienced employees when in doubt of what actions to take. This ensured that they embarked on their roles efficiently without error which accelerated execution of plans.

However, the finding is contrary to that of Cheney (2011) who argued repositories may sometime provide outdated knowledge which can mislead employees while making decisions. Poor decision making is likely to influence strategy implementation in a negative manner. The repository may also be overloaded with data causing confusion among staff instead of guiding them. It is the preposition of the study that a properly structured and up to date repository supports implementation of strategy by promoting informed decision making, good

communication, and efficiency. On the other hand, a poorly designed and outdated repository hinders execution of strategies by providing inaccurate information and causing confusion.

4.6.1.3 The Organisation Utilizes Soft Data Banks as Knowledge Repositories which influence Delivery of Quality Services in the Organisation.

According to this study, KEBS uses soft data banks as knowledge repositories as 60.71% of the respondents who were the majority indicated. 18.54% of the respondents were not sure while 10.73% disagreed that this was the case as shown in Figure 4.27.

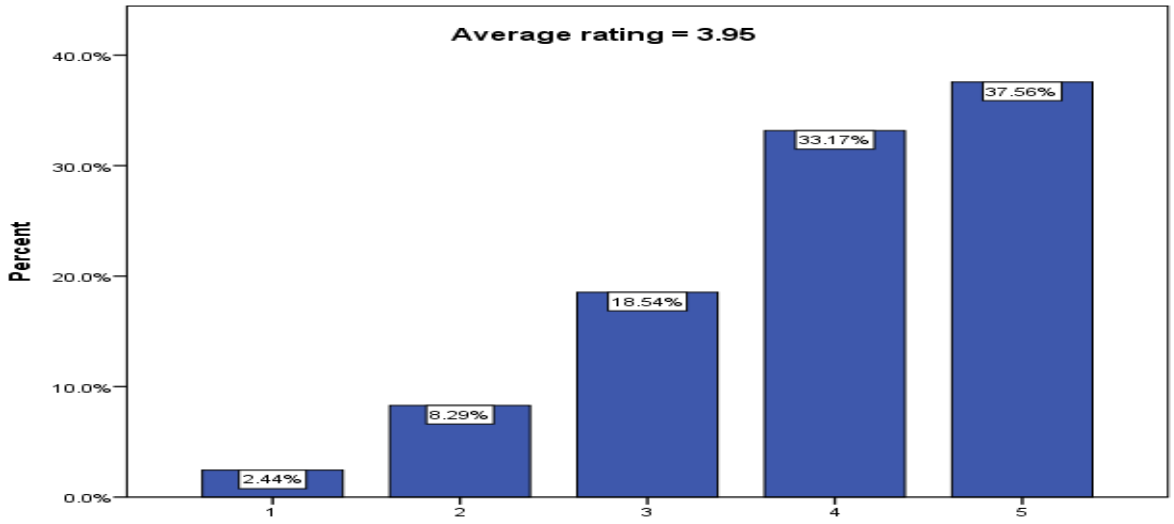

Figure 4.27: Viewpoints on Soft Data Banks' Knowledge Repositories Affect Quality Service Delivery

According to Moel (2024), soft banks refer to data storehouses that keep qualitative, expressive or non-numeric facts. Soft banks store information that cannot be quantified or measured including people's views and attitudes in a survey, consumer feedback and criticisms, professional judgements, observation notes, articles on specific topics among others.

The finding of this study shows that soft data banks influence service delivery agreed to that of Stephens (2025) who indicated that soft data repositories store information about behaviour,

preferences and styles which enable organizations to understand what customers need or want. Soft data banks enable organizations to have a clear understanding of behaviour, interests and styles which cannot be collected through statistics alone. Stephens (2025) explained that customers' behaviour and preference inform an organization on the kind of services to offer and how to provide them so as to customize services to suit their interests.

4.6.1.4 The Organisation Utilizes Hard Copies as Knowledge Repositories Which Influence Delivery of Quality Services in the Organisation.

The researcher also evaluated whether the employees of KEBs utilized hard copies as knowledge repositories and if this affected service delivery. The study revealed that majority of the respondents (as represented by 60.38%) were in agreement that hard copies were utilized as knowledge repositories in the organisation while 23.19% were neutral and a minority of 16.42% disagreed that hard copies were used as repositories of information. This is further depicted in Figure 4.28.

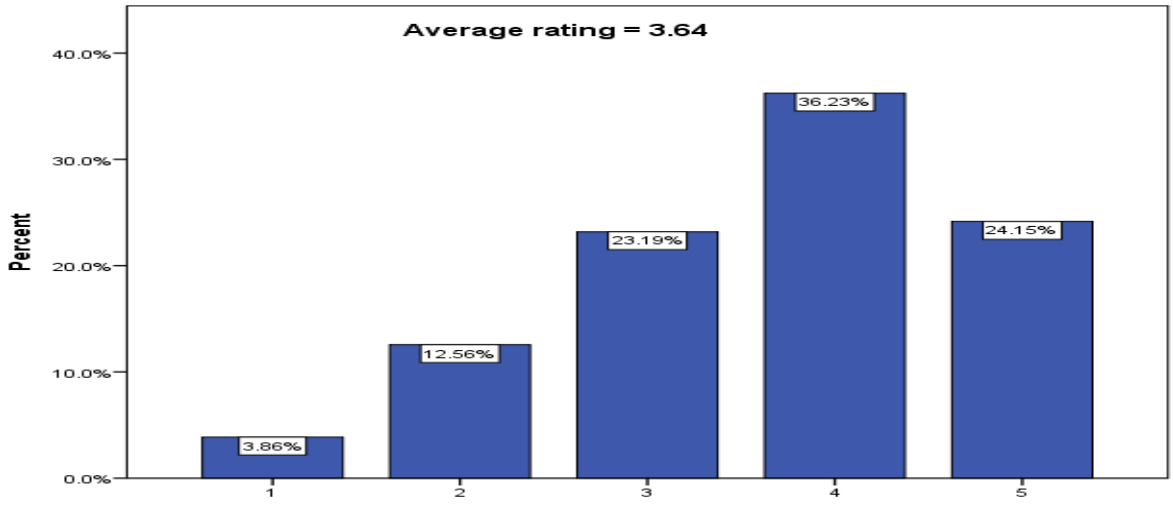

Figure 4.28: The Organisation Utilizes Hard Copies Which Influence Delivery of Quality Services.

The finding that hard copies were used by employees as knowledge repositories was reiterated by the key informants who indicated that reports, publications, brochures, posters and books were stored by the organisation for future reference. Informants also stated that KEBS has a library that stores information in hard copies.

4.6.1.5 Knowledge Repositories Affect Staff Performance in the Organisation.

The results showed that majority (69.41%) of respondents perceived knowledge repositories as influencers of employee performance as Figure 4.29 shows. Further, 19.42% of the respondents were neutral and minority (11.16%) disagreed that knowledge repositories affect staff performance.

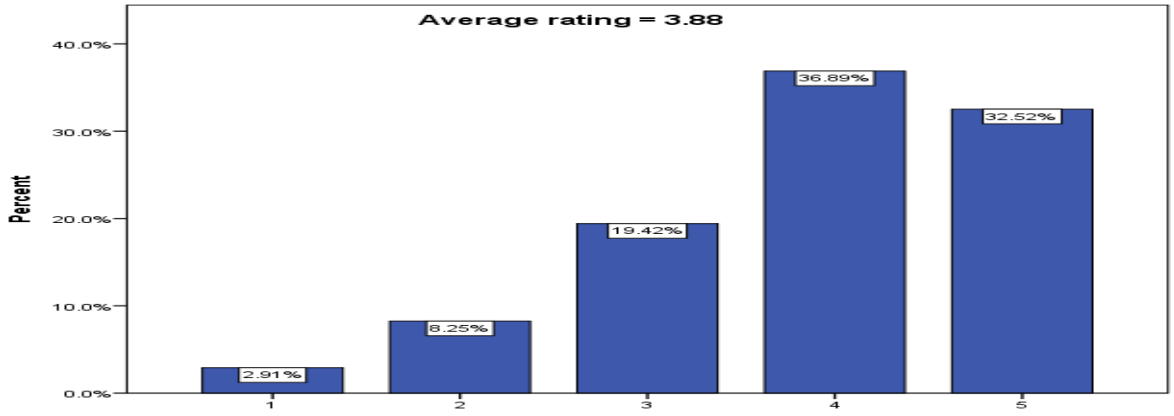

Figure 4.29: Knowledge Repositories Affect Staff Performance in the Organisation.

The findings of this study corresponded to that of Bista (2020) who indicated that knowledge repositories facilitate learning through knowledge sharing which enables staff to execute their tasks. Further, repositories assisted new employees to access important knowledge which guided them in undertaking their roles and this ultimately influenced their performance (Bista, 2020).

4.6.1.6 Knowledge Repositories Influence Efficiency of Operations in the Organisation.

The results of the study also revealed that majority (73.43%) of the respondents agreed that knowledge repositories influence efficiency of operations in the organisation while 6.28% disagreed and a minority represented by 0.97% strongly disagreed. Further, 19.32% of the study participants were neutral as Figure 4.30 depicts.

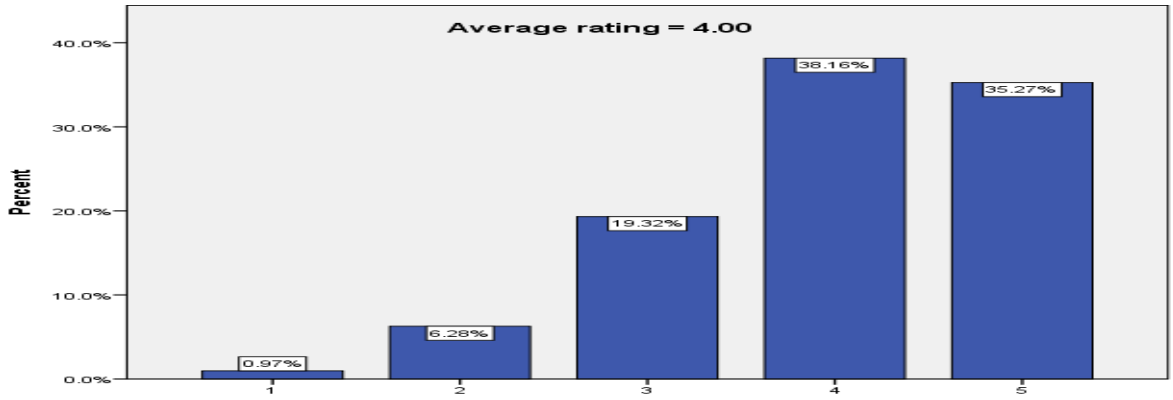

Figure 4.30: Knowledge Repositories Influence Efficiency of Operations

The study results resonated with those of Purwadi and Sardjono, (2024) who indicated that knowledge repositories acted as a fountain and reference of knowledge and information for both old and new staff in an organisation. The accessible repositories provided timely information, hence improving efficiency during strategic execution and other operations/processes. These findings are further supported by Weru et al. (2020) who established that management support and structured strategy integration mechanisms enhance strategy execution within Kenyan public institutions.

4.6.1.7 Knowledge Repositories are Accessible to all Staff and Aid in Work Performance

This research explored whether knowledge repositories in KEBS were accessible to all the employees and if they assisted them in performing their work. The results indicated that a majority of 66.35% agreed that knowledge repositories were accessible to all and they enabled

them to perform their duties. However, 20.49% of the respondents were not sure while 13.8% disagreed that knowledge repositories were accessible to all employees and they aided their work. This is further illustrated in Figure 4.31.

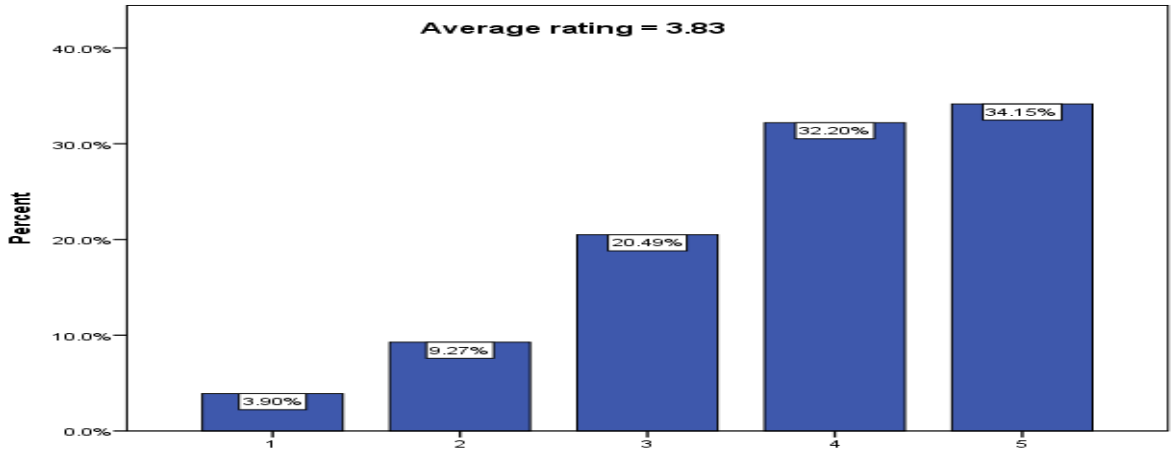

Figure 4.31: Knowledge Repositories are Accessible to All staff and Aid in Work Performance

The results of this study are in harmony with the findings of research by Purwadi and Sardjono, (2024) who indicated that availability of knowledge management technology acts as a resource for employees to satisfactorily perform their chores thereby enhancing work performance. The researcher argues that enhanced work satisfaction acts as a significant predictor of and driver of strategy implementation. Gates (2024) also found out that collaborative technologies and practices have a positive impact on employees' commitment which improves work performance besides being fundamental in strategy implementation.

4.6.1.8 Triangulation of Quantitative and Qualitative Findings on Knowledge Repositories

The quantitative findings indicated that respondents generally agreed that knowledge repositories influenced strategy implementation at KEBS. The respondents further agreed that

knowledge repositories enhanced service delivery, improved staff performance, increased operational efficiency, and were accessible to employees for use in their work. These findings were reflected by the high levels of agreement across the repository indicators, suggesting that employees perceived knowledge repositories as important enablers of strategy implementation.

The qualitative findings supported these results by revealing that KEBS maintained various knowledge repositories and data storage systems, including Laboratory Information Management System (LIMS), KEBS Information Management System (KIMS), Norming, Sage ACCPAC, Entropy, Legal Information Management System (LEMIS), SharePoint, OneDrive, and Microsoft Teams. These systems were used to generate, store, organize, retrieve, and disseminate organisational knowledge across departments.

The qualitative findings complemented the quantitative results by explaining how the repositories facilitated access to information, supported decision-making, preserved institutional knowledge, enhanced communication, and improved operational processes. In addition, key informants indicated that both digital and hard-copy repositories were utilized as reference points for employees, enabling consistent service delivery and improved job performance. The convergence of the quantitative and qualitative findings therefore suggests that accessible, well-organized, and up-to-date knowledge repositories play a significant role in enhancing operational efficiency, employee performance, service quality, and ultimately successful strategy implementation at KEBS.

The findings indicate that knowledge repositories enhance strategy implementation by ensuring that organisational knowledge remains accessible and reusable. The availability of systems such as LIMS, KIMS, Entropy, and SharePoint reduces the risk of knowledge loss and supports

informed decision-making. These findings demonstrate that institutional memory is an important component of successful strategy implementation because employees can access historical information, lessons learned, and organisational procedures when executing strategic activities.

4.7.1 Knowledge Management Technology Influences Strategy Implementation

4.7.1.1 Thematic Analysis on Knowledge Management Technology in KEBS

The key informants in the study explained that the organization's management outsourced and installed various KM information tools and technologies for use by staff. The informants (including code KI 01, KI 03, KI 05, KI 08 among others) revealed that KEBS Information Management System (KIMS), Entropy, MS-Office, Microsoft 365 (Microsoft-Teams, SharePoint) were some of the KM tools that the organisation had installed in the staff laptops/ desktops to promote their use.

Key informants indicated that all departments utilize M365 applications like MS-Teams for virtual meetings, SharePoint to generate and store information as well as One drive as an organisational knowledge repository. Another informant (coded KI 09) pointed out that Power apps and SharePoint were some of the knowledge management tools utilized to manage training data while Power Bi was used to schedule tasks by the employees. It was also established that MS-Outlook was used to manage emails while Microsoft 365 Copilot was exploited to create Power Point presentations, data analysis, improve write-ups and assist in searches for information in the database and the internet.

4.7.1.2 Analysis of Quantitative Data on Knowledge Management Tools and Strategy Implementation

The study sought to know the opinion of respondents concerning the influence of KM technology on strategy implementation. 81.95% of them were in agreement that KM technology influences strategy implementation while 5.86% of respondents disagreed that technology has an influence on strategy implementation. This is further illustrated in Figure 4.32.

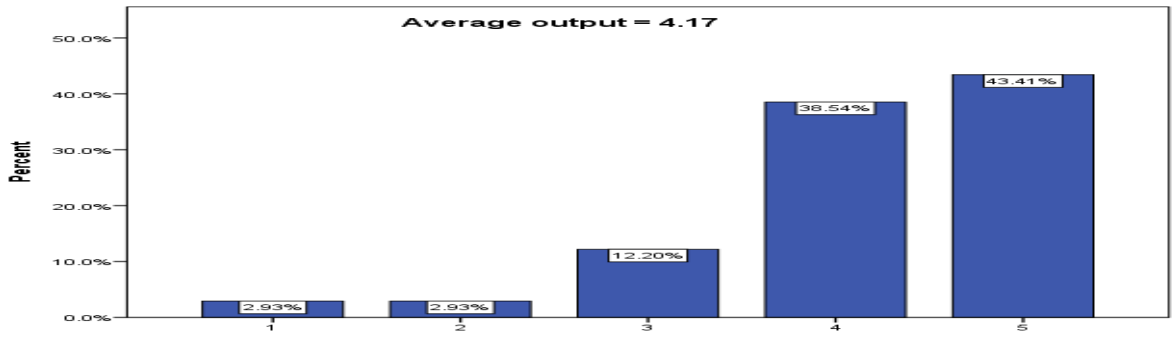

Figure 4.32: Knowledge Management Technology Influences Strategy Implementation

4.7.1.3 Knowledge Management Technology is Utilized by the Employees of this Organisation

The researcher asked the respondents to indicate whether knowledge management technology was utilized by the staff and majority (72.33%) of them agreed that they used KM technology. However, 18.93% of the respondents were neutral and 8.54% disagreed that they utilized KM technology as depicted in Figure 4.33.

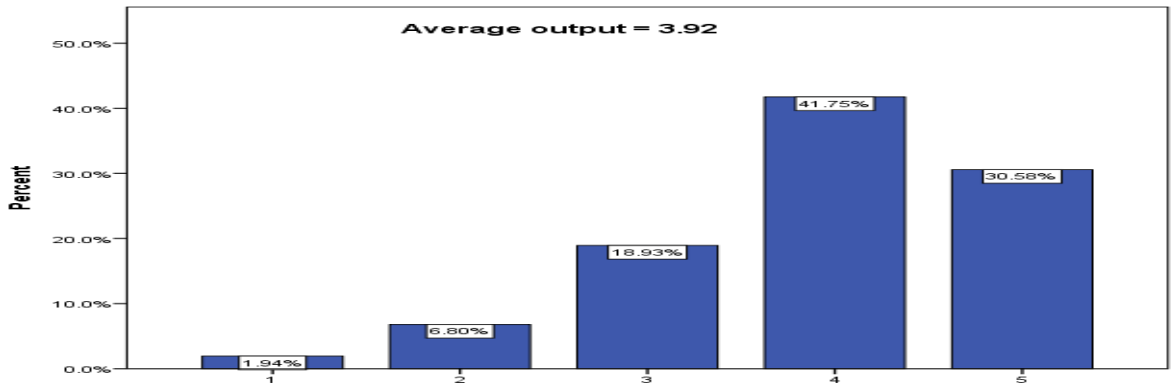

Figure 4.33: KM Technology is Utilized by the Employees of this Organisation

This fact was supported by the key informants who revealed that KEBS utilize KM tools such as Microsoft 365 (MS-Teams, SharePoint), KIMS, Sage Accpac and Entropy. According to the interviewees, a tool such as Entropy is used in resolution of customer complaints which are logged in by complaint handlers and only closed after evidence of resolution is provided by departments concerned. This enables the organisation to speedily address complaints, come up with solutions aligned to the anticipations and needs of customers and hence enhance customer service.

4.7.1.4 Knowledge Management Technology Influences Delivery of Quality Services in the Organisation

The researcher sought to know whether KM technology influences delivery of quality services where 42.51% strongly agreed that they do while 39.61% agreed. However, 12.56% of the respondents were not sure while a total of 5.31% respondents disagreed that KM technology affects strategy implementation. This is depicted in Figure 4.34.

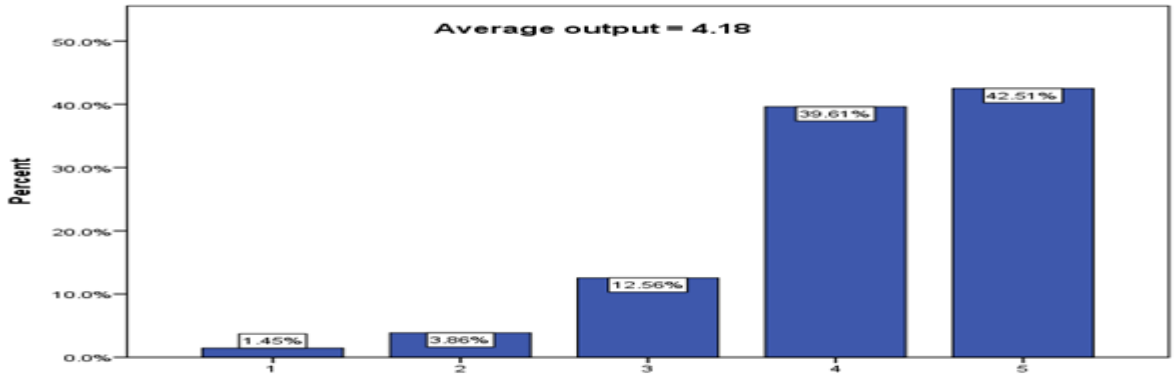

Figure 4.34: KM Technology Influences Delivery of Quality Services in the Organisation

This study also found that KM tools influence delivery of quality services in the KEBS a finding that agrees to that of Nasrallah et al. (2022) who revealed that knowledge management KM technologies expedited sharing of innovative concepts, practices and policies which

allowed organisations to adapt swiftly to customer needs and changing market conditions. This allowed an organisation to constantly improve services; products and processes hence deliver quality.

The results of the current study also concur with those of Xiao, et al. (2021) who indicated that KM technologies automate bureaucratic processes which are typical in public service organisations thereby improving their response time. This automation is a significant catalyst of transforming the manner in which government institutions relate with citizens, making services more accessible and efficient. The results of this study also agree with those of Vigfusson et al. (2021) who revealed that knowledge management technologies facilitate quick problem solving which enhances consumer satisfaction. According to Vigfusson et al. (2021), knowledge management tools also promoted efficiency of tasks and allowed for customer feedback /reviews which eventually influenced delivery of quality services in an organization.

4.7.1.5 Knowledge Management Technology Affects Achievement of Goals Set in the Organisation

The findings indicated that 81.77% of participants agreed that KM technology affects accomplishment of goals set in an institution while 6.25% of respondents disagreed that KM technology influence goal achievement. The average rating of the respondents was (Mean equals 4.11, which implied agree as shown in Figure 4.35.

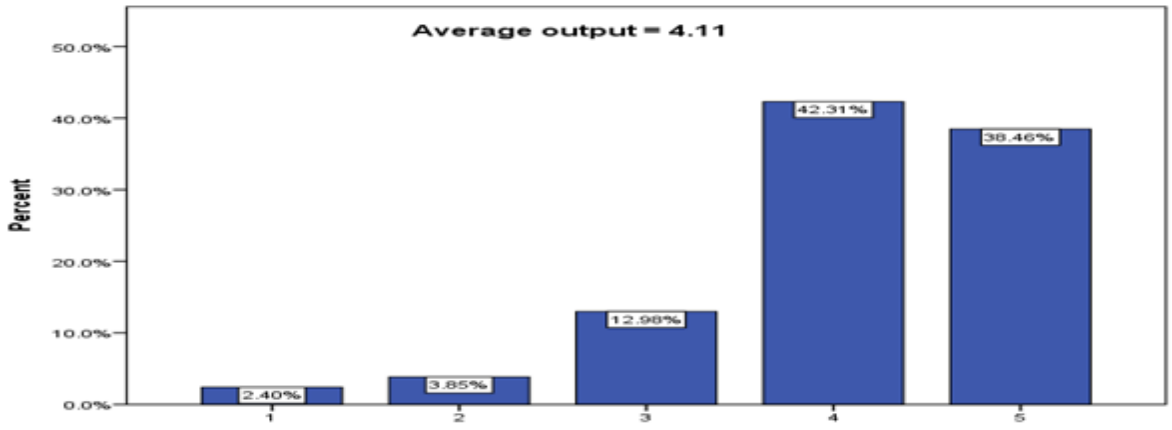

Figure 4.35: Knowledge Management Technology Affects Achievement of Goals

The finding of this study that KM technology affects accomplishment of goals is in concurrence with that of Lau (2022) who indicated that KM technology supports information sharing and collaboration among employees which enables them to undertake their tasks. This ensures that activities are expeditiously done and hence objectives met which ultimately facilitates achievement of goals.

The results of the study also agree with those of Tawse et al. (2019) who revealed that knowledge management technology facilitates faster access to precise information which leads to quick and more efficient decisions thereby enhancing achievement of set strategies.

Knowledge management tools and portals also promote dissemination of information where staff get/access expertise to execute strategic objectives. The findings of this study also agreed with those of Tawse and Tabesh (2020) who indicated that KM technology also promotes teamwork which ultimately facilitates achievement of goals thereby enhancing strategy implementation.

4.7.1.6 KM Technology Influences Efficiency of Operations

The current study findings showed that majority of the respondents, as represented by 82.19%, agreed that KM technology influences the efficiency of operations in KEBS. A minority (4.83%) of the participants disagreed that KM influences operation's proficiency while 12.08% were neutral. This is further depicted in Figure 4.36.

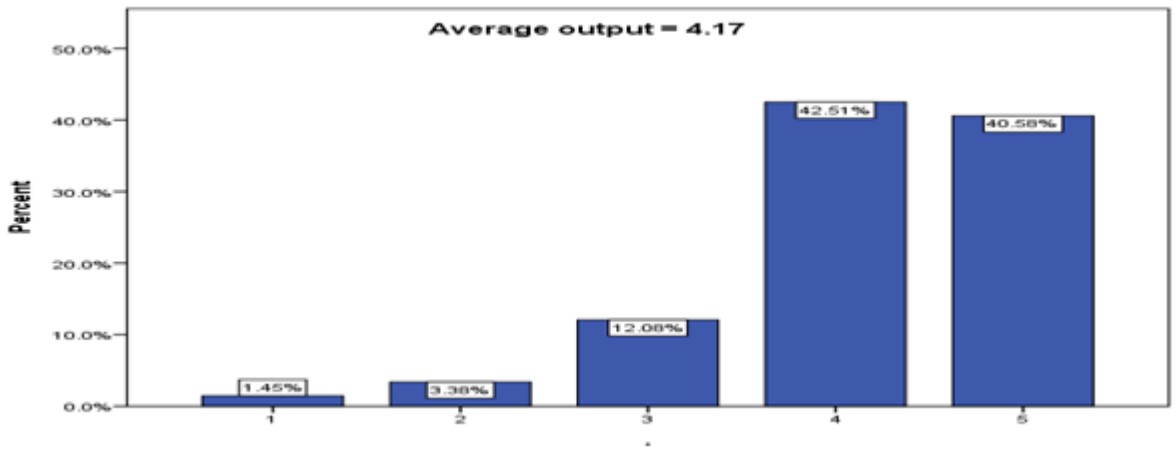

Figure 4.36: KM Technology Influences Efficiency of Operations

The findings of the current study aligned to findings of Agrawal et al. (2021) who stated that knowledge management tools facilitate the capture, storage and distribution of information /knowledge making it more available to employees who need it at appropriate time. This eventually results in efficiency of operations and more effective strategy execution.

Besides, the research finding that knowledge management (KM) technology influences efficiency of operations resonated with that of Matheus et al. (2020) who indicated that KM technologies enable employees to access data quickly, respond faster to customer needs and undertake tasks in a shorter time. This way, efficiency of operations is achieved. Matheus et al. (2020) elaborated that swift responsiveness is critical for successful strategy implementation in the current business environment which is dynamic and competitive.

The findings of the study also agreed with those of Tawse and Tabesh (2020) who revealed that KM technology facilitates alignment of organizational knowledge with strategic objectives

which ensures execution of plans according to set goals thereby enhancing efficiency of operations.

4.7.1.7 KM Technology Influences Strategy Implementation in your Organisation.

The findings indicated that 39.42% of respondents strongly agreed that KM technology influence strategy implementation in KEBS, while 41.35% agreed. Further, 14.42% of the respondents were not sure, while 3.37% disagreed and 1.44% strongly disagreed as illustrated by Figure 4.37.

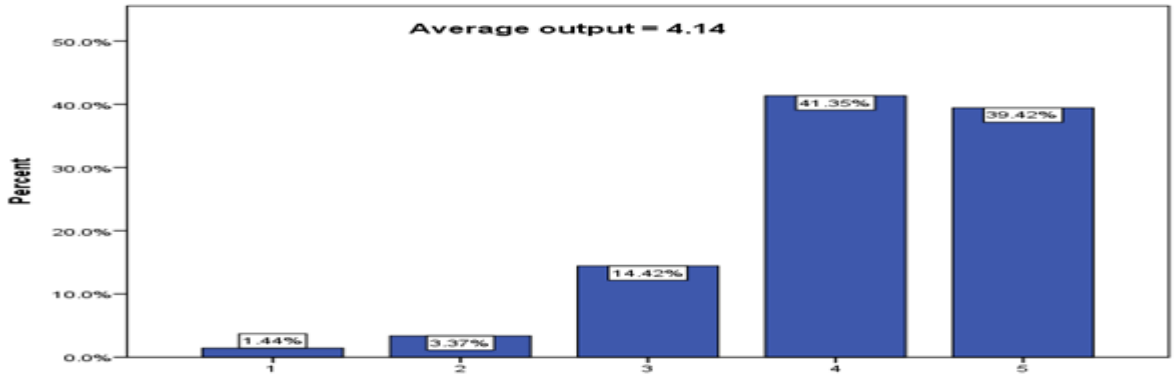

Figure 4.37: KM Technology Influences Strategy Implementation in your Organisation

The findings of this study revealed that knowledge management (KM) technology positively influenced strategy implementation at KEBS (M = 4.14). This finding is consistent with that of Mubuyaeta and Ngulube (2023), who observed that KM tools facilitate information sharing, reduce misperceptions, and enhance coordination among employees, thereby supporting effective strategy implementation. Similarly, Lau (2022) found that knowledge management technologies facilitate real-time knowledge exchange and rapid learning across organisational and geographical boundaries, thereby promoting teamwork, collaboration, and problem-solving. These capabilities enhance employee coordination and contribute to the effective execution of organisational strategies.

The findings are further supported by Masadeh et al. (2017), who noted that knowledge management technology enables organisations to analyse business environments in real time, monitor emerging risks, and identify changes in customer needs and market trends. Such capabilities provide managers with timely information for decision-making, enabling them to execute plans more efficiently and with reduced risk. Collectively, these findings suggest that KM technology supports strategy implementation by enhancing communication, knowledge sharing, collaboration, learning, decision-making, and risk management within the organisation

The findings also agreed with those of Kihara et al. (2016) who described knowledge management technology as the backbone of strategy implementation. This is because KM tools are not only used by strategy leaders to gather intelligence which informs decision making but are also used to conduct reviews and reprioritization. KM technology assists organizations to track the progress of actions and improve where necessary besides providing automated reporting alerts that ease monitoring and evaluation thereby enhancing implementation of strategies (Kihara et al., 2016).

The results of this study indicated that knowledge management platforms enhance communication among employees. KM tools enable staff to access organizational information, strategies, processes and best practices so that there is a common understanding about strategy implementation. Further, knowledge management technology improves collaboration among employees which enhances productivity and ultimately affects execution of strategies.

4.8.1 Thematic Analysis on Management Support in KEBS

The findings of this study showed that the management of KEBs offers support on knowledge management initiatives in different ways. The key informants as well as respondents indicated

that the management allocated funds and developed knowledge management infrastructure as a way of supporting KM.

4.8.1.2 Analysis of Quantitative Data on Management Support and Strategy Implementation

The researcher sought opinion of the respondents on the statement that management support on knowledge management influences strategy implementation in the organisation. The findings indicated that majority (83.66%) of the participants agreed that support of management is fundamental in facilitating implementation of strategies in an organisation. However, 12.02 % of the respondents were not sure whether management support affects strategy implementation while 3.44% of the respondents were of contrary opinion and disagreed. It is notable that the average rating of the respondents on the statement was 4.19, indicating agreement as illustrated in Figure 4.38.

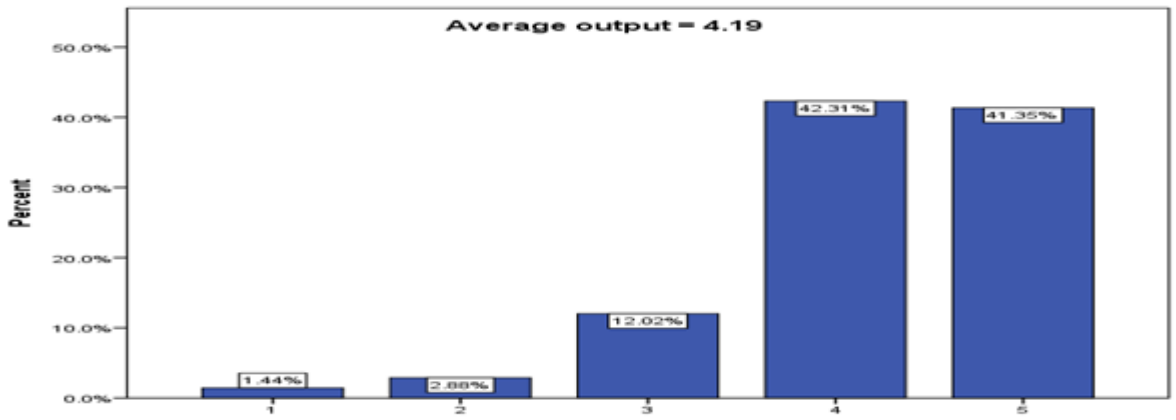

Figure 4.38: Management Support on KM Influences Strategy Implementation

Bista (2019) revealed that the motivation and competence of the management staff in an organisation is a major driver of strategy implementation in an organisation. Therefore, the support of managers is required in inspiring employees to achieve goals set in an organisation and the findings of the current research are in support of this view.

4.8.1.3 Management Allocates Required Resources for Knowledge Management in the Organisation

The study sought to find out if the management provided the required resources for knowledge management in the organisation. 70.67% of the respondents agreed that the management allocated appropriate resources for knowledge management initiatives while 10.09% of the respondents disagreed and 19.23% were not sure. This is depicted in Figure 4.39.

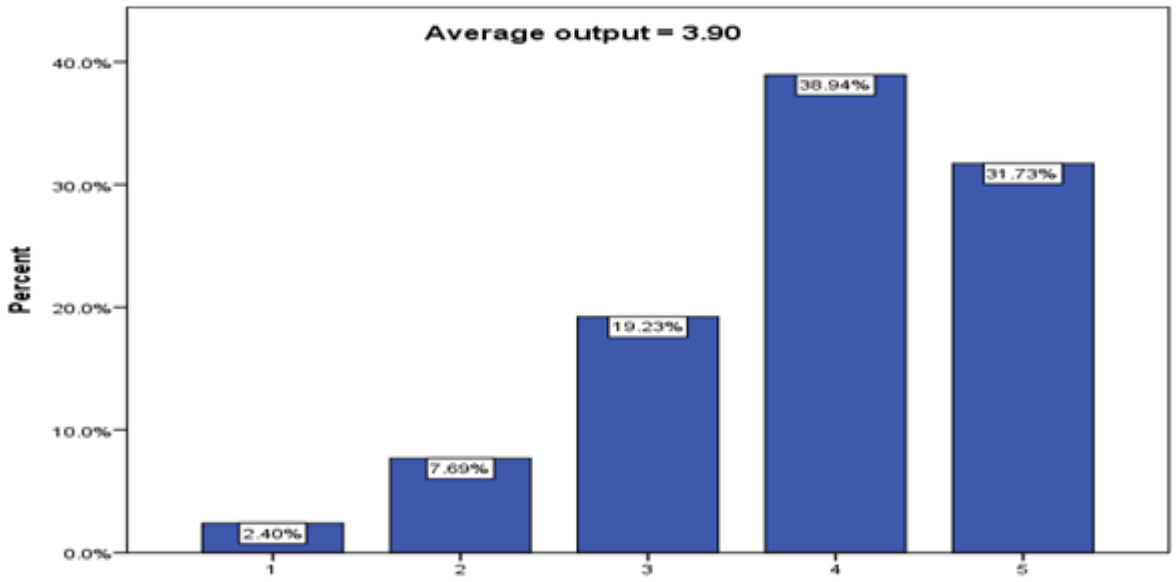

Figure 4.39: Allocation of Resources for KM

The interviewees concluded that management provided resources for knowledge management, indicating that it allocated finances and technical support to maintain knowledge management systems of the organisation. This was to ensure that systems were working and staff had access. The interviewees revealed that the management allocates approximately 20% of the organization's budget to knowledge management activities besides providing institutional desktops, laptops and tablets for staff to use in their daily work. The interviewees also disclosed that the organization's management trains its staff on how to use the various KM systems and tools/technologies and offers necessary technical support

4.8.1.4 Management has a Policy on Knowledge Management in the Organisation

The study sought to find out whether the organisation had a policy on knowledge management. A total of 80.02% of the respondents agreed (35.12% agreed, 44.90% strongly agreed) that there was a knowledge management policy which guided the organization's initiatives. On the other hand, 13.66% were neutral and 6.34% disagreed that there was a KM policy as Figure 4.40 shows.

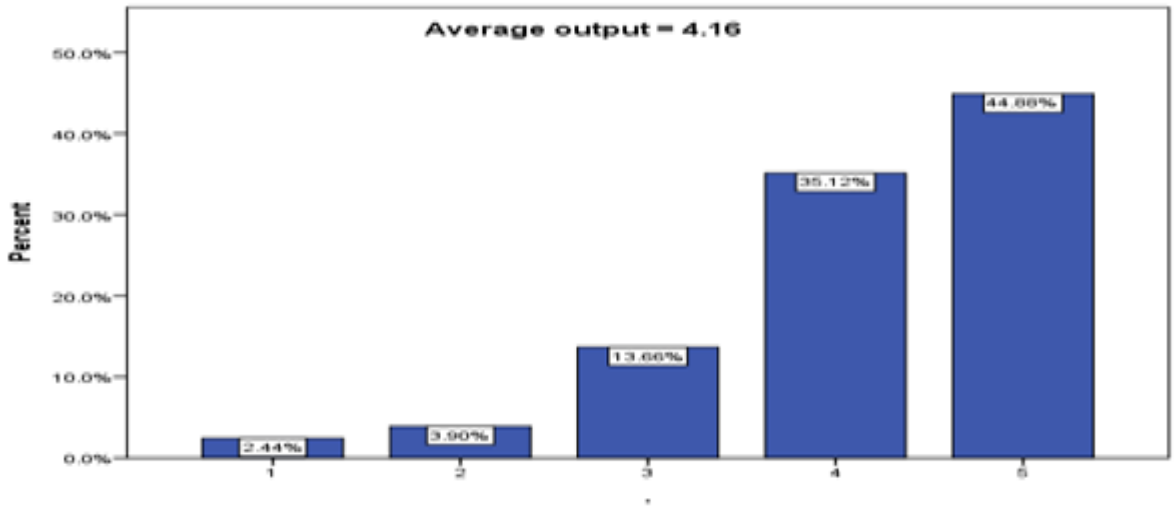

Figure 4.40: Management has a Policy on KM in the Organisation

However, the interviewees pointed out that the KM policy which was in existence/use in the organisation was drafted in 2018 and it has not been reviewed since then. This is an indication of lack of an updated knowledge management policy in KEBS. The role of a knowledge management policy in providing guiding principles on different KM practices and ensuring sustainability of these practices cannot be underscored. It is important for the organisation to review the existing KM policy to establish whether it speaks and aligns with its current vision, mission and strategic objectives and hence organisational strategies.

4.8.1.5 Management Promotes Utilization of Knowledge Management Tools and Platforms in the Organisation

The researcher asked the respondents to indicate the extent of agreement to the statement that management promotes utilization of KM tools and platforms in the organisation. The findings showed that 73.6% agreed (38.46% strongly agreed and 35.1% agreed), while 8.65% disagreed and 17.79% were not sure as Figure 4.41 reveals.

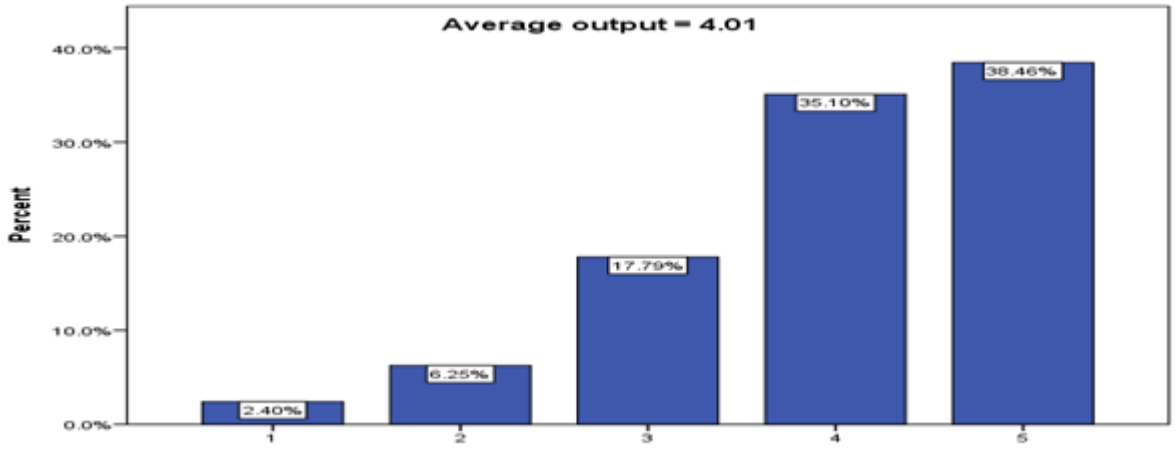

Figure 4.41: Management Promotes Utilization of KM tools and Platforms in the Organisation

4.8.1.6 Management Supports use of Repositories for KM

The results of the study indicated that 37.20% of respondents strongly agreed that management supports use of repositories for knowledge management while 34.76% agreed hence a total of 71.96% of respondents agreed. However, 18.64% were not sure while 6.76% disagreed and 2.42% strongly disagreed. This is further illustrated in Figure 4.42.

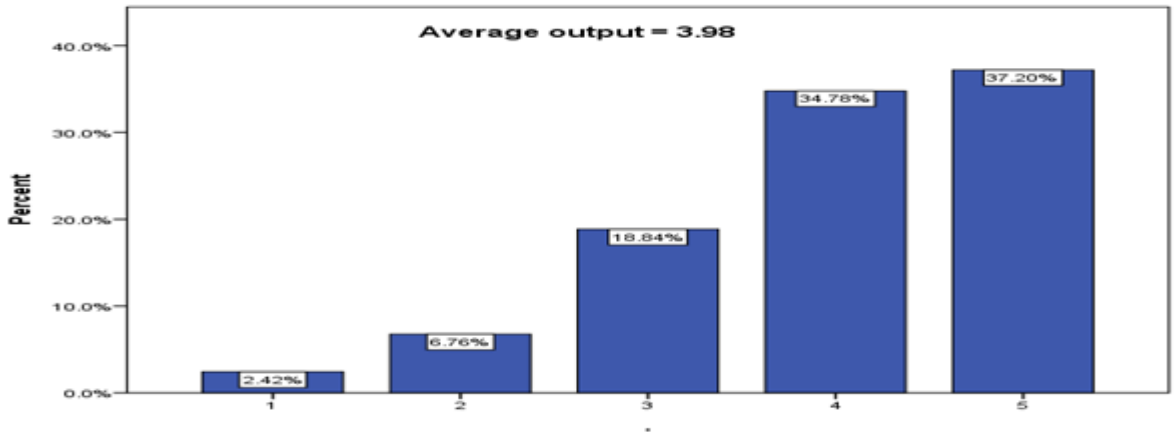

Figure 4.42: Management Supports use of Repositories for KM

4.8.1.7 Management Tracks use of Knowledge Management Tools and Platforms

The researcher also sought to get the views of respondents concerning whether the management tracked use of KM tools and platforms. The results showed that 54.81% of the respondents agreed that the management monitored the use of KM tools, 24.04% were neutral 21.15% disagreed as shown in Figure 4.43.

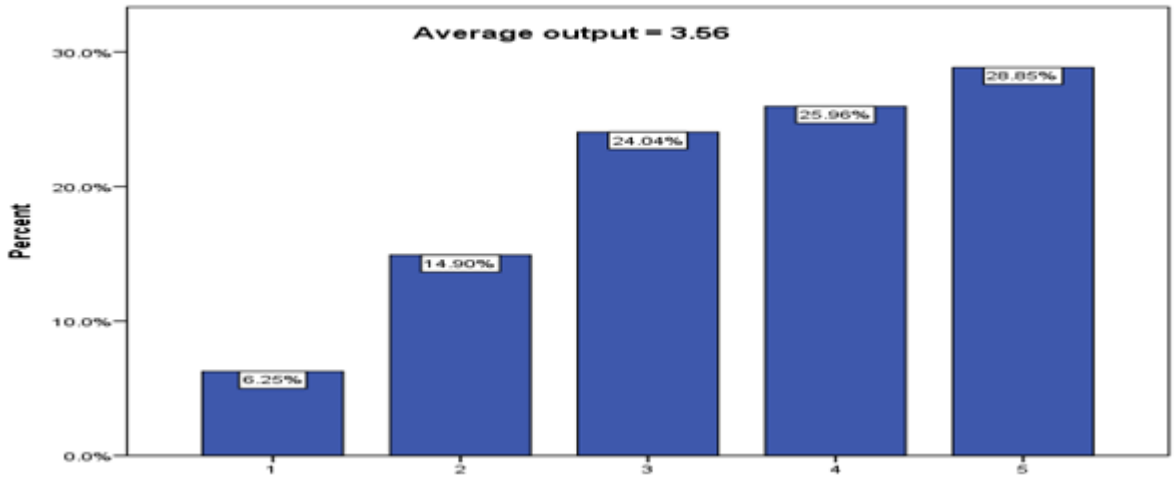

Figure 4.43: Management Tracks use of KM Tools and Platforms

4.8.1.8 Triangulation of Quantitative and Qualitative Findings on Knowledge Management Technology

The quantitative findings established that knowledge management technology positively influenced strategy implementation at KEBS. A majority of the respondents agreed that KM technology influenced strategy implementation, improved service delivery, enhanced organisational goals, increased operational efficiency, and was widely utilized by employees. The high levels of agreement across the indicators suggest that respondents perceived KM technologies as important enablers of strategy implementation.

The qualitative findings corroborated these results by revealing that KEBS had deployed various knowledge management technologies including Microsoft 365 applications (Microsoft Teams, SharePoint, OneDrive, Outlook, Power Apps, Power BI, and Copilot), KIMS, Entropy, Sage ACCPAC, and other specialised systems. Key informants indicated that these technologies facilitated communication, collaboration, information storage, data analysis, virtual meetings, workflow management, customer complaint resolution, and access to organisational knowledge.

The qualitative findings complemented the quantitative results by explaining how these technologies contributed to faster information sharing, improved coordination, enhanced decision-making, automation of tasks, and access to organisational knowledge required for strategic execution. The convergence of the quantitative and qualitative findings therefore demonstrates that knowledge management technology plays a significant role in enhancing service delivery, operational efficiency, achievement of organisational goals, and overall strategy implementation at KEBS.

The findings implied that knowledge management technology acts as an enabler of strategy implementation by facilitating communication, collaboration, information retrieval, and process automation. The widespread use of Microsoft 365 applications, SharePoint, Teams, and other digital platforms demonstrates the role of technology in improving efficiency and supporting real-time information sharing. In practical terms, the findings suggest that continued investment in digital knowledge management infrastructure can strengthen organisational agility and improve implementation of strategic initiatives.

4.8.1.9 Theoretical Contribution

Overall, the findings support all four theoretical perspectives. The Resource-Based View explains the repository as a strategic knowledge asset; Social Capital Theory highlights its role in fostering collaboration and knowledge exchange; Transformational Learning Theory explains its contribution to employee learning and capability development; and Strategic Management Theory demonstrates how knowledge repositories support strategic decision-making and organizational effectiveness. Collectively, the findings extend existing theoretical understanding by showing that knowledge repositories simultaneously create value through resource development, social interaction, learning transformation, and strategic management processes.

4.5 Inferential Analysis

Inferential analysis was conducted through correlation and regression analysis to test the research hypotheses and examine relationships between variables. Before conducting inferential analysis, the data was exported from Google forms to Google sheets then to Ms-Excel and SPSS packages which were used for analysis. Correlation analysis was done using Pearson's correlation coefficient (r) to determine the strength and direction of relationships

between independent and dependent variables. The researcher tested for the presence of significant relationship between the independent variables (including knowledge generation, knowledge collaborative flow, knowledge utilization, knowledge repositories and knowledge management technology and the dependent variable namely strategy implementation).

4.5.1 Correlation Analysis Results

4.5.1.1 To Determine the Effect of Knowledge Generation on Strategy Implementation

The researcher sought to explore the effect of knowledge generation on strategy implementation in public sector in Kenya. This study utilized Pearson correlation test to determine the existence of relationship between knowledge generation and strategy implementation in Kenyan public sector. The results indicated that knowledge generation was moderately and positively related to strategy implementation. The Pearson test revealed a correlation coefficient value of 0.650, and the association was statistically significant (p-value = 0.001). This is further illustrated in correlation Table 4.5.

Table 4.5: Correlation Matrix of Knowledge Generation and Strategy Implementation

Correlation		Knowledge-generation influences strategy implementation in your organisation	Strategy implementation
Knowledge generation influences strategy implementation in your organisation:	Pearson Correlation	1	.650 **
	Sig. (2-tailed)		.001
	N	217	217

	Pearson	.650**	1
Strategy implementation:	Correlation		
	Sig. (2-tailed)	.001	
	N	217	217

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

The findings of this study were agreement with those of Estate (2018), who revealed that strategic goals cannot be achieved without precise knowledge, namely operational and intellectual resources. The finding that knowledge generation is positively related to strategy implementation concurs with the view of Estate (2018) who explained that knowledge generation ensures that the right data and information is produced through methods such as research and is shared to staff that require it to execute plans. The study findings also agree with those Muzam (2023) who argued that the processes of decision making and problem solving which are fundamental in strategy implementation require generation of relevant knowledge.

Mustapha and Bin (2023) concurred that execution of plans required excavation of both raw and processed facts from best practices and knowledge depositories to guide the process.

The results of the current study were also in concurrence with those of Salazar and Armando (2017) who indicated that knowledge generation ensures that tacit and explicit insights and lessons are collected through knowledge management practices every day to provide continuous feed back into strategy implementation process. Continuous feedback is an important aspect of strategy management because it assists managers to improve and adjust goals to dynamic and shifting real-world circumstances. The process of strategy implementation being a common activity in many organizations creates new insights every

time it is undertaken. According to Aldehayyat et al. (2021), such insights act as lessons to leaders on the best practices to adopt and the challenges to prepare for successful strategy implementation.

Nevertheless, the results of this study disagree with those of Wit et al. (2022), who indicated that knowledge generation may lack active employee participation thereby having a negative influence on strategy implementation. The findings also contrasted with those of Ansari (2012) who revealed that when some staff fail to engage in data creation, the resulting knowledge base becomes incomplete and outdated hence providing incomplete information during execution of strategies and way, knowledge generation may undermine the process of strategy implementation. It is therefore important for organizations to offer staff –friendly trainings and continuous support, for instance through systematic team meetings to ensure knowledge generation (Ansari, 2012).

The results of the study also contrasted to those of Huie et al. (2020) who indicated that an institution may generate massive knowledge which can make staff and senior officers struggle in identifying what information is of priority relevance to strategy under implementation. In other words, if knowledge generation is not properly managed, the result can be information overload, that causes confusion to employees and leaders, for instance on the recommendations to adopt. This ultimately has a negative influence on strategy implementation.

Kucharska (2017) also revealed that continuous creation of novel knowledge may result in unnecessary analysis instead of action or execution of planned strategies thereby delaying strategy implementation, a finding that is contrary to those of the current study. Frequent knowledge generation may also motivate managers to constantly modify or change strategies, a situation that may result in uncertainty thereby decreasing confidence in strategy implementation. This way knowledge generation causes a negative influence on implementation of strategies, despite increased costs related to the generation of information.

Further, there is also a possibility of generation of conflicting knowledge and views for instance by various divisions in an organization (Cheung et al., 2016). According to Cheung et al. (2016) conflicting views, for instance in reports and recommendations have the potential to cause confusion among employees during strategy implementation. In this regard, knowledge generation may influence strategy implementation in a negative manner, a finding that is contrary to the results of this study which found a positive relationship between the two.

It is therefore the supposition of this study that knowledge generation is largely positive with regard to its influence on strategy implementation, but it can negatively influence the process when it results to information overload, conflicting views, or undue focus on analysis instead of execution. It is therefore important for managers to ensure that there exists a balance between knowledge generation, analysis and timely execution of findings generated in order for successful strategy implementation to be achieved.

4.5.1.2 Influence of Knowledge Collaborative Flow on Strategy Implementation

The other objective of the study was to establish the influence of knowledge collaborative flow on strategy implementation in public sector in Kenya. To explore this objective, the researcher used Pearson correlation test to determine the relationship of knowledge flow on strategy implementation in KEBs. The results indicated that there is a strong and positive relationship between knowledge flow and strategy implementation. The analysis yielded a correlation coefficient of 0.730 implying a strong linkage and a p-value = (0.001) which indicated significance. Thus, the research revealed that knowledge collaborative flow and strategy implementation are strongly and positively related to each other as Table 4.6 elaborates.

Table 4.6: Correlation Matrix of Knowledge Flow and Strategy Implementation

Correlation		Knowledge flow: Consultative mechanisms exist for use by employees and this influences strategy implementation in your organisation:	Strategy implementation
Knowledge flow Knowledge Consultative mechanisms exist for use by employees and this influences strategy implementation in your organisation:	Pearson Correlation	1	0.730 **
	Sig. (2-tailed)		.001
	N	217	217
Strategy implementation:	Pearson Correlation	.730**	1
	Sig. (2-tailed)	.001	
	N	217	217

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

The findings of this research concurred with those of Alkheyi, et al. (2020) who revealed that knowledge sharing among employees promoted collaboration between divisions and teams enabling them to learn from one another and gain new ideas/become innovative. Alkheyi, et al. (2020) explained that knowledge flow promotes cooperation which is a key ingredient of successful strategy implementation. The results of this study are also in agreement with those

of Taylor (2013) who elaborated that collaboration; knowledge sharing culture and innovativeness are critical elements of strategy implementation.

Further, the results of the study coincided with those of Jooste and Fourie (2019) who indicated that knowledge networks facilitate staff in accessing and implementing lessons learnt and best practices. The networks that an organization have ensure speedy and efficient flow of information both horizontally and vertically and ensure all employees are up to date which improve processes and outcomes thereby enhancing strategy implementation (Fourie, 2019).

The findings of the current study were also in agreement with those of Almatrooshi et al. (2020) who revealed that knowledge sharing, which occurs through collaborative flow among employees is a contributing factor to the performance of an organisation. Kihanya (2013) also agreed that collaborative knowledge sharing mechanisms such as communities of practice highlighted by the respondents of this study promoted knowledge accessibility, improved decision making and efficiency which enhanced work practices and ultimately organizational performance which is a goal of strategy implementation. According to Abdow (2015), organizational performance is an outcome of implementation of strategic objectives, and it can only be facilitated by efficient sharing of knowledge and innovation and to this extent, collaborative knowledge flow influences strategy implementation. Strategic objectives have to be communicated very efficiently to all the employees in an organization so that they are well understood and staffs are able to work in teams to implement them (Abdow, 2015).

Gates (2024) also found out that collaborative practices have a positive impact on employees' commitment which is a significant driver of strategy implementation and this in concurrence with the current study's findings. It is the argument of this study that collaborative flow of information/knowledge is one of the collaborative practices that drive execution of strategies

in an organization. Further, the results of this study agreed to those of Serenko and Bontis (2016) who revealed that it is important for organisations to invest in collaborative knowledge management practices and foster a culture of knowledge sharing which makes sure all employees understand the strategic goals. The aforementioned studies provide evidence that indeed knowledge collaborative flow positively influences strategy implementation in an organization. Further, in regard to the current study, collaborative flow of knowledge strongly influences strategy implementation in public sector organizations in Kenya including KEBS.

The findings of this study also agree with those of Forbes (2017) who indicated that collaborative knowledge sharing promotes building of professional networks because its mechanisms promote relationship creation and teamwork both of which facilitate strategy implementation.

However, the findings of the current study disagree with those of Yang (2007) who indicated that knowledge collaborative flow can influence strategy implementation negatively when there is resistance to share knowledge a situation called knowledge hoarding. According to Yang (2007), sometimes employees may be hesitant to share their expertise, perceptions and best practices with others who may be new or inexperienced thereby impeding smooth implementation of strategies. If resistance to sharing and transferring knowledge persists for a period of time, it may result in implementation gaps thereby influencing strategy implementation negatively. Organizations are encouraged to stimulate a culture of sharing and rewarding knowledge sharing in order to address this challenge.

The findings of the study are also in disagreement with those of Santhose and Lawrence (2022) who indicated that disseminating too much knowledge can overwhelm staff and make it difficult to choose priority strategies that need implementation. It may also result in employees

spending too much time on processing the knowledge shared rather than implementing strategies, a factor that may influence strategy implementation negatively.

The results also contrasted with those of Ahmad and Widen (2018) who revealed that there may be conflicting interpretations of knowledge shared among employees in the same or different departments. This can lead to varying actions and confusion during execution of strategies since different departments may use varying methodologies instead of a unified approach, a factor that would affect strategy implementation negatively. It is also notable that knowledge sharing may result in leaking of sensitive information to competitors and unauthorized actors where strategies can be taken by competitors before an organization implements them. According to Ahmad and Widen (2018), this would affect strategy implementation, a finding that contradicts the results of the current study.

The findings of this research also disagree with those Ahmad and Karim (2019) who noted that extensive knowledge sharing, in-depth consultations and discussions may delay the decision-making process. According to Ahmad and Karim (2019), employees may consume too much time deliberating and exchanging information instead of executing strategies and this would affect strategy implementation adversely. Some strategies require quick decision making and swift execution of strategies because of competition to guarantee success.

The results of this study also contrast to those of Alshar, et al. (2017), who indicated that some employees may also use knowledge as a source of power where an issue of internal political affairs and struggles may arise if it is shared unevenly and this may affect strategy implementation undesirably. Partial knowledge sharing has the potential to cause conflicts

between employees and departments, for instance regarding ownership of the information, a factor that can hinder collaboration required for implementation of strategy.

Therefore, though the results of this study revealed that in general knowledge collaborative flow has a positive influence on strategy implementation, it can also affect strategy implementation negatively if it is not managed well. The managers of an organization should put measures to ensure effective management of knowledge flow and good communication channels to avoid issues (such as misinformation and misinterpretation) that may influence execution of strategies negatively.

4.5.1.3 The Influence of Knowledge Utilization on Strategy Implementation in Public Sector in Kenya

The third objective of this study sought to find out the influence of knowledge utilization on strategy implementation, and this was determined using Pearson correlation test. The findings of this study revealed that knowledge utilization has a strong association with strategy implementation in KEBS yielding a correlation coefficient value of 0.850. The results also showed that the association was significant (p-value = 0.001). Therefore, the current study revealed that knowledge utilization has a strong significant positive influence on strategy implementation. The results are depicted in correlation Table 4.7:

Table 4.7: Correlation Matrix of Knowledge Utilization and Strategy Implementation

Correlation		Knowledge Utilization: Knowledge utilization influences achievement of goals set in the organisation	Strategy implementation
Knowledge Utilization: Knowledge utilization influences achievement of goals set in the organisation	Pearson Correlation	1	.850 **
	Sig. (2-tailed)		.001
	N	217	217
Strategy implementation:	Pearson Correlation	.850**	1
	Sig. (2-tailed)	.001	
	N	217	217

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

The current study revealed that knowledge utilization has a strong significant positive influence on strategy implementation. The study results were in congruence with those of Al-dubai, et al. (2024) who revealed that application of knowledge drives creativity and efficiency of operations both of which improve strategy implementation.

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The results were also in agreement with those of Aldehayyat, et al. (2021) who highlighted that application of knowledge promotes informed decision-making process which is a key component of strategy implementation. The findings of the study are also in congruence with

those of Muzam (2023), who revealed that knowledge utilization enables leaders of an organization to undertake evidence-based decision making by allowing them to use historical data generated previously by others or even the same organization. This data is useful in problem solving as it allows managers and employees to learn from past mistakes and rely on prior recommendations on how to deal with problems (Muzam, 2023).

The current study found out that knowledge utilization plays a significant role in guiding the implementation of plans in an organization, a finding that is similar to that of Cerchione, et al. (2020) who revealed that knowledge is the ingredient needed for converting plans and visions and into execution. It is worth noting that strategy implementation entails effecting concepts or plans into actions and knowledge bridges the gap in this process (Cerchione, et al., 2020). According to Volberda, et al (2021), it is the utilization of knowledge that offers precise operational techniques, market information and best practices needed to translate complex goals into day-to-day, task-level actions and this is what strategy implementation is all about.

Kordab, et al. (2020) underscored the significance of knowledge utilization in strategy implementation by emphasizing that the ability to convert raw data into actionable strategies is a strength that defines the competitiveness of an organization. Kordab, et al. (2020) explained that knowledge offers a structural basis for decision making during strategy management and it can be regarded as a fundamental ingredient of strategy implementation.

The findings of this study are also in congruence with those of Njiru, et al. (2025) who indicated that knowledge management offers the managers of an organization with contextually up to date and accessible knowledge from which they can make decisions. It is the deduction of the current study that knowledge utilization positively and significantly influences strategy implementation by informing the decision-making process.

The results of this study were also in agreement with those of Kihara et al. (2016) who revealed that knowledge integration supports and improves the process of strategy implementation. It is also important in risk mitigation and problem solving, which are essential phases of strategy implementation. Kihara et al. (2016) explained that enabling leaders to access reliable information enhances accuracy and efficiency of decisions made and actions undertaken which ultimately improve strategy implementation. This in essence leads to streamlining of activities and reduction of duplication of efforts. Masadeh et al. (2017) added that data driven decisions promote early detection of problems and knowledge provides insights on how to deal with the challenges encountered or anticipated during strategy implementation.

The findings of this research indicated that knowledge utilization and strategy implementation are related and also resonated with those of Diehr and Gueldenberg (2017), who indicated that knowledge utilization facilitates goal alignment where strategic goals and methodologies of achieving the goals are grounded on real facts rather than assumptions. Strategy implementation demands intentional, consistent and efficient actions to guarantee success. Diehr and Gueldenberg (2017) indicated that proper knowledge utilization during strategy implementation ensures that institutions are agile and responsive. Organizations that are intensive in consuming knowledge are able to respond fast and better to emerging opportunities and challenges.

Besides, the findings also resonated with those of Kordab et al. (2020) who indicated that knowledge utilization facilitates resource optimization during strategy implementation. The process of strategy implementation demands for efficient allocation of time, finances and energy to enable execution of prioritized plans.

4.5.1.4 The Influence of Knowledge Repository on Strategy Implementation in Public Sector in Kenya

The fourth research objective explored the effect of knowledge repository on strategy implementation in the public sector in Kenya. The findings revealed that knowledge repository had a relatively strong and positive effect on strategy implementation which was established by a correlation coefficient of 0.790. The relation between the two variables was significant (p-value = 0.001) as Table 4.8 shows.

Table 4.8: Correlation Matrix on Association of Knowledge Repository and Strategy Implementation

Correlation		Knowledge repositories: organisation utilizes soft data banks	Strategy implementation
Knowledge repositories: Organisation utilizes soft data banks	Pearson Correlation	1	.790**
	Sig. (2-tailed)		.001
	N	217	217
Strategy implementation:	Pearson Correlation	.790**	1
	Sig. (2-tailed)	.001	
	N	217	217

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

The findings of this research were in alignment with the views of Volberda et al. (2021), who indicated that knowledge repositories supported evidence-based decision making where repositories of lessons learnt reserve organizational memory offering historic evidence on the results of earlier actions. The findings of current study agree to those of Al-dubai, et al. (2024) who confirmed that knowledge bases allow for access and utilization of relevant information and best practices which are important in successful strategy implementation.

Further, the results of this study indicated that knowledge repository played a fundamental role in facilitating strategy implementation which agreed with research by Stepien (2023) who revealed that centralized information repositories promote fast access to accurate and important data, intuitions, and best practices which allow for precision in decision making throughout strategy implementation. According to Muzam (2023), knowledge repositories allow access to quality and accurate information which saves on time required to excavate data thereby promoting fast decision-making during strategy implementation.

The results of this study also agreed with those of a study by Zamiri and Esmaeili (2024) who indicated that effective knowledge repositories provide a searchable folder that enables employees to identify and link to theme experts whom employees can contact for inquiries during strategy implementation. According to Zamiri and Esmaeili (2024), repositories document skills and past works in a specific subject area, for instance strategy implementation providing an opportunity for staff to associate with such experts if need be.

The current study found that knowledge repositories and strategy implementation are positively and significantly related to a finding that agrees to that of Harries (2012) who highlights that repositories preserve organizational capital. Execution of strategies demand for new staff

competencies that are able to deal with new challenges that come up in organizations. Proper knowledge repositories ensure that critical expertise is not lost when employees leave, allowing new teams to build upon past experiences rather than starting from scratch (Harries, 2012).

Dahri et al. (2019) also pointed out that knowledge sources promote continuous learning in an organisation which allows new and existing employees to understand strategies and be able to decipher how to adapt to dynamic varying business situations. According to Cerchione et al. (2020), knowledge repositories provide references, upon which both experiences and new staff can share perceptions, discuss ideas and collaboratively interpret facts during strategy implementation. This is very critical in strategy implementation as it may inform modification of strategies based on real- time information in the environment (Dahri et al., 2019).

The results also agreed with that of Hislop et al. (2018) who indicated that properly managed knowledge repositories enable workers to find information fast, eliminate the necessity for repetitive tasks and streamline processes, all of which improve the process of strategy implementation. Further, the findings are consistent with those of Xue (2017) who revealed that knowledge bases facilitate processes of observation and description of changes in the environment allowing for detection of emerging threats and opportunities and appropriate reactions. This is critical in the process of strategy implementation as it enables managers and employees to respond to external conditions which may promote or hinder implementation process.

Centralized knowledge repositories ignite innovation and collaboration by empowering employees to share different perspectives and ideas a process usually made possible through research. The interaction of staff and knowledge repositories allows for informed and collective problem solving by laying the foundation for critical and innovative thinking. Knowledge

repositories allow for exploration of ideas, information and previous lessons both internally and externally, spurring new solutions and ways of dealing with issues.

However, the outcomes of this study on knowledge repositories having a positive effect on strategy implementation disagree with those of Rath and Jena (2025) who revealed that the existence of knowledge repositories may promote over dependence on internalized routines among employees, a condition referred to as competency trap. This occurs when the repositories inadvertently entrench out-of-date knowledge which staff keep on referring to and hence the staff implement obsolescent routines which influence strategy implementation negatively. According to Rath and Jena (2025), the current business environment is dynamic, and organizations must continuously and rapidly learn new things to keep up with the pace including execution of strategies.

The study results also contrasted those of Gemici and Zehir (2023) who indicated that repositories of knowledge facilitate optimization instead of innovation. Gemici and Zehir (2023) elaborated that most repositories are designed to collect and augment previous successes, unintentionally considering institutional knowledge as a static product instead of a changing process. Further, most often than not workers end up referring to and using the fastest and properly documented information regardless of being outdated instead of inventing and discerning better techniques and newer information. This way, optimization in knowledge repositories has a negative influence on implementation of strategies which require novel methodologies and new information.

The results of this study disagreed with those of Njiru et al. (2025) who indicated that knowledge repositories may have wrong/erroneous information arising from difficulties in collecting and synthesizing tacit knowledge from individual employees thereby influencing strategy implementation in a negative manner. According to Njiru et al. (2025) employees may

sometimes hesitate to share correct information or the information shared may be understood and recorded wrongly and such information have the potential to influence implementation negatively. The findings of the study also in contrasted to those of Volberda et al. (2021), who revealed that some knowledge repositories have outdated and poorly structured information which may impact negatively on strategy implementation. When such repositories are used as references during implementation, they provide poor quality data that jeopardizes the process of strategy implementation.

4.5.1.5 To Determine the Effect of KM Technology on Strategy Implementation in Public Sector in Kenya

To determine the influence of KM technology, the researcher used Pearson's correlation test, and the test result yielded a correlation value (r) of 0.720. This result demonstrates that knowledge management technology is strongly and positively linked to strategy implementation and the linkage is significant ($p = 0.001$). This is further illustrated in Table 4.9.

Table 4.9: Correlation Matrix on Link between KM Technology and Strategy Implementation

Correlation	KM technology: Knowledge management technology influences strategy implementation in your organisation	Strategy implementation
KM technology: Knowledge management	Pearson Correlation	1	.720 **

technology influences strategy implementation in your organisation.	Sig. (2-tailed)		.001
	N	217	217
Strategy implementation:	Pearson Correlation	.720**	1
	Sig. (2-tailed)	.001	
	N	217	217

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

This study found out that knowledge management technology influenced strategy implementation which agreed with the results of research by Al-Dubai, et al. (2024) that knowledge management technology offered a centralized platform for retrieving and exploring information thereby allowing informed decision-making supported by real data. Data- driven decision-making process is integral in effective strategy implementation and KM technology is fundamental in this process (Xiao et al., 2021).

Purwadi and Sardjono (2024) also concurred with the findings of the current study indicating that knowledge management technology makes information readily available to staff, thereby empowering them to not only make up-to-date strategic decisions but also take relevant actions aligned with the general organisational aims. Further, Purwadi and Sardjono (2024) argued that KM technologies enhance the operational capacity of an organisation by enabling it to analyze huge amounts of data and information.

The results of this study were also consistent with those of Wang et.al. (2020) who revealed that knowledge management tools facilitated the process of creation and storage of information by automating data and information capture processes. Automation enables institutions to store

and access knowledge in a more structured method. This ultimately improves implementation of strategies in the organisation and is thus consistent with the results of the current study. Therefore, the current study findings are in consensus with Wang et.al. (2020), Purwadi and Sardjono (2024) who revealed that knowledge management tools not only play a support function but are also strategic enablers that significantly influence how efficiently organisations implement their strategies.

Nonetheless, the findings disagree with those of Wit et al. (2022) who indicated that unstandardized processes of utilizing knowledge management technology may result in undesired behaviors such as hacking which may ultimately have a negative influence on strategy implementation. This is because when there is lack of proper governance and protocols on the use of knowledge management technology, unauthorized employees or non-staff may use the technology in adverse ways for instance to corrupt the available data (Wit et al., 2022). This would eventually negatively affect strategy implementation, a fact which disagreed with the findings of the current study. To counter this challenge Francesco and Guaschino (2020) recommended that organizations should develop clear policies highlighting how knowledge management technologies should be managed and assign ownership for the various knowledge management tools. Intermittent audits on knowledge management systems and tools should also be done to identify any anomalies that may hinder strategy management (Francesco & Guaschino, 2020).

The findings of this study also disagreed with those of Boissin (2023), who indicated that some knowledge management tools promoted search bias which resulted in giving results that are highly prioritized in the knowledge bases. According to Boissin (2023), knowledge management tools tend to facilitate familiarity looping where extremely clicked and earliest documents are popped out leaving out novel and more relevant documents. The use of older and most frequently used documents by employees may hinder utilization of updated

knowledge during strategy implementation, a factor that has a negative influence on execution of strategies.

4.5.2 Diagnostic Checks

4.5.2.1 Skewness and Kurtosis

Normality of the data was assessed using skewness and kurtosis statistics. The skewness values ranged from -1.190 to -1.554, while kurtosis values ranged from 0.695 to 2.538. These values fell within the acceptable thresholds of ±2 for skewness and ±8 for kurtosis The results met the normality criteria recommended by Hair et al. (2019), indicating that the data were sufficiently normally distributed to permit further parametric analyses, including correlation and regression.

4.5.2.2 Multicollinearity Test Results

The researcher examined collinearity issues among the independent variables using the Pearson Correlation Coefficient. The correlation coefficient results of the different knowledge management variables with the variable strategy implementation were as follows: knowledge generation (r =0.650, p-value = 0.001, knowledge collaborative flow r =0.730, p = 0.001, knowledge utilization r = 0.850, p = 0.001, knowledge repository r =0.790, p = 0.001, knowledge management technology r =0.720, p = 0.001) with the collective Pearson correlation coefficient value being 0.748. According to Shrestha (2020), Pearson's r values which are smaller than 0.8 are considered confirmation of the absence of detrimental multicollinearity. One correlation coefficient approached the commonly cited threshold of 0.80, thus further assessment using VIF statistics was necessary which confirmed that multicollinearity was not a concern in the model.

4.5.2.3 Variance Inflation Factor

The researcher evaluated multicollinearity using the Variance Inflation Factor (VIF) for predictors in the regression model. VIF values were below 2.0, which was within the commonly accepted threshold of 10 and below the moderate guideline of 5. The variables had a VIF of knowledge generation (VIF = 1.758, knowledge collaborative flow VIF = 2.000, knowledge utilization VIF = 1.842, knowledge repository VIF = 1.964, and knowledge management technology VIF = 1.852) This was a clear indication that multicollinearity was not a concern in this analysis. Predictors did not exhibit strong inter correlations that could distort coefficient estimates or inflate standard errors. This further indicated that the regression coefficients could be interpreted with confidence, and the model was considered stable and reliable with respect to collinearity diagnostics. According to Hair, et al. (2024), VIF values below 5 are acceptable and this further supports the robustness of the present model.

4.5.2.4 Regression analysis

The study utilized simple linear regression analysis, expressed as:

Each independent variable was analyzed separately against the dependent variable using the equation:

$y = mx + b$, Where: y = Dependent variable, x = Independent variable, m = slope and b = intercept

4.5.2.5 Multiple regression analysis results

The study utilized multiple regression analysis to assess the effect of independent variables on the dependent variable. According to James and Frank (1985), multiple linear regression estimates the association between a dependent variable and two or more independent variables assumed to have a combined linear effect on the dependent variable. To perform this, strategy

implementation in public sector which was the dependent variable was regressed against each of the five independent variables including: knowledge generation, knowledge collaborative flow, knowledge utilization, knowledge repository and knowledge management technology.

The model that was used to assess the combined effect of all independent variables on the dependent variable, multiple linear regression comprised of five independent variables and one dependent variable as demonstrated in the formula below:

$$\gamma = \beta o + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \varepsilon$$

Where:

γ = Strategy Implementation, β_0= Constant term, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$= Regression coefficients, x_1= Knowledge Generation, x_2= Knowledge Flow, x_3= Knowledge Utilization, x_4= Knowledge Repository, x_5= Knowledge management technology, x_6 = Management Support and ϵ= Error term

The significance of the regression coefficients was tested using p-values where a p-value below 0.05 indicated a statistically significant relationship between the variables.

4.5.2.6 Regression of Beta Coefficients Results

The researcher did a general regression of coefficients to determine the influence of every variable to the dependent variable. The regression weights, standard errors and p-values of the different independent variables are as presented in Table 4.10.

Table 4.10: Summary Coefficient Table of Regression Model

	(β)	**Std. Error**	**Beta (R)**	**Sig (P).**
(Constant)	2.150	0.198		0.000

Knowledge generation	0.280	0.032	0.460	0.000
Knowledge collaborative flow	0.560	0.038	0.680	0.000
Knowledge utilization	0.640	0.024	0.740	0.000
Knowledge repositories	0.480	0.017	0.690	0.000
Knowledge management technologies	0.472	0.044	0.542	0.000

The researcher conducted a multiple regression analysis to examine the effect of independent knowledge management variables on strategy implementation. All independent variables demonstrated positive and statistically significant relationships with strategy implementation ($p < .001$), indicating that higher levels of these knowledge management practices were associated with improved strategy implementation outcomes.

The standardized beta coefficients (β) revealed the relative strength of each predictor. Knowledge utilization emerged as the strongest predictor ($\beta = 0.740$), followed by knowledge repositories ($\beta = 0.690$), knowledge collaborative flow ($\beta = 0.680$), knowledge management technologies ($\beta = 0.542$), and knowledge generation ($\beta = 0.460$). This ranking suggests that practices related to utilizing and storing knowledge had the greatest influence on strategy

implementation, while knowledge generation, although significant, exhibited the weakest influence among the predictors. Overall, the regression model was statistically significant. As shown in Table 4.11, the model produced an R value of 0.787 and an R^2 value of 0.547. This indicates that the knowledge management dimensions collectively explained 54.7% of the variation in strategy implementation. Therefore, knowledge management was a significant predictor of strategy implementation at KEBS.

Table 4.11: Results of Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.787[a]	.547	.533	0.166235

4.5.3 To Determine the Effect of Management Support on the Relationship between Knowledge Management and Strategy Implementation in the Public Sector in Kenya

The sixth objective of the study was to assess the influence of management support on the relationship of knowledge management and SI. The researcher used a series of regression analyses to evaluate the relationships between knowledge management, management support (the mediating variable), and the dependent variable (SI).

The first step was to regress strategy management on knowledge management in order to determine if there was a relationship between the two which the mediating variable (management support) could possibly influence. The results showed that there was a significant positive relation between knowledge management and strategy implementation (R= 0.752, P= 0.000)

as Table 4.12 shows.

Table 4.12: Regression Results from the Test of Effect of KM on Strategy Implementation

Variable	Unstandardized coefficients		Standardized coefficients	T	Sig (P).
	(β)	Std. Error	Beta (R)		
(Constant)	1.842	0.216		8.206	0.000
Knowledge management	0.580	0.052	0.752	10.520	0.000

The findings in Table 4.12 indicate that knowledge management accounts for approximately 56.6% of strategy implementation ($R^2 = 0.566$). The p-value is below 0.05 ($p = 0.000$) indicating significant link between the two and therefore suggesting the potential of mediating. Step 2 involved examining the link between Independent Variable in this case knowledge management and the mediating variable (management support). The researcher regressed management support on knowledge management to determine if knowledge management has a significant effect on management support and the test findings are shown in Table 4.13.

Table 4.13: Regression Findings on Effect of KM on Management Support

Variable	Unstandardized coefficients		Standardized coefficients	T	Sig (P).
	(β)	Std. Error	Beta (R)		
(Constant)	1.502	0.253		5.921	0.000
Knowledge management	0.658	0.062	0.740	10.670	0.000

The results in Table 4.13 reveal that knowledge management had a positive and statistically significant effect on management support ($\beta = 0.740$, $p < 0.001$). The model yielded an R^2

value of 0.5476, indicating that knowledge management explained approximately 54.8% of the variation in management support. This satisfied the second condition for mediation analysis.

In Step 3, the researcher examined the association between mediating variable (management support) and the dependent variable (strategy implementation). This was meant to assess if the mediating variable when measured together with the independent variable (knowledge management, still had a significant effect on strategy implementation. The results of this test are presented in Table 4.14. The findings revealed that there is a significant effect of management support on strategy implementation as demonstrated by R-value of 0.825. Further, R^2 yielded a value of 0.681 which implied that management support explained 68.1% of the variation in strategy implementation

Table 4.14: Regression Findings on Effect of Management Support on Strategy Implementation

Variable	Unstandardized coefficients		Standardized coefficients	T	Sig (P).
	(β)	Std. Error	Beta (R)		
(Constant)	1.208	0.203		5.851	0.000
Management support	0.701	0.048	0.825	13.370	0.000

In Step 4, the researcher regressed strategy implementation on both knowledge management and management support to determine whether management support mediated the relationship between knowledge management and strategy implementation. The results presented in Table 4.15 showed that the effect of knowledge management on strategy implementation decreased

from β = 0.752 (Table 4.12) to β = 0.401 when management support was included in the model. This reduction in the coefficient suggests the presence of a mediating effect.

Further, knowledge management remained statistically significant (β = 0.401, t = 2.670, p = 0.015), while management support was also statistically significant (β = 1.000, t = 7.632, p < 0.001). Since both variables remained significant after the inclusion of the mediator, the findings indicate that management support partially mediated the relationship between knowledge management and strategy implementation.

The results therefore suggest that management support plays an important role in strengthening the effect of knowledge management on strategy implementation. However, because the effect of knowledge management remained significant after controlling for management support, the mediation was partial rather than complete.

The results are shown in Table 4.15.

Table 4.15: Regression Results Showing Intervening Effect of Management Support on KM on Strategy Implementation

Variable	**Unstandardized coefficients**		**Standardized coefficients**	**T**	**Sig (P).**
	(β)	**Std. Error**	**Beta (R)**		
(Constant)	1.200	0.185		5.605	0.000
Knowledge management	0.308	0.122	0.401	2.670	0.015
Management Support	1.035	0.132	1.000	7.632	0.000

A reduction in the effect of the independent variable on the dependent variable when the mediating variable is included suggests the presence of a mediating effect. As shown in Table

4.15, the effect of knowledge management on strategy implementation decreased from β = 0.752 in the initial model to β = 0.401 after management support was introduced into the model. This indicates that management support has a mediating effect on the relationship between knowledge management and strategy implementation.

Further, the results in Table 4.15 reveal that knowledge management remained statistically significant when management support was included in the model (β = 0.401, t = 2.670, p = 0.015). Since the p-value was less than 0.05, knowledge management continued to have a significant positive effect on strategy implementation.

The results suggest partial mediation because the effect of knowledge management on strategy implementation decreased but remained statistically significant after management support was introduced into the model. In addition, management support remained statistically significant (β = 1.000, t = 7.632, p < 0.05). These findings imply that management support partially explains the relationship between knowledge management and strategy implementation, although other factors may also influence strategy implementation. Therefore, the study concludes that management support has a significant partial mediating effect on the relationship between knowledge management and strategy implementation.

This finding is consistent with Gates (2024), who observed that supportive leadership promotes continuous learning and knowledge sharing, both of which facilitate effective strategy implementation.

Further, the results of the current study are in agreement with those of Bureau of Labor Statistics (2022), which indicated that enhanced management practices improve employee productivity which directly influences implementation of strategies. Gates (2024) indicated that managers who focus on developing robust KM practices foster innovation which leverage employees' intellectual capital/capacity, an invaluable driver of strategy implementation. In his study, Gates (2024), confirmed that prioritizing knowledge management has great potential to

change organisational dynamics, a factor that is crucial in effective strategy implementation. The management also acts as change agents where they play a key role in facilitating knowledge management and strategy implementation processes by promoting strategy and addressing arising barriers (Dayan et al., 2017).

This finding agrees with that of Dahri et al. (2019), who demonstrated that the management plays a fundamental role in aiding to create a common understanding of an institution's strategic goals and objectives amongst all staff. A shared position is critical in stimulating seamless strategy implementation because it ensures that everybody is aware and working with the aim of achieving the same targets.

The results of this study also agree with those of Kordab et al. (2020) who described management support as the "heart and soul" of strategic management. Kordab et al. (2020) explains that without management backing, strategic plans are highly likely to be unsuccessful. This is because the management develops a clear vision of what is to be done and creates methods of doing it. The results of this study are in alignment with those of Fourier & Jacob (2020), who argued that the management is responsible for establishing the culture of an organization. The management cultivates an environment that stimulates moral practices, and critical decision-making both of which are significant in enhancing knowledge management and strategy management. The administration of an institution has the power to create a culture that integrates the strategic and operational activities of both knowledge management and strategic management. The management develops the principles and methods of formulating and executing plans of KM and strategy management (Fourier & Jacob, 2020). This way, that management support has a significant mediating influence on the association between knowledge management and strategy implementation

The results of this study are also in congruence with those of Schmeer (n.d.) who indicated that management supports the employees to mobilize relevant stakeholders. The management ensures that the stakeholders and all levels of staff understand the strategies formulated and the methodologies for executing the strategies. The leaders select and mobilize competent team leaders including powerful stakeholders, develop meaningful relationships with them, clarify the strategies to execute and motivate/empower them to implement them (Polonsky, 1996). The management also manages the interests of the stakeholders involved in the process of knowledge management and strategy implementation, ensuring that each of them is kept satisfied and plays their role. In summary, the management assists in prioritizing communication and engagement of stakeholders to implement strategies and reduce conflicts besides dealing with arising conflicts.

Moreover, the results of this study that management support has a significant mediating effect on the relationship between knowledge management and strategy implementation agree to those of Jabbar and Hussein (2017), who indicate that the management of an organization creates the need for change among the employees. It is the management and leadership that generate the necessity for practicing knowledge management and even for strategy execution. Jabbar and Hussein (2017) elaborates that the management disseminates energy and morale of its employees to undertake knowledge management practices as well as operational activities aimed at achieving the organizational strategies. This study therefore deduces that the management of an organization is the force that enforces both knowledge management and strategy implementation.

Further, the findings of this study agree to those of Fairholm (2019), who showed that good management is keen to identify gaps specifically strategic gaps and knowledge management gaps in order to adopt appropriate approaches of addressing the gaps. It is the role of management to explore and decipher solutions to problems that arise both in knowledge

management and strategy management. As illustrated earlier, knowledge is a key driver of strategy implementation and management is the vigor behind strategy execution and therefore management has a significant moderate effect on the relationship between knowledge management and strategy implementation.

Triangulation of Quantitative and Qualitative Findings on Management Support

The quantitative findings showed that respondents generally agreed that management support positively influenced strategy implementation. Most respondents indicated that management allocated resources for knowledge management, promoted the use of KM tools and platforms, supported knowledge repositories, and monitored the use of KM systems. The regression results further revealed that management support significantly and partially mediated the relationship between knowledge management and strategy implementation.

The qualitative findings corroborated these results by showing that KEBS management provided financial resources, ICT infrastructure, staff training, technical support, and KM policies to facilitate knowledge management practices. Key informants also noted that management invested in technologies such as Microsoft 365, SharePoint, and Teams, thereby supporting knowledge creation, sharing, and utilization.

The convergence of the quantitative and qualitative findings suggests that management support strengthens knowledge management practices and enhances strategy implementation by providing the resources, infrastructure, and leadership commitment required for effective knowledge management. However, the findings also highlighted the need to periodically review the KM policy to align it with emerging organisational and technological developments.

The findings indicate that management support strengthens the effectiveness of knowledge management practices by providing resources, technological infrastructure, policy direction, and employee training. The results therefore support the mediating role of management support in the conceptual framework. Practically, this suggests that even effective knowledge management systems may not achieve their intended impact on strategy implementation without strong leadership commitment and organisational support.

4.6 Hypothesis Test Results

The study tested the hypotheses using the p-values obtained from the regression analyses. The decision criterion was that a null hypothesis would be rejected if its p-value was less than or equal to the significance level of 0.05. According to Sekaran and Bougie (2016), a p-value below 0.05 indicates that the relationship under investigation is statistically significant, leading to the rejection of the null hypothesis.

As shown in Table 4.16, all the p-values were less than the significance level of 0.05. Therefore, all the null hypotheses were rejected, and the corresponding alternative hypotheses were accepted. The findings indicate that knowledge generation, knowledge collaborative flow, knowledge utilization, knowledge repositories, and knowledge management technology had significant effects on strategy implementation. In addition, management support had a significant mediating effect on the relationship between knowledge management and strategy implementation.

Table 4.16: Summary of Hypothesis Testing Results

Null hypothesis	P-Value	α	Implication on null hypothesis	Conclusion

1.H01: Knowledge generation has no significant effect on strategy implementation (SI) in public sector in Kenya.	0.000	0.05	Reject	Accept alternative hypothesis Knowledge generation has a significant effect on SI
2. H02: Knowledge collaborative flow has no significant influence on SI in the public sector in Kenya.	0.020	0.05	Reject	Accept alternative hypothesis: Knowledge collaborative flow has a significant influence on SI
3. H03: Knowledge utilization has no significant influence on SI in the public sector in Kenya.	0.000	0.05	Reject	Accept alternative hypothesis. Knowledge utilization has a significant influence on SI.
4. H04: Knowledge repository has no significant effect on strategy implementation in the public sector in Kenya.	0.010	0.05	Reject	Accept alternative hypothesis: Knowledge repository has a significant effect on SI

5. H05: Knowledge management technology has no significant effect on SI in the public sector in Kenya	0.000	0.05	Reject	Accept alternative hypothesis: Knowledge management technology has a significant effect on SI
6. H06: Management support has no significant mediating effect on the relationship between knowledge management and SI in the public sector in Kenya.	0.010	0.05	Reject	Accept alternative hypothesis: Management support has a significant mediating effect on the relationship between knowledge management and SI

4.7 Discussion of Findings

The findings further revealed that knowledge generation had a positive and statistically significant influence on strategy implementation ($\beta = 0.460$, $p < .05$). This suggests that the creation, acquisition, and development of knowledge enhanced employees' capacity to support strategic initiatives and contributed to improved organizational effectiveness. The finding implies that organizations that encourage continuous learning and knowledge creation are better positioned to implement their strategies successfully.

The study also established that knowledge collaborative flow positively and significantly influenced strategy implementation ($\beta = 0.680$, $p < .05$). This indicates that the exchange and sharing of knowledge among employees, departments, and stakeholders facilitated better

coordination, decision-making, and execution of strategic activities. Effective knowledge flow ensures that critical information reaches the right people at the right time, thereby enhancing strategy implementation.

Further, knowledge utilization emerged as the strongest predictor of strategy implementation ($\beta = 0.740$, $p < .05$). The findings suggest that the value of knowledge is realized when it is applied in decision-making, problem-solving, and operational processes. Organizations that effectively utilize available knowledge are more likely to improve efficiency, innovation, and achievement of strategic objectives.

The results also showed that knowledge repositories had a positive and significant influence on strategy implementation ($\beta = 0.690$, $p < .05$). This implies that the availability of organized and accessible knowledge resources supports informed decision-making and facilitates the retention and transfer of institutional knowledge. Effective knowledge repositories reduce knowledge loss and enhance organizational continuity in strategy execution.

Additionally, knowledge management technology was found to have a positive and significant influence on strategy implementation ($\beta = 0.542$, $p < .05$). This finding suggests that technological platforms and systems enhance the creation, storage, sharing, and application of knowledge across the organization. Knowledge management technologies therefore provide the infrastructure necessary for effective knowledge processes and support successful strategy implementation.

Overall, the findings demonstrate that all dimensions of knowledge management significantly contributed to strategy implementation at KEBS. Although knowledge utilization emerged as the strongest predictor, the results indicate that successful strategy implementation requires an integrated approach encompassing knowledge generation, collaborative flow, utilization, repositories, and enabling technologies. These findings support the Resource-Based View Theory, Knowledge-Based View Theory, and Social Capital Theory, which collectively

emphasize the strategic importance of knowledge as a critical organizational resource for achieving superior performance and successful strategy execution.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the study findings, the conclusions drawn from these findings and recommendations of the study in terms of policy, practice and future research organized as per the research objectives.

5.2 Summary

5.2.1 Effect of Knowledge Generation on Strategy Implementation

The study established that knowledge generation has a significant and positive influence on strategy implementation at KEBS. Knowledge created through organizational activities contributes to better decision-making, enhanced problem-solving, innovation, and improved operational effectiveness, all of which support the successful execution of organizational strategies. The findings underscore the importance of knowledge generation as a strategic resource that strengthens institutional performance and facilitates the achievement of organizational objectives. However, the study also highlights that the benefits of knowledge generation depend on effective management processes, as poorly coordinated knowledge activities may reduce efficiency and hinder strategy implementation. Overall, the findings demonstrate that fostering and managing knowledge generation is critical for improving strategy implementation in public sector organizations.

However, it was also noted that poor management of the knowledge generation process may result in data overload, conflicting perspectives and excess time consumption on processes of analysis and upcoming ideas factors which can impact negatively on strategy implementation.

5.2.2 Influence of Knowledge Collaborative Flow on Strategy Implementation

The study established that knowledge collaborative flow plays a critical role in enhancing strategy implementation at KEBS. Effective knowledge sharing and collaboration facilitate the translation of strategic plans into actionable outcomes by improving communication, teamwork, decision-making, and problem-solving across the organization. The findings further demonstrate that structured knowledge-sharing mechanisms support timely access to relevant information, enabling employees to align their activities with organizational objectives and execute strategies more effectively. Overall, knowledge collaborative flow emerged as a strong and significant predictor of strategy implementation, highlighting the importance of fostering a collaborative knowledge-sharing culture in public sector organizations to achieve strategic goals successfully.

The findings of this study indicated that knowledge collaborative flow ensures sharing and access to information which bridges the gap between developing strategies and execution of the strategies. This study established that knowledge collaborative flow promotes teamwork, equips staff with knowledge and insights to make informed decisions and translates strategies into actions and enhances problem solving. Further, it was established that KEBS has put in place well planned structures and procedures or consultative mechanisms for sharing information including Communities of Practice, Post-Project Reviews, mentorship sessions and centralized knowledge repositories. Effective knowledge collaboration promotes a culture of knowledge sharing allowing for timely access and utilization of information which promotes strategy execution.

The results further demonstrated that knowledge collaborative flow was strongly and significantly related to strategy implementation in a positive manner in the public sector organizations in Kenya.

5.2.3 Influence of Knowledge Utilization on Strategy Implementation

The study established that knowledge utilization has a strong, positive, and significant influence on strategy implementation in public sector organizations, including KEBS. The effective application of organizational knowledge enables employees to translate strategic objectives into practical actions, enhance service delivery, improve operational processes, and support informed decision-making. The findings further indicate that knowledge utilization promotes innovation, creativity, and efficiency, thereby strengthening the organization's capacity to execute its strategies successfully. Overall, the study highlights knowledge utilization as a critical driver of effective strategy implementation, emphasizing the need for organizations to foster mechanisms that support the application of knowledge in day-to-day operations and strategic activities.

5.2.4 Effect of Knowledge Repository on Strategy Implementation

The study established that knowledge repositories play a critical role in supporting strategy implementation by preserving organizational knowledge and facilitating access to relevant information. As centralized sources of institutional memory, repositories enable employees and managers to retrieve, share, and apply knowledge in strategic planning, decision-making, performance monitoring, and strategy execution. The findings further indicate that effective knowledge repository systems enhance knowledge utilization and organizational learning, thereby improving operational efficiency and the achievement of strategic objectives. Overall, the study confirmed that knowledge repositories have a positive and significant influence on strategy implementation, underscoring their importance as strategic knowledge management tools within public sector organizations.

5.2.5 Effect of Knowledge Management Technology on Strategy Implementation

The study established that knowledge management technology is a critical enabler of strategy implementation within KEBS. The adoption of digital knowledge management tools enhances knowledge sharing, collaboration, communication, and organizational learning, thereby supporting informed and timely decision-making. By facilitating access to relevant information and improving coordination among employees, knowledge management technologies strengthen the organization's ability to execute strategic initiatives effectively. The findings further confirmed that knowledge management technology has a positive and significant influence on strategy implementation in the public sector. Overall, the study underscores the importance of investing in and effectively utilizing knowledge management technologies to improve organizational performance and achieve strategic objectives.

The study revealed that Kenya Bureau of Standards has adopted various KM technologies including KEBS Information Management System (KIMS), Entropy, MS-Office and Microsoft 365 (Microsoft-Teams, SharePoint) which are used by its staff in their operations.

The findings also indicated that knowledge management technologies positively and significantly influence strategy implementation in public sector, Kenya.

5.2.6 Effect of Management Support on the Relationship between Knowledge Management and Strategy Implementation

The results revealed that the management plays a pivotal role in providing resources, facilitating knowledge management practices and guiding employees in strategy execution. The management provides a common understanding and an organisational culture that is founded on knowledge management. The findings of this study indicated that management support has a significant mediating effect on the relationship between knowledge management and strategy implementation in the public sector in Kenya.

The management also plays an important role in stakeholder analysis and mobilization of relevant stakeholders to support implementation of strategies. The management do communication of the strategies and plans to the stakeholders and gathers support for the execution of priority strategies by forming possible alliances with other like-minded key stakeholders who have interest and power to influence strategy implementation. The management also offers support to both knowledge management and strategy implementation by evaluating the level of knowledge of stakeholders and managing the relationships to facilitate effective interactions for support of a strategy.

Further, the management back up knowledge management and strategy implementation by identifying potential risks and challenges and exploring measures of solving identified risks and challenges which are important in making the processes successful.

5.3 Conclusions

This study concludes that knowledge management is not merely an operational support function but a strategic capability that significantly enhances strategy implementation in public sector organizations. The findings demonstrate that organizations that effectively generate, share, utilize, store, and technologically manage knowledge are better positioned to translate strategic intentions into tangible outcomes. Consequently, successful strategy implementation depends not only on the quality of strategic plans but also on the organization's ability to create, mobilize, and apply knowledge throughout the implementation process.

The study further concludes that knowledge generation serves as a foundational mechanism through which public sector organizations develop organizational learning, innovation, and adaptive capacity. Rather than simply producing information, knowledge generation enables

organizations to continuously respond to emerging challenges and changing stakeholder needs. This finding reinforces the view that knowledge is a strategic organizational resource capable of creating long-term institutional effectiveness and improving the likelihood of successful strategy execution.

The study also concludes that collaborative knowledge flow is essential for bridging the gap between strategy formulation and implementation. Effective strategy execution requires not only the availability of knowledge but also its continuous movement across departments, teams, and organizational levels. The findings suggest that organizations with strong knowledge-sharing cultures are more likely to achieve coordination, alignment of effort, and collective problem-solving, all of which are critical for implementing complex public-sector strategies. This underscores the importance of social interactions and collaborative networks in transforming individual knowledge into organizational capability.

Further, the study concludes that the value of organizational knowledge is realized only when it is actively utilized in decision-making and operational processes. Knowledge utilization transforms knowledge from a passive asset into a productive resource that drives innovation, efficiency, and strategic action. The findings imply that public sector organizations should focus not only on knowledge creation and storage but also on mechanisms that encourage the practical application of knowledge in day-to-day activities and strategic initiatives.

The study additionally concludes that knowledge repositories play a strategic role in preserving institutional memory and ensuring continuity of organizational learning. In public sector organizations, where employee mobility, leadership transitions, and changing priorities can result in knowledge loss, repositories provide a mechanism for retaining critical organizational

knowledge. Their contribution extends beyond record keeping to supporting evidence-based decision-making, accountability, performance management, and sustained strategy implementation.

The findings also lead to the conclusion that knowledge management technology functions as a key enabler of modern public-sector strategy implementation. Technology facilitates faster knowledge exchange, enhances organizational responsiveness, improves coordination, and supports data-driven decision-making. The study therefore suggests that digital transformation and knowledge management are increasingly interconnected, with technology providing the infrastructure necessary for effective knowledge processes and strategic execution.

A key conclusion of this study is that management support is the mechanism through which knowledge management practices are translated into implementation success. Leadership commitment shapes organizational culture, allocates critical resources, drives stakeholder engagement, and creates conditions that encourage knowledge sharing and utilization. The significant mediating effect of management support indicates that the benefits of knowledge management cannot be fully realized without active managerial involvement and commitment.

From a theoretical perspective, the findings validate and extend the Resource-Based View Theory by demonstrating that organizational knowledge constitutes a valuable strategic resource that enhances implementation capability. The findings also support Social Capital Theory, which emphasizes the importance of relationships, collaboration, and knowledge exchange in achieving organizational objectives. In addition, the results reinforce Transformational Learning Theory by showing that knowledge processes facilitate organizational learning, adaptation, and continuous improvement. Finally, the findings affirm

the propositions of Strategic Management Theory that effective deployment of organizational resources and capabilities is fundamental to successful strategy implementation.

Overall, the study concludes that effective strategy implementation in public sector organizations is fundamentally a knowledge-driven process. Organizations that institutionalize knowledge management practices and cultivate supportive leadership structures are more likely to achieve strategic objectives, improve organizational performance, and enhance service delivery. The study therefore positions knowledge management as a strategic imperative for public sector transformation and sustainable organizational success

Although this study was undertaken at KEBS as a representative public sector organization, the conclusions should be interpreted within the context of a single-case study design. The findings provide analytical insights that may be applicable to other public sector organizations.

5.4 Recommendations

5.4.1 Recommendations for Policy

The study established that KEBS operates under a Knowledge Management Policy developed in 2018 and further found that knowledge generation, collaborative knowledge flow, knowledge utilization, knowledge repositories, and knowledge management technology significantly contribute to strategy implementation. Based on these findings, the study recommends that KEBS periodically review and update its Knowledge Management Policy to ensure alignment with the organization's strategic objectives and the Government of Kenya Knowledge Management Policy (2022).

The revised policy should provide comprehensive institutional guidance on the management of knowledge assets, including knowledge generation, collaborative knowledge flow, knowledge utilization, knowledge repositories, and the use of knowledge management

technologies. In addition, the policy should clearly define governance structures, implementation responsibilities, resource requirements, monitoring frameworks, and reporting mechanisms to facilitate effective implementation and accountability.

The study further recommends that KEBS leadership ensure the full operationalization of the policy through staff sensitization, continuous capacity building, adequate resource allocation, and the strengthening of enabling knowledge management technologies such as secure digital repositories and collaborative platforms. This recommendation is informed by the study's conclusion that effective knowledge management practices and management support are critical enablers of successful strategy implementation at KEBS.

5.4.2 Recommendations for Practice

Recommendation 1: Enhance Leadership Support for Knowledge Management

The study found that management support significantly mediates the relationship between knowledge management and strategy implementation. Specifically, leadership was found to play a critical role in resource allocation, stakeholder engagement, communication, and the creation of a supportive knowledge-sharing culture. Consequently, the study recommends that organizational leaders strengthen their support for knowledge management initiatives through the provision of adequate resources, continuous communication, staff motivation, and active participation in knowledge management activities. This recommendation is directly derived from the finding that management support enhances the effectiveness of knowledge management practices and improves strategy implementation outcomes.

Recommendation 2: Invest in Knowledge Management Technologies

The findings revealed that knowledge management technologies positively and significantly influence strategy implementation by enhancing knowledge sharing, collaboration,

organizational learning, and informed decision-making. The study therefore recommends that KEBS and other public sector organizations continue investing in modern knowledge management technologies and digital platforms that facilitate efficient access to knowledge, real-time collaboration, and information sharing. This recommendation stems directly from the evidence that technology serves as an important enabler of knowledge management and strategy execution.

Recommendation 3: Strengthen Knowledge-Sharing Mechanisms

The study established that collaborative knowledge flow has a strong positive influence on strategy implementation through improved communication, teamwork, and problem-solving. Based on this finding, the study recommends that public sector organizations strengthen formal knowledge-sharing mechanisms such as communities of practice, mentorship programmes, lessons-learned sessions, and post-project reviews. Maintaining and enhancing these structures will facilitate continuous knowledge exchange and support effective implementation of organizational strategies.

Recommendation 4: Promote Knowledge Utilization Across Organizational Functions

The study found that knowledge utilization significantly contributes to strategy implementation by improving decision-making, innovation, efficiency, and service delivery. The study therefore recommends that managers encourage the practical application of knowledge generated and stored within the organization by integrating lessons learned, best practices, and institutional knowledge into operational and strategic processes. This recommendation is supported by the finding that the value of knowledge is realized when it is actively applied to organizational activities and decision-making.

Recommendation 5: Strengthen Knowledge Repositories and Institutional Memory Systems

The findings demonstrated that knowledge repositories positively influence strategy implementation by preserving institutional memory, enhancing access to information, and supporting performance monitoring. Consequently, the study recommends that KEBS and other public sector organizations continuously improve their knowledge repositories to ensure that organizational knowledge remains accessible, current, secure, and useful for strategic decision-making and implementation. This recommendation is directly linked to the finding that effective knowledge repositories facilitate organizational learning and strategy execution.

Recommendation 6: Benchmark and Share Knowledge Management Best Practices Across the Public Sector

Given the study finding that the various knowledge management practices implemented at KEBS positively influence strategy implementation, the study recommends that other public sector institutions benchmark successful knowledge management initiatives from KEBS and adapt relevant practices to their own organizational contexts. This recommendation is grounded in the evidence that effective knowledge management practices contribute to improved implementation of organizational strategies.

5.5 Recommendations for Further Research

- The current study was limited to a single-case study of KEBS. Although KEBS was selected as a representative public sector organization, the findings are context-specific and their transferability to other organizations cannot be assumed. Future studies should therefore undertake comparative multi-agency research involving several public sector institutions and regulators in Kenya to determine whether the observed relationships between knowledge management and strategy implementation are consistent across different organizational contexts.
- In addition, the study focused exclusively on a public sector organization. Future research should extend the investigation to private sector organizations to establish

whether the influence of knowledge management on strategy implementation differs across sectors, organizational structures, and operating environments.

- The study employed a case study design that captured perceptions and experiences at a particular point in time. Future studies should utilize alternative research designs, including cross-sectional surveys, longitudinal studies, and multi-case approaches, to assess the robustness of the findings and provide stronger evidence regarding the causal and long-term effects of knowledge management practices on strategy implementation.
- Further, while this study examined knowledge management at an organizational level, it did not explore potential variations within different functional units of KEBS. Future research should undertake intra-organizational comparisons across directorates, departments, or regional offices to identify knowledge management bottlenecks and determine how differences in knowledge practices influence strategy implementation outcomes.
- From a theoretical perspective, this study focused on the influence of knowledge management practices on strategy implementation. Future studies could extend the theoretical model by examining additional organizational factors, such as organizational culture, leadership styles, employee competencies, and organizational learning capability, to enhance understanding of the mechanisms through which knowledge management contributes to strategy implementation.
- Finally, the study was conducted within a rapidly evolving technological environment and did not specifically assess emerging artificial intelligence-enabled knowledge management systems. Future research should investigate how artificial intelligence tools, including Microsoft Copilot and related technologies, influence knowledge creation, knowledge sharing, reporting efficiency, decision-making quality, and strategy implementation within public sector organizations.

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APPENDICES

Appendix I: Introduction Letter

This is to confirm that Jacqueline Njeri Kang'iri of national ID number 13796753 is a PhD student at Kirinyaga University. Her registration number is BE300/S/17848/22. She is the lead researcher for the study, "To determine the influence of knowledge management on strategy implementation in public sector organisations in Kenya. A case study of KEBS". She is done with the course work and remains with thesis to complete the course. Any assistance will be highly appreciated.

Appendix II (a): Questionnaire

Title of study: Knowledge Management and Strategies Implementation in the Public Service Organisations in Kenya: A Case study of KEBS.

Briefly tell us about yourself

i) Department you work for

ii) Position

iii) Age

iv) Education level

The following questions entail statements about data generation and its influence on strategy implementation in your organisation. Indicate the extent to which you agree or disagree with the following statements on the influence of data generation on different indicators of strategy implementation

1-Strongly Disagree, 2-Disagree, 3-Not Sure, 4-Agree, 5-Strongly Agree

	Knowledge generation and strategy implementation	**1**	**2**	**3**	**4**	**5**
1.	Knowledge generation influences strategy implementation in your organisation					
2.	Knowledge generation/collection affects delivery of quality services in the organisation.					
3.	Knowledge generation influences achievement of goals set in the organisation.					
4.	Knowledge generation affects staff performance in the organisation.					
5.	Knowledge generation influences efficiency of operations in the organisation					

The following questions entail statements about knowledge flow and its influence on strategy implementation in your organisation. Kindly show the extent to which you either agree or disagree with below statements where your level of agreement or disagreement with the question is rated as follows:

1-Strongly Disagree, 2-Disagree, 3-Not Sure, 4-Agree, 5-Strongly Agree

	Statement	**Score**				
	Knowledge collaborative flow	**1**	**2**	**3**	**4**	**5**
6.	The organisation has systems/procedures that promote knowledge flow					
7.	The organisation trains its employees on different issues					
8.	The organisation provides mentorship opportunities for its staff					
9.	The organisation provides an environment that promote teamwork					
10.	There are consultative mechanisms for use by employees in the organisation					

The following questions entail statements about knowledge utilization and its influence on strategy implementation in your organisation. Kindly show the extent to which you either agree or disagree with below statements where your level of agreement or disagreement with the question is rated as follows:

1-Strongly Disagree, 2-Disagree, 3-Not Sure, 4-Agree, 5-Strongly Agree

	Statement	**Score**				
	Knowledge utilization and strategy implementation	**1**	**2**	**3**	**4**	**5**
11.	Knowledge utilization influences strategy implementation					
12.	Knowledge utilization affects delivery of quality services in the organisation.					

13.	Knowledge utilization influences achievement of goals set in the organisation					
14.	Knowledge utilization impacts decision making in the organisation.					
15.	Knowledge utilization aids in process design/ redesign in the organisation.					

The following questions entail statements about knowledge repository and its influence on strategy implementation in your organisation. Kindly show the extent to which you either agree or disagree with below statements where your level of agreement or disagreement with the question is rated as follows:

1-Strongly Disagree, 2-Disagree, 3-Not Sure, 4-Agree, 5-Strongly Agree

	Statement	**Score**				
	Knowledge repository and strategy implementation	**1**	**2**	**3**	**4**	**5**
16	Knowledge repository influences strategy implementation.					
17	The organisation utilizes soft data banks as knowledge repositories which influence delivery of quality services in the organisation.					
19	The organisation utilizes hard copies as knowledge repositories which influence delivery of quality services in the organisation.					
20	Knowledge repositories affect staff performance in the organisation.					
21	Knowledge repositories influence efficiency of operations in the organisation					

The following questions entail statements about knowledge management technologies that are utilized in your organisation and their influence on strategy implementation. Kindly show the extent to which you either agree or disagree with below statements where your level of agreement or disagreement with the question is rated as follows:

1-Strongly Disagree, 2-Disagree, 3-Not Sure, 4-Agree, 5-Strongly Agree

	Statement	**Score**				
	Knowledge management technology and strategy implementation	**1**	**2**	**3**	**4**	**5**
22.	Knowledge management technology influences strategy implementation					
23.	Knowledge management technology is utilized by the employees of this organisation					
24.	Knowledge management technology influences delivery of quality services in the organisation.					
25.	Knowledge management technology affects achievement of goals set in the organisation					
26.	Knowledge management technology influences efficiency of operations in the organisation					
27.	Knowledge management technology influences strategy implementation in your organisation.					

The following questions entail statements about management support on KM in your organisation and its influence on strategy implementation. Kindly show the extent to which you either agree or disagree with below statements where your level of agreement or disagreement with the question is rated as follows:

1-Strongly Disagree, 2-Disagree, 3-Not Sure, 4-Agree, 5-Strongly Agree

	Statement	**Score**				
	Management support and strategy implementation	**1**	**2**	**3**	**4**	**5**
28.	Management support on KM influences strategy implementation in the organisation					
29.	Management allocates required resources for KM in the organisation.					
30.	Management has a policy on knowledge management in the organisation.					
31.	Management promotes utilization of KM tools and platforms in the organisation.					
32.	Management supports use of repositories for knowledge management					
33.	Management tracks use of knowledge management tools and platforms					

Appendix II(b): Interview Guide

Title of Study: Knowledge Management and Strategies Implementation in the Public Service Organisations in Kenya: Case study of KEBS.

Briefly tell us about yourself

i) Department you work for

ii) Position

iii) Age

iv) Education level

Interviewer: Explain the purpose of the study to obtain consent.

QUESTIONS

1. What do you understand by knowledge management (KM)?

   ……

   ……

2. Does the organisation have a knowledge management policy?

   ……

   ……..

3. Does your organisation execute/implement knowledge management practices?

   ……

   ……

   ……

4. What are the knowledge management practices of your organisation? Name and explain all of them.

   ……

   ……

   ……

   ……

   ……

   ……

5. Does the organisation have a department/division in charge of knowledge management?

6. Does the institution have staff that are in charge of KM in the organisation? Explain which ones?

7. What strategies does the organisation use to generate knowledge? .....
.....
.....

8. What kind of knowledge is generated by the organisation……
……
…….

9. Kindly explain how strategies are implemented in your organisation (who is in charge, who is involved, how it is done.
……
……
……
……..

10. Is knowledge created/generated during strategy implementation process?
……
……
……
……

11. In your opinion, does knowledge generation influence strategy implementation in your organisation? If yes, please explain.
……
……
……
……

12. How does knowledge flow in the organisation?
……
……
……

13. What strategies do leadership and management use to share knowledge in the organisation?
.....
.....

14. Is there collaboration of different teams/departments in knowledge flow? If yes explain.

……

……

……

15. Do you think knowledge flow influence strategy implementation in any way? Explain……

……

16. How do you utilize knowledge in strategy implementation?

……

……

17. In your opinion, does knowledge utilization affect strategy implementation process in your organisation? If yes, explain

.....

.....

18. Please explain the strategies that your organisation uses to store knowledge.

……

……

19. How does your organisation store knowledge? What methods and formats are used in knowledge repository?

……

……

20. Which techniques does the organisation use to ensure accessibility of stored knowledge?

.....

.....

21. Do you think knowledge repository influence strategy implementation in an organisation? Explain

……

……

22. Do you utilize knowledge management technology to manage knowledge in your organisation?

…….

23. Which knowledge management technologies do you use in your organisation?.....
.....
24. Explain how you use the different knowledge management technologies
……
……
25. Do you think knowledge management technology influences implementation of strategy in your organisation?
26. How do you think knowledge management technology influence strategy implementation in your organisation?
27. Does the organisation's leadership and management support knowledge management? If yes, which support do they provide?
.....
.....

Probe for the following:

a. Does the management allocate resources for knowledge management initiatives? If yes, explain
b. Are resources invested for KM tools and platforms? If yes explain
c. Estimate the percentage of the budget which is allocated for KM activities in the organisation
d. Do you provide/organize training on KM for your junior staff?
e. Does the management set KM goals as part of performance measurement? If yes, Explain.

28. Explain the kind of support you provide to the employees in their daily work so that they generate, utilize, share and store KM?
……
……
…….

We have come to the end of our interview. Thank you for your time.

Appendix III: Research License

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This is to Certify that Ms.. JACQUELINE NJERI KANG'IRI of Kirinyaga University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kisumu, Mombasa, Nairobi, Nyeri on the topic: "Effect of knowledge management on strategies implementation in public service organizations in Kenya". A case study of KEBS for the period ending : 07/July/2026.

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Appendix VII: Conference Presentation



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Certificate

This is to certify that *Jacqueline Kang'iri* from ***Kirinyaga University*** presented a paper titled: ***Knowledge Generation and Strategy Implementation in Public Sector in Kenya. A Case Study of Kenya Bureau of Standards*** during the 9th Annual International Virtual Conference under the theme ***"Innovation, Digital Transformation and Industry Resilience for Global Sustainability"***, held on **March 25-26, 2026** at Kirinyaga University, Kenya.

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