ORGANIZATIONAL DETERMINANTS OF KNOWLEDGE SHARING IN HEALTH RESEARCH INSTITUTIONS IN KENYA

BY

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MASTER OF SCIENCE IN KNOWLEDGE MANAGEMENT AND INNOVATION

KCA UNIVERSITY

2025

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF SCIENCE KNOWLEDGE MANAGEMENT AND INNOVATION IN THE SCHOOL OF BUSINESS AT KCA UNIVERSITY

OCTOBER, 2025

DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for the award of a degree. I also declare that this contains no material written or published by other people except where due reference is made, and the author is duly acknowledged.

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I do hereby confirm that I have examined the master's dissertation of

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and have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

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ABSTRACT

The environment in which health research institutions operate is highly dynamic and competitive, requiring these organizations to continually adapt to sustain effective knowledge sharing and improve overall performance. Despite the increased adoption of knowledge management practices, many institutions struggle to optimize knowledge sharing, which in turn impacts research output and collaboration. Against this backdrop, this study aimed to investigate the organizational determinants of knowledge sharing in health research institutions registered with NACOSTI in Kenya. The guiding objectives were to determine how organization culture, staff motivation, technology infrastructure, and top management support affect knowledge sharing. The foundational theoretical frameworks underpinning the study included the Knowledge-Based View, Organizational Learning Theory, Incentive Theory, and Technology Acceptance Model. A mixed-methods research design was adopted. The targeted population consisted of 57 professionals from 15 leading health research institutions in Kenya. Census sampling was employed to include all eligible respondents. Data was collected using structured semi-structured questionnaires. A pilot study involving six respondents was conducted to enhance the feasibility of the research instruments. Reliability and validity of the data collection tools were established using Cronbach's alpha and expert review, respectively. Ethical clearance was obtained from KCA University and NACOSTI before data collection. Diagnostic tests, including normality, heteroscedasticity, and multicollinearity assessments, were conducted to validate the data for analysis. Quantitative data were analyzed using STATA version 17, generating descriptive statistics (frequencies, means, standard deviations, and percentages) and inferential statistics (correlation coefficients and regression analysis). The strength of the relationship between organizational factors and knowledge sharing showed that technology infrastructure and top management support had the strongest positive correlations. This was followed by staff motivation and organization culture, which had weaker correlations but significant influence at $p < 0.05$. The regression model indicated that increases in technology infrastructure, top management support, staff motivation, and organization culture lead to significant improvements in knowledge sharing. It was concluded that enhancing technology platforms, strengthening leadership support, motivating staff, and fostering a collaborative organization culture would significantly improve knowledge sharing in health research institutions. The study recommends investing in advanced knowledge management technologies, implementing policy reforms to enhance leadership engagement, developing motivational programs, and fostering environments characterized by trust and open communication.

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LIST OF ABBREVIATIONS/ACRONYMS

KBE	Knowledge-Based Economy
KM	Knowledge Management
KS	Knowledge Sharing
COP	Communities of Practice
KEMRI	Kenya Medical Research Institute
OLT	Organizational Learning Theory
TAM	Technology Acceptance Model
KMS	Knowledge Management Systems
WWW	World Wide Web
RFID	Radio Frequency Identification
RBV	Resource-Based View
VRIN	Valuable, Rare, Inimitable, and Non-Substitutable
OC	Organizational Culture
TMX	Team-member exchange

DEFINITION OF TERMS

Knowledge Management (KM):	A systematic approach to identifying, capturing, organizing, storing, sharing, and effectively using an organization's intellectual assets to facilitate informed decision-making and improve organizational performance (De Bem Machado et al., 2022).
Knowledge Sharing (KS):	The process through which knowledge, both tacit and explicit, is exchanged among individuals, teams, or organizations to foster collaboration, innovation, and improved outcomes (Anand et al., 2021).
Explicit Knowledge:	Knowledge that is codified, documented, and easily transferable through written materials, databases, manuals, or digital platforms (Ellis & Roever, 2021).
Tacit Knowledge:	Personal, context-specific knowledge that is difficult to formalize or communicate, often acquired through experience and shared through direct interaction or mentorship (Oranga, 2023).
Health Research Institution:	An organization dedicated to conducting scientific investigations aimed at improving the understanding of health, developing new therapies, and informing healthcare policies (Bispo Júnior, 2022).
Organizational Culture:	The shared values, beliefs, norms, and practices that shape the behavior and attitudes of members within an

	organization influence how knowledge is created, shared, and utilized (Akpa et al., 2021).
Digital Infrastructure:	The technological systems, platforms, and tools (such as databases, intranets, and knowledge repositories) that support the storage, retrieval, and dissemination of information within an organization (Du & Wang, 2024).
Centralized Repository:	A single, unified digital platform or database where organizational knowledge and research outputs are stored, managed, and made accessible to stakeholders (Dohinog, 2022).
Communities of Practice (CoPs):	Groups of individuals who share a common interest or expertise and interact regularly to share knowledge, solve problems, and develop best practices (Sharp et al., 2024).
Barriers to Knowledge Sharing:	Factors that hinder the free flow of knowledge within or between organizations, such as lack of trust, inadequate technology, hierarchical structures, or cultural resistance (Salehi & Sadeq Alanbari, 2024).
Enablers of Knowledge Sharing:	Conditions or mechanisms that facilitate effective knowledge exchange, including supportive leadership, robust digital platforms, and collaborative organization culture (Eletter et al., 2022).

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

The transition to a knowledge-based economy (KBE) has fundamentally transformed the operational landscape for organizations, positioning knowledge as an important asset essential for organizational growth and competitive advantage (Giraldo et al., 2022). According to Pereira and Bamel (2021), organizations recognize knowledge as a strategic resource that provides a competitive edge due to its unique, inimitable, and non-substitutable characteristics. This perspective aligns with the resource-based view of the firm, which emphasizes the importance of valuable, rare, and difficult-to-imitate resources in achieving sustainable competitive advantage (Barney, 1991).

According to Pereira and Bamel (2021), the knowledge-based view of organizations implies that they are knowledge-creating entities. This perspective emphasizes effective knowledge management (KM) as a cornerstone for success in the KBE (Bancroft et al., 2023). According to Kant et al. (2024), organizations have increasingly adopted KM practices, which include identification, creation, organization, storage, sharing, usage, and maintenance of knowledge. Among the KM practices, knowledge sharing (KS) emerged as a pivotal process within KM frameworks. KM is an approach to identifying, capturing, evaluating, retrieving, and disseminating an organization's intellectual assets (Kant et al., 2024; Pereira & Bamel, 2021; Siegle et al., 2021). This process is significant in ensuring that relevant information is accessible to the right individuals at the right time to facilitate informed decision-making. The significance

of KM has gained prominence in large organizations, and managers increasingly recognize that their value primarily depends on its ability to create and manage their knowledge. This realization has led to a greater focus on creating environments conducive to KS. Sofiyabadi and Valmohammadi (2020) emphasize that organizations fostering an environment conducive to KS are likely to cultivate innovative ideas and solutions to challenges they encounter. The authors emphasize that organizations fostering an environment conducive to KS are likely to cultivate innovative ideas and solutions to the eports bychallenges they encounter. They also highlight organization culture in facilitating effective knowledge management and sharing.

Globally, studies conducted in Pakistan and Bali suggest that KS is necessary for business organizations to help them achieve their desired outcomes. Organizations can produce new knowledge from their various collaborations. Additionally, the research suggests that KS influences innovation culture in business organizations. Through knowledge-sharing initiatives, organizations have proven to perform well while gaining a sustainable competitive advantage (Arsawan et al., 2022; Azeem et al., 2021). According to Xia et al. (2021), effective collaborative KS is crucial in enhancing innovative performance in global operations, with task orientation, ICT usage, and team dispersion contributing to improved innovation capacity.

Regionally, a study by Sekwakwa and Dikotla (2024) indicates that university lecturers must share knowledge gained after attending a training workshop. According to the authors, it is easier for university teaching staff to make decisions based on the tacit knowledge shared from an informed point of view. Additionally, management support is essential in ensuring that tacit knowledge is shared within the organization (Sekwakwa &

Dikotla, 2024). The support may exist in rewarding the employees who best share their knowledge.

A study by Olayemi and Olayemi (2021) investigated knowledge-sharing practices among African health sciences librarians. The study revealed that the most shared knowledge included information about conferences, workshops, and new trends in librarianship. Face-to-face interaction was identified as the primary method of KS, reflecting a reliance on traditional communication channels (Olayemi & Olayemi, 2021). However, significant barriers were noted, including an unwillingness to share knowledge and a lack of awareness about current trends and issues.

Another study conducted in Zimbabwe suggests that conferences are great KS platforms (Mazorodze & Mkhize, 2022). According to the authors, conferences through the communities of practice (COP) enable effective communication while disseminating research findings. The study also suggests that organizations should adopt training and mentorship to foster KS within them.

Locally, research was conducted by Thumbi et al. (2025) to establish the influence KS has on human resource planning in the Public Service Commission of Kenya. The authors found that KS enhances workforce planning and management. It is significant for the Public Service Commission to foster a culture of KS to ensure that human resource functions are conducted effectively within public institutions. Management must establish policies and practices that promote and encourage KS among employees.

According to Muleke et al. (2023), research conducted in Kenya focusing on public research institutions suggests that management should promote KS among team members to ensure that organizational performance is achieved. Organizations need to

invest in a KS culture that empowers employees to share the experiences they have garnered and the lessons learned.

A study at the Kenya Revenue Authority (KRA) examined how communities of practice (CoPs) influence KS in public institutions. The research found that shared repertoire and voluntary action within CoPs significantly enhanced employee knowledge sharing practices. However, bureaucratic structures and a lack of formalized KS sharing platforms were identified as barriers to maximizing these benefits (Simiyu & Kamau, 2022).

1.1.1 Knowledge Sharing

Knowledge sharing (KS) has increasingly gained prominence as a central theme in knowledge management literature, with scholars recognizing it as the cornerstone for organizational learning, innovation, and competitive advantage. Adhikari and Shrestha (2023a) argue that KS is the most critical KM initiative, serving as the foundation for idea generation and the successful implementation of new concepts within organizations. This view is echoed by Grant (2001), who contends that knowledge sharing among employees reinforces overall organizational performance by fostering a collective knowledge base that supports decision-making and problem-solving. Similarly, Kmieciak (2021) emphasizes that KS is not simply a transfer of information, but an active process that promotes collaboration, facilitates mutual understanding, and drives organizational improvement.

Various perspectives exist in academic literature regarding the definition and scope of knowledge sharing. Some scholars, like Adhikari and Shrestha (2023b), highlight that motivational factors, organizational culture, and the perceived value of knowledge

itself influence KS. Amunkete and Seymour (2023) further elaborate that effective KS depends on both willingness and opportunity: employees must be inclined to share. Still, they must also have the appropriate platforms and encouragement to do so. Others, such as Haesebrouck et al. (2021), advocate for a distinction between formal and informal KS, noting that structured mechanisms and unstructured social interactions both play vital roles.

Technological advancements and the digital transformation of the workplace significantly shape emerging issues in KS. The rise of digital platforms, such as enterprise social networks, knowledge management systems, and collaboration tools like Slack and Microsoft Teams, has both facilitated and complicated KS. On one hand, technology enables easier access to information, supports asynchronous communication, and can break down traditional organizational silos (Zamiri & Esmaeili, 2024). On the other hand, challenges such as information overload, lack of personalization, and technology acceptance barriers can impede effective KS (Money & Turner, 2004). The increasing prevalence of remote and hybrid work arrangements further highlights the need for robust digital KS strategies that ensure continuity, trust, and engagement across geographically dispersed teams.

1.1.2 Health Research Institutions

A health research institution is an organization dedicated to conducting scientific investigations aimed at improving the understanding of human health, developing new therapies, and informing healthcare policies (Collett, 2023). These institutes provide specialized facilities and resources for researchers, clinicians, and public health professionals to study diseases, develop treatments, and advance medical knowledge.

In Kenya, the first formal health research institution was the Kenya Medical Research Institute (KEMRI), established in 1979 through the Science and Technology (Repealed) Act, Cap 250 of the Laws of Kenya, operated under the Science, Technology and Innovation Act, 2013, as the national body responsible for carrying out research in human health in Kenya (The Science and Technology Act, Cap 250, 2013). Currently, KEMRI operates under (Legal Notice No. 35, 2021). Over the years, Kenya's medical research landscape has expanded to include several other key institutions, such as the African Population and Health Research Center (APHRC) and AMREF Health Africa (Ichinose, 2014). There are more than a dozen major medical research institutions in the country, with KEMRI alone operating multiple specialized centers and regional clusters serving all 47 counties (KEMRI, 2025). This research studied KEMRI, the APHRC, AMREF Health Africa, and thirteen leading health research institutions in Kenya, according to NACOSTI (2025).

1.2 Problem Statement

The effective knowledge sharing in health research institutions in Kenya is pivotal for translating research findings into actionable policies, ultimately enhancing public health outcomes (Kariuki, 2024). Despite the significant volume of high-quality research produced by institutions like the Kenya Medical Research Institute (KEMRI), the African Population and Health Research Center (APHRC), and AMREF Health Africa, critical challenges hinder the effective dissemination and utilization of this knowledge (Chuma, 2019; Wandera, 2012). Key barriers include the absence of robust institutional mechanisms for KS both internally among researchers and externally towards policymakers (Rezaei et al., 2021). Furthermore, existing knowledge is often confined

within academic circles, notably published in peer-reviewed journals, which limits its accessibility and relevance to practitioners who could benefit from it (Onyancha, 2025; Rezaei et al., 2021). While KEMRI scientists published 353 peer-reviewed articles between 2002 and 2015, this represents only a fraction of the total knowledge generated, much of which remains unpublished or poorly shared. (Kariuki et al., 2019a). Additionally, organization culture and bureaucratic structures create silos that inhibit collaboration and the free flow of information. While voluntary communities of practice (CoPs) can enhance knowledge-sharing behaviors, their effectiveness is compromised without formalized platforms and strong leadership support (Makori, 2021). The increasing reliance on digital platforms intended to facilitate KS brings its own challenges, such as information overload and issues with technology acceptance, further complicating the landscape (Makori, 2021). In hybrid work setups, keeping people connected and maintaining KS practices is getting harder, making existing problems even more serious. Despite these identified challenges, several studies, such as those by Kariuki (2024) and Chuma (2019) have primarily focused on knowledge capture and application, neglecting the specific mechanisms and cultural factors that support or hinder KS within health research environments. While they detail the importance of KS initiatives, they do not investigate the factors affecting KS effectiveness in the context of Kenya's health research institutions. This study thus aims to address a critical gap in the literature by focusing on the organizational, cultural, and technological barriers to KS in these institutions, documenting how these factors interplay and affect knowledge sharing. The research explored the roles of formal and informal mechanisms in facilitating KS and the influence of digital tools in supporting or obstructing effective knowledge-sharing practices.

Recognizing and addressing these gaps is essential for ensuring that valuable research outputs are utilized effectively to improve health outcomes in Kenya.

1.3 Justification of the study

AMREF Health Africa, along with other health organizations, has identified challenges in knowledge sharing that hinder the effective application of research findings in healthcare practices. These challenges include fragmented data systems, insufficient integration between research and program teams, and a lack of mechanisms for translating research into actionable policy (Back & Murerwa, 2024; J. Kariuki, 2024; Makoude & Othero, 2023). To enhance knowledge sharing, there is a pressing need for robust digital platforms, community engagement, and incentives for staff to share insights beyond their immediate teams.

Moreover, it has been observed that inadequate stakeholder engagement and dissemination strategies often limit the impact of health research. The significance of this study lies in its potential to address these barriers by providing insights into effective KS practices within Kenya's health research institutions (Back & Murerwa, 2024). This helped in developing more efficient knowledge management frameworks and strategies that can improve evidence-informed decision-making and healthcare delivery.

1.4 Objectives of the Study

1.4.1 General Objective

To investigate the organizational determinants of knowledge sharing in health research institutions in Kenya.

1.4.2 Specific Objectives

i. To determine the effect of organization culture on knowledge sharing in health research institutions in Kenya.

ii. To determine the influence of staff motivation on knowledge sharing in health research institutions in Kenya.

iii. To establish the effect of technology infrastructure on knowledge sharing in health research institutions in Kenya.

iv. To establish the effect of top management support on knowledge sharing in health research institutions in Kenya.

1.5 Research Questions

i. How does organization culture affect knowledge sharing in health research institutions in Kenya?

ii. What is the influence of staff motivation on knowledge sharing in health research institutions in Kenya?

iii. How does technology infrastructure impact knowledge sharing in health research institutions in Kenya?

iv. What is the effect of top management support on knowledge sharing in health research institutions in Kenya?

1.6 Significance of the Study

The outcomes of this research will benefit practitioners, policymakers, and scholars by identifying organizational, technological, and motivational factors that facilitate or hinder KS. By improving knowledge flow, the study supports the broader goal of strengthening health systems and improving population health outcomes in Kenya and similar contexts.

1.6.1 Health Research Institutions

Based on this study's findings, health research institutions will develop more knowledge management strategies to achieve the organization’s objectives. The study will also provide practical solutions that the institute's management can adopt.

1.6.2 Researchers, Academicians, and Students

The findings of this study will benefit researchers, academicians, and students in the knowledge management arena in their studies and research by contributing new insights into the existing literature.

1.7 Scope of the Study

This study focuses on the organizational determinants of knowledge sharing in health research institutions in Kenya, with particular emphasis on how organizational culture, staff motivation, technology infrastructure, and top management support influence KS practices. The research examined these factors in the context of Kenya’s leading medical research institutions, primarily the Kenya Medical Research Institute (KEMRI), the African Population and Health Research Centre (APHRC), and AMREF Health Africa based in Kenya. By focusing on these institutions and regions, this research aims to offer practical ideas for improving knowledge-sharing practices. The goal is to help people make better decisions based on evidence and improve health outcomes in Kenya.

The study investigated the processes, challenges, and enablers of KS, including the mechanisms for knowledge generation, translation, storage, dissemination, and utilization. It explored both explicit knowledge (such as research publications, policy briefs, and digital repositories) and tacit knowledge (such as skills, experiences, and informal communication) within health research organizations.

The research employed a mixed-methods approach involving surveys, interviews, and document analysis to assess organizational culture, staff motivation, technological infrastructure, and leadership support. It also evaluated existing knowledge management systems and dissemination platforms.

CHAPTER TWO

REVIEW OF LITERATURE

2.0 Introduction

This literature review provides the reader with a general overview of the literature on KS. It discusses various theories related to the research study. The chapter offers the conceptual framework, empirical review, critique of existing literature, and, finally, the research gaps identified.

2.1 Theoretical Review

It is important to understand the definition of knowledge when researching KS. According to (Baumard, 1999), knowledge can be defined as the justified belief that increases an organization's capacity to take effective action. The authors state that knowledge exists as either tacit or explicit knowledge.

2.1.1 Organizational Learning Theory (OLT)

Organizational Learning Theory was originally developed by Chris Argyris and Donald Schön in the 1970s (Smith, 2001). Later, Peter Senge further popularized and expanded the theory in his 1990 book The Fifth Discipline, emphasizing the importance of learning organizations that continuously transform through systems thinking and shared vision (Senge, 1990). Organizational Learning Theory (OLT) is a foundational concept that explains how organizations create, retain, and transfer knowledge to enhance their competitive edge and foster innovation. This process is crucial for maintaining success in dynamic environments, where continuous learning and adaptation are essential (Ojuola, 2022). The theory emphasizes a balance between exploiting existing knowledge and

exploring new knowledge, a concept introduced by (March 1991), who highlighted the importance of balancing these two aspects to drive innovation and maintain competitiveness.

Organizational learning occurs at multiple levels, individual, group, and organizational, and involves core activities such as creating new knowledge, retaining existing knowledge, and transferring it across the organization (Nonaka & Takeuchi, 1996). The authors elaborated on this process, noting that knowledge creation involves converting tacit and explicit knowledge through socialization, externalization, combination, and internalization. This framework supports the development of a learning culture that encourages collaboration and open communication, which are vital for effective KS.

Evidence from various studies supports the role of organizational learning in driving innovation and success. For instance, (Ojuola, 2022) highlighted that organizational learning significantly contributes to successful innovation, which determines an organization's success. Companies like Apple and Google have consistently innovated by fostering a culture of continuous learning and KS among employees. This culture enhances innovation and helps organizations adapt to technological changes and market shifts, as noted by Crossan and Berdrow (2003).

OLT is relevant to the first study objective, “to determine the effect of organization culture on KS in health research institutions in Kenya.” For an organization to survive fiercely in a competitive market and with ever-changing technology, it must embrace and adopt an organizational learning culture. This theory supported the study because every

time employees share knowledge, they continue to learn, thus promoting innovation within the organization.

2.1.2 Incentives Theory

The Incentive Theory of motivation was developed by behavioral psychologist B.F. Skinner in the 1940s and 1950s (Laffont & Maskin, 1981). Skinner's work on operant conditioning laid the foundation for this theory, which posits that behavior is motivated by external rewards or the avoidance of negative consequences. The theory suggests that people are driven to perform actions that lead to positive incentives such as bonuses, promotions, or recognition, and to avoid actions that result in punishment or loss. According to (Killeen, 1982), incentives are circumstances that elevate arousal, thereby intensifying behaviors that have already begun. The central principle of this theory is that individuals are driven to pursue activities that yield rewards while avoiding actions that could lead to negative consequences. This concept suggests that people are motivated to engage in behaviors they perceive as beneficial, highlighting the importance of reward systems and motivational factors in influencing behavior (Killeen, 1982; Cherry, 2025).

One of the primary components of Incentive Theory is staff motivation. This aspect emphasizes the significant role that motivation plays in shaping behavior. Research indicates that individuals are more inclined to participate in activities they believe will result in positive outcomes or rewards (Killeen, 1985). For example, experiments have shown that varying the magnitude of rewards can influence behavior; larger rewards often lead to increased individual effort and participation (Killeen, 1985). Another critical element of this theory involves motivational factors. These factors encompass tangible rewards, such as financial incentives, and intangible rewards, like recognition or praise

(Moore, 2024). In workplace settings, for instance, offering flexible working hours or public acknowledgment of achievements can motivate employees to share knowledge. This theory relates to the second objective, which aims to determine the influence of staff motivation on KS in health research institutions in Kenya.

2.1.3 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is a widely recognized framework for understanding how users accept and use technology. Developed by Fred Davis in 1986, TAM posits that two primary factors influence technology adoption: perceived usefulness and perceived ease of use (Davis, 1989). This model has been extensively applied in various contexts, including knowledge management systems, to predict user acceptance and behavior.

TAM has been used to study the acceptance of knowledge management systems (KMS), which are critical for facilitating KS within organizations. Research has shown that when employees perceive a KMS as valuable and easy to use, they are more likely to adopt it, leading to enhanced KS and organizational learning (Money & Turner, 2004). The authors explored the applicability of TAM to user acceptance of a KMS, finding that the model effectively explained user acceptance and usage patterns.

Over time, TAM has been extended to include additional factors influencing technology adoption. TAM2, for example, incorporates social influence and cognitive factors to explain perceived usefulness and usage intentions better (Venkatesh & Davis, 2000). TAM3 further refines these extensions by providing a comprehensive list of antecedents to perceived ease of use and usefulness, offering insights into designing interventions that enhance technology acceptance (Venkatesh & Bala, 2008).

TAM's practical applications range from e-learning platforms to e-commerce systems. It has been used to assess user acceptance of various technologies, including World-Wide-Web (WWW), online auctions, and Radio Frequency Identification (RFID) systems (Almasri, 2014). In the context of KS, adapting TAM can help organizations design more effective KMS by focusing on perceived benefits and ease of use, encouraging employees to share knowledge more effectively (Assegaff & Dahlan, 2011).

TAM is related to the third objective, which sought to establish the influence of technology infrastructure on KS in health research institutions in Kenya. According to this model, technology's perceived utility and usability determine its adoption and uptake. A technological infrastructure that improves performance and is simple to use is likely to be adopted by employees. Implementing a knowledge management system (KMS) encourages KS within an organization.

2.1.4 Knowledge-Based View Theory

The firm's Knowledge-Based View Theory (KBV), an extension of the Resource-Based View Theory, places knowledge at the center of organizational strategy and sustained competitive advantage. KBV Theory was discovered by Robert M. Grant in 1996 (Grant & Phene, 2022) Emerging prominently in the 1990s, the KBV posits that knowledge is a firm's most strategically significant resource. Scholars such as Grant (2001) and Nonaka and Takeuchi (1996) assert that. In contrast, traditional resources like physical assets and financial capital are important; it is the creation, integration, and application of knowledge that drive firm success and innovation.

According to the KBV, organizations exist principally to integrate their members' specialized knowledge and convert individual knowledge into organizational competence.

This perspective holds that organizational knowledge is valuable, often tacit, context-dependent, and difficult for rivals to imitate. As such, knowledge-sharing practices become crucial for leveraging expertise, fostering innovation, and building collective capability within the firm (Eisenhardt & Santos, 2002; R. Grant & Phene, 2022).

The KBV differentiates between tacit knowledge, that which is personal, context-specific, and hard to express, and explicit knowledge, which can be easily codified and shared through documents or systems (Nonaka & Takeuchi, 1996). The dynamic interaction between these types of knowledge and the firm's ability to convert, combine, and transfer them across levels and functions underpins knowledge-based competitive advantage.

In health research institutions, the Knowledge-Based View Theory highlights the critical roles of organizational culture, technology infrastructure, staff motivation, and top management support in facilitating or hindering KS. KBV emphasizes not only possessing knowledge resources but also the structures, routines, leadership, and technological platforms that enable effective sharing and creation of knowledge across the institution.

The study's fourth objective, which is to establish the influence of top management support on knowledge sharing in health research institutions in Kenya, is directly aligned with the KBV Theory. Top management plays a pivotal role in shaping knowledge management strategies, cultivating a knowledge-friendly environment, and allocating resources to support effective KS practices, thereby impacting the overall knowledge-based capabilities of the organization.

2.2 Empirical Review

The empirical studies focused on two types of variables: Independent variables (Organization Culture, Staff Motivation, Technology Infrastructure, and Top Management Support) and Dependent variables (Knowledge Sharing).

2.3.1 Organization Culture and Knowledge Sharing

Organization culture has become a pivotal focus in understanding the frameworks that shape interpersonal interactions within organizations, especially regarding KS practices. Organization culture encompasses the shared values, beliefs, and norms that influence how employees behave and interact with one another (Akpa et al., 2021). Empirical research demonstrates that the characteristics of organization culture are significant predictors of KS behavior. For example, (Raziq et al., 2024b) provide compelling evidence that organizational culture, characterized by trust, collaboration, and a familial atmosphere, encourages employees to share knowledge without fear of negative repercussions. This line of research is supported through various studies suggesting that the essence of a prevalent culture directly influences the willingness to engage in KS (Haq et al., 2023).

Organizations with a robust clan culture foster environments where employees feel psychologically safe. Clan culture is a type of organization culture that emphasizes collaboration, teamwork, and a strong sense of belonging, often described as feeling like a family within a workplace (Aichouche et al., 2022). According to Nguyen (2021), such environments not only reduce apprehensions about potential risks associated with sharing information but also enhance collaboration. When employees perceive that their contributions are valued and that their success is linked to collective outcomes, they are

more likely to engage in open dialogue. This observation parallels findings by Shehzad et al. (2023), who asserts that knowledge is a social construct and thrives in environments conducive to interpersonal relationships built on trust.

Contrasting clan culture, hierarchical cultures prioritize rules, structure, and formal control, often leading to a KS standoff. (Raziq et al., 2024b) states that while hierarchical structures may enable organizational performance through efficiency, they do not support an environment conducive to informal KS. Employees navigating such cultures may compartmentalize information and treat knowledge as a competitive advantage, directly undermining collaborative efforts. This phenomenon highlights the need for organizations to evaluate their cultural orientation and make necessary adjustments to promote effective KS.

Leadership styles, selected organizational processes, and support structures have an equally substantial impact on KS. Transformational leadership, which encourages and motivates employees while fostering a culture of collaboration, has been linked to higher levels of KS in organizations. Cao & Le (2024) argue that leaders who inspire shared visions and promote open dialogue cultivate an environment that promotes the exchange of ideas, thereby facilitating collective problem-solving. A significant aspect of this relationship is that transformational leaders are more likely to provide recognition and rewards for KS behaviors, contributing to an overall culture of appreciation for knowledge exchange (Shehzad et al., 2023).

Furthermore, decision-making processes that encourage participation further enhance KS. According to (Fattah et al., 2022), organizations that involve employees in decision-making processes not only empower them but also enhance their sense of

ownership, leading to greater willingness to share insights. This aligns with social exchange theory, which posits that reciprocation in relationships governs KS behaviors; employees who feel valued reciprocate by contributing their knowledge (R. Ahmad et al., 2023).

The competitive landscape significantly affects knowledge-sharing practices as well. Organizations prioritizing competitive environments tend to inhibit KS, as employees may perceive their knowledge as a personal asset rather than a collective resource. This dynamic is often rooted in fear, that is, fear of losing relevance or being marginalized by colleagues (Mohd. Shamsudin et al., 2023). Conversely, cultures prioritizing collaboration over competition display higher levels of KS since employees feel comfortable collaborating toward common goals.

Research examining external contexts impacting organization culture indicates that technology plays a role in mediating KS processes. With the advent of digital collaboration tools, remote work has become more prevalent, reshaping how organization culture manifests in KS. A study by (M. Nguyen et al., 2023) found that organizations leveraging technology to facilitate communication and collaboration tend to report higher rates of KS. Integrating knowledge management systems within the organization culture impacts both the technical and social dimensions of KS, creating an environment where sharing becomes intrinsic to daily operations.

Moreover, empirical literature reflects that cultural aspects such as diversity and inclusion significantly influence KS practices. A diverse workforce offers a range of perspectives and experiences that can enrich KS. According to (Abdelhay, 2024), organizations that cultivate inclusive environments actively encourage varied viewpoints,

leading to more extensive knowledge exchange. However, organizations must implement effective management strategies to harness the benefits of diversity, as simply having a diverse workforce does not guarantee increased KS.

Recent research findings reveal the cyclical nature of KS and organizational culture. An open and trust-oriented culture facilitates KS, and the act of sharing knowledge also reinforces the organizational culture. Employees who share knowledge contribute to a collective identity centered around collaboration and mutual support. This recursive dynamic is supported by a study conducted by Aldaheri et al. (2023), demonstrating that consistent KS practices can gradually enhance the overall cultural orientation towards collaboration, thus creating a virtuous cycle that drives performance and innovation.

Drawing from these empirical studies, it becomes evident that for organizations aiming to optimize KS behaviors, it is crucial to invest in cultivating a supportive cultural environment. The significance of trust, collaboration, inclusion, and effective leadership cannot be overstated in this pursuit. Organizations should actively work to dismantle KS barriers, adopting policies that encourage openness and transparency while recognizing and rewarding contributions. At institutions like KEMRI, the Knowledge Management and Resource Development (KM&RD) department plays a pivotal role in fostering such a culture by strengthening institutional capacity in knowledge generation, translation, storage, dissemination, and utilization.

2.3.2 Staff Motivation and Knowledge Sharing

Staff motivation is a crucial determinant of employees' willingness and commitment to sharing knowledge within organizations. As organizations navigate the complexities of modern work environments, understanding the drivers of KS has never been more essential. The literature continues to illustrate how both intrinsic and extrinsic motivators impact employees' engagement in knowledge-sharing behaviors, highlighting the need for a balanced approach that cultivates a nurturing environment for continuous learning and collaboration (Al Mansoori et al., 2025). Extrinsic rewards have long been acknowledged as powerful incentives for promoting KS. According to incentive theory, tangible benefits such as bonuses, promotions, and recognition systems act as motivators that can enhance participation in knowledge-sharing activities (Bandhu et al., 2024).

Recent empirical studies support this claim. Zamiri and Esmaeili (2024) conducted a comprehensive analysis of organizations employing structured reward systems connected explicitly to KS initiatives. Their findings indicate that employees demonstrated higher rates of participation and cooperation when they recognized that their contributions would lead to definitive and measurable rewards. Organizations utilizing these structured rewards could foster a competitive yet collaborative atmosphere among employees that reinforced the importance of KS (Zamiri & Esmaeili, 2024).

Moreover, the effect of extrinsic motivators on KS is not limited to financial incentives. Non-monetary rewards, such as public recognition and awards for knowledge contributions, also enhance motivation. Research by Thomas and Gupta (2022) emphasizes that a culture of recognition can significantly influence knowledge-sharing behavior. When organizations celebrate employee contributions to KS, they not only

acknowledge individual achievements but also promote a sense of belonging and community. Consequently, this environment encourages employees to collaborate, as they feel valued and appreciated for their input.

However, while extrinsic rewards undoubtedly play a pivotal role, recent discourse has increasingly highlighted the significance of intrinsic motivation in driving knowledge-sharing behavior. Intrinsic motivators such as personal satisfaction, a sense of accomplishment, and the joy of helping colleagues critically influence employees' willingness to share knowledge. (Thomas & Gupta, 2022) found that when employees derive personal fulfillment from contributing to collective success, their engagement in KS activities increases exponentially. This finding suggests that organizations should create an environment where intrinsic motivators can thrive. By fostering an atmosphere of trust, respect, and shared values, organizations can stimulate employees' internal desire to contribute to the collective knowledge pool without the expectation of external rewards (Nguyen & Prentice, 2022).

Creating a robust knowledge-sharing culture requires recognizing the interplay between intrinsic and extrinsic motivators. Chiu et al. (2024) emphasize that organizations achieving the best outcomes identify and reward knowledge contributions while simultaneously cultivating a deep sense of purpose and belonging among employees. Their study concluded that practical, team-based incentives and opportunities for professional development drive collaborative behavior essential for effective KS in the workplace.

In the context of health research institutions in Kenya, effective strategies for enhancing staff motivation have been implemented through a series of initiatives in

organizations such as KEMRI. The introduction of awards and recognition programs during the KEMRI Annual Scientific Health Conference (KASH) contributes significantly to building a motivated workforce. Specifically, these programs create a platform for celebrating achievements and recognizing contributions to KS, aligning with insights from the strategic plan implemented from 2018 to 2022. This strategic plan emphasized the need to review and harmonize staff reward mechanisms, thereby enhancing the motivation for knowledge sharing (KEMRI Strategic Plan 2023-2027, 2025). By integrating both intrinsic and extrinsic motivational elements, KEMRI seeks to cultivate an environment that not only encourages but actively supports its workforce's participation in knowledge-sharing activities.

Moreover, KEMRI's strategic initiatives extend beyond recognition programs to include training and development opportunities. Providing employees with resources and training to enhance their skills promotes intrinsic motivation (Arsawan et al., 2022). Research suggests that when employees see that their organizations are invested in their personal and professional growth, they are more likely to share knowledge, as they feel their development aligns with organizational goals (Thomas & Gupta, 2022). This holistic approach to staff motivation not only enhances KS but also contributes to the overall organizational learning culture.

2.3.3 Technology Infrastructure and Knowledge Sharing

Technology infrastructure has become an indispensable enabler of KS and technology transfer in organizations, particularly within research-intensive environments such as medical institutes. Recent empirical studies underscore the importance of digital tools,

knowledge management systems, and collaborative platforms in facilitating both the dissemination and exchange of explicit and tacit knowledge among professionals.

A growing body of literature highlights that successful technology adoption for KS is closely tied to user perceptions of usefulness and ease of use, as articulated in the Technology Acceptance Model (TAM) (Davis et al., 2024). When employees find knowledge management systems (KMS) and collaborative tools intuitive and beneficial, they are likelier to engage in knowledge-sharing behaviors. For instance, Rusilowati et al. (2023) conducted a mixed-methods study in public organizations. They found that robust IT infrastructure, such as intranets, collaborative platforms, and centralized repositories, significantly improves KS practices and overall organizational performance. The study emphasized that the accessibility and user-friendliness of these systems are critical to fostering active participation and engagement among staff (Rusilowati et al., 2023).

Further empirical evidence is provided by Letshaba and Ndlovu (2024), who examined the impact of knowledge management technology on KS processes in small training providers. The study employed path modelling and revealed a strong positive relationship between KM technology availability and knowledge management operations' efficiency. Employees in organizations with advanced digital infrastructure reported higher KS, attributing this to the ease of accessing and contributing to organizational knowledge bases (Letshaba & Ndlovu, 2024). These findings are consistent with broader trends in literature, which position technology infrastructure as a strategic asset for promoting organizational learning and innovation.

The role of collaboration technologies in supporting KS is also well documented. Platforms such as video conferencing, instant messaging, and project management tools

enable real-time communication and teamwork, effectively bridging geographical and temporal barriers(Haas et al., 2021). Jarrahi et al. (2023) noted that virtual communities of practice, supported by digital platforms, allow employees to connect, share experiences, and collaboratively solve problems, even when dispersed across different locations. This is particularly valuable in global or decentralized organizations where face-to-face interaction is limited, and knowledge transfer must occur across boundaries.

In the context of health research institutions in Kenya, technology infrastructure has played a pivotal role in enhancing KS and technology transfer. KEMRI, for example, has implemented platforms like Microsoft SharePoint and D-Space to facilitate the storage, retrieval, and dissemination of research findings, protocols, and other critical knowledge assets (Daramola et al., 2024; Haug, 2022; Masinde et al., 2021). These systems have enabled researchers and staff to efficiently share explicit and tacit knowledge, supporting a continuous learning and innovation culture (Eller, 2025). Additionally, initiatives such as the *Utafiti wa Afya Platform* have demonstrated the value of digital repositories in synthesizing and presenting research outputs in actionable formats, such as infographics and policy briefs, to support evidence-based decision-making (J. Kariuki, 2024; Omanyo & Ndiege, 2025).

Despite these advancements, several empirical studies point to persistent challenges. Muhaxhiri (2021) investigated the use of Microsoft SharePoint among knowledge workers and found that system complexity, lack of training, and inadequate integration with existing workflows can hinder effective KS. Similarly, a 2020 mixed-methods survey of Kenyan public hospitals by (Muinga et al., 2020) highlighted issues such as data quality, IT infrastructure limitations, and challenges in integrating digital

health systems with national information systems. These barriers can limit the potential of technology to fully support knowledge transfer and sharing, particularly in resource-constrained settings.

Nevertheless, the opportunities presented by technology-enabled KS are substantial. Emerging digital health systems, cloud-based platforms, and virtual communities of practice offer new avenues for real-time collaboration and knowledge exchange. The key to leveraging these opportunities lies in sustained investment in IT infrastructure, ongoing user training, and cultivating organizational cultures that value and incentivize KS.

2.3.4 Top Management Support and Knowledge Sharing

Top management support has emerged as a fundamental driver of effective knowledge sharing within organizations, particularly in research-intensive and knowledge-driven sectors. Empirical research has increasingly highlighted how leadership shapes, enables, and sustains knowledge-sharing behaviors and systems.

A consistent theme in the literature is that top management support sets the tone for organization culture and priorities. Leaders who visibly endorse knowledge-sharing initiatives help embed such practices into the organization's daily routines and strategic objectives. For instance, Singh et al. (2021) conducted a study among technology firms. They found that when top management actively participated in and promoted knowledge-sharing activities, employees were more likely to perceive KS as a valued and rewarded behavior. This top-down endorsement provided legitimacy to knowledge-sharing practices and fostered a sense of psychological safety, encouraging staff to share their expertise without fear of negative repercussions (Singh et al., 2021).

Transformational leadership is especially effective in promoting KS. Transformational leaders inspire and motivate employees by articulating a compelling vision, setting high expectations, and providing individualized support. Mohsenibeigzadeh et al. (2024) explored this dynamic in healthcare organizations and found that transformational leaders fostered environments where employees felt empowered and motivated to contribute their knowledge. The study revealed that such leaders were instrumental in creating a collaborative atmosphere, breaking down silos, and encouraging cross-functional knowledge exchange. Employees under transformational leadership reported higher levels of trust, engagement, and willingness to share explicit and tacit knowledge.

Resource allocation is another critical dimension of top management support. (Raziq et al., 2024b), in their empirical study of public sector organizations, demonstrated that when top management provided adequate resources, such as time, technology, and training, knowledge-sharing initiatives were more likely to succeed. The study found that resource support from leadership strengthened the relationship between organization culture and knowledge-sharing performance, enabling employees to confidently participate in knowledge-sharing activities. This finding aligns with the broader view that KS is not merely a function of individual motivation but is heavily dependent on organizational structures and support systems established by leadership.

In the context of organizational change and innovation, top management support is particularly vital. A study by Shehzad et al. (2023) examined the role of senior leadership in digital transformation projects and found that visible and sustained support from top management was a key predictor of successful knowledge transfer and adoption

of new practices. Leaders who championed digital initiatives, communicated their importance, and modeled desired behaviors were able to overcome resistance and accelerate organizational learning. This is especially relevant in research environments where rapid technological advancements require continuous updating and sharing of knowledge.

The Kenyan context offers a compelling case study of the importance of top management support in KS. At the Kenya Medical Research Institute (KEMRI), leadership's commitment to knowledge management is explicitly articulated in the 2023–2028 Strategic Plan. The plan identifies leadership as a critical enabler for adopting advanced technologies, strengthening knowledge translation, and fostering a culture of evidence-based practice (KEMRI Strategic Plan 2023-2027, 2025). KEMRI's top management has championed the development of digital repositories, knowledge management portals, and capacity-building initiatives aimed at enhancing KS among researchers and staff (Chuma, 2019). By providing both strategic direction and tangible resources, KEMRI's leadership has sought to institutionalize KS as a core organizational value.

However, empirical studies also caution that top management support must be consistent and sustained to yield long-term benefits. A cross-sectional study by Yang et al. (2025) in African research institutions, it was found that while initial leadership enthusiasm could spark knowledge-sharing initiatives, ongoing engagement and reinforcement were necessary to maintain momentum. The study recommended regular leadership communication, recognition of knowledge-sharing champions, and integration

of knowledge-sharing metrics into performance evaluations to sustain top management support.

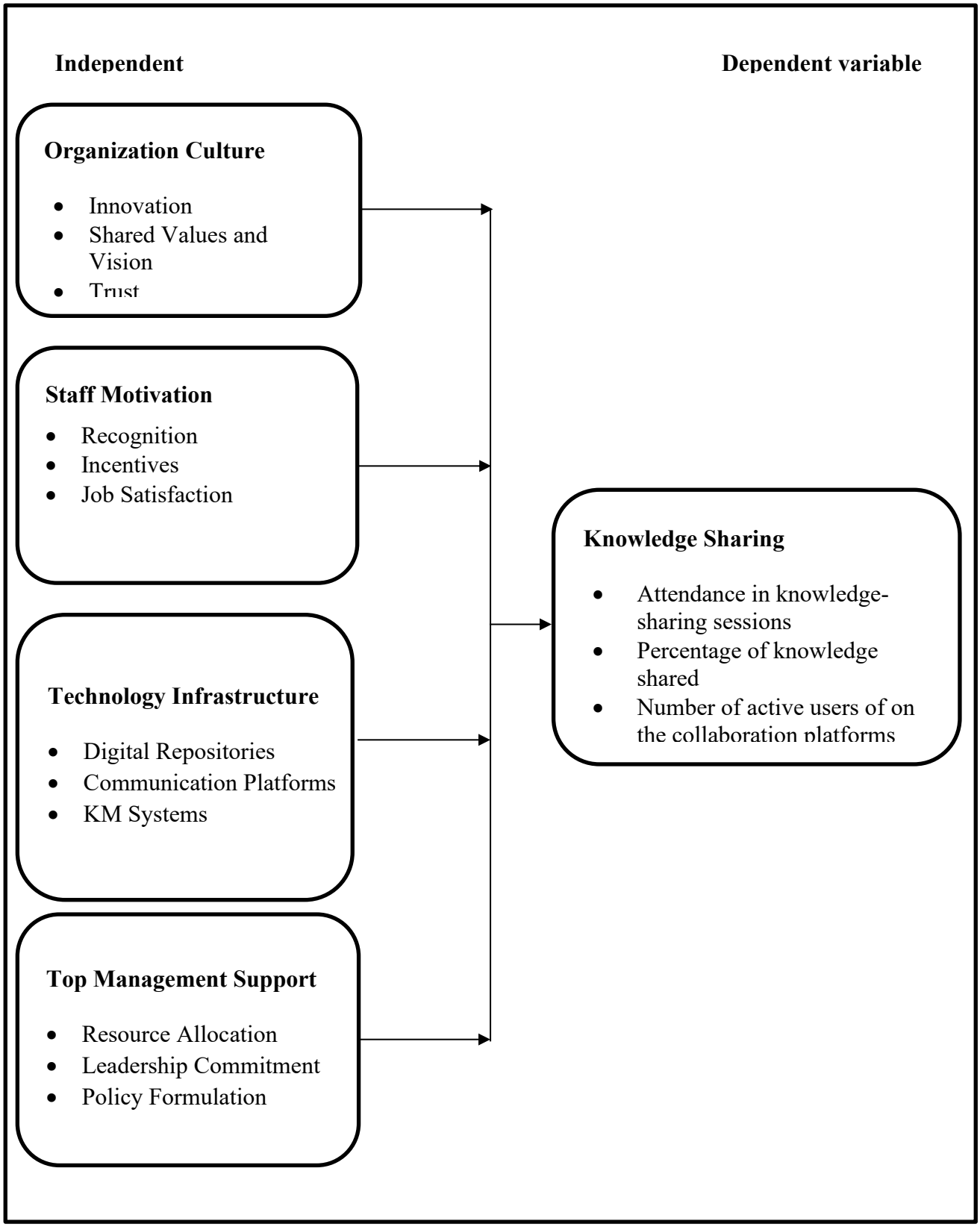
Barriers to effective top management support have also been identified in the literature. Some studies note that leaders may lack awareness of the importance of KS or may prioritize short-term operational goals over long-term knowledge management (Al Mansoori et al., 2025). Additionally, hierarchical organizational structures and bureaucratic processes can stifle leadership efforts to promote open communication and collaboration(Cao & Le, 2024). Addressing these barriers requires deliberate efforts to align leadership development, organizational design, and knowledge management strategies.

2.3 Conceptual Framework

A conceptual framework is a structured model integrating various related concepts to comprehensively explain or predict a specific event or phenomenon. It is a researcher's constructed model to elucidate the relationships between the primary variables under investigation. According to Ukwoma and Ngulube (2021), the components of a conceptual framework support each other, articulate their respective phenomena and establish a framework-specific philosophy. This framework serves as a tool for researchers to organize their ideas, guide their research design, and interpret the findings coherently and meaningfully.

FIGURE 1:

Conceptual Framework



2.4 Summary of the Literature Review

The chapter has discussed various literature related to the variables under the study. The available studies regarding the variables under this study reveal that viable literature regarding KS within the health sector is still lacking. Hence, extensive research is needed to delve further and address variables like organization culture, staff motivation, technology infrastructure, and top management support.

2.5 Research Gap

The existing literature on KS and its associated variables provides valuable insights and reveals several gaps that limit the understanding and application of these concepts. Highlighting these gaps can guide future research efforts to address unresolved issues and enhance theoretical and practical contributions.

Despite extensive research on KS, significant gaps remain in its theoretical foundations. Many studies lack robust frameworks for explaining the processes underlying tacit and explicit knowledge sharing (Baxter et al., 2024). Additionally, while empirical evidence highlights the positive outcomes of KS, there is limited examination of its potential negative consequences, such as information overload or misuse of shared knowledge (F. Ahmad & Karim, 2019). Furthermore, research often focuses on formal mechanisms for KS but neglects informal channels such as social networks or peer-to-peer interactions.

A study conducted by Kipkosgei et al. (2020) on coworker trust and KS among public sector employees in Kenya suggests that a positive organization culture characterized by trust among coworkers is positively related to KS and team-member exchange (TMX). This relationship is significantly moderated by supportive technology

infrastructure, which enhances the effectiveness of knowledge-sharing initiatives. Furthermore, while task interdependence was not a significant factor, the results imply that organizations can foster KS by focusing on building a culture of trust and leveraging technology to support collaboration. Additionally, staff motivation and top management support are crucial in sustaining these efforts, as they encourage employees to engage in knowledge-sharing activities and provide the necessary resources and strategic direction for successful implementation. These studies have never been carried out within the context of the health sector, specifically KEMRI, which has introduced knowledge management as a strategic objective. This study sought to find out the effect of organizational factors on knowledge sharing in health research institutions in Kenya.

2.6 Operationalization of Variables

The operationalization of variables in this study is designed to enable quantitative measurement, thereby facilitating hypothesis testing. The variables have been decomposed to create an operational framework. The independent variables of this study encompass organization culture, staff motivation, technology infrastructure, and top management support. Conversely, KS is categorized as a dependent variable, as illustrated in Table 1 below.

TABLE 1:
Operational Framework

Variable	Orientation	Indicator	Scale of Measurement	Tool of Analysis
Knowledge Sharing	Dependent variable	• Participation Rates • Adoption of Best Shared Practices • Usage of Collaboration Platforms	6-point Likert Scale	Descriptive Regression Analysis
Organization Culture	Independent variable	• Innovation • Shared Values and Vision • Trust • Communication practices	6-point Likert Scale	Descriptive Regression Analysis
Staff Motivation	Independent variable	• Recognition • Incentives • Job Satisfaction	6-point Likert Scale	Descriptive Regression Analysis
Technology Infrastructure	Independent variable	• Digital Repositories • Communication Platforms • KM Systems	6-point Likert Scale	Descriptive Regression Analysis
Top Management Support	Independent variable	• Resource Allocation • Leadership Commitment • Policy Formulation	6-point Likert Scale	Descriptive Regression Analysis

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter outlines the research methodology that was used in the study, including the research design, target population, sample size determination, data collection instruments, procedures, pilot testing process, and data analysis methods.

3.1 Research Design

This study employed a mixed-methods research design to establish the effect of organizational factors on knowledge sharing in health research institutions in Kenya. A mixed-methods research design provided a comprehensive overview of current phenomena related to organizational culture, staff motivation, technology infrastructure, and top management support, allowing for the identification of patterns and relationships without manipulating variables. A sample survey was utilized as the primary data collection method, allowing researchers to generalize findings from a representative subset to the larger population (Grønmo, 2023).

3.2 Target Population

A target population is the entities to which a study aims to generalize findings (Grønmo, 2023). According to (NACOSTI, 2025), there are 15 health research institutions in Kenya. This study focused on all 15 health research institutions shown in Appendix IV. This is because the institutions have established expertise, resource availability, strategic location, influence on national health policy, and potential for collaboration, all of which significantly enhance the relevance and impact of the study's findings. (NACOSTI, 2025). The units of observation included the fifteen health research institutions and their staff.

3.3 Sample Size and Sampling Procedure

3.3.1 Sample Size

The study population comprised managers of knowledge management, related knowledge management officers, or monitoring, evaluation, and learning (MEL) officers from the fifteen health research institutions participating in this study. A census of the knowledge managers, KM officers, or monitoring, evaluation, and learning (MEL) officers was conducted. This is due to the relatively small number of target respondents; the study was conducted with a population of 57 respondents, as shown in Table 2

TABLE 2:
Population Size

S/No.	Institution	Population Size
1.	Kenya Medical Research Institute (KEMRI)	5
2.	AMREF Health Africa	3
3.	African Population & Health Research Center	2
4.	Kenya Institute of Primate Research (KIPRE)	3
5.	The National Cancer Institute of Kenya	5
6.	Afya Research Africa	3
7.	Kenya Institute for Public Policy Research and Analysis (KIPPRA)	5
8.	Kenya Nutrition and Dietetics Institute (KNDI)	3
9.	International Centre of Insect Physiology and Ecology (ICIPE)	3
10.	Kenya Agricultural and Livestock Research Organization (KALRO)	5
11.	Kenya Medical Training College (KMTC)	5
12.	CRK Clinical Research Organization	5
13.	Turkana Basin Institute, Nairobi	4
14.	The Nairobi Hospital	3
15.	Africa Institute of Mental and Brain Health	3
Total		**57**

3.3.2 Sampling Procedure

The process of extracting a sample from a population is known as sampling. This method is recommended because it requires knowledge of the population's strata, which are then divided into relevant subgroups (Noor et al., 2022). Census Sampling was employed to include all fifteen health research institutions. This is considered a practical and methodologically sound approach for small populations. This approach was appropriate because it ensured complete data and achieved saturation, allowing the sample to reflect the diverse characteristics and KS determinants across different organizations, thus enabling a more comprehensive analysis of the health research institutions.

3.4 Data Collection Instruments

This study relied on primary data collected through semi-structured questionnaires designed to align with the study's objectives and research questions (Bell et al., 2022). The researcher administered the questionnaires to ensure the accuracy and completeness of the data collected. Employees, middle-level managers, and top managers participated in the survey to conduct an in-depth investigation of knowledge-sharing practices within health research institutions.

3.5 Data Collection Procedure

The researcher utilized digital platforms to administer the semi-structured questionnaires to the selected participants, ensuring accuracy and completeness of responses. Questionnaires were distributed through Microsoft Forms, which allowed participants to respond at their convenience. Adequate time was provided for participants to complete the questionnaires, after which the researcher retrieved the submitted forms for analysis.

This digital approach was designed to facilitate high response rates and enhance the reliability of the collected data.

3.6 Pilot Test

Before the main data collection, a pilot test of the semi-structured questionnaire was conducted to assess its clarity, relevance, and effectiveness in capturing the intended information. The pilot included three knowledge management officers and three monitoring, evaluation, and learning officers from the Centre for Research in Therapeutic Sciences (CREATES) at Strathmore University and Adaptive Model for Research and Empowerment in Communities (AMREC), reflecting the target population. This process simulated actual survey conditions to evaluate the questionnaire's flow, question comprehension, and respondent engagement.

The pilot test aims to identify and rectify potential problems such as ambiguous questions, confusing wording, inappropriate response options, or technical issues related to questionnaire administration (Omair, 2025). Respondents were asked to provide feedback on their experience, including the time it took to complete the questionnaire, any difficulties they encountered, and suggestions for improvement. The researcher observed and noted any hesitation or misunderstanding during the pilot to further refine the instrument. Adjustments were made based on pilot feedback to enhance the validity and reliability of the questionnaire prior to its full deployment.

3.6.1 Reliability test

To ensure the consistency and dependability of the questionnaire, a reliability test was conducted using data from the pilot study. The internal consistency of the instrument was assessed using Cronbach’s alpha coefficient, which measures the degree to which a set of

items is related as a group (Izah et al., 2023). The following is the Cronbach's alpha formula that was used in testing the reliability of the variables (Izah et al., 2023).

$$\alpha = \frac{k}{k-1}\left(1 - \frac{\sum_{i=1}^{k}\sigma_i^2}{\sigma_{test}^2}\right)$$

Where:

k = number of items in the test

σ_i^2 = the variance of item $\boldsymbol{i}$

σ_{test}^2 = the test-score variance

Items that were found to reduce the overall reliability were reviewed, revised, or removed to improve the instrument's consistency. This reliability assessment provided confidence that the questionnaire yields stable and consistent results, strengthening the quality of data collected in the main study. A Cronbach's alpha value of 0.7 or higher was considered acceptable, indicating that the questionnaire items reliably measure the underlying constructs of KS, as shown in Table 3 below.

TABLE 3:
Reliability Test Results

Variable	Cronbach's Alpha
Organization culture	0.73
Staff motivation	0.78
Technology infrastructure	0.71
Top management support	0.74

3.6.2 Validity Test

The validity of this study refers to its soundness, which is evaluated based on the practicality and appropriateness of the research design and methods used (Kusmaryono et al., 2022). To ensure validity, careful consideration was given to selecting the sample size

before distributing the questionnaires. Questionnaires will be collected after a mutually agreed-upon period between the researcher and the respondents.

Several methods were employed to enhance the validity of the research instrument. First, the research supervisor was consulted to provide expert feedback to improve the questionnaire's content and structure. This expert review helped ensure that the instrument aligns well with the study's objectives and comprehensively covers all relevant aspects. Additionally, selected respondents were invited to review the questionnaire to assess its content validity from the perspective of the target population. Their insights were invaluable in identifying ambiguous or irrelevant items and confirming that the questions accurately capture the intended information for collection. This collaborative approach helped refine the instrument, ensuring it effectively measures the constructs under investigation and supports the overall rigor of the study.

3.7 Data Analysis

The collected data were systematically analyzed using both descriptive and inferential statistical techniques to address the study's objectives and research questions. Before analysis, the data were screened for completeness, accuracy, and consistency to ensure quality and reliability. Any incomplete or inconsistent responses were excluded from the study to maintain data integrity. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were computed to summarize respondent demographics and key variables related to KS behaviors. This provided an overview of the distribution and central tendencies of the data. Inferential statistics was employed to explore relationships and test hypotheses. Correlation analysis was conducted to examine the relationships between variables such as top management support and KS. Multiple

regression analysis was used to determine the predictive power of independent variables (organization culture, staff motivation, technology infrastructure, and top management support) on dependent variables (knowledge sharing).

The following model specification was used:

Knowledge Sharing =f (Organization Culture, Staff Motivation, Technology Infrastructure, and Top Management Support).

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where;

Y is the dependent variable (Knowledge Sharing),

β0 is the regression coefficient/constant/Y-intercept,

β1, β2, β3, and β4 are the coefficients of the linear regression equation.

X1: Organization culture is the first variable under the study

X2: Staff motivation is the second variable under the study

X3: Technology infrastructure is the third variable under the study

X4: Top management support is the fourth variable under the study

ε: is an error term

Data analysis was conducted using STATA 17. The results were presented using a combination of narrative descriptions, tables, and graphical representations such as bar charts, pie charts, and histograms to enhance clarity and facilitate interpretation.

3.8 Diagnostic Tests

The study performed diagnostic tests to determine whether the dataset meets the assumptions required for regression analysis. Specifically, the tests conducted include assessments of normality, multicollinearity, and homoscedasticity.

3.8.1 Normality Test

A normality test was performed, and the Shapiro-Wilk test of normality was used to verify that the assumption of normality was met. This method enables the assessment of whether the data are approximately normally distributed.

3.8.2 Multicollinearity Test

A multicollinearity test was conducted to assess the presence and extent of correlation among the independent variables in the study, which is crucial for accurately interpreting the regression model results. This was done using the Variance Inflation Factor (VIF). This widely accepted diagnostic measure quantifies the extent to which the variance of an estimated regression coefficient is inflated due to multicollinearity. Each independent variable was regressed against all other predictors to calculate its VIF value. Generally, a VIF value below 5 indicates a low to moderate correlation, suggesting that multicollinearity is not a concern. Conversely, VIF values above 5 signal significant multicollinearity, which may affect the reliability of coefficient estimates and require further investigation or remedial measures.

3.8.3 Heteroscedasticity

The Breusch-Pagan test was used to assess the presence of heteroscedasticity in the regression model. This test examines whether the variance of the residuals is dependent on one or more independent variables. Specifically, it involves regressing the squared

residuals from the original model on the predictor variables and testing the significance of the resulting coefficients. Suppose the p-value associated with the test statistic is less than the chosen significance level ($p < 0.05$). In that case, it indicates that heteroscedasticity is present, meaning the variance of the errors is not constant across observations. Conversely, a significance level above this threshold ($p > 0.05$) suggested homoscedasticity, or constant variance of residuals. This diagnostic is necessary because heteroscedasticity can affect the validity of regression estimates and inference.

3.9 Regulatory Requirements

Ethical compliance was considered throughout the research to protect participants and maintain academic integrity. All data was securely stored to prevent unauthorized access. Participation was voluntary, with respondents reminded of their right to decline or discontinue involvement without penalty. Before data collection, ethical approval was sought from the KCA University Scientific Ethics Review Committee and the National Commission for Science, Technology and Innovation (NACOSTI).

CHAPTER FOUR

FINDINGS AND DISCUSSIONS

4.0 Introduction

This chapter presents the findings of the collected data. The data was collected using structured questionnaires and coded into Excel and STATA 17 for analysis and presentation. The study's findings are presented below.

4.1 Response Rate

The distribution of survey response rates across the fifteen targeted health research institutions is presented in Table 5. The overall number of responses received exceeded the initial target, indicating high engagement.

TABLE 4:

Response Rate

S/No	Institution	Targeted (n)	Responses Received (n)	Response Rate (%)
1.	Kenya Medical Research Institute (KEMRI)	5	7	140.0
2.	AMREF Health Africa	3	4	133.3
3.	African Population & Health Research Centre (APHRC)	2	4	200.0
4.	Kenya Institute of Primate Research (KIPRE)	3	3	100.0
5.	National Cancer Institute of Kenya	5	6	120.0
6.	Afya Research Africa	3	3	100.0
7.	Kenya Institute for Public Policy & Research (KIPPRA)	5	6	120.0
8.	Kenya Nutrition and Dietetics Institute (KNDI)	3	3	100.0
9.	Kenya Agricultural & Livestock Research (KALRO)	5	5	100.0
10.	Kenya Medical Training College (KMTC)	5	7	140.0
11.	CRK Clinical Research Organization	5	6	120.0
12.	Turkana Basin Institute	4	5	125.0
13.	The Nairobi Hospital	3	5	166.7
14.	Africa Institute of Mental and Brain Health	3	2	66.7
15.	International Centre of Insect Physiology & Ecology (ICIPE)	3	0	0.0
Total		**57**	**66**	**115.4**

ICIPE did not return any questionnaires, resulting in a 0% response rate for that institution. The reasons for the lack of response from ICIPE included organizational constraints and communication barriers during the survey period.

4.2 Socio-Demographic Information

General information about respondents' sex, age, organization, years of experience, and work position is presented to better understand their background, as shown in Table 5 below.

TABLE 5:

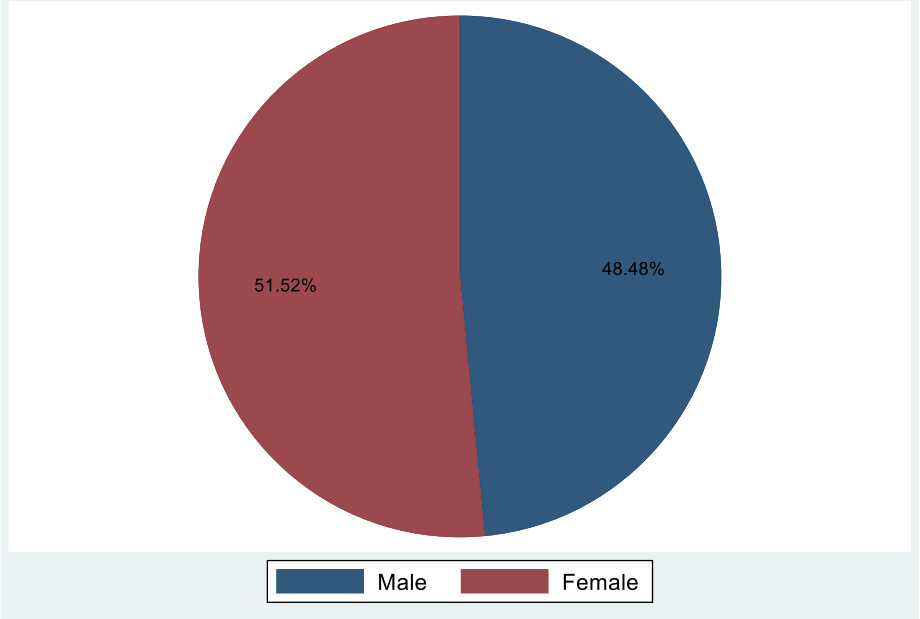
Socio-Demographic Information

Attributes		**Total (N=66)**
Gender	Male	34 (51.5%)
	Female	32 (48.5%)
Age	20 – 30	30 (45.5%)
	31 – 40	24 (36.36%)
	41 – 50	9 (13.64%)
	50 +	3 (4.55%)
Position in the Organization	Knowledge Manager	4 (6.1%)
	Knowledge Management Officer	19 (28.8%)
	Information Management Officer	5 (7.6%)
	Monitoring, Evaluation & Learning Officers	18 (27.3%)
	Librarian	9 (13.6%)
	Other	11 (16.6)
Years of service in the Healthcare Sector	Less than 5yrs	30 (45.5%)
	6-10yrs	21 (31.8%)
	11-15yrs	9 (13.6%)
	16- 20yrs	4 (6.1%)
	Over 20yrs	2 (3.0%)

4.2.1 Responses by Gender

Out of the 66 participants, 34 (51.5%) were female, while 32 (48.5%) were male, as indicated in Figure 2 below.

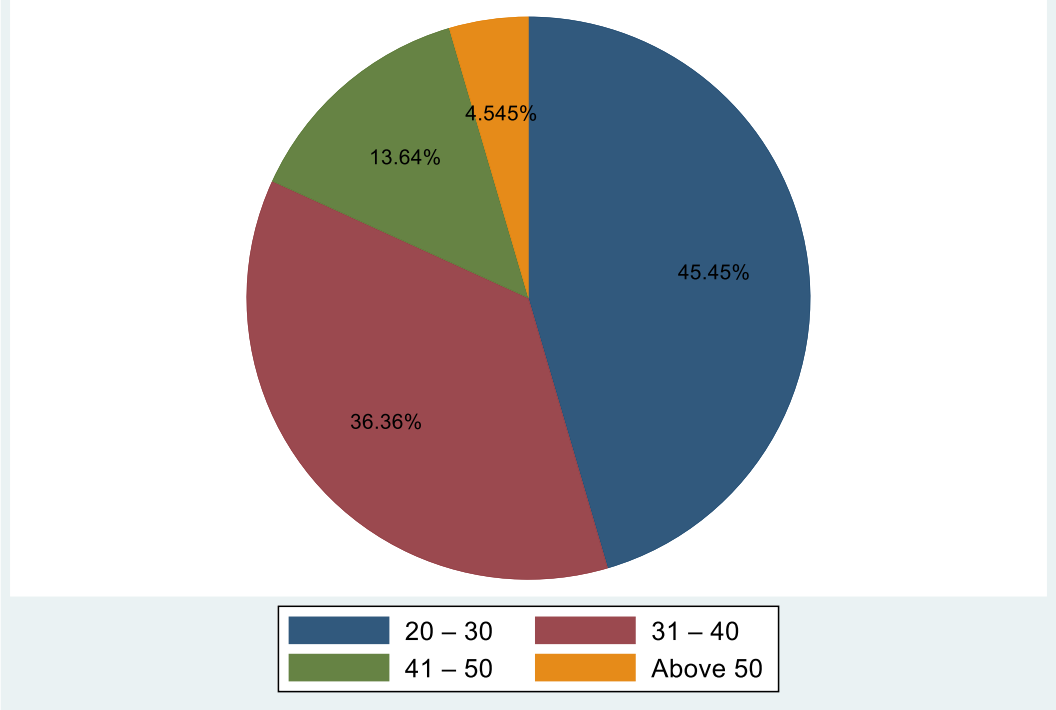
Figure 2:
Gender



4.2.2 Responses by Age

As for the age group, the distribution shows that nearly half 30 (45.5%) were aged between 20 and 30 years, those aged between 31-40 years were 24 (36.36%), while those in 41-50 years were 9 (13.64%), and only a small proportion were above 50 years, 3 (4.55%) as illustrated in Figure 3 below.

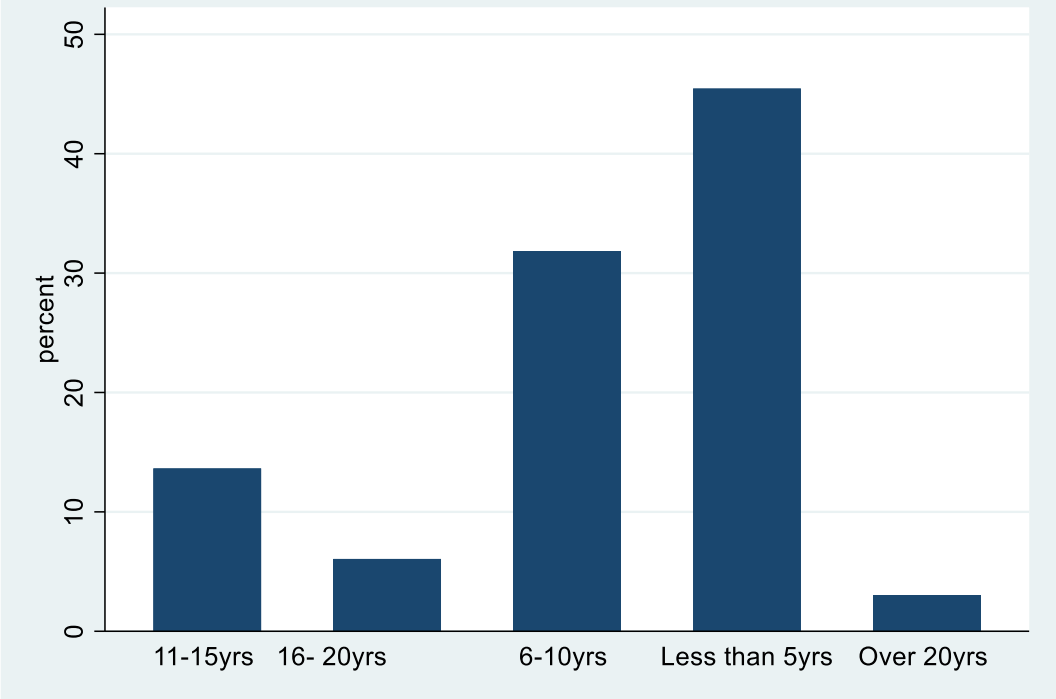
Figure 3:
Age



4.2.3 Responses by Years in Service

Regarding years in service, it was indicated that the majority of respondents were relatively new in the field. Almost half (45.5%) had less than five years of experience, while 31.8% had worked for 6–10 years. A smaller proportion, 13.6%, reported 11–15 years of service, and only 6.1% had between 16 and 20 years of experience. The least represented group was those with over 20 years of experience in the sector, accounting for just 3.0%, as shown in Figure 4 below.

Figure 4:
Years in Service



4.2.4 Responses by Position in the Organization

The distribution of respondents by organizational position indicates that the majority were drawn from a few key professional groups. Knowledge Management Officers formed the largest category, accounting for 28.8% of the total, followed closely by Monitoring, Evaluation and Learning Officers at 27.3%. Librarians represented 13.6% of respondents, while Information Management Officers (7.6%) and Knowledge Managers (6.1%) also had moderate representation. Collectively, these five groups made up over four-fifths of the entire sample. By contrast, the remaining positions, including Communications Officers, Corporate Communication Officers, Data Analysts, Program Managers, Research Officers, and similar roles, each contributed only one respondent (1.5% each), indicating minimal representation.

4.3 Factors Influencing Knowledge Sharing

To determine the factors influencing knowledge sharing in the health research institutions under study, survey questions were divided into distinct categories, including organizational culture, staff motivation, technological infrastructure, and the influence of top management support. The factor findings are presented in Tables 6, 8, 10, and 12, respectively, as the influence of organizational culture, the impact of staff motivation, the technological infrastructure, and the influence of top management.

4.3.1 The Effect of Organization Culture on Knowledge Sharing

The findings on the organization culture as a factor influencing knowledge sharing indicate that the overall perception was positive. The perception of trust among the staff was positive, as the majority, that is, 20 of the respondents, strongly agreed and 34 agreed. A small portion, approximately 7%, disagreed, as indicated in Table 6. The mean value of the responses is 4.52, indicating that the culture of trust among employees regarding knowledge sharing is at a higher level. Most respondents reported that collaboration and teamwork were strongly supported, with 48.5% strongly agreeing and 37.88% agreeing, yielding a mean value of 4.97. A small portion, 4.55%, disagreed. Open communication channels, which encourage knowledge-sharing practices, also received a positive response, with 45.5% strongly agreeing and 33.3% agreeing, yielding a mean of 4.88, while only 6% disagreed. This suggests that open communication among staff facilitates the smooth dissemination of ideas and information. Recognition and rewards for knowledge sharing were also evident, with 39.4% strongly agreeing and 39.4% agreeing (mean = 4.82), indicating that incentives can effectively motivate staff to participate

actively in knowledge exchange. A notable hindrance, competitive behavior, which in most cases is considered a hindrance to knowledge sharing, was positively perceived by the respondents, with 40.91% strongly agreeing and 37.88% agreeing. In comparison, only 7% disagreed, with a mean of 4.76, indicating that rivalry among staff may occasionally hinder collaboration.

Regarding the presence of regular team meetings, 66.7% strongly agreed, 24.2% agreed, while 3.03% disagreed and 3.03% somewhat disagreed, with a mean value of 5.27. This was the factor recorded as the most potent enabler of knowledge sharing. The leadership support was also highly recognized, with 39.4% strongly agreeing and 37.9% somewhat agreeing, yielding a mean value of 4.94. Meanwhile, 1.52% disagreed, which emphasizes the importance of top management in cultivating a culture conducive to knowledge sharing. Finally, psychological safety also showed a positive outcome, with 45.5% strongly agreeing and 36.4% agreeing that employees feel safe sharing insights without fear of criticism (mean = 4.91), which is critical for fostering honest and open communication.

Trust and psychological safety have been consistently demonstrated to be strong enablers of knowledge sharing, with a larger percentage of respondents strongly agreeing, as indicated by high mean scores. With these high mean scores, it directly illustrates this established notion that trust fosters a foundational environment in which employees feel safe to share their unique knowledge without the apprehension of it being misappropriated. This aligns with evidence from multiple studies, such as Kakar (2018) found that psychological safety has a positive direct impact on knowledge sharing, the study further stated that psychological safety encourages cultural trust among members,

and this enables free KS. Similarly Serrat (2017) asserts that trust serves as the "lubricant" for the exchange of knowledge, minimizing interpersonal risk and fostering voluntary contributions.

The results highlight the high support for collaboration and teamwork, as well as open communication channels, as factors that promote knowledge sharing. This reinforces the argument that cooperative work settings increase individuals' willingness to share knowledge and make employees feel comfortable disseminating ideas. The higher mean score for collaboration (4.97) and communication (4.88) resonates with Cauwelier et al. (2019) which highlighted that psychological safety and team learning are closely associated with open communication and collaboration, which positively influence the team in creating and sharing knowledge. The data has a low standard deviation, indicating a relatively high variation.

With the majority of the respondents strongly agreeing that this depicts the role of recognition and rewards, alongside the complex influence of competitive behavior, it presents a nuanced picture that is explored in modern literature. With a mean score of 4.82, this is in line with a study done by Mubarak (2021) which also highlights that the majority of the respondents in the state corporations in the energy sector in Kenya agreed that financial rewards such as promotions and allowances enhance behaviors towards knowledge transfer with others. Similarly, the findings concur with Abubakar et al. (2019) contend that without a proper reward system, the motivation to seek and transfer knowledge among employees is weakened.

The findings also highlight that the respondents strongly agreed with a percentage of 66.7% with a mean value of 5.27. This underscores the importance of structured,

recurring interactions for knowledge sharing. These findings are in concurrence with Edmondson and Harvey (2018), in their study on collaboration, the authors emphasize the importance of regular "huddles" or check-ins as essential for refreshing shared mental models and facilitating the exchange of ideas across diverse fields of expertise. These gatherings serve as a structured platform for sharing that may not take place through informal communication.

All these factors highlight how organizational structure can positively influence KS, which aligns with (Acharya & Mishra, 2017) finding that the structure of an organization affects the transfer of organizational knowledge. The authors observe that the configuration of an organizational structure exerts a more nuanced and directed influence on the process of knowledge transfer.

TABLE 6:
Influence of Organization Culture on Knowledge Sharing

	Items selected as knowledge sharing factors	Strongly agree	Somewhat agree	Agree	Disagree	Somewhat disagree	Strongly disagree	Mean	SD
Organizational culture		6	5	4	3	2	1		
1	There is a culture of trust among staff in my organization.	20(30.30%)	5(7.58%)	34(51.52%)	4(6.06%)	2(3.03%)	1(1.52%)	4.52	1.166
2	Collaboration and teamwork are encouraged in my workplace	32(48.48%)	6(9.09%)	25(37.88%)	0	3(4.55%)	0	4.97	1.136
3	Open communication channels exist for sharing knowledge and ideas.	30(45.45%)	8(12.12%)	22(33.33%)	3(4.55%)	2(3.03%)	1(1.52)	4.88	1.22
4	Knowledge sharing is recognized and rewarded in my organization.	26(39.39%)	9(13.64%)	26(39.39%)	3(4.55%)	2(3.03)	0	4.82	1.108
5	Competitive behavior among staff hinders knowledge sharing.	27(40.91%)	9(13.64%)	25(37.88%)	0	2(3.03%)	3(4.55%)	4.76	1.325
7	Regular team meetings facilitate knowledge exchange.	44(66.67%)	2(3,03%)	16(24.24)	2(3.03%)	2(3.03%)	0	5.27	1.117

8	Leadership supports a culture that promotes knowledge sharing.	26(39.39%)	13(19.70%)	25(37.88%)	1(1.52%)	1(1.52%)	0	4.94	0.990
9	Employees feel safe to share their insights without fear of criticism.	30(45.45%)	8(12.12%)	24(36.36%)	1(1.52%)	2(3.03%)	1(1.52)	4.91	1.186

Further, a simple linear regression analysis was conducted to examine the influence of organization culture on knowledge sharing. The regression results indicate a positive but statistically insignificant effect on knowledge sharing ($\beta = 0.1016$, $p < 0.338$), suggesting that a one-unit increase in organization culture is associated with a 0.10 unit increase in knowledge sharing, holding other factors constant as shown in Table 7 below.

TABLE 7:
Organization culture vs Knowledge sharing

Variable	Coefficient	Std. err.	t	P>t	[95% conf.	interval]
Organization culture_score	0.101618	0.105218	0.97	0.338	-0.10858	0.311814
_cons	4.506368	0.518561	8.69	0	3.470423	5.542313

4.3.2 The Influence of Staff Motivation on Knowledge Sharing

The research findings demonstrate that staff motivation is critical to driver knowledge sharing practices in an organization. Recognition and rewards were reported to be contributors to motivating employees to share knowledge, with 27.3% strongly agreeing and 51.5% agreeing, while a small portion of 6.06% disagreed and 3.03% strongly disagreed (mean = 5.55), showing that acknowledgement of contributions encourages active participation. In addition to external incentives, personal satisfaction was identified as the most significant motivator, with 60.6% of respondents strongly agreeing and 28.8%

agreeing that assisting colleagues offers intrinsic fulfillment (mean = 5.21). This highlights the crucial role of altruistic values in fostering knowledge exchange. Extrinsic incentives, such as bonuses and promotions, also influenced many to share knowledge, with 37.9% strongly agreeing and 37.9% agreeing, 13.64% disagreeing, and 4.55% strongly disagreeing, yielding a mean value of 4.45. However, the relatively higher standard deviation (1.472) suggests that views on this were more diverse compared to intrinsic motivators. Professional growth was also a recognized key factor, with 46.9% strongly agreeing and 40.9% agreeing that knowledge sharing enhances career development (mean = 4.86, SD = 1.239).

Team-based incentives, on the other hand, were strongly endorsed as a factor facilitating knowledge sharing, with 46.9% strongly agreeing and 37.9% agreeing (mean = 4.97, SD = 1.095). This suggests that collective rewards enhance collaborative knowledge sharing within institutions. Furthermore, almost all respondents acknowledged that knowledge sharing improves overall organizational success, with 50% strongly agreeing and 40.9% agreeing, while only 3.03% disagreed (mean = 5, SD = 1.095). Witnessing others receive rewards proved to be impactful (34.9% strongly agreed, 37.9% agreed; mean = 4.56, SD = 1.303), indicating that acknowledgment can generate a ripple effect that encourages broader involvement.

Staff motivation factors such as recognition and rewards, personal satisfaction from helping others, extrinsic incentives such as bonuses and promotions, professional growth, team-based incentives, and knowledge sharing improve overall organizational success, and observing others being rewarded was a positive motivator to knowledge

sharing, with more respondents strongly agreeing that these factors positively influence knowledge transfer.

The most powerful motivator, worth noting from the findings, is intrinsic motivation, exemplified by the high mean score for personal satisfaction from helping colleagues (mean = 5.21). This pronounced tendency indicates that employees gain considerable intrinsic satisfaction from the act of sharing itself. This observation strongly corresponds with the principles of Self-Determination Theory (SDT). The study conducted Gagné et al. (2019) emphasizes that the sustainability of knowledge sharing is greatest when it is driven by intrinsic motivation; specifically, when employees view it as voluntary, engaging, and in harmony with their individual values.

These findings align with a study Nguyen et al. (2019) which found that intrinsic motivation and extrinsic motivation not only coexist but also support each other to affect knowledge sharing. Nevertheless, this finding stands in opposition to certain modern psychological studies, including the work of Zhao et al. (2016) which illustrates that extrinsic motivation carries an implicit cost by diminishing intrinsic motivation.

The data, however, confirm that extrinsic motivators, such as recognition and extrinsic incentives, also play a significant role. The two listed factors had a high mean core of 4.55 and 4.45, respectively, indicating that tangible benefits can also influence knowledge transfer.

Beyond intrinsic and extrinsic factors, the study findings also reveal that prosocial and collective motivations, such as "professional growth" (Mean = 4.86) and "organizational success" (Mean = 5.00), contribute to knowledge sharing. This indicates that employees are motivated by a sense of purpose and impact.

TABLE 8:
Influence of staff motivation on knowledge sharing

	Items selected as knowledge sharing factors	Strongly agree	Somewhat agree	Agree	Disagree	Somewhat disagree	Strongly disagree	Mean	SD
Staff motivation		6	5	4	3	2	1		
1	I am motivated to share knowledge because of the recognition and rewards it brings.	18(27.27%)	8(12.12%)	34(51.52%)	4(6.06%)	2(3.03%)	0	4.55	1.055
2	Personal satisfaction from helping colleagues encourages me to share knowledge.	40(60.61%)	5(7.58%)	19(28.79%)	1(1.52%)	1(1.52%)	0	5.21	1.117
3	Extrinsic incentives (bonuses, promotions) influence my willingness to share knowledge	25(37.88%)	2(3.03)	25(37.88%)	9(13.64%)	2(3.03%)	3(4.55)	4.45	1.472
4	I feel that sharing knowledge contributes to my professional growth.	31(46.97%)	4(6.06%)	27(40.91%)	0	3(4.55%)	1(1.52%)	4.86	1.239
5	Team-based incentives encourage collaborative knowledge sharing.	31(46.97%)	7(10.61%)	25(37.88%)	1(1.52%)	2(3.03%)	0	4.97	1.095
7	Knowledge sharing improves overall organizational success.	33(50.00%)	4(6.06%)	27(40.91%)	0	2(3.03%)	0	5	1.095
8	I participate more in knowledge sharing when I see others being rewarded.	23(34.85%)	8(12.12%)	25(37.88%)	6(9.09%)	2(3.03%)	2(3.03%)	4.56	1.303

A simple linear regression was performed, as shown in Table 9, which indicates a positive but statistically insignificant effect on knowledge sharing practices ($\beta = 0.39$, $p < 0.723$). This suggests that for every one-unit increase in staff motivation, the knowledge sharing score is expected to increase by 0.039 units, holding other factors constant.

TABLE 9:

Staff motivation vs knowledge sharing

Variable	Coefficient	Std. err.	t	P>t	[95% conf.	interval]
Staff motivation _score	0.039114	0.1098	0.36	0.723	-0.18026	0.25849
_cons	4.81466	0.5322	9.05	0	3.751477	5.877843

4.3.3 The Effect of Technology Infrastructure on Knowledge Sharing

Respondents rated their level of agreement with each technological infrastructure statement on a 6-point Likert scale, ranging from 1 (Strongly Disagree) to 6 (Strongly Agree) as shown in Table 11 below. Technology platforms play a vital role in enabling knowledge sharing, with the majority of respondents agreeing that the technology platforms offered, such as SharePoint and D-Space, are user-friendly (42.4% strongly agreed, 45.5% agreed; mean = 4.79). Only 1.52% disagreed, and 1.52% strongly agreed. The knowledge management system was also highly rated as applicable for daily work, with 48.5% strongly agreeing, 40.9% agreeing, and only 6.06% somewhat disagreeing (mean = 4.79, SD = 1.196). This indicates that employees are intrinsically motivated to use the tools, which in turn enhances knowledge sharing organically. Technology also enhances knowledge sharing, which was rated positively, with over half of the respondents (51.52%) strongly agreeing, 37.88% agreeing, and just a handful (4.55%) somewhat disagreeing (mean = 5.00, SD = 1.150), showing moderate variation. This indicates that the presence of technology enhances the ability to share knowledge. For adequate training received on the usage of technology tools, 37.88% strongly agree, 39.39% agree, which was still majority positive, but with some disagreement, 7.58% disagree, 7.58% somewhat disagree, and (mean=4.61, SD=1.276), this suggests that training gaps are likely to hinder effective use of the digital tools.

Collaboration tools, such as video conferencing and chat platforms, facilitate knowledge sharing, with a strong consensus evident as 53.03% strongly agree, 37.88% agree, and only 3.03% disagree, yielding a mean value of 5.06. This shows how these tools are highly perceived for sharing knowledge. Likewise, technology infrastructure was seen to support real-time communication, with 53.03% strongly agreeing, 37.88% agreeing, and only 3.03% somewhat disagreeing, yielding a higher mean value of 5.09 and a standard deviation of 1.094. A significant number of employees still face challenges that hinder their ability to share knowledge, with 37.88% strongly agreeing, 34.85% agreeing, 6.09% disagreeing, 6.06% somewhat disagreeing, and 3.03% strongly disagreeing, yielding a mean value of 4.55 and a standard deviation of 1.394, indicating moderate variation. Virtual communities of practice received significant support, with 54.6% expressing strong agreement and 36.4% agreeing (mean = 5.09), as shown in Table 10 below. This suggests that online platforms promote wider collaboration and connections among teams.

TABLE 10:
Technology infrastructure and knowledge sharing

	Items selected as knowledge sharing factors	Strongly agree	Somewhat agree	Agree	Disagree	Somewhat disagree	Strongly disagree	Mean	SD
Technology support		6	5	4	3	2	1		
1	The technology platforms provided (e.g., SharePoint, D-Space) are easy to use.	28(42.42%)	4(6.06%)	30(45.45%)	1(1.52%)	2(3.03%)	1(1.52%)	4.79	1.196
2	I find knowledge management systems useful for my daily work.	32(48.48%)	5(7.58%)	27(40.91%)	0	2(6.06%)	0	4.98	1.088
3	Technology enhances my ability to share knowledge with colleagues.	34(51.52%)	4(6.06%)	25(37.88%)	0	3(4.55%)	0	5	1.150
4	I receive adequate training to use technology tools for knowledge sharing	25(37.88%)	5(7.58%)	26(39.39%)	5(7.58%)	5(7.58)	0	4.61	1.276
5	Collaboration tools (video conferencing, chat platforms) facilitate knowledge sharing.	35(53.03%)	4(6.06%)	25(37.88%)	0	2(3.03%)	0	5.06	1.094
6	Technology infrastructure supports real-time communication across departments.	38(57.58%)	0	26(39.39%)	0	2(3.03%)	0	5.09	1.119
7	I face technical challenges that hinder my ability to share knowledge.	25(37.88%)	6(9.09%)	23(34.85%)	6(9.09%)	4(6.06%)	2(3.03%)	4.55	1.394
8	Virtual communities of practice help me connect and share knowledge with others.	36(54.55%)	4(6.06%0	24(36.36%)	0	2(3.03%)	0	5.09	1.092

The results of the regression analysis in Table 11 show that the technology infrastructure has a positive score and statistically significant influence on knowledge sharing practices. A coefficient of 0.325 indicates that for every one-unit rise in the technology infrastructure score, there is an anticipated increase of 0.325 units in knowledge sharing practices, assuming other variables remain unchanged. This association is statistically significant at the 1% level (p = 0.001), and the 95% confidence interval (0.135 to 0.515) does not include zero, which further validates the strength of this finding.

TABLE 11:
Technological infrastructure vs Knowledge sharing

Variable	Coefficient	Std. err.	t	P>t	[95% conf.	interval]
Technology infrastructure_score	0.324983	0.095333	3.41	**0.001**	0.134534	0.515431
_cons	3.411465	0.471295	7.24	0	2.469945	4.352985

4.3.4 The Effect of Top Management Support on Knowledge Sharing

Top management support for knowledge sharing varied across different factors, as measured on a 6-point Likert scale. The findings revealed that top management support is a critical determinant of knowledge sharing practices in the organization, with nearly 46.97% strongly agreeing, 42.42% agreeing, 1.52% disagreeing, 1.52% somewhat disagreeing, and 1.52% strongly disagreeing, with a mean of 4.91. This suggests that leadership's active commitment creates an environment that enables knowledge sharing. Leadership provides sufficient resources for knowledge sharing, with 45.45% strongly agreeing, 4.55% somewhat agreeing, and 37.88% agreeing (mean = 4.77, SD = 1.275). Although a small portion (7.58%) disagreed, 3.03% somewhat disagreed, and 1.52%

strongly disagreed. Management has also been recognized for cultivating a culture of knowledge sharing that employees tend to replicate (42.4% strongly agreed, 42.4% agreed, 3.03% disagreed, 4.55% somewhat disagreed, 1.52%; mean = 4.74). Additionally, 45.5% strongly agreed and 42.4% agreed, while only 4.55% disagreed, 1.52% somewhat disagreed, that the strategic priorities established by management highlight the importance of knowledge sharing (mean = 4.89).

Regarding empowerment, over half of the participants (51.5% strongly agreed, 36.4% agreed, 7.58% disagreed, and 1.52% strongly disagreed) expressed that they felt motivated by leadership to share knowledge openly (mean = 4.94), underscoring psychological safety as a factor influenced by leadership. Recognition and rewards from upper management received somewhat less support (36.4% strongly agreed, 45.5% agreed, 7.58% disagreed, 3.03% somewhat disagreed, and 1.52% strongly disagreed; mean = 4.61), indicating a potential disparity between the support provided by leadership and the actual incentives offered. Interestingly, the absence of support from management was identified as a significant discouraging factor, with 45.5% of respondents strongly agreeing and 42.4% agreeing (mean = 4.83), with 8% disagreeing. This finding highlights the crucial role of consistent leadership in fostering knowledge sharing. Moreover, the most substantial support was expressed regarding the role of leadership in promoting innovation through effective knowledge sharing. Specifically, 54.6% strongly agreed and 33.3% agreed (mean = 5.03), indicating that top management is perceived as essential in connecting knowledge practices with innovation and the organization's growth, as shown in Table 13 below.

TABLE 12:
The influence of top management support on knowledge sharing

	Items selected as knowledge sharing factors	Strongly agree	Somewhat agree	Agree	Disagree	Somewhat disagree	Strongly disagree	Mean	SD
Top management support		6	5	4	3	2	1		
1	Top management actively promotes knowledge sharing initiatives.	31(46.97%)	4(6.06%)	28(42.42%)	1(1.52%	1(1.52%)	1(1.525)	4.91	1.160
2	Leadership provides sufficient resources to support knowledge sharing activities.	30(45.45%)	3(4.55%)	25(37.88%)	5(7.58%)	2(3.03%)	1(1.52%)	4.77	1.275
3	Management creates knowledge sharing culture that employees emulate.	28(42.42%)	4(6.06%)	28(42.42%)	2(3.03%)	3(4.55%)	1(1.52%)	4.74	1.256
4	Strategic priorities set by management emphasize knowledge sharing.	30(45.45%)	4(6.06%)	28(42.42%)	3(4.55%)	1(1.52%)	0	4.89	1.097
5	I feel empowered by leadership to share my knowledge freely.	34(51.52%)	2(3.03%)	24(36.36%)	5(7.58%)	0	1(1.52%)	4.94	1.201
6	Top management recognizes and reward employees who share knowledge	24(36.36%)	4(6.06%)	30(45.45%)	5(7.58%)	3(3.03%)	1(1.52%)	4.61	1.226
7	Lack of support from management discourages knowledge sharing.	30(45.45%)	3(4.55%)	28(42.42%)	2(3.03)	3(4.55%)	0	4.83	1.184
8	Leadership encourages innovation through effective knowledge sharing.	36(54.55%)	4(6.06%)	22(33.33%)	1(1.52%)	2(3.03%)	1(1.52%)	5.03	1.215

Further, c was conducted, and the model was statistically significant ($\beta = 0.305$, $p < 0.003$). The coefficient of 0.305 indicates that for every one-unit increase in top

management support, knowledge sharing practices increase by about 0.305 units, holding other factors constant as shown in Table 13 below.

TABLE 13:
Top management vs Knowledge sharing

Variable	Coefficient	Std. err.	t	P>t	[95% conf.	interval]
Top management support_score	0.304707	0.09992	3.05	**0.003**	0.105093	0.504321
_cons	3.503634	0.495992	7.06	0	2.512777	4.494491

4.4 Diagnostic Test

The researcher conducted a diagnostic test to establish the reliability of the dataset used in carrying out the analysis. The following tests were conducted: a multicollinearity test, a normality test, and a homoscedasticity test. The findings are indicated in subsequent sections below.

4.4.1 Normality Test

A normality test was conducted to assess the normal distribution of the data. The Shapiro-Wilk test was used to determine whether the data collected followed a normal distribution. A summary of statistics, including measures of central tendency such as the mean and standard deviation, was used. If the p-value of the Shapiro-Wilk test is greater than 0.05, the data is considered normal; if it is below 0.05, then the data is significantly deviated from a normal distribution. The findings are indicated in Table 14 below.

TABLE 14:
Shapiro–Wilk test for normal data

Variable	Obs	W	V	z	Prob>z
Knowledge sharing	66	0.99064	0.549	-1.299	0.90299
Organizational culture	66	0.97238	1.621	1.047	0.14757
Staff motivation	66	0.93664	3.719	2.846	0.00221
Top management support	66	0.91586	4.938	3.461	0.00027
Technological infrastructure	66	0.90686	5.466	3.682	0.00012

Table 14 above shows that the significance level of most of the data variables was less than 0.05. This indicated that the data set was generally not normally distributed. The normality of individual variables does not affect regression results, provided that the error term in the regression model is normally distributed. The error term is normally distributed if the variance and the mean are constant. A constant variance implies homoscedasticity. A subsequent test on heteroscedasticity confirms that the variance is constant.

4.4.2 Multicollinearity Test

A multicollinearity test was performed to determine the possible correlation and the degree of correlation between two or more independent variables in the study, ensuring the accurate interpretation of data in the regression model. The study employed the variance inflation factor (VIF) test to assess the correlation between variables and the strength of that correlation. If the VIF value is higher than 10, it indicates a very high correlation and is a cause for concern. Therefore, the variable will be released from the model. If 5<VIF<10, at that point multicollinearity is reasonable; if 5<VIF, then Multicollinearity is insignificant. The findings are indicated in Table 15 below.

TABLE 15:
Variance inflation factor

Variable	VIF	1/VIF
Technological infrastructure	1.42	0.705195
Organizational culture	1.17	0.837476
Staff motivation	1.19	0.85822
Top management support	1.1	0.906032
Mean VIF	**1.22**	

The findings in Table 16 indicate that organization culture had a VIF of 1.17, staff motivation had a VIF of 1.19, and technological infrastructure support had a VIF of 1.42. Top management support had a VIF of 1.1. The mean VIF was 1.22. The findings show that all the variables had a VIF of less than 10, an indication that the variables had no multicollinearity

4.4.3 Heteroscedasticity

The researcher conducted a heteroscedasticity test to establish the presence of heteroscedasticity. The findings are shown in Table 16.

TABLE 16:
Heteroscedasticity

Breusch–Pagan/Cook–Weisberg test for heteroscedasticity
H0: Constant variance
Variables: Fitted values of knowledge score
chi2(1) = 0.63
Prob > chi2 = 0.4287

4.5 Correlation Analysis

According to Ratner (2009), the interpretation of a linear relationship is as follows: a weak correlation is indicated when the value ranges from ±0.10 to ±0.3; a moderate correlation is indicated when the value ranges between ±0.30 and ±0.7; and a strong correlation is indicated when the value ranges from ±0.7 to ±1.0 for interpretation of a linear relationship

when the value ranges from ± 0.10 to± 0.3 indicates a weak correlation; when the value ranges between ±0.30 and ±0.7 it indicates a moderate correlation; while in a strong correlation, the value ranges from ±0.7 and ± 1.0. The findings in Table 17 suggest that staff motivation has a weak correlation with knowledge sharing, which is not statistically significant ($r = 0.182$, $p = 0.8846$). This suggests that, based on the data collected, a motivated workforce does not necessarily equate to a more knowledgeable one, and vice versa. The correlation between organization culture and knowledge sharing is virtually zero and insignificant ($r = 0.0902$, $p = 0.4717$). In contrast, technological infrastructure has a significant and positive correlation with knowledge sharing, with a correlation coefficient of $r = 0.3888$ and $p = 0.0013$, indicating a moderate correlation. This shows that enhanced technological tools and systems within the organization are closely linked to increased knowledge, more motivated personnel, and an improved organizational culture. Investing in technology seems to yield extensive advantages. Top management support has a significant and positive correlation with knowledge sharing ($r = 0.4361$, $p = 0.0003$), indicating a moderate correlation. When top leadership provides active support for initiatives, it is closely linked to an increased level of knowledge within the organization. This factor is probably the most significant influence on knowledge outcomes according to this data.

TABLE 17:
Correlation Analysis

	Knowledge Sharing	Staff motivation	Organization culture	Technological infrastructure	Top management support
Knowledge Sharing	1				
Staff motivation	0.0182	1			
	0.8846				
Organization culture	0.0901	0.1717	1		
	0.4717	0.168			
Technological infrastructure	0.3888*	0.4023*	0.3678*	1	
	0.0013	0.0008	0.0024		
Top management support	0.4361*	0.1203	0.182	0.2963	1
	0.0003	0.3361	0.1436	0.0157	

*correlation is significant at 0.05 level of significance

4.6 Regression analysis

A multiple linear regression was conducted to assess how the independent variables affected the dependent variable. The findings are presented in Table 18 below.

TABLE 18:
Regression analysis

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Knowledge sharing _mean	**Coefficient**	**Std. err.**	**t**	**P>t**	**[95% conf.**	**interval]**
Organizational culture	-0.02885	0.10254	-0.28	0.779	-0.23389	0.176193
Staff motivation	-0.09493	0.108477	-0.88	0.385	-0.31184	0.121986
Technological infrastructure	0.311035	0.111976	2.78	**0.007**	0.087126	0.534945
Top management support	0.220669	0.100717	2.19	**0.032**	0.019272	0.422066
_cons	2.991034	0.744642	4.02	0	1.50203	4.480038

Where;

Y is the dependent variable (Knowledge Sharing),

β0 is the regression coefficient/constant/Y-intercept,

β1, β2, β3, and β4 are the coefficients of the linear regression equation.

X1: Organization culture

X2: Staff motivation

X3: Technology infrastructure

X4: Top management support

ε: is an error term

$Y=2.99+ 0.007X_3+ 0.032X_4$

The study established that the technological infrastructure has a p-value of 0.007, indicating a positive and significant relationship between technological support and KS. This is the strongest predictor in the model; for every one-unit increase in technological infrastructure, the KS score increases by 0.311 units, holding other factors constant.

The study further demonstrates that the p-value for top management is 0.032, indicating a positive and significant relationship between top management and KS. A one-unit increase in perceived Top Management Support leads to a 0.220-unit increase in the Knowledge Sharing score.

4.7 Qualitative Findings

The qualitative findings were obtained from the responses to the questionnaires.

4.7.1 Organizational Improvement

Promoting collaboration and reducing silos emerged as an area that needs improvement, emphasizing the importance of strengthening inter-team relationships, fostering teamwork, and encouraging staff to work collectively rather than in isolation. Communication needs also to be enhanced to improve the information flow, promoting open dialogue among the employees. Another key finding is the importance of building trust and openness, where staff feel safer sharing ideas without fear of criticism. Additionally, another respondent stated that there is a strong need to institutionalize knowledge sharing by embedding it into daily routines such as meetings, seminars, and informal sessions, making it a structured and intentional part of organizational practice. Leadership and management support were viewed as essential in setting the tone, modeling knowledge-sharing behaviors, and promoting champions within the organization. Another key theme was the need to strengthen reward and recognition systems through formal incentives that motivate staff to share knowledge. Finally, capacity building and learning, as well as knowledge retention and feedback mechanisms, were emphasized to sustain knowledge flows, enhance staff competencies, and ensure continuous and inclusive organizational learning.

"Inter-team relationship whereby teams from different departments collaborate towards a goal of eliminating working in silos" **IDI_010**

"Promote openness and trust where a culture where staff feel safe to share ideas, data, and experiences without fear of criticism or misuse" **IDI_005**

"Building a culture that appreciates growth" **IDI_001**

4.7.2 Motivations and Incentives affecting Knowledge Sharing

Participants mentioned that recognition and appreciation were strong motivators, with acknowledgment at work, conferences, or by senior staff encouraging participation. Promotions and career advancement, along with monetary incentives such as bonuses, salary increases, and travel opportunities, also played a significant role. Professional development opportunities through trainings, seminars, and conferences motivated staff by enhancing their skills and credibility. Intrinsic motivation, including personal satisfaction and empowerment, as well as team-based incentives such as shared rewards and team-building activities, further encouraged knowledge sharing. A supportive organizational culture and leadership were seen as enablers, while some noted that incentives remain limited or inconsistent.

"Limited career growth opportunities and lack of incentives discourage staff from actively sharing knowledge. Many feel that their efforts go unnoticed." **IDI_002**

"When staff are recognized or rewarded for their contributions, for example, through promotions, awards, or opportunities to present at conferences, they are more motivated to share their knowledge." **IDI_007**

4.7.3 The Availability and Effectiveness of Technological Tools for Knowledge Sharing

Some respondents reported using internal knowledge management systems and shared digital platforms, which have enhanced accessibility to research outputs and improved teamwork across departments. Others noted that while tools such as shared drives and

email lists exist, they are underutilized, as many staff members prefer face-to-face interactions, which limits the full potential of these technologies. Several respondents highlighted significant infrastructural challenges, including unreliable internet connectivity and outdated systems, which hinder effective data and information sharing across teams. These differences suggest that while some institutions have made progress in adopting technology to support knowledge sharing, gaps in utilization and infrastructure remain key barriers to effective collaboration.

"We use an internal knowledge management system and shared digital platforms where staff can upload research findings and collaborate across departments. These have improved accessibility and teamwork." **IDI_002**

"There are some tools like shared drives and email lists, but they are underutilized. Many staff prefer face-to-face interactions, so the potential of technology is not fully realized." **IDI_005**

"Technological infrastructure is limited. Unreliable internet and outdated systems make it difficult to share data and information effectively across teams." **IDI_007**

4.7.4 Technological Challenges

The respondents highlighted that unstable internet connectivity was the most common issue, with frequent disruptions, slow speeds, and network instability being cited across offices and satellite sites. High costs and limited access to digital tools also hindered effective knowledge sharing, alongside system fragmentation, where different departments use unlinked platforms that complicate data exchange and integration. Many institutions face inadequate infrastructure, with outdated or underutilized technologies,

while limited staff awareness and insufficient training further constrain the use of available systems. Additionally, technical skill gaps and platform usability issues, such as complex interfaces and lack of mobile-friendly options, were highlighted. Some respondents also mentioned data security and reliability concerns, including information loss and power fluctuations.

"Slow or unstable networks, low bandwidth, and outages in some offices and satellite libraries." **IDI_010**

"Some technologies are outdated, unavailable, or not fully utilized." **IDI_004**

"Platform usability challenges, including lack of mobile-friendly options." **IDI_008**

4.7.5 Top management support on knowledge sharing

Capacity building and training emerged as a significant area, with respondents emphasizing the need for continuous staff training, structured onboarding, and forums to enhance understanding and use of knowledge management systems. Recognition, incentives, and motivation were also frequently highlighted, with staff noting that rewards, bonuses, and acknowledgment of contributions encourage active sharing. Leadership engagement and role modeling were seen as essential, as supportive and participatory leadership fosters a culture of openness and mitigates the risk of knowledge loss. Additionally, respondents stressed the importance of resource allocation and technological infrastructure, calling for adequate tools, dedicated departments, and strategic investments to sustain knowledge-sharing practices. Some participants highlighted the need for policy development and strategic support, suggesting that formal structures can help institutionalize sharing behaviors.

"Facilitate forums, knowledge cafés, and structured onboarding sessions to strengthen understanding of knowledge sharing." **IDI_001**

"Leadership should model knowledge-sharing behaviors and promote supportive leadership styles" **IDI_007.**

"Management creates spaces for sharing ideas, such as presentations, conferences, and internal forums." **IDI_004**

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of the findings of this study. The conclusion and recommendations are drawn from the findings presented in Chapter 4. The chapter also presents suggestions for further areas of study.

5.1 Summary of the Findings

The main purpose of this study was to investigate the organizational determinants of Knowledge Sharing in Health Research Institutions in Kenya. The following research questions guided the study; How does organization culture affect knowledge sharing in health research institutions in Kenya? What is the influence of staff motivation on knowledge sharing in health research institutions in Kenya? How does technology infrastructure impact knowledge sharing in health research institutions in Kenya? What is the effect of top management support on knowledge sharing in health research institutions in Kenya?

5.1.1 Organization culture and knowledge sharing

The study found that organization culture plays a significant role in influencing knowledge-sharing behaviors in the workplace. Factors including trust, collaboration, transparent communication, acknowledgment, support from leadership, and a sense of psychological safety were consistently evaluated positively, suggesting that they act as powerful facilitators of knowledge transfer. However, the findings also highlighted that competitive behavior is a potential barrier to open knowledge transfer, indicating that rivalry among employees in the workplace can hinder knowledge transfer practices. These

findings highlight the significance of a constructive corporate culture in promoting openness, collaboration, and mutual support, all of which are essential for maintaining effective knowledge-sharing practices. These findings clearly demonstrate that effective information sharing thrives in environments where the organization culture is purposefully intended to enhance cooperation, open communication, and a sense of psychological safety, all while lowering competitiveness that impedes teamwork.

The study findings concur with Abdelrahman et al. (2025) who state that specific cultural dimensions, such as adaptability in an organization, involvement, consistency, and mission, are all factors that facilitate the adoption and usage of a knowledge management system, which enhances effective knowledge sharing. Another study done by Iqbal et al. (2025) demonstrated that where leaders exhibit a supportive, trustworthy, and open communication channel, there is an increase in a KS culture.

5.1.2 Staff Motivation and Knowledge Sharing

The study found that staff motivation is a multifaceted but powerful tool in driving knowledge sharing within the organization. Despite extrinsic motivators such as recognition, rewards, and team-based incentives having a significant positive influence, the findings demonstrated that intrinsic motivators are the most effective and dependable drivers. Factors such as personal satisfaction from assisting colleagues and the perception of knowledge sharing as a way of personal growth merged as the most potent motivator, with the majority of the respondents recording the highest level of agreement with high mean scores.

This outcome suggests that most employees are motivated by a sense of purpose, altruism, and a desire for personal growth. The strong perception that knowledge sharing

leads to organizational success further strengthens the collective, intrinsic drive. So, for the sustainability of KS, the organization should prioritize cultivating an environment that is supportive and fosters personal fulfillment and growth. Extrinsic motivators remain an essential and valuable tool for encouraging participation, especially by modeling desired behaviors; they are rather designed to complement, rather than replace, intrinsic motivators.

Interestingly, the study findings are confirmed by previous studies Nguyen (2021) showing that both intrinsic motivation and extrinsic motivation not only coexist but also support each other to affect knowledge sharing. However, the study also demonstrated that intrinsic motivation has a stronger influence on knowledge sharing than extrinsic motivation, which is also supported by other previous studies (Cho et al., 2019; Pee & Lee, 2015).

5.1.3 Technological Support and Knowledge Sharing

The study findings indicate that technological support is a powerful and fundamental enabler of knowledge sharing within organizations. From the data, it is evident that employees overwhelmingly demonstrate that the provided platforms are user-friendly, critically useful for their daily activities, and highly effective in enabling them to share knowledge with colleagues. The factors, such as endorsement of collaboration tools, real-time communication infrastructure, and virtual communities of practice, all showed a higher mean score of above 5.00, and this underscores how technology unequivocally breaks silos and fosters seamless, organization-wide collaboration. However, with this positive outlook on technology, some challenges need improvement. The relatively lower agreement on training adequacy, resulting from persistent technical challenges, indicates

that the human aspect of technology needs further strengthening. Having technological tools is a plus, but ensuring that all employees have the skills to support their efficient operation is critical. With this technology currently acting as a robust pillar for knowledge sharing, to realize its full potential, investing in robust training programs and technical support will be essential to mitigate existing gaps and eventually ensure uninterrupted and effective knowledge practices among all employees.

Existing literature, a systematic review on technological infrastructure and KS, emphasizes that as much as technology can enhance easy learning, the effectiveness depends on the specific tools, user proficiency, attitudes, and the contexts in which they are applied (Kumar et al., 2024).

5.1.4 Top Management Support and Knowledge Sharing

The study established that top management support is the backbone for a thriving knowledge-sharing culture in an organization. The data clearly demonstrated that leadership is perceived as a major proactive and empowering force in KS, effectively promoting initiatives, allocating necessary resources, and rewarding employees who share knowledge. However, this factor received a lower mean score, indicating a perceptible gap between the leadership's encouraging stance and the implementation of tangible incentives. This was further supported by a higher mean score, indicating that the majority of respondents held a strong belief that top management encourages innovation through KS.

Therefore, while we are at the forefront and have laid out foundation mechanisms and strategic imperatives for KS, there is a clear view to strengthen this factor by developing constructive, consistent, and visible mechanisms for recognition and reward

for the employees to solidify a culture where KS is not only encouraged but also regularly celebrated and reinforced.

The study findings concur with Lo et al. (2021) A study argues that top management has a positive and significant impact on KS, and their role fosters KS, which in turn influences open innovation outcomes. This reinforces the notion that leadership should consider different strategies in developing team affiliation and creating a trustworthy environment. Furthermore Yeboah (2023) conducted a systematic review of knowledge sharing which highlighted that top management and leadership are essential for knowledge sharing and this finding reinforces that these finding are part of the broader contextual pattern.

5.2 Conclusion

The study concludes that technological infrastructure and top management support have a significant impact on KS. These factors were attributed to the following: the respondents demonstrated that technological ability drives KS, which was dependent on how usable, accessible, and supported the tools are. Further, the respondents indicated that user training, user confidence, responsive support, and alignment with work processes are essential complements.

5.3 Recommendation

Following this study on the organizational determinants of knowledge sharing in health research institutions, the following recommendations have been pointed out as the avenues that the research institutions in Kenya can improve on their KS.

5.3.1 Organization culture and KS

The study recommends that research health institutions in Kenya should monitor and manage competitive dynamics to prevent them from stifling openness.

5.3.2 Staff Motivation and Knowledge Sharing

The study recommends that research health institutions in Kenya should balance between intrinsic and extrinsic motivators, avoiding the replacement of intrinsic motivators by extrinsic ones. Instead, they should prioritize inherent factors, such as satisfaction and personal growth, as these are more sustainable over time.

5.3.3 Technological support and Knowledge sharing

The study recommends that the research health institutions in Kenya should provide hands-on, frequent, and refresher training, as the data depicted low adequacy in training.

5.4 Study limitations

While this study offers valuable insights into the impact of organizational factors on knowledge sharing in health research institutions, it has the following limitations. The study relied on self-reported data, which can be distorted by social desirability bias and inaccuracies in memory. Some respondents may also feel that specific questions are sensitive and fear that they might be implicated with the employee if the report is returned.

5.5 Suggestion for Further Studies

The current study aimed to investigate the impact of organizational factors on knowledge sharing in health research institutions; however, the respondents were primarily from departments related to knowledge, library, and information management. Future projects should consider employing a longitudinal design to determine the impact of organization culture on knowledge sharing across different departments. Additionally, the current study

relied on primary data; future studies should make use of available secondary or empirical data for more detailed results

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APPENDICES

Appendix I: Letter of Introduction

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BOARD OF POSTGRADUATE STUDIES

KCAU/BPS/2025 *Date: Monday, September 01, 2025*

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: BRIAN ODHIAMBO ORWA - REG NO. 24/00234

It is my distinct pleasure to introduce Brian Odhiambo Orwa, a student at our institution pursuing a Master of Science in Knowledge Management and Innovation degree in the School of Business.

Brian is conducting research on the topic ***"The effect of organizational factors on knowledge sharing in health research institutions in Kenya"*** which is part of the requirements of the program he is pursuing. The research as well as the data procured thereof shall be used for academic purposes only. Any assistance accorded to him is highly appreciated.

In case of further inquiry, do not hesitate to contact the undersigned.

Yours faithfully,

DR. JACKSON NDOLO
DIRECTOR, BOARD OF POST GRADUATE STUDIES

Appendix II: Research Questionnaire

Please answer all the questions honestly and exhaustively by inserting a tick (√) in the appropriate box that closely matches your opinion.

NB: This information was used strictly for academic purposes only and was treated with the utmost confidentiality.

PART A: Bio Data

1. Gender: Male ☐ Female ☐ Other ☐

2. Age: 20 – 30 ☐ 31 – 40 ☐ 41 – 50 ☐ 50 + ☐

3. Which organization are you representing

KEMRI	☐	AMREF	☐	APHRC	☐
KIPRE	☐	NCI-K	☐	ARA	☐
KIPPRA	☐	KNDI	☐	ICIPE	☐
KALRO	☐	KMTC	☐	CRK-CRO	☐
TBI-NBI	☐	NHRF	☐	AIMBH	☐

4. Your position in the Organization

Knowledge Manager ☐

Knowledge Management Officer ☐

Information Management Officer ☐

Monitoring, Evaluation & Learning Officers ☐

Librarian ☐

Other _____

5. Years of service in the Healthcare Sector:

Less than 5yrs ☐ 6-10yrs ☐ 11-15yrs ☐ 16- 20yrs ☐ 0ver 20yrs ☐

PART B: Effect of Organizational Factors on Knowledge Sharing (Independent Variables)

i. Organization Culture

How does organization culture affect knowledge sharing in health research institutions in Kenya?

INSTRUCTION: ***Kindly indicate to what extent you agree with the following statements. (Where: 1- Strongly Disagree; 2 – Disagree; 3 – Somewhat diagree; 4 – Somewhat Agree; 5 – Agree; 6 – Strongly Agree)***

No.	Statement	1	2	3	4	5
6.	There is a culture of trust among staff in my organization.					
7.	Collaboration and teamwork are encouraged in my workplace.					
8.	Open communication channels exist for sharing knowledge and ideas.					
9.	Knowledge sharing is recognized and rewarded in my organization.					
10	Competitive behavior among staff hinders knowledge sharing.					
11.	Regular team meetings facilitate knowledge exchange.					
12.	Leadership supports a culture that promotes knowledge sharing.					
13.	Employees feel safe to share their insights without fear of criticism.					

14. What changes in organization culture would you suggest to improve knowledge sharing?

_____

_____

_____

ii. Staff Motivation

What is the influence of staff motivation on knowledge sharing in health research institutions in Kenya?

INSTRUCTION: Kindly *indicate to what extent you agree with the following statements. (Where: 1- Strongly Disagree; 2 – Disagree; 3 – Somewhat diagree; 4 – Somewhat Agree; 5 – Agree; 6 – Strongly Agree)*

No.	Statement	1	2	3	4	5
15	I am motivated to share knowledge because of the recognition and rewards it brings.					
16	Personal satisfaction from helping colleagues encourages me to share knowledge.					
17	Extrinsic incentives (bonuses, promotions) influence my willingness to share knowledge.					
18	I feel that sharing knowledge contributes to my professional growth.					
19	Team-based incentives encourage collaborative knowledge sharing.					
20	Knowledge sharing improves overall organizational success.					
21	I participate more in knowledge sharing when I see others being rewarded.					

22. Can you describe the types of motivation or incentives that most influence you and your colleagues to share knowledge?

_____

_____

_____

_____

iii. Technology Infrastructure

How does technology infrastructure affect knowledge sharing in health research institutions in Kenya?

INSTRUCTION: ***Kindly indicate to what extent you agree with the following statements. (Where: 1- Strongly Disagree; 2 – Disagree; 3 – Somewhat diagree; 4 – Somewhat Agree; 5 – Agree; 6 – Strongly Agree)***

No.	Statement	1	2	3	4	5	6
23	The technology platforms provided (e.g., SharePoint, D-Space) are easy to use.						
24	I find knowledge management systems useful for my daily work.						
25	Technology enhances my ability to share knowledge with colleagues.						
26	I receive adequate training to use technology tools for knowledge sharing.						
27	Collaboration tools (video conferencing, chat platforms) facilitate knowledge sharing.						
28	Technology infrastructure supports real-time communication across departments.						
29	I face technical challenges that hinder my ability to share knowledge.						
30	Virtual communities of practice help me connect and share knowledge with others.						

31. Please describe any challenges related to technology infrastructure that impact knowledge sharing in your institution?

_____

_____

Top Management Support

What is the influence of top management support on knowledge sharing in health research institutions in Kenya?

INSTRUCTION: Kindly *indicate to what extent you agree with the following statements. (Where: 1- Strongly Disagree; 2 – Disagree; 3 – Somewhat diagree; 4 – Somewhat Agree; 5 – Agree; 6 – Strongly Agree)*

No.	Statement	1	2	3	4	5	6
32	Top management actively promotes knowledge sharing initiatives.						
33	Leadership provides sufficient resources to support knowledge sharing activities.						
34	Management creates knowledge-sharing culture that employees emulate.						
35	Strategic priorities set by management emphasize knowledge sharing.						
36	I feel empowered by leadership to share my knowledge freely.						
37	Top management recognizes and rewards employees who share knowledge.						
38	Lack of support from management discourages knowledge sharing.						
39	Leadership encourages innovation through effective knowledge sharing.						

40. Kindly provide additional comments on how top management supports or could better support knowledge sharing in your institution?

_____

_____

_____

PART C: Effect of Organizational Factors on Knowledge Sharing (Dependent Variables)

i. Knowledge Sharing Practices

INSTRUCTION: Kindly *indicate to what extent you agree with the following statements. (Where: 1- Strongly Disagree; 2 – Disagree; 3 – Somewhat diagree; 4 – Somewhat Agree; 5 – Agree; 6 – Strongly Agree)*

No.	Statement	1	2	3	4	5	6
41	I actively participate in knowledge-sharing activities, such as meetings, workshops, and online forums, organized by my institution.						
42	I regularly use collaboration platforms (e.g., SharePoint, MS Teams, D-Space) to share and access information with colleagues.						
43	My team adopts and implements the best practices shared throughout the organization to enhance our work processes.						
44	I feel comfortable sharing my ideas, experiences, and expertise with colleagues to help solve work-related problems.						
45	I frequently contribute to updating and accessing organizational knowledge repositories or databases.						
46	Knowledge shared by others is readily accessible and crucial for informed decision-making and innovation in my work.						

47. In your own words, please describe how knowledge sharing typically happens in your institution.

_____

48. What are some ways that knowledge sharing could be improved in your organization?

_____

Thank you for your participation!

Appendix III: NACOSTI Approval

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **601788**

Date of Issue: **12/September/2025**

RESEARCH LICENSE

This is to Certify that Mr.. Brian Odhiambo Orwa of KCA University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: The Effect of Organizational Factors on Knowledge Sharing in Health Research Institutions in Kenya. for the period ending : 12/September/2026.

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601788

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See overleaf for conditions

Appendix IV: Target Population

S/No.	Institution	Location
1.	Kenya Medical Research Institute (KEMRI)	Nairobi
2.	AMREF Health Africa	Nairobi
3.	African Population & Health Research Center	Nairobi
4.	Kenya Institute of Primate Research (KIPRE)	Nairobi
5.	The National Cancer Institute of Kenya	Nairobi
6.	Afya Research Africa	Nairobi
7.	Kenya Institute for Public Policy Research and Analysis (KIPPRA)	Nairobi
8.	Kenya Nutrition and Dietetics Institute (KNDI)	Nairobi
9.	International Centre of Insect Physiology and Ecology (ICIPE)	Nairobi
10.	Kenya Agricultural and Livestock Research Organization (KALRO)	Nairobi
11.	Kenya Medical Training College (KMTC)	Nairobi
12.	CRK Clinical Research Organization	Nairobi
13.	Turkana Basin Institute, Nairobi	Nairobi
14.	The Nairobi Hospital	Nairobi
15.	Africa Institute of Mental and Brain Health	Nairobi

Appendix V: Work Plan

Dissertation Activity	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**
Topic Selection									
Proposal Writing									
Approval of Research Proposal									
Evaluating Data and Results									
Submitting Dissertation									

Appendix VI: Research Budget

Category	**Amount (KES)**
Ethical Approval - KCAUSERC - NACOSTI	2,000
Data Collection - Local Travel - Survey Tools and Data Management Software - Statistical Consultants	25,000
Printing and copying	3,000
Journal Fees	10,000
Conference Presentations	5,000
Contingency	5,000
TOTAL	**50,000**