

**ANALYSIS OF THE EVOLVING ROLES OF LIBRARIANS IN ENHANCING
KNOWLEDGE MANAGEMENT IN UNIVERSITY LIBRARIES IN NAIROBI COUNTY**

MAKOKHA EMILY NASIMIYU

**A Thesis submitted to the School of Science and Technology in Partial Fulfillment of the
Requirements for the Conferment of Master of Science in Information Science of Kenya
Methodist University**

August 2024

DECLARATION AND RECOMMENDATION

Declaration

This thesis is my original work and has not been presented for a degree or any other award at any other university.

Signature: _____ Date: September.....25, 2024

MAKOKHA EMILY NASIMIYU

ISK-3-2918-3/2022

Recommendation

We confirm that the candidate's work reported in this proposal was carried out under supervision.

Signature: Date:25-09-2024

Prof. Paul Gichohi

Kenya Methodist University

Signature: Date: 25-08-2024

Julie Kiarie

Kenya Methodist University

COPYRIGHT

© 2024 Makokha Emily Nasimiyu

All rights reserved. No part of this thesis may be reproduced, stored in any retrieval system or transmitted in any form or by any means, electronically, mechanically, by photocopying or otherwise, without prior written permission of the author or Kenya Methodist University, on that behalf.

DEDICATION

I dedicate this work to my family for all their support in helping me reach this far in my academic journey.

ACKNOWLEDGEMENT

I want to express my heartfelt gratitude for the support and guidance I received throughout this academic endeavor. First and foremost, I acknowledge the blessings and grace bestowed upon me by the Almighty. Secondly, I am incredibly grateful to my family and friends, who have been a constant source of encouragement and mentorship. Their unwavering belief in me has been instrumental in my success. Thirdly, I sincerely appreciate my esteemed supervisors, Prof. Paul Maku Gichohi and Julie Kiarie, for their valuable advice and guidance, which have contributed significantly to my research achievements. Fourth, I would like to express my heartfelt appreciation to my lecturers, who were instrumental in this scholarly endeavor. Moreover, I would also like to express my deep gratitude to the library staff at the KeMU Library for their assistance and motivation. Lastly, to all those who have shaped my academic journey, I am genuinely thankful for your unwavering support.

ABSTRACT

It has long been recognized in several sectors that librarians can enhance the efficacy and operational efficiency of knowledge management. University libraries do not yet completely acknowledge the worth of the role of librarians in managing knowledge. The primary goal of this study was to analyze librarians' evolving roles in enhancing knowledge management in university libraries in Nairobi County. Expressly, the following objectives were set forth: to evaluate the knowledge management practices currently in use by librarians in Nairobi County University libraries; to investigate the role of librarians in fostering information literacy skills among users at Nairobi County University libraries; to assess the role of librarians in organizing knowledge at Nairobi County university libraries; and to assess the role of librarians in maintaining the cultural heritage at Nairobi County university libraries. The study was carried out at the Technical University of Kenya and the University of Nairobi, and the following theories anchored the unified theory of technology acceptance and use, the role theory, and the adaptive structural theory. This study used the descriptive survey research design targeting 2180 individuals, consisting of librarian section heads and information science students, who were identified across the two institutions. A sample size of 338 respondents was sampled from this population to take part in the research process. Data was collected using questionnaires and interview schedules. This comprised 314 students currently enrolled at TUK and UON in the School of Information Science and 12 librarian section heads from each university. The content validity was attained by selecting the questionnaire measuring items from the operational framework. The quantitative data collected was analyzed using version 26 of the Statistical Package for Social Sciences (SPSS). Consequently, a frequency distribution will also be employed to analyze the quantitative data obtained during the research. This will show how often each value occurs in a data set, mainly the mean, median, and mode measures of central tendency. Ethical considerations were observed in the study. The value of this study was to help provide a comprehensive understanding of the evolving roles of librarians in enhancing knowledge management, which was very useful in assisting university libraries in Nairobi County. Based on the collected findings, most students felt that librarians had the most influence on knowledge management at these institutions. In addition, the librarians also felt they were responsible for enhancing literacy skills among library users. When asked for recommendations on how to evaluate the knowledge management techniques currently used by librarians in the libraries of Nairobi County University, a few librarians were informed that conducting knowledge management audits, regular surveys and questionnaires, focus groups, and interviews would provide these organizations with the data they require to ascertain which particular techniques are employed and how successful they are overall at promoting effective knowledge management. Finally, all responders agreed to set explicit targets for their cultural preservation program when asked how universities might evaluate librarians' contributions to the preservation of cultural heritage at university libraries in Nairobi County. Based on available data, this study shows that while some aspects of effective knowledge management, such as technology application, are used throughout the knowledge management (KM) cycle, their full implementation is not observed at every cycle stage. The study also suggested that librarians should actively communicate with teachers and students, offering them specific guidance on where to look for, evaluate, and use information. The last proposal was that these universities offer accurate metrics, promote collaboration with cultural institutions, and equip librarians with the skills to evaluate how successfully university libraries preserve cultural assets.

TABLE OF CONTENTS

DECLARATION AND RECOMMENDATION	ii
COPYRIGHT	iii
DEDICATION	iv
ACKNOWLEDGEMENT	v
ABSTRACT	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xi
LIST OF FIGURES.....	xii
LIST OF ABBREVIATIONS AND ACRONYMS.....	xiii
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the study	1
1.2 Statement of the problem	7
1.3 Purpose of the study.....	8
1.4 Research objectives.....	9
1.5 Research questions.....	9
1.6 Justification of the Study.....	9
1.7 Scope of the Study	10
1.8 Significance of the Study	10
1.9 Limitations of the Study.....	11
1.10 Assumptions of the Study.....	12
1.11 Definition of Terms	12
CHAPTER TWO	14

LITERATURE REVIEW	14
2.1 Introduction	14
2.2 Knowledge Management in University Libraries	14
2.3 Existing Knowledge Management Practices in University Libraries	21
2.4 Librarian’s Role in Promoting Information Literacy Skills in University Libraries	24
2.5 Librarian’s Role in Organizing Knowledge in University Libraries	27
2.6 Librarian’s Role in Preserving the Cultural Heritage in University Libraries	31
2.7 Theoretical Framework	33
2.8 Conceptual Framework	37
CHAPTER THREE.....	40
METHODOLOGY	40
3.1 Introduction	40
3.2 Research Design	40
3.3 Location of Study	41
3.4 Target Population	42
3.5 Sample Size	43
3.6 Sampling Technique.....	44
3.7 Data Collection.....	45
3.8 Pre-test of Research Instruments	47
3.9 Data Collection Procedures	47
3.10 Validity and Reliability	49
3.10.1 Validity	49
3.11 Data Analysis and Presentation	50
3.12 Ethical considerations	51
CHAPTER FOUR.....	52

RESULTS AND DISCUSSIONS	52
4.1 Introduction.....	52
4.2 Reliability Statistics	53
4.3 Response Rate	54
4.4 Characteristics of Respondents.....	55
4.6 Results on Existing Knowledge Management Practices in University Libraries.....	62
4.7 Results on Librarian’s Role in Promoting Information Literacy Skills.....	66
4.8 Results of Librarian’s Role in Organizing and Managing Knowledge	71
4.9 Results on Librarian’s Role in Preserving the Cultural Heritage at University Libraries ...	73
CHAPTER FIVE	77
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	77
5.1 Introduction	77
5.2 Summary of Findings.....	78
5.2.2 Existing Knowledge Management Practices in University Libraries	79
5.2.3 Librarian’s Role in Promoting Information Literacy Skills	80
5.2.4 Librarian’s Role in Organizing and Managing Knowledge.....	81
5.2.5 Librarian’s Role in Preserving the Cultural Heritage at University Libraries	82
5.3 Conclusion.....	82
5.3.1 Knowledge Management in University Libraries	82
5.3.2 Existing Knowledge Management Practices in University Libraries	83
5.3.3 Librarian’s Role in Promoting Information Literacy Skills	83
5.3.4 Librarian’s Role in Organizing and Managing Knowledge.....	84
5.3.5 Librarian’s Role in Preserving the Cultural Heritage at University Libraries	84
5.4 Recommendations.....	85
5.4.1 Knowledge Management in University Libraries	85

5.4.2 Existing Knowledge Management Practices Employed by Librarians	85
5.4.3 Librarian’s Role in Promoting Information Literacy Skills Among Users at University Libraries.....	86
5.4.4 Librarian’s Role in Organizing and Managing Knowledge.....	86
5.4.5 Librarian’s Role in Preserving the Cultural Heritage at University Libraries	86
5.5 Implications of the Findings on Theory, Practices, and Policies.....	87
5.6 Recommendations for Further Research.....	88
REFERENCES	89
APPENDICES	96

LIST OF TABLES

Target Population	42
Sample size	44
Reliability Statistics	53
Response Rate.....	54
Librarians' Academic Level	56
Librarians' Level of Experience	57
Statements on knowledge management at universities	58
Suggestions on assessing the existing knowledge management practices employed by librarians	60
Role of Librarians in Organizing Knowledge Management	61
Role Played by the Different Stakeholders according to students	63
Existing Knowledge Management Practices	65
Librarian's Role in Promoting Information Literacy Skills	67
Librarian's Role in Promoting Information Literacy Skills	69
Librarian's Role in Preserving the Cultural Heritage at University Libraries.....	75

LIST OF FIGURES

Figure 2.1: Conceptual Framework38

Figure 4.1 Who is most important in facilitating effective knowledge management?64

LIST OF ABBREVIATIONS AND ACRONYMS

AST - Adaptive Structuration Theory

IoT – Internet of Things

JKUAT- Jomo Kenyatta University of Science and Technology

KeMU- Kenya Methodist University

KM- Knowledge Management

KU-Kenyatta University

NACOSTI- National Commission for Science, Technology, and Innovation

TUK-Technical University of Kenya

UON-University of Nairobi

UTAUT- Unified Theory of Acceptance and Use of Technology

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The inadequacies in the knowledge management systems and the role of librarians in resolving this issue were the recognized problems in this instance. Several libraries have been working harder and harder to adjust to the evolving demands of higher education. The primary causes of this were these organizations' outmoded practices and poor technology integration. Librarians could not completely fulfill their changing responsibilities in information literacy promotion, cultural heritage preservation, and data management because of the dynamic nature of contemporary university libraries. This study was, therefore, uniquely positioned to shed light on librarians' evolving roles in enhancing knowledge management in university libraries in Nairobi County. Its findings aimed to reveal the progressive changes in librarians' responsibilities over the years and their impact on access to knowledge in these university libraries. By contributing to the ongoing discourse in the field, this research acknowledged the academic community's and professionals' crucial role in shaping the future of information science and library management.

1.1.1 Knowledge Management

In libraries, knowledge management is locating, classifying, preserving, and sharing information within an institution. Its primary goal is to enhance the flow of knowledge by fostering relationships within and between libraries and between libraries and users (Song et al., 2019). The key factors influencing knowledge management are the organizational culture, leadership and management support, technology infrastructure, knowledge management processes, human resources, information systems and data management, and the organizational structure and

communication channels adopted by these institutions. As this study demonstrated, knowledge management's effectiveness directly impacted the ease of access to information in the university libraries in Nairobi County, underscoring the practical implications of our findings and their direct relevance to your work and the field of information science and library management.

In the contemporary academic landscape, knowledge management plays a pivotal role in the sustainability and triumph of educational institutions (Ansari, 2021). This was particularly evident in the transformative impact of the digital revolution on university libraries, which are no longer just knowledge centers but dynamic hubs of information dissemination. Every country, including Nairobi County, has been experiencing substantial changes to improve public access to knowledge and information (Bartlett, 2021). With the progressive nature of the economy, knowledge became the cornerstone of excellence and success, making the study of evolving librarian roles in knowledge management all the more urgent and relevant in the current academic and economic context, emphasizing the significance of this research.

However, the ease of access to this knowledge determined the difference in progression levels. Advanced nations such as the United States, China, and England have developed more because of their advanced knowledge gap, which sets them apart from many other countries (Desutter, 2021). Zhengzhou University in China, for example, had a perfect projection of how the diversification in the role of librarians has impacted knowledge management within university libraries. Librarians at this institution have had an extension that includes fostering information literacy, planning knowledge management, and safeguarding cultural heritage (Boyes, 2019). Generally, the institution was better suited to broaden public access to knowledge and information, beginning with the learning patterns and continuing with the quantity of learning materials accessible.

The digitalized approach to information management was also one of the finest library practices at Harvard University in the United States (Sheikh et al., 2023). The institution had adopted a technology-based system that ensured the smooth running of library operations. As presented in this research, various search databases at every station were formed so students could easily access all the needed information. Currently, the institution's library has easily navigable databases into which students enter keywords related to the content they seek and receive links to specific sections containing that information.

Oxford University hindered how today's industrialized nations' libraries have more accessible and more effective knowledge management processes. According to the qualitative research by Daland (2019) on the university library structure, the findings confirmed that the institution operationalized a student support knowledge base and help center. This means that the library system at this institution was designed to ensure that students had access to all the support they needed to access information on various subjects. The role of the librarians at this institution had also varied to implement this strategy. This included keeping track of the semester's progression and the institution's general learning curriculum to ensure that the information needed by the students was available.

A similar progressive structure was also evident in many developing countries in Africa. For example, Knowledge management systems were more advanced in nations like South Africa and Egypt (Maryati et al., 2021). The wide range of differences was evident in the roles of librarians in promoting information literacy, knowledge management organization, and preserving cultural heritage. These countries benefited from access to more learning materials and developed educational systems. Most libraries have since adopted a technology-based strategy as a result of this. For instance, the logical review by Abukhader (2019) showed how this advanced library

system was one of the reasons why Cairo University continues to draw in international students. The institution's position on the world map or its professed degree of excellence was recorded. Meanwhile, many individuals were unaware that this institution's operational model, especially its knowledge management approach, has led to these excellent achievements. Mansour (2019) revealed that the school's extensive academic resources and library systems guaranteed that students could access knowledge about their fields of interest. The wealth of educational resources broadly characterized this at the library and the commitment of the librarians to promoting easy access to this information.

University libraries in South Africa have also embraced IoT-based knowledge management systems. These systems used cutting-edge technical techniques to improve the accessibility of academic information and learning materials. For example, at the University of Johannesburg, the idea behind information databases meant that faculty and students only needed to enter a few key phrases to access specific information and the library's location (Nzeyimana et al., 2022). These IoT solutions were being used in South African university libraries as a sign of their dedication to using technology to manage knowledge, use resources, and satisfy users effectively. University libraries in South Africa were improving their services and offering their academic communities a cutting-edge, digitally connected environment by adopting such IoT technology.

In Kenya, however, this trend is still progressing at a slower rate. Most universities in the country still need to use their librarians effectively to enhance students' access to knowledge and information (Masinde et al., 2021). The main problem is that most universities still need to start using the traditional knowledge management model. This means the students still had to search for books and information physically. This prolongs the search process while limiting the information the students can access. The alarming factor was that this tedious nature of knowledge

management discouraged many students from using these abilities, subsequently affecting their learning process. At the center of Kenya's academic community, Nairobi County has been the only region that reflects these worldwide trends and has had particular regional difficulties (Nakitare et al., 2020). Understanding the critical role that libraries and librarians play in assisting with creating, sharing, and curating information in academic environments was the driving force behind this study. As the needs of the digital world continue to change, university libraries must make every effort to preserve the intellectual legacy (Kamau & Elegwa, 2021). The increasing volume of digital information and the quick development of technology are to blame for this. To operate beyond the confines of physical collections, librarians are taking on various tasks, such as digital curators, information experts, educators, and research project collaborators.

According to Sang et al. (2020), librarians are custodians of knowledge repositories and guides through the complex web of technologies and resources. Nairobi County, home to several respected universities, is ideal for researching these shifts. Kenya's university libraries are at the forefront of innovation and flexibility since the country was recognized as a center for education. However, challenges emerge throughout the tide of change, from evolving user expectations and instructional patterns to financial constraints and technological shortcomings.

1.1.2 The Evolution of the Roles of Librarians

Traditionally, the role of librarians all around the world has been centered on bookkeeping. This implies that these people were primarily responsible for looking after the book (Bonfield et al., 2021). This involved ensuring that each book was in excellent condition and free of any signs of wear and tear and that everyone entering the library received guidance on where to find the books they needed. For instance, the librarians served as the library's tour guides in places like Great Britain. According to the logical review by Appleton et al. (2019), this included going so far as to

coordinate with the library police to take appropriate action against anyone who disobeyed the rules on utilizing library materials.

However, this role had subsequently evolved over the years. The first registered change was a shift in the librarian's role from custodian to more information management involvement. This has given them the platform to control knowledge management (Sheikh et al., 2023). For example, the structure at the University of Ibada and Alexandria depicted how such role expansions had become prominent, especially in Africa. This role allowed librarians at these two institutions to control the flow of information within the libraries, ensuring that students could access a wide range of information relating to their specific areas of interest (Merga, 2020). These individuals were tasked with the responsibility of preserving cultural heritage, knowledge management organization, and the promotion of information literacy. This research also confirmed that technological advancements had significantly influenced this diversification.

Currently, even the local librarians have become record and information managers. Take the case of the University of Nairobi as an example; the librarians at the institution focused more on providing access to information than looking after the books themselves (Mwaniki, 2019). Technology, in this case, ensured that these individuals were more informed about the context of each book with the help of the Internet. The same technology-based approach to information management was also evident at Kenyatta University and Jaramogi Oginga Odinga University of Science and Technology (Otike & Barát, 2021). This means these individuals utilized the different library databases to stay informed, thus equipping them with the knowledge and information relevant to each book. As such, any university student, or any person for that matter, looking to acquire specific information from the University library could easily be directed by the librarians

to the particular sources of such information. This role has improved the relevance of the librarians, especially in this current institution-centric learning environment.

1.2 Statement of the problem

The identified problem, in this case, was about the gaps in the knowledge management systems and the role of the librarians in addressing this issue. It has increased the work of many libraries to adapt to the changing needs of higher education (Kisang, 2021). These institutions' outdated procedures and inadequate technology integration were the main factors influencing this. The dynamic environment of modern university libraries could not allow librarians to fully realize their evolving roles in managing data, preserving cultural heritage, and promoting information literacy. This called for a thorough assessment and possibly redefining the librarian's role (Sirorei & Fombad, 2019). Through analysis of these gaps, solutions for filling them would be created to improve knowledge management effectiveness and better match librarians with changing demands from the academic community.

Nairobi County University libraries are in a great position to continue leading the way in knowledge dissemination and preservation in a time of rapid technological advancement and changing information environments (Ogola, 2022). This advantage was mainly due to the county's rapid expansion, which resulted in infrastructure construction, technical advancements, and a larger share of resource allocation. Because of this, the educational institutions in this area were all required to support efficient knowledge management. The fact that these institutions still needed to catch up in terms of optimal knowledge management, however, was concerning.

Librarians should utilize state-of-the-art knowledge management strategies as information stewards to guarantee that resources are systematically organized and easy for users to access (Ondieki et al., 2023). Additionally, their role in data administration ensures that data is organized,

stored, and retrieved for research and educational purposes without hiccups. This also involved safeguarding a cultural legacy, and librarians were essential in promoting and protecting libraries' vast historical and intellectual collections.

However, the condition of Nairobi County's university libraries raises the possibility of a mismatch between the conventional responsibilities of librarians and the changing demands of the academic community (Sakhawat et al., 2021). One likely consequence of current knowledge management approaches only partially using technology improvements was ineffective information retrieval. Because of the complexity of the problem, many students lost hope when they needed assistance quickly to obtain the information they needed. In extreme cases, this could negatively impact students' overall learning outcomes and make them postpone their education. The complexity of knowledge in the digital age also overwhelmed consumers, necessitating revisions to information literacy initiatives (Cherotich & Senaji, 2021). Data management also required greater expertise in an era of vast data and research methodologies. Cultural heritage preservation could also be challenging since libraries needed assistance obtaining information to use innovative techniques for safeguarding and promoting irreplaceable historical and cultural assets. Thus, this study aimed to assess the changing responsibilities of librarians in improving knowledge management by concentrating on university libraries within Nairobi County, taking into account the shortcomings in information management. The aim was to examine the effects of this role variety on information flow and general knowledge management in these educational establishments.

1.3 Purpose of the study

This study aimed to analyze librarians' evolving roles in enhancing knowledge management in university libraries in Nairobi County.

1.4 Research objectives

- i. Assess the existing knowledge management practices employed by librarians in university libraries in Nairobi County.
- ii. Examine librarian's role in promoting information literacy skills among users at university libraries in Nairobi County.
- iii. Evaluate the librarian's role in organizing knowledge management at university libraries in Nairobi County.
- iv. Evaluate the librarian's role in preserving the cultural heritage at university libraries in Nairobi County.

1.5 Research questions

- i. Which knowledge management practices are used by the university libraries in Nairobi County?
- ii. How can university librarians in Nairobi County assist patrons in enhancing their information literacy?
- iii. What function do librarians perform in the Nairobi County University libraries' knowledge management system?
- iv. What role does a librarian play in the preservation of cultural heritage at Nairobi County University libraries?

1.6 Justification of the Study

This study was essential in light of the dynamic changes in academic information management. In an era marked by rapid technological advancements and an explosion of information sources, the role of librarians has undergone significant transformation. This study sought to analyze the changing responsibilities of librarians within university libraries in Nairobi County, with a specific

focus on their contributions to knowledge management efficiency, identifying areas for improvement and innovation, and ultimately enhancing the academic performance and success of students, faculty, and researchers. The idea was to ensure that students got the best learning outcomes by improving the ease and convenience of accessing information at these institutions (Musungu & Maina 2023). The country has already made significant advancements to progress to the levels of most developing nations. This knowledge advancement could be the key to unlocking the unused potential of the students. Interestingly, this could be achieved by enhancing knowledge access. As such, this means that librarians' role is becoming much more crucial in this modern era than in traditional bookkeeping.

1.7 Scope of the Study

This research focused on the evolving roles of librarians in enhancing knowledge management in university libraries in Nairobi County. The idea was to determine how the presence of the librarians influenced students' access to knowledge and information. As such, the emphasis was on understanding these librarians' role in advancing student learning through information access. The independent variable in this case was the roles of Librarians. These included information literacy promotion, data management, digital resource management, preservation of cultural heritage, and promoting the sharing of research outputs. The dependent variable, on the other hand, was knowledge management efficiency. Universities outside Nairobi County would not be included in this research.

1.8 Significance of the Study

The prominence of a research study was examined based on the application of evidence-based practice in assessing the presented research problem. The research projected the importance of libraries in the university from the context of elective management of knowledge and information

and how this helped enhance student's learning outcomes. This also included examining the importance of librarians in ensuring effective information management. Therefore, the information in this research would help advocate for including professional librarians in the platform to ensure better student performance at these learning institutions. The idea was to shed light on the various roles of these librarians and how diversification helped ensure better information management at the universities within Nairobi.

Exploring this issue helped enhance students' learning process at these universities. Moreover, the staff from various departments would also benefit from access to academic information, which could help them do research of their own in matters unrelated to student education. The research also benefited UON and TUK by assisting them to advance their knowledge management model, thus ensuring the best learning experience for their students. Above all, the information obtained from this study would be the platform for changing the learning model in this country by ensuring the efficiency and reliability of the library system.

1.9 Limitations of the Study

The most significant limitation of this study was that it would largely depend on the researcher's perception of librarians' role in knowledge management. This meant that every piece of information presented was based on an individual's assessment of librarians' evolving roles and how this role affected knowledge management in university libraries within Nairobi County. This limitation would be addressed by referring to existing literature on this subject. The idea was to complement the information from both sides to enhance the credibility of the findings.

1.10 Assumptions of the Study

This study is based on the assumption that:

- i. Knowledge management and librarians' roles are related in a way that significantly improved the efficacy and efficiency of service delivery in academic libraries.
- ii. Knowledge management techniques are used in all academic libraries.
- iii. Higher education institutions believe that librarians do an optimal job in increasing the effectiveness and efficiency of knowledge management.
- iv. Librarians at university libraries are underappreciated, which leads to poor knowledge management and inadequate service delivery.
- v. There are no recognized best practices for librarians that connect knowledge management systems to providing services, acting as success factors for the smooth running of libraries.

1.11 Definition of Terms

Knowledge management: Refers to the methodical process of producing, arranging, storing, gaining access to, exchanging, and using the enormous amount of data, information, and intellectual resources that the library has available to meet the university community's demands for academics and research (Kwanya et al., 2020).

Library: an institution of higher learning with a specific focus that organizes, collects, stores, and distributes knowledge and information resources. It acts as a focal point for meeting the needs of university staff, researchers, and students regarding academic assistance and research (Musungu & Maina 2023).

Librarian: a professional who works in a library to give patrons access to information, information literacy training, and occasionally social or technical activities (Ansari, 2021).

Cultural heritage is the legacy of a group or society's material and immaterial assets passed down through the generations (Desutter, 2021).

Information literacy is a set of skills requiring people to identify when information is needed and possess the capacity to find, assess, and apply the necessary information efficiently (Bartlett, 2021).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter of the paper covered the empirical reviews associated with librarians' evolving roles in enhancing knowledge management and examined various theoretical concepts related to the topic. The empirical review would cover all the variables associated with the study. These would be analyzed based on observations, surveys, and subsequent research on librarian role diversification. On the other hand, the theoretical framework would discuss the theories associated with this subject to shed light on the scope of this problem.

2.2 Knowledge Management in University Libraries

Knowledge management (KM) identifies, organizes, stores, and disseminates information. In this case, the process involved managing information within the university libraries. Today, libraries serve more purposes than just keeping books (Abukhader, 2019). The structural model of these university libraries has diversified to enhance the efficiency of knowledge management. The central objective of these institutions was to ensure easy access and retrieval of information by students and faculty members (Enakrire & Ocholla, 2022).

The attainment of this objective was, however, dependent on compliance with our key knowledge management components. The first component that was taken into account was the people. This was related to all those individuals who influenced the knowledge management process (Usman et al., 2021). In this case, the people were the librarians, students, and the other faculty members using the library services. The second component, as highlighted by Bagchi (2020), was the knowledge management process. This entailed all activities associated with knowledge

management. The method provided guidelines to ensure efficiency and consistency in knowledge management. According to Yazdani et al. (2020), the third component was content/IT, which was concerned with the specific knowledge management components. In the current technological world, the central component of effective knowledge management is conceptualizing technology to attain this objective. Finally, the strategy was adopted as the last component of knowledge management. In this case, the strategy related to the approach taken by these librarians in the knowledge management process.

However, it is essential to note that this structure is still different worldwide. For instance, in more developed nations like the United States, Britain, and China, many of the collections within these university libraries are now available digitally, and librarians are also adjusting to these developments (Xiao, 2020). In these regions, the method students and other faculty members use to access, receive, and use information had altered due to technological advancements involving electronically stored and retrieved data. Anyone with a computer, a modem, and a provider may now access enormous amounts of data and information instantly thanks to the Internet.

The diversification of the role of librarians has also contributed to this revolution of knowledge management practices within university libraries. These role extensions allowed these libraries to enhance the scope of their service delivery, thus streamlining their overall operations (Sheikh et al., 2023). Take Cambridge University and the University of Texas, for example; librarians at these two institutions have taken a more active role in knowledge management to improve the ease of access to information. These changes not only varied the way knowledge was curated within these learning institutions but also changed how such information could be accessed by all those using the library facilities (Yazdani et al., 2020). Therefore, the focus of this part of the paper was to

examine how the role of these librarians had changed and the implications of these changes on knowledge management in university libraries.

Moreover, technological applications in universities in the United States have also introduced a different approach to examining the role of various librarians. The survey from this region confirms that many librarians currently focus on personal assistance (Bultrini et al., 2022). This included enhancing the ease of information access by taking charge of the research databases and ensuring every student at these libraries got the help they needed when looking for different information. These librarians are currently more equipped with technological knowledge and expertise in using various technological tools to facilitate knowledge management effectively.

Even in developing countries, it was also worth noting that the demands of these universities were also changing in the context of their overall expectation regarding the expected student outcomes. In most African nations, for example, this shift in user demand had been prompted by the observed technological and societal changes in the context of informing the students' learning environment (Anglin et al., 2022). Currently, students in universities in Johannesburg, South Africa, Cairo, Egypt, and even Maputo have become more involved in the flexible teaching-learning process, mainly involving direct interaction with teachers. Librarians and these institutions have helped smoothen these structural changes by helping the students keep track of this changing learning environment (Koloniari & Fassoulis, 2020).

Generally, these librarians play an essential role by acting as the liaison between students and other faculty members, especially the teachers (Holland, 2021). This ultimately helped improve the efficiency of implementing this research-based learning approach, thus improving these students' overall learning outcomes. In an environment of resource-based learning, where students are encouraged to perform more independent work and use a more extensive choice of learning

materials, the relationship between the faculty and the student is crucial (Jain, 2023). The goal was to help students transition to new academic contexts and encourage the development of an information management system that could adapt to the demands of its users.

The progression in Kenya also showed that although previously ignored, the technological world had made the librarian role one of the most resourceful professions in the current century. Ideally, this is because this world has become an information-based universe with power being influenced by the control of information (Turner et al., 2019). As evidenced by institutions like the University of Nairobi, Kenyatta University, and Jomo Kenyatta University of Science and Technology, with these individuals forming the pillar of knowledge management, their inclusion within the education system had significantly impacted the country's progression about knowledge management (Aslam, 2021). These individuals had been tasked with collecting and controlling information tools. This included deciding those who accessed information and what information they accessed. Within these learning institutions, librarians infiltrated the learning process by controlling access to information. This meant they were responsible for ensuring students could access any information they needed from these university libraries.

Knowledge management (KM) identifies, organizes, stores, and disseminates information. In this case, the process involved managing information within the university libraries. Today, libraries serve more purposes than just keeping books (Abukhader, 2019). The structural model of these university libraries has diversified to enhance the efficiency of knowledge management. The central objective of these institutions was to ensure easy access and retrieval of information by students and faculty members (Enakrire & Ocholla, 2022).

The attainment of this objective was, however, dependent on compliance with our key knowledge management components. The first component that must be taken into account is the people. This is related to all those individuals who influenced the knowledge management process (Usman et al., 2021). In this case, the people were the librarians, students, and the other faculty members using the library services. The second component, as highlighted by Bagchi (2020), was the knowledge management process. This entailed all activities associated with knowledge management. The method provided guidelines to ensure efficiency and consistency in knowledge management. According to Yazdani et al. (2020), the third component was content/IT, which was concerned with the specific knowledge management components. In the current technological world, the central component of effective knowledge management is conceptualizing technology to attain this objective. Finally, the strategy was adopted as the last component of knowledge management. In this case, the strategy related to the approach taken by these librarians in the knowledge management process.

However, it is essential to note that this structure is still different worldwide. For instance, in more developed nations like the United States, Britain, and China, many of the collections within these university libraries are now available digitally, and librarians are also adjusting to these developments (Xiao, 2020). In these regions, the method students and other faculty members use to access, receive, and use information had altered due to technological advancements involving electronically stored and retrieved data. Anyone with a computer, a modem, and a provider may now access enormous amounts of data and information instantly thanks to the Internet.

The diversification of the role of librarians has also contributed to this revolution of knowledge management practices within university libraries. These role extensions allowed these libraries to enhance the scope of their service delivery, thus streamlining their overall operations (Sheikh et al., 2023). Take Cambridge University and the University of Texas, for example; librarians at these two institutions have taken a more active role in knowledge management to improve the ease of access to information. These changes not only varied the way knowledge was curated within these learning institutions but also changed how such information could be accessed by all those using the library facilities (Yazdani et al., 2020). Therefore, the focus of this part of the paper was to examine how the role of these librarians had changed and the implications of these changes on knowledge management in university libraries.

Moreover, technological applications in universities in the United States have also introduced a different approach to examining the role of various librarians. The survey from this region confirms that many librarians currently focus on personal assistance (Bultrini et al., 2022). This included enhancing the ease of information access by taking charge of the research databases and ensuring every student at these libraries got the help they needed when looking for different information. These librarians are currently more equipped with technological knowledge and expertise in using various technological tools to facilitate knowledge management effectively.

Even in developing countries, it was also worth noting that the demands of these universities were also changing in the context of their overall expectation regarding the expected student outcomes. In most African nations, for example, this shift in user demand had been prompted by the observed technological and societal changes in the context of informing the students' learning environment (Anglin et al., 2022). Currently, students in universities in Johannesburg, South Africa, Cairo, Egypt, and even Maputo have become more involved in the flexible teaching-learning process,

mainly involving direct interaction with teachers. Librarians and these institutions have helped smoothen these structural changes by helping the students keep track of this changing learning environment (Koloniari & Fassoulis, 2020).

Generally, these librarians play an essential role by acting as the liaison between students and other faculty members, especially the teachers (Holland, 2021). This ultimately helped improve the efficiency of implementing this research-based learning approach, thus improving these students' overall learning outcomes. In an environment of resource-based learning, where students are encouraged to perform more independent work and use a more extensive choice of learning materials, the relationship between the faculty and the student is crucial (Jain, 2023). The goal was to help students transition to new academic contexts and encourage the development of an information management system that could adapt to the demands of its users.

The progression in Kenya also showed that although previously ignored, the technological world had made the librarian role one of the most resourceful professions in the current century. Ideally, this is because this world has become an information-based universe with power being influenced by the control of information (Turner et al., 2019). As evidenced by institutions like the University of Nairobi, Kenyatta University, and Jomo Kenyatta University of Science and Technology, with these individuals forming the pillar of knowledge management, their inclusion within the education system had significantly impacted the country's progression about knowledge management (Aslam, 2021). These individuals had been tasked with collecting and controlling information tools. This included deciding those who accessed information and what information they accessed. Within these learning institutions, librarians infiltrated the learning process by controlling access to information. This meant they were responsible for ensuring students could access any information they needed from these university libraries.

2.3 Existing Knowledge Management Practices in University Libraries

Knowledge management practices in university libraries revolve around the activities within these institutions that helped facilitate the knowledge management process. This subject has become a debatable issue all around the world. The growing concern was about the efficiency of knowledge management at these institutions (Bagchi, 2020). As such, many developed countries consistently research to address the gaps within these information management systems. For example, institutions like Harvard and Stanford have developed advanced knowledge management systems to improve information access in the United States (Shropshire et al., 2019). This included embracing an interdisciplinary collaborative approach accompanied by a research-based model of operations designed to ensure that the knowledge management systems at these institutions were without any cracks (Turner et al., 2019). The adopted systems at these two institutions included technological applications like semantic algorithms that enhanced the ease of computer searches depending on the information needed to be accessed (Sanches, 2019). They also used data analytics to monitor the information use trend to ensure that the most commonly searched information was readily available within the institution's libraries. Harvard has gone as far as incorporating artificial intelligence to supplement user assessment to ascertain that the analysis process is sufficient to keep track of students' trends.

Even with the progression made by these institutions in enhancing knowledge management, various areas of criticism were still addressed by these learning institutions. For instance, there were concerns that reliance on technology had created information overload, thus complicating the process of accessing information (Xiao, 2020). Librarians at these institutions found it more challenging to assist the students in accessing the information they needed. This was essential because the technological system still needed to incorporate system updates. As such, not all the

information available at these libraries was relevant or used, especially when researching trends on various subjects (Branin, 2023).

Another area for improvement was the extended roles of librarians, which created a general concern about incompetency (Ansari, 2020). This was prompted by the complexity of the current system of operation at these university libraries, which necessitated the need for librarians to undergo training and education to keep up with these changes (Di Vaio et al., 2021). However, as the system continuously changes, these librarians need help to keep up with these advancements. The danger of this problem is that it affects information access. This is because these individuals could no longer sufficiently help students use these library facilities to access the necessary information.

Although very gradual, this same progression was observed in the developing nations. Many universities in America, for example, have started noticing the significance of an elaborate knowledge management system within university libraries. For example, the University of Cape Town in South Africa has already registered its name among the institutions with sophisticated knowledge management systems in the continent (De Bem Machado et al., 2021). The progression made by these institutions resulted from the establishment of institutional repositories and policy developments made to encourage information sharing at the University. Nonetheless, the challenges these institutions faced in developing nations were somewhat different. For instance, consistent financial limitations have blocked Cairo University's attempts to advance its information management system (Anna & Mannan, 2020). The University of Johannesburg, on the other hand, continued to face inadequate infrastructure, meaning that it needed to catch up with the trends in advancing its library system (Mabunda & Du Plessis, 2022). However, the common problem in most of these institutions had been the need for more skilled personnel. Most librarians

at these institutions needed more knowledge and expertise to engage in effective knowledge management. As such, despite the attempts by these institutions to enhance the fluency of information, such limitations have limited their progress to reaching the levels and standards set by institutions from the developed nations.

In Kenya, however, the rate of progression about knowledge management has proved to be very gradual. Although institutions like the University of Nairobi and Kenyatta University have incorporated a technology-based system of information management through digital repositories and creating virtual learning environments, technological limitations like limited internet connectivity affect the reliability of these systems (Nakitare et al., 2020). Nonetheless, the collaborative platforms created are already essential to enhancing knowledge sharing at these institutions. Librarians are becoming more involved in the learning process through continued research to help improve information flow. Nevertheless, obstacles like uneven financing and a shortage of thorough regulations prevent knowledge management systems from fully integrating (Gichuhi et al., 2019). To successfully address these difficulties, it was necessary to implement capacity-building programs, enhance infrastructure, and foster more collaboration between government agencies and institutions. Globally, university libraries have focused a lot on knowledge management (Sirorei & Fombad, 2019). Though Kenya has made encouraging strides in knowledge management techniques, more funding and cooperation are needed to ensure long-term success. Governments and academic institutions must emphasize knowledge management in university libraries by tackling the issues raised, encouraging collaboration, and allocating the required funds (Ondieki, 2019). Through this approach, university libraries may efficiently utilize information, facilitate research and creativity, and augment the scholarly advancement of their home countries.

In conclusion, the Internet and the free flow of information have changed every element of the world in which we live. Giving patrons access to modern technology and online materials has become crucial to libraries' evolving roles (Ansari, 2021). The local library would undoubtedly appear different in this new environment. However, if librarians had prepared to reexamine their crucial role in their communities, they could make their buildings hubs for resilience, education, and connection. There would not be an easy or rapid transition, so academic institutions that train librarians and librarians must welcome the shift (Sirorei & Fombad, 2019). We think the effort has been worthwhile. If our libraries can meet the challenge, we will discover that the future appears even more promising and fascinating than anticipated.

2.4 Librarian's Role in Promoting Information Literacy Skills in University Libraries

Preserving information literacy means conserving the skills needed to ensure effective knowledge management (Branin, 2023). Ideally, this concept projected the need to maintain consistency in knowledge management through information literacy. According to Bultrini et al. (2022), this literacy provided librarians with the knowledge and skills to ensure effective management, hence the need for its preservation. In ancient times, the concept of the library was non-existent. This meant that information and records were generally scattered, making it harder to trace them. With the consistency of wars and battles, such information becomes easily untraceable, which explains the gaps in history as observed in the current period (Gui et al., 2022). However, after the introduction of the library, knowledge management started improving with different information categorized as family history information, organized business records, government, royal collections/archives, or temple collections.

The role of the librarians during this period was centered around collecting search information and preserving it at specific libraries (Gichuhi et al., 2019). As such, from a traditional description, the

librarian has been an individual around the library building tasked with obtaining, organizing, and preserving hard-copy documents relating to different information. However, these roles have significantly varied since the turn of the 20th century. These libraries had played a more active role in knowledge distribution. Moreover, with the advancement in technology, these individuals have become the center of helping students gain access to different information they need. To effectively serve users or students, a librarian must possess more modern skills and knowledge than they would in a conventional capacity (Fulkerson, 2022). There are now two key sections that comprise the library position.

In understanding the changes in the role of librarians with regard to knowledge management, this assessment involved comprehensive research and analysis conducted across various university libraries in different regions and countries (Migdadi, 2020). The objective was to examine the scope of the change in these roles and responsibilities and how these changes have affected knowledge management. The outcome that had been discovered from the study was that Chinese university libraries had extended the roles of librarians to include the role of educators (Xiao, 2020). This meant that rather than focusing on personal service, these individuals had become experts in information management, equipping them with the information needed to educate the students on suitable materials depending on their specific needs. These individuals currently participate in information searches to keep track of all the materials relating to different information within these libraries (Appleton et al., 2019). They could select, acquire, and organize books and other sources of information within the libraries to ensure easy retrieval and access. However, as identified in the research, librarians still helped preserve, repackage, and disseminate information within these libraries.

Furthermore, a new method of analyzing the diverse roles played by librarians has been presented via technological applications in US colleges. According to this region's poll, many librarians presently prioritize providing personal assistance (Bultrini et al., 2022). This involved ensuring that every student at these libraries received the library services they required when searching for various types of information and improving the accessibility of information by managing the research databases. These days, librarians have become more prepared with technological know-how and skill in utilizing various technology instruments to support knowledge management efficiently.

This pattern is, however, different within the African continent. For instance, one of the observed challenges in developing nations like Egypt was that libraries needed help to continue to serve university professors' and students' information demands by taking the conventional route (Migdadi, 2020). Because of this, librarians must develop their knowledge management and information-gathering abilities to comprehend students' information and knowledge demands better (Sanches, 2019).

The same challenge appeared even more critical in local Universities like UON. These institutions must understand that a librarian's ability to comprehend internal and external knowledge is necessary to improve their skills and productivity (Gichuhi et al., 2019). Stated differently, librarians must expand the scope of their information management responsibilities and strengthen their knowledge management proficiencies. Librarians must actively search for cutting-edge solutions to the challenges associated with adjusting to new environments since they are knowledge workers.

The only issue was that knowledge management development in Kenya is happening very slowly. Even though organizations like Kenyatta University and the University of Nairobi have

implemented a technology-based information management system by building virtual learning environments and digital repositories, technological constraints like spotty internet access impact these systems' dependability (Nakitare et al., 2020). However, the established collaborative platforms are indispensable for augmenting information exchange within these establishments. For instance, through ongoing research to improve information flow, Mount Kenya University in Thika librarians have become more involved in learning (Ondieki, 2019). However, barriers such as unequal funding and a lack of comprehensive rules hinder the complete integration of knowledge management systems (Gichuhi et al., 2019). Strathmore University in Nairobi demonstrated that implementing capacity-building programs, improving infrastructure, and encouraging collaboration between government agencies and institutions are all essential for effectively addressing these challenges.

2.5 Librarian's Role in Organizing Knowledge in University Libraries

In this case, organizing knowledge means systematically categorizing information to ensure easy access and retrieval. Librarians currently play a crucial part in attaining this objective. As such, in this case, the idea was to explore how librarians' roles regarding managing knowledge within university libraries have changed. Based on the conducted literature review, librarians determine the categories of knowledge students at these universities need on every occasion. This meant that these librarians were expected to possess extensive knowledge relating to information access (Kwanya et al., 2020). At Oxford University, for example, every student who needed access to any information could easily be directed to such details (Turner et al., 2019). This ensured limited time was spent searching for information, including various books and articles. The students must refer to these librarians and inform them of the information they need. The librarian directed them to specific locations where such information could be obtained.

As evidenced by Harvard University, this role diversification also included the need for librarians to comprehensively understand what students, staff, and other faculty members at these learning institutions need and specific information about how to help them satisfy such needs (Dalkir, 2023). As such, librarians no longer had to sit and wait for these individuals to check in or check out books; they also had to monitor the general behavior of these individuals to keep track of the type of information they sought at all times (Keengwe, 2019). Consistently monitoring these trends helped these librarians ensure that such information was available at the libraries or easily accessible. The idea was to ensure that all these students could track the information they needed without using external sources to access such information.

Generally, most librarians at university libraries in the United States were expected to collect, process, and circulate information within the university. This means these individuals currently play a more active role in knowledge management. In this case, the collection process meant ensuring that every reading material needed by the students and other faculty members was available on demand (Chemulwo & Sirorei, 2020). The processing part of this role advancement refers to the obligation of the librarians to monitor the content of every available material in the library to ensure their relevance with regard to the observed trends in students' searches. Finally, the distribution part revolved around maintaining fluency in the flow of information. These three attributes collectively maintained a self-sufficient operational model that ascertains effective information management within these libraries.

Moreover, as evidenced by studies conducted in Ghana, Morocco, Egypt, and South Africa, it was also essential to note that librarians measured the present knowledge base at these learning institutions to recognize and fill any existing gaps in knowledge management. This has mainly been observed in many universities in Africa. The continent's progression in knowledge

management includes conceptualizing technology, with institutions like Cairo using this as the platform to help organize, store, and retrieve information when needed. In addition, as educators, librarians also took part in seminars and workshops with the overall objective of awareness and the creation of knowledge available at the depositories (Liu et al., 2022). This subsequently included training other library staff on effective knowledge management methods to maintain this consistency in proficiency and reliability.

That being said, over time, the scope of the roles of librarians continues to change almost every period. The first change noted was the librarian's position changing from custodian to increasingly involved with information management. Because of this, they now have the means to govern knowledge management (Sheikh et al., 2023). For instance, the University of Ibadan and Alexandria's structures show how these role expansions have gained prominence, particularly in Africa. This function allowed librarians at these two universities to manage the library's information flow, guaranteeing that students could access various materials according to their particular fields of interest (Merga, 2020). These librarians organized knowledge management systems, protected cultural heritage, and advanced information literacy. This study also demonstrated how technological improvements had significantly impacted this diversity.

In Kenya, however, the real point of controversy was on librarians' role as community leaders. Although the idea of librarians serving as community leaders was appealing, these were enormous shoes to fill, and it would not happen until we alter how individuals were trained for library careers (Otike & Barát, 2021). While some librarians have shown themselves to be naturally gifted leaders, acquiring these abilities could be just as crucial to job preparation as receiving a solid foundation in information science. This way, professionals would be prepared to serve tomorrow's libraries when they join the workforce. This could entail teaching students' skills like income generating

and marketing that are more commonly associated with the corporate world. It was possible that before receiving government support, libraries were not given the chance to develop their sources of income (Gichuhi et al., 2019). If they wish to continue providing free, accessible library services and resources and ensure their communities know them, they could discover that new strategies are required.

However, it was essential to note that the changing role of these librarians had necessitated the need for different traits and skills. For instance, as observed at Moi University, these librarians must be more sociable to promote positive student interactions (Cherotich & Senaji, 2021). Moreover, they must also possess extensive knowledge of different concepts and principles in the academic realm (Osuigwe, 2019). The idea is to ascertain that their services were in the best interest of the students and all those accessing information from these libraries. As such, contrary to the aforementioned role as information preservers and personal assistants, librarians' duties currently require that they be subject experts to differentiate between viable and biased information (Islam et al., 2020). Based on the research conducted at Strathmore, these librarians were also global information providers, as their continued research shows. Technological advancement has simplified this role by ensuring librarians have access to a vast pool of information on different subjects. Interestingly, the analytic assessment by Ma et al. (2019) also confirmed that these individuals were also information creators. Evidentially, there were even librarians who had engaged in information production. Other subsequent roles included leadership roles, such as mentors, tech-savvies, personnel managers, legal advisors, time managers, financial managers, communicators, and even navigational guides.

2.6 Librarian's Role in Preserving the Cultural Heritage in University Libraries

students. Seminar librarians should stay proficient in all media to support library students. Preserving cultural heritage within universities means the institution can conserve its history and culture, giving it its identity. The best way these institutions achieved this objective was through their libraries. These facilities have become the haven of cultural preservation, allowing students to relate to their institutions while accumulating knowledge (Bagchi, 2020). For many people, especially those who were socially isolated, libraries could provide a place for social interaction. This made these library facilities feel more like a home or community.

This cultural preservation has been evident across numerous universities and university libraries worldwide. For instance, during the lockdowns in 2020 and 2021, studies conducted at Cambridge University in the United Kingdom as well as Guangzhou University in China revealed that some libraries continued to provide more direct support to vulnerable populations, like the elderly, by making house calls and dropping off books (Xiao, 2020). This was done even after physical library branches closed. The growth of "fake news," or misinformation, was one of the darker effects of the Internet era, along with easier access to information.

Many have questioned if librarians today have an additional duty to advance media literacy and democratize access to high-caliber news. For instance, as presented in the research by Di Vaio et al. (2021), the structural model at Harvard University in the United States also mimics this preservative model of maintaining the cultural heritage of the institution, the community, and the country. For instance, this research confirmed that the library at this institution had categorically assembled numerous pieces of literature and information communicating various cultural subjects and giving different historical accounts. As such, this ensured that students could trace back to these cultural virtues and better understand different historical concepts.

A similar structural progression was evident in some developing nations, especially Africa. However, based on the qualitative study by Bultrini et al. (2022), the only difference was that the rate of progression in adopting this operational structure still needed to be faster. The critical lesson from exploring some of these institutions, like in the case of the University of Johannesburg (South Africa), University of Pretoria (South Africa), Makerere University (Uganda), Al-Zhar University (Egypt), and Cairo University (Egypt), was that librarians should be bold thinkers and offer alternative readership. Rapid change demanded bold thinking and fresh executives capable of conceiving and bringing their industry's future to fruition (Shropshire et al., 2019). The analytic research from 7 Universities in Ghana revealed that the idea that any excellent service begins with an in-depth investigation into why your audience needs you, rather than starting with a prescriptive idea of what your organization is intended to be, had been dubbed "the search for why" by some (Gui et al., 2022). As in the case of the University of Cape Coast in Ghana, librarians could significantly influence community health if they had begun by comprehending the basic needs of library users and then designed their services and activities accordingly.

Recognizing the role of the internet's expansion in all areas of human life was essential. These impacts were also evident in the structural model of modern libraries. Presently, there is no limitation to the amount of information that can be accessed in these libraries (Aslam, 2021). As presented in the research by Chemulwo and Sirorei (2020), this was because libraries were no longer only equipped with print information but also included materials in several other formats. Generally, this research showed that the observed technological advancement had significantly contributed to knowledge growth, especially in local Universities like UON, KU, and JKUAT. This has been associated with a significant boost in the speed of broadcasting information.

However, this complicated the role of librarians, with most of them finding it hard to keep track of such information and subsequently help the students retrieve the relevant information from these internet sites (Migdadi, 2020). Seminar libraries and librarians had a dilemma since knowledge and research resources had changed and may now be obtained via various sources. According to the researcher, seminar libraries were impacted by the evolving nature of information and research methodologies in higher education (Bultrini et al. (2022). These modifications state most of the changing context in which libraries must function. Electronic media is changing libraries and forcing them to keep up with the latest information on their professions and users.

2.7 Theoretical Framework

Many theories helped reinforce the role of various librarians and examine how these changes impact knowledge management. In this case, the focus was on the unified Acceptance and Use of Technology theory and the adaptive structural theory (UTAUT).

2.7.1 The Unified Theory of Acceptance and Use of Technology (UTAUT)

Developed in 2003 by Morris Venkatesh, Davis, G. B., and Davis, F. D., the UTAUT explains user intention to use technology and reports subsequent user behavior when using this technology. According to Dwivedi et al. (2019), the main argument in this theory was that the acceptance of technology, determined by the effects of performance expectancy, effort expectancy, social influence, and facilitating conditions, paves the platform for effective behavioral change. In this case, the idea was that user satisfaction subsequently resulted in positive adaptive behavior regarding using technology (Liu et al., 2022). As such, with the diversified library system primarily built on a technology-based model, most university libraries advancing to the highest levels were those whose librarians had embraced their role as information managers, which entails the application of technology to improve information access (Bonfield et al., 2020). For instance, the

Catholic University of Eastern Africa primarily benefited from the context of this theory (Dwivedi et al., 2019). By adopting the principles of performance expectancy, effort expectancy, social influence, and facilitating conditions, the institution has created a technologically receptive mindset among its librarians, making it easier for them to control knowledge sharing.

The theory was therefore applied in this study to explore the changing role of librarians in the context of how technological advancement had helped increase the acceptance of this role diversification. The theory, in this case, referred to our essential considerations. (Blut et al., 2022). These are facilitating conditions, social influences, effort expectancy, and performance expectancy (Boyes, 2019). The study aimed to assess how these components have helped in this role diversification and how successful the changes have been in the context of knowledge management by these librarians. For instance, performance expectancy was used to measure how librarians perceive their role diversification about how it helps them achieve effective knowledge management (Bonfield et al., 2020). In this case, effort expectancy related to how convenient the new roles were for these librarians. Social influence, on the other hand, refers to how the accompanying social conditions affect the performance of librarians. This included an assessment of how their interaction with others within the library setting would influence their ability to manage knowledge in these new roles (Ayaz & Yanartaş, 2020). Finally, the facilitating conditions refer to the librarians' perception of the current structural model within these libraries and how they will facilitate effective knowledge management.

2.7.2 Adaptive Structural Theory

Adaptive Structuration Theory (AST) was developed in 1994 by DeSanctis and Poole. Based on Anthony Giddens' structuration theory, the theory uses social structure to identify concerns about human behavior in light of innovation (Ali et al., 2023). The main argument in this theory was that various elements, such as the innovation itself, the institution's surroundings, the activity, and how systems develop and change during the acquisition phase, all impact an institution's decision to embrace new technology (Turner et al., 2019). Using AST, it was possible to comprehend how adopting new ideas, organizational cultures, and roles affects librarians' evolving roles and how information management was affected in university libraries. Before accommodating this role variety, institutions must consider the influence on the organizational growth plan, infrastructure, and security measures (Ranjan et al., 2020). Library staff members must adjust to these shifts in duties and responsibilities to stay relevant and continue offering patrons high-quality services (Shao & Li, 2022). If library staff and information workers remain current with the latest trends and tools, they can stay caught up. Because of this, information specialists and library employees had to keep up with the structure by integrating new technologies to provide library services and maintain current knowledge and abilities. In the field of information science, this was important and pertinent.

As such, AST was used in this study to provide a deeper understanding of how the appropriation of librarians' responsibilities, the existing organizational culture within these learning institutions, and their general innovativeness impacted the use of technology in promoting knowledge management by these librarians in their new roles (Bartlett, 2021). Generally, applying theory helped project that library and information services had undergone tremendous changes, as had the roles and expectations of information professionals and library staff due to the rapid growth of

technology. Library employees had to keep up with the latest technological advancements to continue being relevant and offering top-notch services to patrons (Biddle, 2023). These tools were widely used across the globe. The staff of libraries and information professionals would fall behind if they did not use cutting-edge tools and stay up to date with technological advancements. Information specialists and library employees should keep up with the structure changes by integrating new technologies into their work and maintaining current knowledge and abilities (wang et al., 2023). From an information science perspective, this was important and pertinent.

2.7.3 The Role Theory

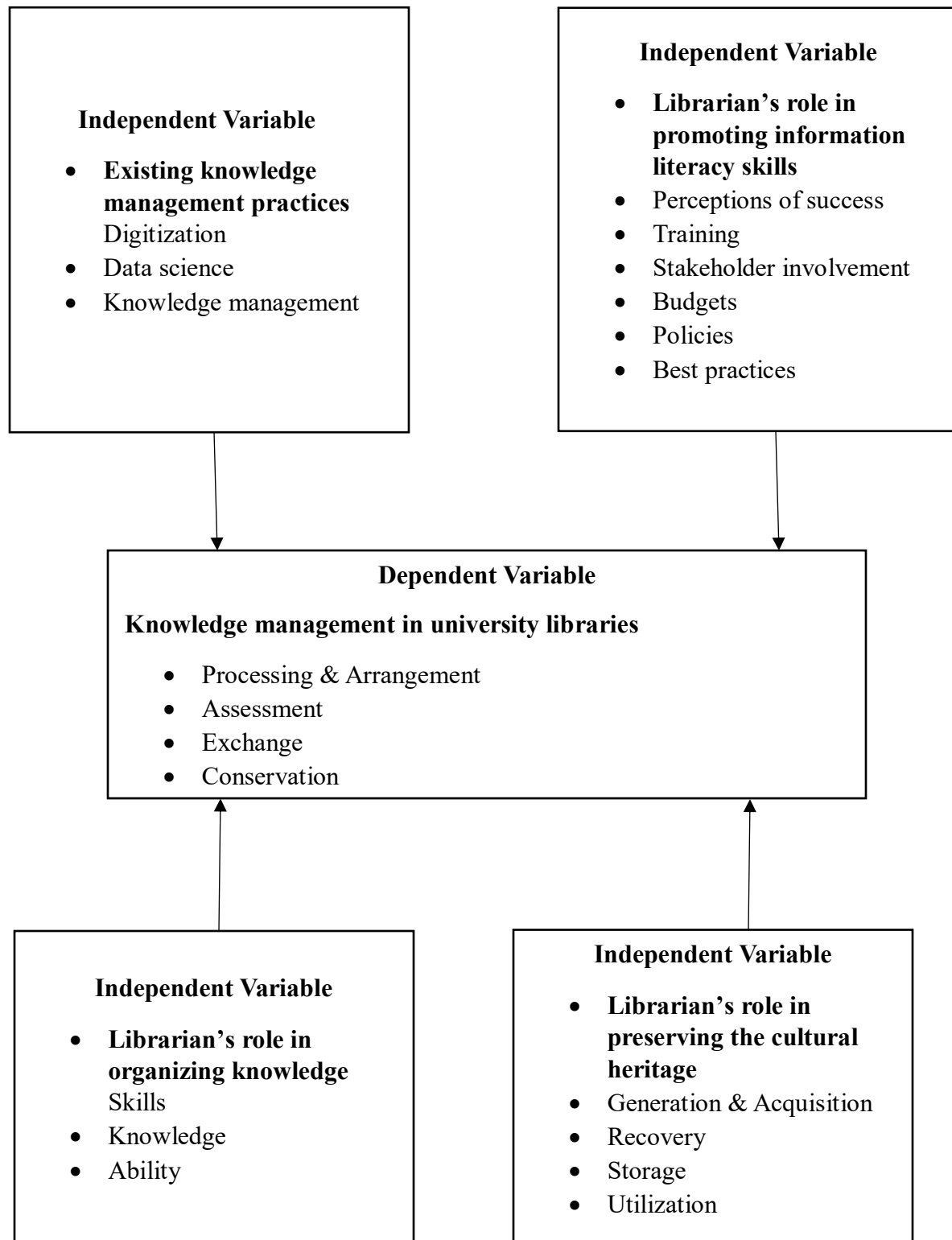
The Role theory was developed by Biddle and Thomas in 1900. It was grounded in the theatrical concept of a play and posits that people act according to expectations placed upon them and their perception of the boundaries of their roles (Anglin et al., 2022). The main argument in the theory was that since people fulfill the roles assigned to them, they only embrace new roles when they are no longer specified. The theory was often understood as symbolic interaction role theory, in which individual roles change over time through interactions, or functional role theory, in which cultural values are shared, and societal scripts are fixed. Given the framework of this theory, it was evident that librarians in the current day were probably going to be seen via the functional role theory's prism (Biddle, 2023). As such, this study adopted it to show that librarians should transition from their predictive and functional responsibilities in the face of rapid digitization and modify their expertise and offerings to serve their present clientele better. This transition to more modern jobs would occur due to interactions with tech and tech-savvy people.

2.8 Conceptual Framework

The variables to be utilized in the study were represented graphically in this way. The study's conceptual framework is shown in Figure 1. The dependent variable on the right indicated how librarians' duties regarding digitization, data science, and knowledge management were changing. The independent variables shown on the left include perceptions of success, training, stakeholder involvement, budgets, policies, and best practices; librarian competencies, which included skills, knowledge, and ability; and the relationship between the evolving roles of librarians and knowledge management, which provided for security, availability, integrity, confidentiality, storage, and integrations.

Figure 2.1

Conceptual Framework



Various criteria, including money, policies, training, stakeholder participation, best practices, and perception, were used to evaluate the impact of librarians' changing roles. Librarians' knowledge, expertise, and knowledge management capabilities would be the autonomous elements propelling this career diversification. This method used knowledge management techniques like gathering, storing, organizing, verifying, protecting, disseminating, and using. The different responsibilities that librarians played were among the factors that contributed to the knowledge management cycle, and they would be the dependent variable in this study. It was argued that these modifications to librarians' responsibilities immediately affected knowledge management practices. Thanks to these adjustments, libraries could now readily give individuals access to information anytime and from any place. These librarians could offer proactive recommendations for pertinent information resources by looking at user behavior and interests. This made knowledge delivery to library users more effective and personalized. In summary, this study's knowledge management cycle was the dependent variable, and the librarians were the main focus.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The research methodology section covered the methods used to address a research problem systematically. This included a description of the study's location, the adopted research model, the specific design used, and the study population. About the study population, this section outlined the targeted population, the adopted sampling technique, and the sample size. In this methodology section, the data collection methods and process were also included, along with the assessment of the validity and reliability of the research instruments. The methodology's final part entailed analyzing the data collected. The ethical considerations were also assessed because this study involved human subjects.

3.2 Research Design

This study used the descriptive survey research design to examine the evolving roles of librarians and their impact on enhancing knowledge management. Based on Stantcheva's (2023) provision, this survey gathered data regarding the opinions of academics, students, and librarians regarding how librarians' duties have evolved and how this evolution has affected knowledge management. The main goal of employing this approach was to examine the factors that led to these job shifts, their magnitude, and their impact on knowledge management at the designated learning institutions (Van Quaquebeke et al., 2022). The various case study strategies that were taken and were aimed at these two institutions would aid in verifying the validity of the data collected and ensuring that survey responses were free from bias or exaggeration (Gourd, 2023). By using this mixed method, it was easier to ascertain how the targeted population viewed librarians' expanding roles and

responsibilities and how this shift in duty and responsibilities would impact the knowledge management process.

According to the description of Shirali et al. (2020), the qualitative aspect of this methodology should ideally assist in delivering trustworthy answers to questions concerning the "what," "how," or "why" of a phenomenon rather than its "how many." It would be essential to recognize the distinctive approaches the two university campus libraries would take regarding their surroundings and their individual histories, viewpoints, and degrees of involvement in implementing new technologies. Additionally, qualitative research was the preferred methodology because the study questions would center on comprehension rather than just process measurement (Sturgis & Luff, 2020). Many more research with comparable inquiries and positive results would employ the survey study design. For example, Janelli and Lipnevich (2021) used the research design in teaching and learning to examine gender and sex issues in postsecondary education. The study's findings confirmed that this research strategy was required for this examination.

3.3 Location of Study

This research was conducted at two different locations. The first location was at the University library on the University of Nairobi Main campus, along the University Way in the central business district of Nairobi. The second location was at the University Library at the Technical University of Kenya, located at Haile Selassie Avenue Entrance along Workshop Road in Nairobi's central business district. Limiting the focus to only public universities provided an even playing field concerning resource allocation, which impacts library user satisfaction and distribution of knowledge management to these institutions. Moreover, these public universities represented the highest percentage of institutions in the county, and institutions with the largest number of students and faculty provided a wide range of information. Another reason for selecting these two

institutions was that they have the most advanced library systems in the county and have been used as a representation of other university libraries in Nairobi County. The libraries at these universities have incorporated the technological model of knowledge management, making it easier for students to access information. In this case, the first institution for the research was selected to show librarians' progression and role diversification across time. The second institution, however, provided a point of reference for examining the eminent changes in the roles of these librarians concerning knowledge management.

3.4 Target Population

The targeted population was the identified participants in a research study who shared a specific trait or relevance. In this case, the research targeted information science students and librarian heads from UON and TUK. These individuals were expected to provide credible information relating to their observation of how the roles of librarians had changed and how these changes impacted knowledge management at the university. The idea was to examine the reactions and perceptions of these individuals and compare those responses with those collected from the previous exclusive surveys.

Table 3.1

Target Population

Institution	T-population
University of Nairobi	1135
Technical University of Kenya	1045
Total	2180

3.5 Sample Size

Three hundred thirty-eight individuals were selected to participate in the responses for both questionnaires and the interviews. This included three hundred and fourteen (314) information science students currently at UON and TUK, twenty-four (24) librarian section heads, and twelve (12) from each institution. The inclusion criteria were that each of the participants should have attended either of the institutions. Moreover, only those with full autonomy could participate in the research. The exclusion criteria were that anyone below 21 years old would not be allowed to participate in the interviews. This was because most students around this age were in their first years at the institutions and, therefore, had not yet registered any changes in the roles of librarians. This online survey will be intended to collect responses from any library user who has sought the services of these librarians and the libraries themselves.

$$\text{Taro Yamane's formula: } n = \frac{N}{1+N(e)^2}$$

Where

n=sample size

N = population size.

e = margin of error = 0.05

therefore

$$n = 2180 / (1 + 2180 (0.05)^2)$$

$$n = 2180 / (1 + 2180 (0.0025))$$

$$n = 2180 / (1 + 5.45)$$

$$n = 2180 / 6.45$$

$$n = 338$$

Table 3.2

Sample size

Category of Participants	UON	TUK	Total
Students	157	157	314
Librarians	12	12	12
Total	169	169	338

3.6 Sampling Technique

The research used two different sampling techniques. The first technique was the simple random sample method, used when selecting the students to participate in the study (Bhardwaj, 2019). Based on the discussion by Nuwagaba et al. (2023), the reason for using this simple random method was that it ensured that in this large pool of individuals, the selected participants accurately represented the total population. Randomly selecting the students was also used to eliminate any potential biases that may affect the credibility of the research findings. The idea was to help give a more focused point of reference for data gathering regarding how librarian jobs had changed and how these changes had affected knowledge management; the strategy aimed to create a controlled response environment. According to Stehman et al. (2021), this was also used to help verify that the data collected depicts how this role diversification of librarians had impacted knowledge management by ascertaining that the responses from every student were based on their accurate perception of how they believed the roles of librarians had and their lived experience of how these changes have affected knowledge management.

The second sampling technique was the censor method. Contrary to the initial technique targeted at sampling the students, this technique was used to select the librarians to participate in the study.

As Jamieson Gilmore et al. (2022) highlights, the method was more effective for a more constricted population. Considering that there were just a few head section librarians at UON and TUK, this method ensured that the sampling process focused more on specific attributes that made the identified librarians fit for this research. For instance, this could include variables like age, level of experience, and overall competency and proficiency in practice (Kittaneh et al., 2021). The censoring technique was used to help increase the value of the research and the credibility of the collected findings.

Generally, this will be done using Robert Slovin's formula:

$$P = 1 - (1 - (1/N))^n$$

P= probability

N= sample size

n= population.

3.7 Data Collection

The study employed various research instruments, such as interview schedules for the librarians.

3.7.1 Interview Schedule

Scheduled interviews were conducted with the sampled population at both institutions. The purpose of the data collection was to learn more about the roles the librarians play in the libraries of UON and TUK and how those roles affected their capacity to manage knowledge and information successfully (Appendix IV). More data about the librarians' changing roles were gathered based on their assessments of how their responsibilities had changed over their time at the institution. To get opinions about how other library users viewed the evolving roles of librarians

and how knowledge management had been affected, a second round of interviews was also held with the selected students in response to the same question (Appendix IV and V).

The first portion of the interview contained pertinent information relating to the respondents. In this case, the goal was to learn more about every participant as a platform or assess their reliability. The second part of the interview covered the changes in the roles of librarians at each university concerning how those changes had impacted knowledge management. In the third section, the interview addressed the factors attributed to the successful diversification of the roles of librarians. This was subsequently followed by an assessment of how these changes in the roles of librarians relate to knowledge management. Finally, the interviewees were expected to respond to their perception of the productive competency of library staff that they believed could lead to effective knowledge management.

3.7.2 Questionnaires

Semi-structured questionnaires were used to examine participants' perceptions of the roles of librarians and their knowledge management at UON and TUK. The first part of the questionnaire contained closed-ended questions with clear responses from which the participants were expected to choose. This section was limited to the demographic data relating to every participant (Appendix V). The idea was to help establish a better understanding of who each participant was and what qualified them to participate in this research (Manuel et al., 2022). The second and third sections of the questionnaire contained closed and open-ended questions explicitly directed at the research topic. They were split into two sections, with the first covering knowledge management within universities and the second responding to technological implementation to enhance the role of librarians and ensure an effective role in knowledge management (Appendix V). The closed-ended parts of this questionnaire used a Likert scale to quantitatively assess the respondents' opinions,

attitudes, or behaviors (Appendix V). The measurement scale targeted each participant's perception of the questions presented. The open-ended section, on the other hand, was designed to allow the audience a free platform of response relating to how they believed the roles of librarians had changed and how their changes had impacted knowledge management at their respective institutions (Hansen & Świdarska, 2023). All the questionnaires were self-administered to increase the overall convenience of the data collection process

3.8 Pre-test of Research Instruments

Pre-testing the research instrument essentially meant conducting a pretest designed to assess the efficiency of the research instrument and how well it could help answer the research questions. In this case, a pre-test of the research instrument was done at the Jomo Kenyatta University of Science and Technology to recognize any flaws before the instrument was initiated for actual research. This institution had an almost similar library structure to those at UON and TUK, which made it ideal for this pre-test study. Based on the description of Janelle and Lipnevich (2021), the reason for conducting a pre-test study was to ensure that the collected findings accurately assessed how librarians' roles had changed and how these changes had impacted knowledge management across universities within Nairobi. The sample size was limited to 10% of the expected population during the pre-test (Malmqvist et al., 2019). These individuals were subjected to the entire data collection process to assess each instrument's efficiency in responding to the research questions. However, it was necessary to note that these sample participants would not form part of the final research

3.9 Data Collection Procedures

The data for this research was collected using qualitative and quantitative questionnaires and individual interviews.

3.9.1 Procedures for Administering Questionnaires

The data was collected using questionnaires as the ideal survey tool. The survey procedure included presenting questions relating to the research subject to the selected participants (Kmetty & Stefkovics, 2022). These questions were semi-structured to limit the scope of the response. The highlighted 2180 participants were allowed to access the questionnaires physically and respond to the questions based on their perception about whether or not they believed the roles of librarians had improved knowledge management.

3.9.2 Procedures for conducting interview

The in-person method was also adopted to collect data from the interviews with the researcher visiting both institutions. It was important to note that appointments and dates would be set for the interviews to ensure the time was convenient for every participant (Taherdoost, 2022). The researcher would begin each interview by outlining the study before moving on to the interview. Additionally, the university librarian would be notified to assist with setting up the interview location and to inform students about their involvement. The researcher was to schedule appointments with the participants to get their opinions.

3.10 Validity and Reliability

3.10.1 Validity

The degree of accuracy with which research instruments can measure the study's objectives is indicated by their validity. The research's conclusions should indicate the variables being examined. The validity of the instruments was evaluated before the study was conducted. The study aimed to establish construct, content, and face validity. Furthermore, face validity was increased by understandably asking questions and providing clear directions. Content validity was attained by selecting the questionnaire measuring items from the operational framework. Furthermore, 10% of the population selected from the study area but not included in the study sample completed pre-tests of the questionnaires to verify the content validity. The validity of the instrument used in the investigation was ascertained in part by analyzing the outcomes of the pre-test study. By ensuring construct validity, the variables collected resembled those in the conceptual framework.

3.10.2 Reliability

Conversely, reliability ensures that similar results are consistently produced during multiple trials. The internal consistency technique will be applied, illustrating how much the procedures evaluate the exact attributes. There will be an analysis of the composite reliability of all variables and the individual dependability of each parameter. The threshold values for the individual coefficient, composite coefficient, and Cronbach alpha should all exceed 0.5, 0.7, and 0.8, respectively. The data collection tools will be shown to be dependable if these levels are reached. After concluding the research variables, several diagnostic tests will be conducted to determine whether the data is appropriate.

3.11 Data Analysis and Presentation

3.11.1 Analysis of quantitative data

The data was examined in version 26 of the Statistical Package for Social Sciences (SPSS). The raw data collected was cleaned and processed to extract pertinent information for conclusions. Before analysis, qualitative and quantitative data were used to gather data and processed by sorting and reviewing the questionnaire replies to ensure no information was missing or incorrect. After editing, the data was coded numerically. SPSS version 26 was used to examine the coded data. Descriptive statistics was used to interpret the findings. The properties of a data set were arranged and summarized via descriptive statistics. Descriptive statistics aid in understanding the distribution, central tendency, and variability of the observations or responses while evaluating data. The interpretation of the data was facilitated by the precise descriptive statistics that were produced, which comprised percentages, means, and standard deviation. The findings were presented in tables, graphs, charts, and text.

3.11.2 Analysis of qualitative data

A frequency distribution was used to show how often each value occurs in a data set, m, mainly the mean, median, and mode measures of central tendency. Variability measures explained how widely distributed the values were. Range is a standard metric between the maximum and minimum values. The standard deviation is the square root of the variance, whereas the variance is the average squared deviation from the mean. The information gathered from the interview schedules was subjected to a theme analysis. This was also presented in tables, graphs, charts, and texts to clarify.

3.12 Ethical considerations

At the beginning of the research, the researcher had to seek a letter of approval from the National Commission for Science, Technology, and Innovation (NACOSTI). The goal was to obtain consent to collect data relating to the study. The researcher had to seek consent from each of these universities and the participants on their involvement in the study. The idea was to ensure everyone had autonomy and was not coerced into participating in the research (Head, 2020). As such, every participant was to sign a consent form indicating their willingness to participate in the study. Information relating to the description and details about the participants were all left anonymous to maintain the privacy of these individuals. Above all, the researcher made it clear that the decision by the participants to participate or continue their involvement in the study was voluntary. Only some people could drop out of the research if it would undermine their interest. Integrity was also an essential factor of consideration during data analysis. The idea was to ensure no biases or exaggerations during the analysis process. This was designed to ascertain the credibility of the presented findings. Generally, it was necessary to note that in conducting this research, all the respondents were expected to issue their confidentiality before participating. These individuals' confidentiality, privacy, and well-being were safeguarded throughout the entire research process. Above all, all information presented in the report was to conform to APA 7 writing style standards.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

The chapter is organized around significant topic areas determined by the study objectives. It offers the findings from the data gathered through student and staff interviews and an analysis of library records. The research objectives prompted a manual thematic analysis approach, which employed coding to represent institutions and identify significant themes. The research objectives guide the organization of this chapter:

- It assesses the existing knowledge management practices employed by librarians in university libraries in Nairobi County.
- Examining librarian's role in promoting information literacy skills among users at university libraries in Nairobi County.
- Evaluating the librarian's role in organizing knowledge management at university libraries in Nairobi County.
- Evaluating the librarian's role in preserving the cultural heritage at university libraries in Nairobi County.

The chapter also includes an analysis of data and conclusions of the study topic. The chapter also discusses the success factors linked to these librarians' changing roles. These factors include increased operational effectiveness, better user experiences in the library, integration of the new roles with current systems, and financial considerations related to implementing these changes. The chapter then discusses the research on the competency of library employees in light of the diversity of their roles, including their knowledge and proficiency in knowledge management.

Furthermore, the chapter assesses the connection between knowledge management and the evolving role of librarians, considering how these developments affect university library knowledge management. This chapter gives an in-depth examination of the data gathered and provides information on the elements that contributed to implementing these changes in university libraries and the obstacles encountered. University libraries looking to improve user experience and knowledge management may discover some implications in the study's findings.

4.2 Reliability Statistics

Prior to doing a descriptive analysis, the data's internal consistency was assessed using a reliability indicator known as Cronbach's Alpha. Table 4.1 displays the values obtained from the computation of Cronbach's Alpha, which was carried out using SPSS statistical software.

Table 4.1

Reliability Statistics

Primary variables of the study	Cronbach's Alpha Results
Existing knowledge management practices (X1)	0.816
Librarian's role in promoting information literacy skills (X2)	0.822
Librarian's role in organizing knowledge management (X3)	0.781
Librarian's role in preserving the cultural heritage (X4)	0.790
The Changing roles of librarians (Y)	0.818

According to the findings, every study variable had a Cronbach's Alpha value greater than 0.7. A Cronbach's alpha value of 0.7 or higher is required to demonstrate the instrument's reliability. As a result, the surveys were considered in the following investigation.

4.3 Response Rate

The descriptive survey research design was employed in this study, which included a target population of 2180 people, including librarian section heads and information science students identified from the two institutions. A sample of 338 respondents took part in the research. The targeting technique was centered on this particular group of respondents since they were most affected by the adjustments made to the roles of librarians at these universities. In light of this, it was determined that these individuals were in a great position to respond to inquiries regarding the implications of the changing perspectives on knowledge management and provide perceptive analysis.

Table 4.2

Response Rate

Category of Participants	UON	TUK	Total	Returned Questionnaires	Response Rate
Students	157	157	314	254	81%
Librarians	12	12	24	16	79%
Total	169	169	338	270	80%

The researcher received a commendable response rate of 80% among this group of respondents. This represented a total of 270 individuals from the selected 338 samples. There was an incredible 100% turnout rate because the two groups of people randomly chosen genuinely expressed interest in taking part in the study. According to Ayaz & Yanartaş (2020), a response rate of >60% is considered sufficient. Bonfield et al. (2020) also suggested that if the response rate was between 60%-70%, it was considered adequate to represent the sample size and could give valid results. Therefore, based on the student response rate of 80% and 100% for librarians, the selected sample size is considered representative and sufficient based on the selected target population.

4.4 Characteristics of Respondents

This study had six library section head employees regarding the participants' professional backgrounds. Three library employees stated they had over ten years of experience, two had five to ten years, and only one indicated that they had less than five years of experience.

4.4.1 Librarians' Academic Level

The targeted sample showed that six (6) participants had a doctorate, six (6) others had a master's degree, eight (8) had a bachelor's degree, and four (4) had a diploma, representing the greatest level of qualifications. This information is projected in Table 4.2.

Table 1.3

Librarians' Academic Level

Academics	Frequency	Percent
Masters	6	20.83%
Doctorate	6	20.83%
Bachelor's degree	8	41.67%
Diploma	4	16.67%
Total	24	100%

4.4.2 Librarians Level of Experience

As shown in Table 4.3, six (6) library employees stated they had over ten years of experience, and four (4) others said they had five to ten years. Only two (2) participants had less than five years of library work experience. This shows the majority of librarians are competent and proficient. According to Boyes (2019), the characteristics meet the competency and proficiency criteria. It is significant to note that all of the qualifications were in library and information sciences, except for one (1) head of the library's ICT department, who qualified in IT, a branch of computer science. According to Yazdani et al. (2020), the result showed that the library staff were equipped to enhance knowledge management. The availability of ICT-qualified staff shows the competency and qualifications necessary to keep up with the complexity of current system operations in a library setting (Di Vaio et al., 2021).

Table 4.4

Librarians' Level of Experience

Experience	Frequency	Percent
Below 5 years	2	16.67%
Between 5-10 years	4	33.33%
Above 10 years	6	50%
Total	12	100%

The findings show that only 16.67% of the Librarians had a working experience of below five years, 33.33% had experience of between 5 -10 years, and 50% had more than 10 years of experience working in a library. These results show that the participants had sufficient qualifications and proficiency to give the best results in this study. Generally, this is because the backgrounds and experiences among the study's participants were crucial for understanding the knowledge management procedures used in the libraries and examining the effects of librarians' evolving roles in these university libraries. According to Anna and Mannan's (2020) study, librarians have accumulated work experience of 6-10 years. As shown in Table 4.3, these results are supported by Mabunda and Du Plessis's (2022) research, making the findings valid.

4.5 Knowledge Management in University Libraries

The survey data also revealed that most participants believed librarians played the most crucial role in enabling effective knowledge management. The second response focused on statements made about knowledge management at universities. It evaluated whether the various roles that

librarians play are related to knowledge management, whether the competency level of library staff is positively correlated with the efficiency of knowledge management at the university library, whether technology is a significant factor that has led to the flourishing changes in librarian roles, whether the university has put policies in place emphasizing efficient knowledge management, and whether the librarians and the library provided support to students conducting research. Table 4.5 contains the responses to these questions.

Table 4.5

Statements on knowledge management at universities

Statements on Knowledge Management at Universities	Frequency	Percentage	VSE	SE	ME	LE	VLE	Mean	SD
Librarians' role diversifications relate to knowledge management.	338	100%			42 (12.5%)	169 (50%)	127 (37.5%)	4.54	0.53
The competency level of library staff is positively correlated with the efficiency of knowledge management at the university library.	339	100%			56 (16.67%)	141 (41.67%)	141 (41.67%)	4.42	0.59
Technology is an essential factor attributed to the successful changes in the roles of 24 librarians.	338	100%		28 (8.33%)	42 (12.5%)	169 (50%)	99 (29.17%)	4.05	0.761
My university has implemented policies emphasizing efficient knowledge management.	338	100%		28 (8.33%)	28 (8.33%)	127 (37.5%)	155 (45.83%)	4.32	.800
Our librarians and library offer assistance to students conducting research.	338	100%		28 (8.33%)	56 (16.67%)	99 (29.17%)	155 (45.83%)	4.26	.911

Table 4.5 shows how many students agreed with the statements posed for the research, with a mean above 4.0. On the role of librarians, a mean of 4.37 (43.7%) agreed that they played a great role in knowledge management. A mean of 4.42 (44.2%) respondents felt that competency greatly affected knowledge management, while a mean of 4.26 (42.6%) respondents were satisfied with the help librarians gave in research. A mean of 4.32 (43.2%) indicated that implementing knowledge management policies was essential. In contrast, a mean of 4.05 (40.5%) respondents attributed technology to effective knowledge management in university libraries. These findings support Usman et al. (2021) findings that librarians play a greater role in knowledge management in university libraries than other professionals. Technology's role cannot be overlooked, especially in dispensing information, as suggested in the study by Yazdani et al. (2020). These findings underscore the importance of librarians in knowledge management at university libraries.

Table 4.6

Suggestions on assessing the existing knowledge management practices employed by librarians

Respondent	Frequency	Percentage	Responses
Library Staff	24	7%	<p>“Conduct a Knowledge Management Audit, Surveys and Questionnaires, Focus Groups and Interviews.”</p> <p>“easy through librarians.”</p> <p>“To assess existing knowledge management practices employed by librarians in university libraries in Nairobi County, conducting comprehensive surveys, interviews with librarians and users, and reviewing documentation and usage statistics would be effective strategies.”</p> <p>“Librarians are the most experienced people; most deserve 99% trust and support to deliver to students.”</p> <p>“Identify and catalog the KM systems and tools currently in use, such as digital repositories, content management systems, and collaborative platforms.”</p>
Students	314	93%	<p>“Questioners to students.”</p> <p>“There is a need to emphasize the digitization of records.”</p> <p>“More books to be given out.”</p> <p>“Evaluate how librarians capture, document, share, and disseminate knowledge within the library to users.”</p> <p>“Survey to assess the practices they use.”</p> <p>“More technology-based training be done for librarians.”</p>

In response to the question about suggestions for assessing the knowledge management strategies currently employed by librarians in Nairobi County University libraries, a few librarians were told that performing a knowledge management audit, frequent surveys and questionnaires, focus groups, and interviews would give these organizations the information they need to determine

which specific strategies are used and how effective they are overall at promoting effective knowledge management. As a result, it was recommended that these organizations keep using librarians to set objectives and assess the knowledge management techniques now being applied at each university library.

Table 4.7

Role of Librarians in Organizing Knowledge Management

Responses	The various roles that librarians play is primarily related to knowledge management.	The effectiveness of knowledge management at the university library is positively correlated with the competency level of the library staff.	One primary reason for the effectiveness of the changes in librarian duties is technology.	Effective knowledge management is emphasized in the policies my university has put in place.
Strongly disagree	0	14 (4.17%)	14 (4.17%)	0
Disagree	42 (12.5%)	28 (8.33%)	28 (8.33%)	42 (12.5%)
Moderately Agree	85 (25%)	28 (8.33%)	56 (16.67%)	85 (25%)
Agree	98 (29.17%)	85 (25%)	98 (29.17%)	112 (33.33%)
Strongly agree	112 (33.33%)	182 (54.17%)	138 (41.67%)	98 (29.17%)

Table 4.7 shows that 54.17% (182) strongly agreed that knowledge management at university libraries was positively related to the competency level of library staff. These results prove that librarians' competency and proficiency skills affect the knowledge management practices in a university library. Nonetheless, these respondents confirmed the findings of Cherotich and Senaji's (2021) study, showing a positive relationship between the university library's knowledge

management efficacy and the competency level of its staff. More than 86% of respondents moderately and strongly agreed that technology significantly promotes knowledge management practices. These results agree with the findings of Chemulwo and Sirorei (2020), who found that university libraries using technology in knowledge management practices have a competitive edge over other institutions. The use of technology at these universities could then improve this. Academic institutions must nonetheless ensure that their policies emphasize effective knowledge management, notwithstanding the availability of these tools.

4.6 Results on Existing Knowledge Management Practices in University Libraries

The following analysis and discussion provide the findings of the question that looked into the knowledge management strategies currently used by librarians in Nairobi County University libraries. Surveys and interviews were employed to gather information from participants. The questions were to determine how familiar the respondents were with these changes and what effect they believed they had on knowledge management. The researcher gathered information on the institutions' knowledge management procedures. In this instance, the main topic of interest was how the various players addressed the problem and how much they contributed to advancing efficient knowledge management techniques. Table 4.4 presents the information given by student respondents.

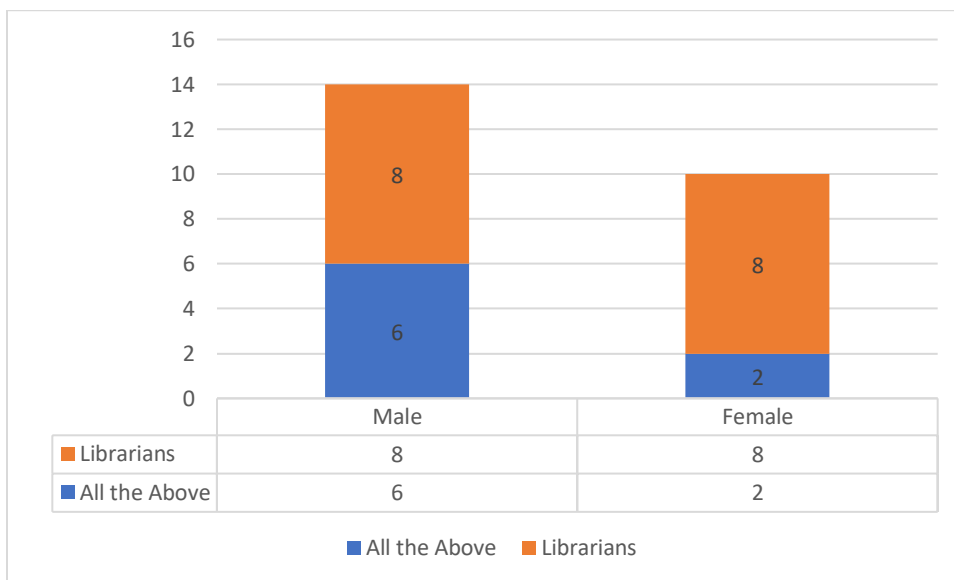
Table 4.8*Role Played by the Different Stakeholders according to students*

Statements on research at universities (N = 338)	Frequency	Percentage	VSE	SE	ME	LE	VLE	Mean	SD
Students	338	100%	28 (8.33 %)		56 (16.67 %)	70 (20.83 %)	184 (54.17 %)	4.8	1.07
Librarians	338	100%			56 (16.67 %)	85 (25%)	197 (58.33 %)	4.53	0.68 1
Dean	338	100%	28 (8.33 %)	28 (8.33 %)	113 (33.33 %)	56 (16.67 %)	113 (33.33 %)	3.74	1.16
COD	338	100%	28 (8.33 %)	28 (8.33 %)	85 (25%)	70 (20.83 %)	127 (37.5%)	3.89	1.17
Supervisor	338	100%			56 (16.67 %)	85 (25%)	197 (58.33 %)	4.53	0.68 1
Director	338	100%	28 (8.33 %)		70 (20.83 %)	56 (16.67 %)	184 (54.17 %)	4.26	0.97 6

While the findings demonstrate that all parties involved can enhance the effectiveness of knowledge management, most students felt that librarians had the most influence. In this instance, 141 (63.2%) feel that the role of librarians in ensuring effective knowledge management is very significant. With the backing of 70 (57.9%) participants, the student adhered to the rating. The Director of Postgraduate Studies is crucial to maintaining efficient knowledge management according to the same number of students. Of the respondents, 28 (42.1%) recognized the

Department Chairperson as the critical figure guaranteeing efficient knowledge management. Fourteen (14) students (36.8%) answered that they contribute to a modest extent in the case of the school dean. At the same time, another indicated that students played a crucial and active role in ensuring good knowledge management. This data confirms previous findings by Usman et al. (2021) on librarians' value in promoting knowledge management. Ideally, the research study bestowed librarians with the role of knowledge management through their training. Bagchi (2020) also found that librarians are the custodians of information resources; hence, they play a great role in knowledge management, while other stakeholders support the librarians.

Figure 4.1 Who is most important in facilitating effective knowledge management?



The respondents expressed mixed feelings on the importance of different players in facilitating effective knowledge management. As represented by Figure 4.1, librarians play a greater role in knowledge management than other stakeholders in university libraries. 66.67% acknowledge that librarians play a more significant role in facilitating effective knowledge management. The results agree with Yazdani et al. (2020) research on the University of Nata, which found that over 70% of

librarians played a crucial role in knowledge management in the university library. This is due to librarians' competency and skills in their field.

Table 4.9

Existing Knowledge Management Practices

Responses (N=24)	Frequency	Valid Percent
There are benefits of using technology to enhance knowledge management	70	20.83%
Our library has made it easy to access information by implementing technology within its operational model.	100	33.33%
Staff members at our university's library help postgraduate students access information through technology.	42	12.5%
Universities should educate and train librarians on how to use advanced technology to enhance knowledge management	56	16.67%
Librarians should embrace technology without being pushed to adopt this technology-based system.	70	20.83%
Total	338	100%

The 70 participants (20.83%) who evaluated the current knowledge management processes also concurred that using technology to improve knowledge management has significant benefits. For example, students disclosed that their libraries had incorporated technology into their operational

models to offer easy access to information, confirming the findings from previous studies that attested to the fact that postgraduate students are helped by university staff to use technology to obtain information. This research shows that 43 (12.5%) participants felt that university librarians help postgraduate students in their studies. The findings show that librarians' role in knowledge management matches their competencies and proficiency. According to Jain (2023), librarians play a huge role in helping students conduct research. However, the results from this study seem to contradict the role played by librarians in postgraduate research among students. Despite this, there was still agreement that these colleges needed to train and instruct librarians on cutting-edge technologies to improve knowledge management, ensuring that librarians chose to adopt this technology-based approach voluntarily rather than feeling compelled to do so.

4.7 Results on Librarian's Role in Promoting Information Literacy Skills

The findings of the question looking at how librarians at Nairobi County University libraries help patrons develop their information literacy abilities are shown in this section. It thoroughly examines the information acquired from secondary sources through document analysis, student questionnaire answers from TUK and UON, and interviews with library staff. This section aims to explore the elements that have helped university libraries in Nairobi County successfully encourage their patrons to become information literacy experts and to offer insights into how this technology has been applied to enhance knowledge management in the university library. The section's structure includes an overview of respondents' replies on the role of librarians in safeguarding cultural heritage. This included an assessment of the university's knowledge management methods and how crucial they have been to preserving its artistic heritage, an evaluation of librarians active involvement in the preservation of the cultural heritage at the institution, the general information literacy of librarians and how it has enhanced their ability to

preserve the institutions' cultural heritage and an assessment of how cultural preservation has helped create an environment of consistency and efficiency, especially within the institution's library.

Table 4.10

Librarian's Role in Promoting Information Literacy Skills

Statements on Librarian's Role in Promoting Information Literacy Skills	Frequency	Percentage	VSE	SE	ME	LE	VLE	Mean	SD
Active engagement with students and faculty, offering tailored guidance on effectively accessing, evaluating, and utilizing information	338	100%			40 (12.4%)	170 (50.1%)	128 (37.5%)	4.2 1	0.57
Giving questionnaires to the users and having training sessions and exams at the end	338	100%			46 (14.67%)	146 (42.67%)	146 (42.67%)	4.2 2	0.57
Evaluating the range and frequency of university library information literacy programs and workshops.	338	100%		30 (9.23%)	40 (10.4%)	160 (50.17%)	108 (29%)	4.2 3	0.79

Based on the information gathered from the questionnaires, 160 (50.17%) individuals indicated that evaluating training programs, resource availability, librarian-user interactions, institutional support, and faculty collaboration were essential aspects of the librarian's work in fostering information literacy skills at Nairobi University libraries. These elements were considered to determine the strengths and areas for improvement. 108 (29%) others stated that since librarians have the necessary knowledge to guide both new and continuing students toward skill development, both information science students and library section heads who participated in the research felt that librarians were the most knowledgeable individuals to do so. Of the respondents, 30 (9.23%) stated that librarians assisted in assessing the variety and frequency of workshops and programs in information literacy provided by university libraries. This was accomplished by ensuring they provided materials for teaching digital literacy skills. An additional 40 (10.4%) students countered that the librarians' ability to manage knowledge effectively hinged on how well they offered services, how long it took to obtain library services, and how quickly they assisted other researchers and students who needed to access the library's collection. Overall, it was evident from the data gathered that librarians were critical to the university, particularly regarding efficient information management. These librarians' help served as a mentor or a means of enabling people to become knowledgeable users of the library's collection.

Table 4.11

Librarian's Role in Promoting Information Literacy Skills

Respondent	Frequency	Percentage	Responses
Library Staff	24	7%	<p>“The librarian's role in promoting information literacy skills among users at university libraries in Nairobi is crucial. They should actively engage with students and faculty, offering tailored guidance on effectively accessing, evaluating, and utilizing information. Librarians can collaborate with educators to integrate information literacy into the curriculum and provide workshops or tutorials to enhance these skills across the university community.”</p> <p>“By giving questionnaires to the users and having training sessions and exams at the end.”</p> <p>“Examining the librarian’s role in promoting information literacy skills at Nairobi University libraries involves assessing training programs, resource availability, librarian-user interactions, institutional support, and collaboration with faculty to identify strengths and areas for improvement.”</p> <p>“Librarians are the most knowledgeable people who promote skills through guidance to new and continuing students since they have the proper know-how.”</p> <p>“Evaluate the range and frequency of university library information literacy programs and workshops.”</p>
Students	314	93%	<p>“Through Questioners to Students.”</p> <p>“by ensuring that they provide resources that teach digital literacy Skills.”</p> <p>“by looking at the time it takes to get the library service.”</p> <p>“by looking at the timelines in offering support to students and other researchers who need to access the library collection.”</p> <p>“Feedback from students could shed more light on what benefits the librarians provide during research.”</p>

Table 4.11 librarians felt they were responsible for enhancing literacy skills among library users. 7% of all the respondents were librarians who felt accountable for promoting literacy among users. One of the respondents says, *“The librarian's role in promoting information literacy skills among users at university libraries in Nairobi is crucial. They should actively engage with students and faculty, offering tailored guidance on effectively accessing, evaluating, and utilizing information. Librarians can collaborate with educators to integrate information literacy into the curriculum and provide workshops or tutorials to enhance these skills across the university community.”* This shows that the librarians understand their role and are willing to interact with the library users in promoting literacy skills. According to Xiao (2020), librarians are better placed to promote information literacy among library users by having skills to determine the needs of the library user. The research study agrees with the results of this study as per the responses shown in Table 4.6 above.

On the other hand, students' responses made it seem like the librarians should interact more actively with the students and faculty, providing specific advice on finding, assessing, and using information. The students felt that librarians' role in information literacy could be enhanced by getting *“feedback from students could shed more light on what benefits the librarians provide during research.”* According to Sheikh et al. (2023), literacy skills are enhanced through collaborative measures that ensure the students evaluate the type of information they handle in libraries. The results agree with the student's responses in this research study. The presentation discussed how these librarians could work with teachers to incorporate information literacy into the curriculum and offer tutorials or workshops to improve these skills among university students.

4.8 Results of Librarian's Role in Organizing and Managing Knowledge

In response to this question, the findings showed that librarians are crucial in knowledge management organizations in Nairobi County's university libraries. These persons engage in activities related to knowledge organization, sharing, cooperation, and technology integration training for users who support spreading information. By creating collections, putting classification schemes in place, making information resources more accessible, and encouraging users to be effectively information literate, librarians in Nairobi County's university libraries are essential to the organization of knowledge management. According to the study, knowledge management (KM) is facilitated by professional librarians' roles in IT, sharing knowledge, communication, and creativity. Knowledge innovation is how KM furthers good user service delivery. It was evident from the responses gathered that librarians greatly assist students in need. These people ensured researchers and academics could access all reading materials and digital libraries. When arranging and maintaining a collection of books, journals, digital resources, and other information products, librarians helped students just as much. Librarians gather information from various sources, capture, preserve, arrange, and share it across platforms. Table 4.10 shows the results on the role of librarians in organizing and managing knowledge in university libraries in Nairobi County.

Table 4.12

Librarian's Role in Organizing and Managing Knowledge

Statements on Librarian's Role in Organizing and Managing Knowledge	Frequency	Percentage	VSE	SE	ME	LE	VLE	Mean	SD
Knowledge Organization, Knowledge Sharing, and Collaboration, Technology Integration	338	100%			38 (10.5%)	173 (55.5%)	127 (34%)	4.0 4	0.50
Training the users	338	100%		30 (9.3%)	30 (9.3%)	125 (36.53%)	153 (44.86%)	4.3 2	0.79
Curating collections, implementing classification systems, facilitating access to information resources, and promoting effective information literacy among users.	338	100%		30 (9.3%)	57 (17.7%)	100 (20.1%)	155 (44.9%)	4.7 6	0.900

Based on the collected data, the responses from 155 (44.9%) participants showed how important it is for universities to give comprehensive training and support to enhance the service-delivery capabilities of library staff. Increasing awareness, offering technical assistance, and delivering effective teaching are all part of this. 100 (20.1%) student respondents argued that librarians have a role in organizing and managing knowledge in university libraries. One respondent emphasized

the role: *"Librarians in Nairobi County's university libraries play a pivotal role in organizing knowledge management by curating collections, implementing classification systems, facilitating access to information resources, and promoting effective information literacy among users."* This statement shows that the librarians understand their role in organizing and managing library knowledge. According to Chemulwo and Sirorei (2020), librarians have skills in organizing information and curating and organizing academic resources. These guarantees that librarians are the best suited to managing and organizing knowledge in university libraries. Additionally, 125 (36.53%) respondents stated that one of the main priorities should be to teach library staff members the value of comprehensive competency. These findings confirmed the findings from Migdadi (2020) that inform the development of training and support programs to improve library staff members' technological competence and knowledge management. The study shows how library staff competency varies depending on exposure and experience, underscoring the need for ongoing training and support. University administration can use these findings to develop training programs that work. Further research should employ larger and more varied sample sizes to improve generalizability and transferability.

4.9 Results on Librarian's Role in Preserving the Cultural Heritage at University Libraries

The opinions expressed about how best to assess librarians' contributions to Nairobi County University libraries' cultural heritage preservation are presented in this section. The data from student questionnaires and staff interviews with librarians is thoroughly analyzed. To assess the librarian's contribution to the preservation of Nairobi County's cultural heritage, this section seeks to gather the opinions of those involved regarding what should be done by universities.

The overview of respondent responses on the following topics is included in this section: whether staff members at the university library have assisted postgraduate students in accessing information through technology; whether universities should train and educate librarians on how to use cutting-edge technology to enhance knowledge management; and whether librarians should embrace technology on their initiative rather than feeling pressured to adopt this technology-based system. Table 4.11 summarizes the responses to the question posed to both library staff and users on what steps universities should take to assess the librarian's contribution to maintaining the cultural heritage of their institutions.

Table 4.13

Librarian's Role in Preserving the Cultural Heritage at University Libraries

Statements on Librarian's Role in Preserving the Cultural Heritage at University Libraries	Frequency	Percentage	VSE	SE	ME	LE	VLE	Mean	SD
Defining Clear Objectives, Regular Training and Development, User Engagement and Feedback	338	100%			42 (12.5%)	169 (50%)	127 (37.5%)	4.54	0.53
Universities in Nairobi County should develop clear metrics, foster collaboration with cultural institutions, and train librarians to evaluate their role in effectively preserving cultural heritage at university libraries.	338	100%			56 (16.67%)	141 (41.67%)	141 (41.67%)	4.42	0.59
Universities should provide the materials librarians need, making it accessible and easy for them to deliver services.	338	100%		28 (8.33%)	42 (12.5%)	169 (50%)	99 (29.17%)	4.05	0.761
Involving librarians in a cultural week every year	338	100%		28 (8.33%)	28 (8.33%)	127 (37.5%)	155 (45.83%)	4.32	.800
By ensuring librarians are taken out to benchmark from other universities	338	100%		28 (8.33%)	56 (16.67%)	99 (29.17%)	155 (45.83%)	4.26	.911

In response to how universities can best assess librarians' role in preserving the cultural heritage at university libraries in Nairobi County, there was a consensus among 169 (50%) respondents to establish specific goals for their cultural preservation initiative. One of the responses from a

librarian says, “Universities in Nairobi County should develop clear metrics, foster collaboration with cultural institutions, and train librarians to evaluate their role in effectively preserving cultural heritage at university libraries.” 99 (29.17%) further mentioned that librarians also needed to train and develop their library staff regularly to adjust to this new operation model. However, the librarians also discussed the importance of user engagement and feedback in achieving this goal. Koloniari and Fassoulis (2020) assert that university librarians protect cultural assets. Professionals and staff at the library have access to the materials they typically utilize to preserve the university's cultural legacy.

The response from 127 (37.5%) students, on the other hand, revealed that the work performance of the librarians was a significant and influential factor in achieving the goal of cultural preservation. Furthermore, the information gathered from the staff interviews with ten (10) librarians verified the views of the majority of librarians in Nairobi County, who felt that colleges in the county ought to create precise measurements, encourage cooperation with cultural organizations, and provide training for librarians on how to assess their contribution to cultural heritage preservation at university libraries. According to Holland (2021), understanding the requirements of libraries and their role in sharing information significantly promotes concrete cultural heritage among universities. Engagement of students in understanding their needs is crucial in determining an excellent culture for university libraries. Furthermore, to facilitate the accessibility and ease of service delivery for librarians, 155 (45.83%) felt these universities had to supply the needed resources. It involved enlisting these librarians in an annual cultural week within the framework of cultural preservation. Some others thought that holding an open day to highlight the importance of cultural conservation would also aid in achieving this objective.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the findings, conclusions, and recommendations for further research. This study focused on investigating librarians' evolving roles in enhancing knowledge management in university libraries in Nairobi County. Expressly, the following objectives were set forth: to evaluate the knowledge management practices currently in use by librarians in Nairobi County University libraries; to investigate the role of librarians in fostering information literacy skills among users at Nairobi County University libraries; to assess the role of librarians in organizing knowledge at Nairobi County university libraries; and to assess the role of librarians in maintaining the cultural heritage at Nairobi County university libraries. The study was conducted at the Technical University of Kenya and the University of Nairobi. A descriptive survey study design was employed to target 2180 people recognized throughout the two institutions—information science students and librarian section heads. The content validity was achieved using the questionnaire measuring items from the operational framework. The results of the original study that was carried out, which pre-tested the instruments, supported this. On the other hand, the internal consistency method was utilized to evaluate the accuracy of the information gathered. This made it easier to see how highly the processes assess the precise traits. The Statistical Package for Social Sciences (SPSS) version 26 was used to evaluate the quantitative data gathered. For this reason, a frequency distribution will also be used to assess the quantitative data collected during the research. This displayed the frequency of each value in the dataset, primarily as measured by the central tendency mean, median, and mode.

5.2 Summary of Findings

This part outlines the main findings and conclusions from the data analysis and research projects carried out during the study. The conclusions clarify the study's goals and questions and shed light on the connections, patterns, and trends in the gathered data. This synopsis synthesizes the collected empirical data, emphasizing the essential findings and ramifications that add to the corpus of current knowledge in the area. The four objectives that formed the basis of the study were delineated in the previous chapters. The study's conclusions, which are based on the research questions, are summarized in the part that follows:

5.2.1 Knowledge Management in University Libraries

Based on data gathered on knowledge management at university libraries, there was a consensus that knowledge management at these institutions positively correlated with the competency level of library workers. These findings demonstrated how librarians' competency and proficiency skills impacted the knowledge management procedures in a university library. However, these respondents attested a favorable correlation between the staff's competency level and the university library's efficacious knowledge management. These people also concurred that technology significantly advances knowledge management techniques. The results demonstrated that university libraries have an advantage over other establishments when using technology in knowledge management procedures. These colleges' use of technology might then enhance this. Despite this, academic institutions must ensure that their policies strongly emphasize efficient knowledge management.

5.2.2 Existing Knowledge Management Practices in University Libraries

The researcher acquired information regarding the knowledge management practices of the institutions. In this case, the primary focus was on how the different actors approached the issue and the extent to which they advanced effective knowledge management strategies. The analysis demonstrated that although all stakeholders at these schools may improve knowledge management, librarians had the most impact. This result supported earlier research on the importance of librarians in advancing knowledge management conducted by Usman et al. (2021). The research study ideally allowed librarians to handle knowledge through their training. Bagchi (2020) discovered that librarians contribute significantly to knowledge management as the keepers of information resources, with help from other stakeholders. The results do, however, support differing opinions regarding the significance of various participants in promoting efficient knowledge management.

Several key findings emerged based on the analysis conducted at the Technical University of Kenya and the University of Nairobi regarding the role of librarians in knowledge management in university libraries. Firstly, librarians played the most crucial role in enabling effective knowledge management. Their cooperation and suggestions were essential to implementing successful knowledge management techniques. It was also highlighted that library employees needed thorough training and continuous support to equip them with the knowledge and tools required for successful implementation. A smooth transition was facilitated by effective change management techniques, such as clear communication, encouraging a positive attitude toward change, and overcoming opposition. For implementation to be effective, a strong technical infrastructure—which includes a dependable network and hardware that works—was determined to be essential. Furthermore, it was noted that ongoing assessment and feedback systems are critical for

determining the technology's impact and implementing the required changes. These results confirm the findings of Usman et al. (2021) that librarians contribute more than other professionals to knowledge management in university libraries. According to Yazdani et al. (2020), there is no denying the importance of technology, particularly regarding information dissemination. These findings highlight the significance of librarians in university libraries' knowledge management.

5.2.3 Librarian's Role in Promoting Information Literacy Skills

The findings of this study shed light on how librarians at Nairobi County University libraries help patrons develop their information literacy abilities. It looked at data obtained from secondary sources by document analysis, student responses to TUK and UON questionnaires, and library staff interviews. The project aimed to investigate the factors that have enabled university libraries in Nairobi County to train their users in information literacy effectively and to provide insights into how this technology has been used to improve knowledge management in academic libraries. The study results gave librarians the impression that they should be in charge of improving library patrons' literacy abilities. These people interacted with students and teachers, providing specific advice on finding, assessing, and using information. Additionally, they worked with teachers to include information literacy into the curriculum and offered tutorials or workshops to improve these abilities among university students. This demonstrates that librarians are aware of their responsibilities and eager to engage with library patrons to advance their reading skills. Xiao (2020) asserts that librarians who can assess the needs of library patrons are in a better position to encourage information literacy among library users.

However, based on the comments from the students, it appears that the librarians should engage with the teachers and students more actively and offer targeted guidance on locating, evaluating, and using information. In this instance, the argument posited that student input may augment the

function of librarians in information literacy by providing further insight into the advantages that librarians offer during research. Sheikh et al. (2023) asserts that cooperative learning strategies that guarantee pupils assess the kind of material they handle in libraries improve literacy abilities. The ideal outcome would have been for the data to show how these librarians could collaborate with educators to integrate information literacy into the curriculum and provide workshops or tutorials to help university students become more proficient in this area.

5.2.4 Librarian's Role in Organizing and Managing Knowledge

The results showed that librarians are essential to knowledge management organizations in Nairobi County's university libraries. These individuals work on projects that include organization, sharing, collaboration, and training in technology integration for users who assist in disseminating knowledge. Librarians in Nairobi County's university libraries play a crucial role in the administration of knowledge management through curating collections, implementing classification schemes, improving user access to information resources, and promoting adequate information literacy. The research indicates that the functions of professional librarians in IT, knowledge exchange, communication, and creativity help to facilitate knowledge management (KM). KM advances effective user service delivery through knowledge innovation. The responses obtained made it clear how much librarians help students in need. These individuals ensured that all reading materials and digital libraries were available to scholars and researchers. Librarians assisted students equally when organizing and caring for a collection of books, journals, digital resources, and other information products. Librarians collect data from several sources, record it, store it, organize it, and distribute it on multiple platforms.

5.2.5 Librarian's Role in Preserving the Cultural Heritage at University Libraries

The analysis conducted at the UON and TUK regarding librarians' role in preserving the cultural heritage at university libraries revealed several key findings. There was general agreement among answers to how universities in Nairobi County might evaluate librarians' contributions to cultural heritage preservation at university libraries. These establishments need to set clear objectives for their cultural preservation program. All universities in Nairobi County agreed that librarians needed to be trained, collaborate with cultural institutions, and provide clear benchmarks to effectively preserve cultural history at their libraries. Additionally, for the library personnel to adapt to this new operating model, they must routinely train and develop them. However, the librarians also touched on the significance of user input and engagement in accomplishing this objective. According to Koloniari and Fassoulis (2020), librarians protect cultural assets at the university. The information that library professionals and staff typically utilize to preserve the university's cultural legacy is available to them.

5.3 Conclusion

Numerous inferences can be made from this study by the goals and findings, as detailed in the parts that follow:

5.3.1 Knowledge Management in University Libraries

There was a widespread consensus that knowledge management at university libraries was favorably correlated with the competency level of library workers based on the data collected on the subject. These findings demonstrated how librarians' competency and proficiency levels influenced the knowledge management procedures at a university library. However, these participants verified a positive correlation between the staff's competency level and the university library's efficacy in knowledge management. These people also acknowledged the fact that

technology significantly advances knowledge management techniques. The results demonstrated that university libraries have an advantage over other establishments in terms of knowledge management techniques utilizing technology. This might then be enhanced by the employment of technology at these universities. Even with these tools readily available, academic institutions still need to ensure that their policies prioritize efficient knowledge management.

5.3.2 Existing Knowledge Management Practices in University Libraries

According to the study, librarians could most impact the promotion of elective knowledge management. In Nairobi's university libraries, the librarian is critical in helping patrons develop their information literacy. They should proactively interact with teachers and students, providing them with specialized advice on how to find, assess, and use information. To improve information literacy throughout the university community, librarians can work with educators to include these skills in the curriculum and offer tutorials or workshops.

5.3.3 Librarian's Role in Promoting Information Literacy Skills

According to the study, librarians are aware of their responsibilities and eager to engage with patrons to advance literacy. It seems that because they are more adept at identifying the needs of their patrons, librarians are in a better position to encourage information literacy among library users. It was also evident that cooperative learning strategies that guarantee pupils assess the knowledge they handle in libraries improve reading abilities. As a result, these librarians might assist instructors in integrating information literacy into the curriculum and provide workshops or tutorials to help university students become more proficient in this area.

5.3.4 Librarian's Role in Organizing and Managing Knowledge

According to the study, librarians at the university libraries in Nairobi County are essential to the organization of knowledge management because they create collections, put classification schemes in place, make information resources more accessible, and help users become effectively information literate. Librarians have abilities in information organization, academic resource curation, and organization and know their role in managing and organizing library knowledge. This attests to their appropriateness for overseeing and arranging information in university libraries.

5.3.5 Librarian's Role in Preserving the Cultural Heritage at University Libraries

Based on the data acquired for this study, schools in the county should develop accurate metrics, promote collaboration with cultural organizations, and train librarians to evaluate their role in preserving cultural heritage at university libraries. Comprehending the needs of libraries and their function in information exchange greatly enhances the promotion of tangible cultural heritage within university settings. Determining an outstanding culture for university libraries requires students to be actively involved in identifying their needs. Furthermore, these colleges must provide librarians with the necessary resources to make service delivery more accessible and manageable. This entails involving these librarians in the context of cultural preservation during an annual cultural week.

5.4 Recommendations

Some best practices for encouraging elective knowledge management are suggested based on the research findings and the thesis's goals. The following sections contain the recommendations that align with the study's goals.

5.4.1 Knowledge Management in University Libraries

Based on the data gathered on the subject, there was general agreement that knowledge management at university libraries was positively connected with the competency level of library workers. These results showed how the skill and competency of the librarians influenced the knowledge management practices in a university library. However, these respondents confirmed a positive relationship between the staff's competency level and the university library's effective knowledge management. These individuals all agreed that technology had substantially improved knowledge management practices. The findings showed that university libraries have a competitive advantage over other businesses when utilizing technology in knowledge management procedures. The use of technology by these colleges could improve this. Academic institutions still need to make sure that their policies place a significant emphasis on practical knowledge management, even with the availability of these tools.

5.4.2 Existing Knowledge Management Practices Employed by Librarians

Drawing from the available data, this research indicates that although some elements of good knowledge management, like technology application, are employed during the knowledge management (KM) cycle, their complete implementation is not noticed at every cycle phase. The analysis shows explicitly that some parts of the information management cycle, including knowledge production or distribution, might not utilize technologies like RFID to their fullest extent. To realize the benefits of excellent library practice in improving knowledge management

practices, more research and optimization of this practice within the particular stages of the knowledge management cycle are required, as this conclusion clarifies. The report suggests that university library managers raise awareness and encourage further investigation of these practices.

5.4.3 Librarian's Role in Promoting Information Literacy Skills Among Users at University Libraries

The study found that library customers lacked standardized information literacy techniques. Because of this, librarians must actively interact with instructors and students, providing them with specialized advice on how to find, assess, and use information. This may entail working with teachers to incorporate information literacy into the curriculum and offering seminars or training sessions to improve these abilities among university students. Student comments could provide insight into what these librarians could do to support information literacy.

5.4.4 Librarian's Role in Organizing and Managing Knowledge

The report emphasizes how essential librarians are to organizations that use knowledge management. To guarantee the best learning outcomes, these people must still create classification systems, allow access to information resources, curate collections, and encourage users to be effectively information literate. Teaching library staff members the value of complete competency should be one of the top concerns. This could involve creating training and assistance initiatives to enhance library employees' technological proficiency and knowledge management.

5.4.5 Librarian's Role in Preserving the Cultural Heritage at University Libraries

The study found differences in university library staff members' proficiency in maintaining cultural heritage. These universities must provide precise measurements, encourage cooperation with cultural organizations, and train librarians to assess how well they conserve cultural heritage in university libraries. Additionally, for the library personnel to adapt to this new operating model,

they must routinely train and develop them. However, it's important to remember that reaching this objective requires encouraging user input and participation.

5.5 Implications of the Findings on Theory, Practices, and Policies

The implications of the research findings on theory, practices, and policies concerning the changing role of librarians in improving knowledge management in university libraries are discussed in this section. With respect to its implication on theory, the study yielded significant insights that offer essential assistance for guiding future efforts in these areas, facilitating successful implementation, and optimizing the advantages of librarianship. The research findings have substantial theoretical ramifications for theoretical frameworks in knowledge management and library science.

In the context of its impact on practice, the study illustrates how university libraries can improve knowledge management methods by implementing librarians in a transformational way. These results add to the corpus of current information by presenting empirical proof of the beneficial effects of this role diversity on knowledge exchange, resource management, and user happiness.

By emphasizing the significance of stakeholder engagement, technical infrastructure, and competencies in maximizing library staff's knowledge management potential, the study's findings can contribute to and enhance theoretical models and frameworks about technology integration in library settings.

Finally, regarding its implications for policies, the study confirms that stakeholders can create a knowledge-rich environment that meets the changing demands of library users and advances the objectives of higher education institutions by considering these consequences while developing their approaches, strategies, and policies.

5.6 Recommendations for Further Research

The following recommendations for additional study are made in light of the research findings and to strengthen the role that librarians play in knowledge management in libraries: Examining the Obstacles Librarians Face in Carrying Out Their Duties: a study that aims to pinpoint and comprehend the particular difficulties a librarian encounters when implementing the finest knowledge management techniques. This study will offer perceptions of libraries' challenges, impediments, and practical solutions.

Thorough assessment research that determines the applicability and efficacy of current frameworks for library knowledge management is called "Evaluating Existing Frameworks for Effective Knowledge Management in Libraries." This study will help determine the advantages and disadvantages of the currently used frameworks and direct the creation of better frameworks suited to libraries' particular requirements and environments. Scholars and practitioners can improve their understanding of the difficulties, standards for evaluation, and frameworks associated with effective knowledge management by focusing on these research areas. This research would help create best practices, give information for educational initiatives, and offer helpful advice to libraries looking to integrate IoT technologies into their knowledge management systems successfully.

REFERENCES

- Abukhader, S. (2019). A taxonomy of the expected roles of librarians towards knowledge management. *Library Management*, 40(1/2), 34-44. <https://doi.org/10.1108/lm-08-2017-0081>
- Ali, A., Hameed, A., Moin, M. F., & Khan, N. A. (2023). Exploring factors affecting mobile-banking app adoption: A perspective from adaptive structuration theory. *Aslib Journal of Information Management*, 75(4), 773–795. <https://doi.org/10.1108/ajim-08-2021-0216>
- Anglin, A. H., Kincaid, P. A., Short, J. C., & Allen, D. G. (2022). Role theory perspectives: Past, present, and future applications of role theories in management research. *Journal of Management*, 48(6), 1469–1502. <https://doi.org/10.1177/014920632211081442>
- Anna, N. E., & Mannan, E. F. (2020). Big data adoption in academic libraries: A literature review. *Library Hi Tech News*, 37(4), 1-5. <https://doi.org/10.1108/lhtn-11-2019-0079>
- Ansari, M. N. (2021). *The changing role of the librarian in knowledge management: A survey of public sector universities*. DigitalCommons@University of Nebraska - Lincoln. <https://digitalcommons.unl.edu/libphilprac/5934/>
- Ansari, M. S. (2020). Role of Traditional Knowledge Digital Library (TKDL) in Preservation and Protection of Indigenous Medicinal Knowledge of India. In S. Sen & R. Chakraborty (Eds.), *Herbal Medicine in India* (pp. 609–620). Springer Singapore. https://doi.org/10.1007/978-981-13-7248-3_38
- Appleton, L., Hall, H., Duff, A. S., & Raeside, R. (2019). UK public library roles and value: A focus group analysis. *Journal of Librarianship and Information Science*, 50(3), 275–283. <https://doi.org/10.1177/0961000618769987>
- Aslam, M. (2021). Changing behavior of academic libraries and role of library professionals. *Information Discovery and Delivery*, 50(1), 54–63. <https://doi.org/10.1108/idd-05-2020-0048>
- Ayaz, A., & Yanartaş, M. (2020). An analysis of the unified theory of acceptance and use of technology theory (UTAUT): Acceptance of electronic document management system (EDMS). *Computers in Human Behavior Reports*, 2, 100032. <https://doi.org/10.1016/j.chbr.2020.100032>
- Bagchi, M. (2020). Conceptualizing a library chatbot using open-source conversational artificial intelligence. *DESIDOC Journal of Library & Information Technology*, 40(06), 329–333. <https://doi.org/10.14429/djlit.40.06.15611>
- Bartlett, J. A. (2021). *Knowledge management: A practical guide for librarians*. Practical Guides for Librarians.
- Bhardwaj, P. (2019). Types of sampling in research. *Journal of the Practice of Cardiovascular Sciences*, 5(3), 157. https://doi.org/10.4103/jpcs.jpcs_62_19
- Biddle, B. J. (2023). *Role theory: Expectations, identities, and behaviors*. Academic Press.
- Blut, M., Chong, A. Y., Tsigna, Z., & Venkatesh, V. (2022). Meta-analysis of the unified theory of acceptance and use of technology (UTAUT): Challenging its validity and charting a research agenda in the red ocean. *Journal of the Association for Information Systems*, 23(1), 13-95. <https://doi.org/10.17705/1jais.00719>

- Bonfield, C. A., Salter, M., Longmuir, A., Benson, M., & Adachi, C. (2020). Transformation or evolution?: Education 4.0, teaching and learning in the digital age. *Higher Education Pedagogies*, 5(1), 223–246. <https://doi.org/10.1080/23752696.2020.1816847>
- Boyes, B. (2019). *What does knowledge management mean for the future of libraries and librarians?* RealKM. <https://realkm.com/2019/02/09/what-does-knowledge-management-mean-for-the-future-of-libraries-and-librarians/>
- Branin, J. J. (2023). Knowledge management in academic libraries. *Journal of Library Administration*, 39(4), 41-56. https://doi.org/10.1300/jl11v39n04_05
- Bultrini, L., Sempéré, J., McCallum, S., & Newman, W. (2022). *Knowledge management in libraries and organizations: Theory, techniques and case studies*. Walter de Gruyter.
- Chemulwo, M. J., & Sirorei, E. C. (2020). Managing and Adapting Library Information Services for Future Users: Applying Artificial Intelligence in Libraries. In N. E. Osuigwe (Ed.), *Advances in Library and Information Science* (pp. 145–164). IGI Global. <https://doi.org/10.4018/978-1-7998-1116-9.ch009>
- Cherotich, C., & Senaji, A. T. (2021). Relationship between Knowledge Management Practices and Performance In Public University Libraries In Nairobi County, Kenya. *International Journal of Social Sciences Management and Entrepreneurship*, 5(2), 1-15. <https://sagepublishers.com/index.php/ijssme/article/view/348>
- Daland, H. (2019). Managing knowledge in academic libraries, are we? Should we? *LIBER QUARTERLY*, 26(1), 28–41. <https://doi.org/10.18352/lq.10154>
- Dalkir, K. (2023). *Knowledge management in theory and practice* (4th ed.). MIT Press.
- De Bem Machado, A., Secinaro, S., Calandra, D., & Lanzalunga, F. (2021). Knowledge management and digital transformation for industry 4.0: A structured literature review. *Knowledge Management Research & Practice*, 20(2), 320-338. <https://doi.org/10.1080/14778238.2021.2015261>
- Desutter, G. (2021). *The key role of librarians in knowledge management*. Legal Current | Information and commentary on the business and practice of law at Thomson Reuters. <https://www.legalcurrent.com/the-key-role-of-librarians-in-knowledge-management/>
- Di Vaio, A., Palladino, R., Pezzi, A., & Kalisz, D. E. (2021). The role of digital innovation in knowledge management systems: A systematic literature review. *Journal of Business Research*, 123, 220-231. <https://doi.org/10.1016/j.jbusres.2020.09.042>
- Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2019). Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model. *Information Systems Frontiers*, 21(3), 719–734. <https://doi.org/10.1007/s10796-017-9774-y>
- Enakrire, R. T., & Ocholla, D. N. (2022). Information and communication technologies for knowledge management in academic libraries in Nigeria and South Africa. *SA Journal of Information Management*, 19 (1), 1-9. <https://doi.org/10.4102/sajim.v19i1.750>

- Fulkerson, D. (2022). *Remote access technologies for library collections: Tools for library users and managers: Tools for library users and managers*. IGI Global.
- Gichuhi, Z., Kamau-Kang'ethe, R., & Mwathi, P. (2019, December). Knowledge Management Practices in University Libraries in Kenya. In *International Conference on Intellectual Capital and Knowledge Management and Organisational Learning* (pp. 89–96). Academic Conferences International Limited.
- Gourd, J. (2023). Data collection. In J. Gourd, *Educational Research for Early Childhood Studies Projects* (1st ed., pp. 73–83). Routledge.
<https://doi.org/10.4324/9780429350931-7>
- Gui, L., Lei, H., & Le, P. B. (2022). Fostering product and process innovation through transformational leadership and knowledge management capability: The moderating role of innovation culture. *European Journal of Innovation Management*, 27(1), 214–232. <https://doi.org/10.1108/ejim-02-2022-0063>
- Hansen, K., & Świdarska, A. (2023). Integrating open- and closed-ended questions on attitudes towards outgroups with different text analysis methods. *Behavior Research Methods*. <https://doi.org/10.3758/s13428-023-02218-x>
- Head, G. (2020). Ethics in educational research: Review boards, ethical issues, and researcher development. *European Educational Research Journal*, 19(1), 72–83. <https://doi.org/10.1177/1474904118796315>
- Holland, B. (2021). *Handbook of research on knowledge and organization systems in library and information science*. IGI Global.
- Islam, M. N., Islam, M. S., & Razzak, A. (2020). Problems of knowledge management practices in libraries and information centers of Bangladesh. *IFLA Journal*, 46(1), 34–51. <https://doi.org/10.1177/0340035219894359>
- Jain, P. (2023). Knowledge management in academic libraries and information centres: A case of University libraries. *Journal of Information & Knowledge Management*, 12(04), 1350034. <https://doi.org/10.1142/s0219649213500342>
- Jamieson Gilmore, K., Bonciani, M., & Vainieri, M. (2022). A comparison of census and cohort sampling models for the longitudinal collection of user-reported data in the maternity care pathway: Mixed methods study. *JMIR Medical Informatics*, 10(3), e25477. <https://doi.org/10.2196/25477>
- Janelli, M., & Lipnevich, A. A. (2021). Effects of pre-tests and feedback on performance outcomes and persistence in massive open online courses. *Computers & Education*, 161, 104076. <https://doi.org/10.1016/j.compedu.2020.104076>
- Kamau, G. W., & Elegwa, A. L. (2021). Factors influencing the collection development process at the University of Nairobi library. *Library Management*, 43(3/4), 207–217. <https://doi.org/10.1108/lm-09-2020-0127>
- Keengwe, J. (2019). *Handbook of research on global issues in next-generation teacher education*. IGI Global.

- Kisang, C. C. (2021). Knowledge Management Practices and Performance of Kenya Revenue Authority Nairobi City County, Kenya. [Master's Thesis, Kenyatta University]. <https://ir-library.ku.ac.ke/server/api/core/bitstreams/380bc9fd-5f7d-4ae4-9551-fa157932eddb/content>
- Kittaneh, O. A., Almorad, H., Helal, S., & Majid, M. A. (2021). On the efficiency of type I censored samples. *IMA Journal of Mathematical Control and Information*, 38(2), 743-753. <https://doi.org/10.1093/imamci/dnab009>
- Kmetty, Z., & Stefkovics, Á. (2022). Assessing the effect of questionnaire design on unit and item-nonresponse: evidence from an online experiment. *International Journal of Social Research Methodology*, 25(5), 659–672. <https://doi.org/10.1080/13645579.2021.1929714>
- Koloniari, M., & Fassoulis, K. (2020). Knowledge management perceptions in academic libraries. *The Journal of Academic Librarianship*, 43(2), 135-142. <https://doi.org/10.1016/j.acalib.2016.11.006>
- Kwanya, T., Kiplang'at, J., Wamukoya, J., & Njiraine, D. (2020). *Digital Technologies for Information and Knowledge Management*. [Masters Thesis, Technical University of Kenya]. <http://repository.tukenya.ac.ke/handle/123456789/1778>
- Liu, C., Chen, Y., Kittikowit, S., Hongsuchon, T., & Chen, Y. (2022). Using a unified theory of acceptance and use of technology to evaluate a mobile payment app's impact on middle-aged customers' shopping intention and usage behavior. *Frontiers in Psychology*, 13.(1), 1-8. <https://doi.org/10.3389/fpsyg.2022.830842>
- Ma, J., Stahl, L., & Knotts, E. (2019). Emerging roles of health information professionals for library and information science curriculum development: A scoping review. *Journal of the Medical Library Association*, 106(4) 1-13. <https://doi.org/10.5195/jmla.2018.354>
- Mabunda, T. T., & Du Plessis, T. (2022). Knowledge management as a change enabler in academic libraries in the digital age. *SA Journal of Information Management*, 24(1), 1-10. <https://doi.org/10.4102/sajim.v24i1.1450>
- Malmqvist, J., Hellberg, K., Möllås, G., Rose, R., & Shevlin, M. (2019). Conducting the pilot study: A neglected part of the research process? Methodological findings support the importance of piloting in qualitative research studies. *International Journal of Qualitative Methods*, 18, 160940691987834. <https://doi.org/10.1177/1609406919878341>
- Mansour, E. (2019). Libraries as agents for development: The potential role of Egyptian rural public libraries towards attaining sustainable development goals based on the UN 2030 agenda. *Journal of Librarianship and Information Science*, 52(1), 121–136. <https://doi.org/10.1177/0961000619872064>
- Manuel, J. K., Ernst, D., Vaz, A., & Rousmaniere, T. (2022). Exercise 4. Reflections and open-ended questions. In J. K. Manuel, D. Ernst, A. Vaz, & T. Rousmaniere, *Deliberate practice in motivational interviewing*. (pp. 55–63). *American Psychological Association*. <https://doi.org/10.1037/0000297-006>

- Maryati, D. S., Wasliman, I., Mudrikah, A., & Sauri, R. S. (2021). The role of librarians in the implementation of knowledge management in IPDN libraries. *International Journal Of Humanities Education and Social Sciences (IJHESS)*, 3 (1), 255–261. <https://doi.org/10.55227/ijhess.v1i3.81>
- Masinde, J., Chen, J., Wambiri, D., & Mumo, A. (2021). Research librarians' experiences of research data management activities at an academic library in a developing country. *Data and Information Management*, 5(4), 412-424. <https://doi.org/10.2478/dim-2021-0002>
- Merga, M. K. (2020). What is the literacy-supportive role of the school librarian in the United Kingdom? *Journal of Librarianship and Information Science*, 53(4), 601–614. <https://doi.org/10.1177/0961000620964569>
- Migdadi, M. M. (2020). Knowledge management, customer relationship management, and innovation capabilities. *Journal of Business & Industrial Marketing*, 36(1), 111-124. <https://doi.org/10.1108/jbim-12-2019-0504>
- Musungu, M. S., & Maina, J. (2023). Accessibility and utilization of information resources in the post COVID-19 era: A case of selected university libraries in Kenya. *KLISC Journal of Information Science & Knowledge Management*, 1(1), 1-11. <https://doi.org/10.61735/g23t5g42>
- Mwaniki, P. W. (2019). Envisioning the future role of librarians: Skills, services and information resources. *Library Management*, 39(1/2), 2-11. <https://doi.org/10.1108/lm-01-2017-0001>
- Nakitare, J., Sawe, E., Nyambala, J., & Kwanya, T. (2020). The emerging roles of academic librarians in Kenya: Apomediarities or infomediarities? *Library Management*, 41(6/7), 339-353. <https://doi.org/10.1108/lm-04-2020-0076>
- Nuwagaba, I., Hofisi, C., MuhiyaTshombe, L., Ochora, A., Nduhura, A., & Molokwane, T. (2023). Demystifying simple random sampling technique under public, private-public (PPP) projects and value for money (VFM) studies: Benchmarking from Uganda National Roads Authority (UNRA). *Journal of Somali Studies*, 10(3), 31-49. <https://doi.org/10.31920/2056-5682/2023/v10n3a2>
- Nzeyimana, D., Mutethia, P., & Gibendi, R. (2022). Digitalization of academic libraries, a response to the blended teaching mode in private higher learning institutions in Africa. *African Journal of Science, Technology and Social Sciences*, 1(2), 110-115. <https://doi.org/10.58506/ajstss.v1i2.123>
- Ogola, S. A. (2022). Knowledge management practices in University libraries in Kenya. [Masters Thesis USIU-Africa]. <https://erepo.usiu.ac.ke/handle/11732/2982?show=full>
- Ondieki, M. E. (2019). Reinventing academic libraries in Kenya. *Library Hi Tech News*, 26(5/6), 10-13. <https://doi.org/10.1108/07419050910985264>
- Ondieki, L. J., Maina, J. & Macharia, S. (2023). Knowledge sharing methods among library information science professionals in improving service delivery in Kiambu county, Kenya public university libraries. *African Journal of Emerging Issues*, 5(2), 53 - 70. <https://ajoeijournals.org/sys/index.php/ajoei/article/view/380>
- Osuigwe, N. (2019). *Managing and adapting library information services for future users*. IGI Global.

- Otike, F., & Barát, Á. H. (2021). Roles and emerging trends of academic libraries in Kenya. *Library Hi Tech News*, 38(7), 19-23. <https://doi.org/10.1108/lhtn-09-2021-0058>
- Ranjan, E., Sanyal, S., & Talukdar, P. (2020). ASAP: Adaptive structure-aware pooling for learning hierarchical graph representations. *Proceedings of the AAAI Conference on Artificial Intelligence*, 34(04), 5470-5477. <https://doi.org/10.1609/aaai.v34i04.5997>
- Sakhawat, M., Tariq, M. & Shahzad, K. (2021). Role of Librarians' Information Literacy Skills to Enhance Research Culture: A Case Study of University of Agriculture Faisalabad. *Library Philosophy and Practice*, 6392 e, 1-28. <https://digitalcommons.unl.edu/libphilprac/6392>
- Sanches, T. (2019). Changing Roles for Research and Information Skills Development: Librarians as Teachers, Researchers as Learners. In S. Kurbanoglu, S. Špiranec, Y. Ünal, J. Boustany, M. L. Huotari, E. Grassian, D. Mizrahi, & L. Roy (Eds.), *Information Literacy in Everyday Life* (989, pp. 462–471). Springer International Publishing. https://doi.org/10.1007/978-3-030-13472-3_44
- Sang, L. J., Oadini, C. & Wamukoya J. (2020). The Role of Librarians in Using Institutional Repositories in Higher Learning Institutions in Kenya. *The International Journal of Humanities & Social Studies*, 8(10), 1-9. DOI: 10.24940/theijhss/2020/v8/i10/HS2010-032
- Shao, Z., & Li, X. (2022). The influences of three task characteristics on innovative use of malleable IT: An extension of adaptive structuration theory for individuals. *Information & Management*, 59(3), 103597. <https://doi.org/10.1016/j.im.2022.103597>
- Sheikh, A., Malik, A., & Adnan, R. (2023). Evolution of research data management in academic libraries: A review of the literature. *Information Development*, 0(0). <https://doi.org/10.1177/02666669231157405>
- Shirali, G., Shekari, M., & Angali, K. A. (2020). Assessing reliability and validity of an instrument for measuring resilience safety culture in Sociotechnical systems. *Safety and Health at Work*, 9(3), 296-307. <https://doi.org/10.1016/j.shaw.2017.07.010>
- Shropshire, S., Semenza, J. L., & Koury, R. (2019). Knowledge management in practice in academic libraries. *IFLA Journal*, 46(1), 25-33. <https://doi.org/10.1177/0340035219878865>
- Sirorei, E. C., & Fombad, M. C. (2019). Knowledge management processes at St Paul's University library in Kenya. *SA Journal of Information Management*, 21(1), 1-8. <https://doi.org/10.4102/sajim.v21i1.946>
- Song, U. M., Buba, A. A., & Gindau, H. (2019). The role of librarians in knowledge management practices for effective user service delivery in academic libraries in north-eastern Nigeria | Song | Information and knowledge management. *Academic Hosting & Event Management Solutions*. <https://www.iiste.org/Journals/index.php/IKM/article/view/40463>

- Stantcheva, S. (2023). How to run surveys: A guide to creating your own identifying variation and revealing the invisible. *Annual Review of Economics*, 15(1), 205-234. <https://doi.org/10.1146/annurev-economics-091622-010157>
- Stehman, S. V., Pengra, B. W., Horton, J. A., & Wellington, D. F. (2021). Validation of the U.S. Geological Survey's land change monitoring, assessment, and projection (LCMAP) collection 1.0 annual land cover products 1985–2017. *Remote Sensing of Environment*, 265, 112646. <https://doi.org/10.1016/j.rse.2021.112646>
- Sturgis, P., & Luff, R. (2020). The demise of the survey? A research note on trends in using survey data in the social sciences, 1939 to 2015. *International Journal of Social Research Methodology*, 24(6), 691-696. <https://doi.org/10.1080/13645579.2020.1844896>
- Taherdoost, H. (2022). Designing a Questionnaire for a Research Paper: A Comprehensive Guide to Design and Develop an Effective Questionnaire. *Asian Journal of Managerial Science*, 11(1), 8–16. <https://doi.org/10.51983/ajms-2022.11.1.3087>
- Turner, J. R., Morris, M., & Atamenwan, I. (2019). A theoretical literature review on adaptive structuration theory's relevance to human resource development. *Advances in Developing Human Resources*, 21(3), 289-302. <https://doi.org/10.1177/1523422319851275>
- Usman, S. H., Zaveri, J., & Hamza, A. (2021). An integrated view of knowledge management enablers, components, and benefits: Comprehensive literature review. *Journal of International Technology and Information Management*, 30(4), 1-23. DOI: 10.1108/13673271211218807
- Van Quaquebeke, N., Salem, M., Van Dijke, M., & Wenzel, R. (2022). Conducting organizational surveys and experimental research online: From convenience to ambition in study designs, recruiting, and data quality. *Organizational Psychology Review*, 12(3), 268-305. <https://doi.org/10.1177/20413866221097571>
- Wang, T., Deng, C.-P., & Teo, T. S. H. (2023). Appropriating IT outsourcing for IT alignment: An adaptive structuration theory perspective. *Technological Forecasting and Social Change*, 192, e122581. <https://doi.org/10.1016/j.techfore.2023.122581>
- Xiao, L. (2020). Innovative application of knowledge management in the organizational restructuring of academic libraries: A Peking University library case study. *IFLA Journal*, 46(1), 15-24. <https://doi.org/10.1177/0340035219892289>
- Yazdani, S., Bayazidi, S., & Mafi, A. A. (2020). The current understanding of knowledge management concepts: A critical review. *Medical Journal of the Islamic Republic of Iran*, 34(1). DOI: 10.34171/mjiri.34.127

APPENDICES

Appendix I. Introductory Letter

Dear respondent,

I am a Master's student in the Department of Information Science at the Kenya Methodist University (KeMU), pursuing a Master's Degree in Information Science. I am researching "ANALYSIS OF THE EVOLVING ROLES OF LIBRARIANS IN ENHANCING KNOWLEDGE MANAGEMENT IN UNIVERSITY LIBRARIES IN NAIROBI COUNTY." This study partially fulfills the Master of Science in Information Science award at the university above. The study is purely for academic purposes, and any information collected for this study will not be used otherwise. I kindly request you to participate in the study by filling out the questionnaire provided. Your participation will be highly appreciated, and I wish to thank you in advance.

Sincerely

Makokha Emily Nasimiyu

Appendix II: Respondent's Consent Letter

Makokha Emily Nasimiyu

Kenya Methodist University

P.O. Box 267 – 60200.

Dear respondent,

I am writing to request consent to participate in my study, which will help me to actualize my academic research that investigates **ANALYSIS OF THE EVOLVING ROLES OF LIBRARIANS IN ENHANCING KNOWLEDGE MANAGEMENT IN UNIVERSITY LIBRARIES IN NAIROBI COUNTY**. The study aims to look at how the evolving roles of librarians have affected the efficiency of knowledge management in university libraries within Nairobi County. The study will maintain confidentiality on the personal details of the respondents. To ensure this is done, the interviews and questionnaires will not have any sections requesting their names, telephone numbers, or emails. Further, the study will maintain privacy in the respondents' responses, securing the questionnaires in a safe place.

Procedure to be followed

The specific questions in the questionnaire and interview are organized into sections ranging from Parts A to C. Section A covers the biographical information of the sampled respondents. Section B contains questions regarding the independent variables for library users, while section C contains the interview questions for the respondents directly affected by the study. All sentiments in the questionnaire are on a 5-point Likert scale. It takes approximately 10 to 15 minutes to complete the questionnaire and respond to the interview session. The respondent is not obligated to complete

the questionnaire, answer all questions presented, or participate in the interview. If you encounter a question you do not wish to answer, skip it.

I hope you will be willing to respond to the questions asked as a library user, as your responses are essential to this study. As library head and sub-county education director, I hope you are willing to take part in the interview session so that you can answer questions regarding the study's variables. Your feedback is highly valued in this study.

Discomforts and risks

In this study, there are no risks of participating in the research. The reputation of the participant will also not be injured. The respondent is welcome to discontinue participation in the study at any time should one wish to do so due to discomfort. You may also stop the interview at any time. The interview may take about 30 minutes to complete.

Benefits

If you participate in this study, you will help us strengthen the services and programs offered by the public libraries in Garissa County, which will benefit the livelihoods of the local people, mainly nomads.

Rewards

There is no reward for anyone who chooses to participate in the study.

Confidentiality

Your participation will remain strictly confidential. No name will be recorded on the questionnaire or attached to any data you provide. The data collection will be kept confidential after collection and in the future and will not have anything to identify you.

Contact Information

Should you have questions regarding your participation, please contact me at emily.makokha@kemu.ac.ke

you may also contact my research supervisor at paul.maku@kemu.ac.ke.

Please sign the consent form (below) to indicate your agreement to participate in the study.

Participant’s Statement

The above statement regarding my participation in the study is clear to me. I have been given a chance to ask questions, and they have been answered satisfactorily. My participation in this study is entirely voluntary. I understand that my records will be kept private and that I can leave the study anytime. I know that the research will not be victimized at my place of work whether I decide to leave the study or not, and my decision will not affect how I am treated at my workplace.

Name of Participant..... Date.....

Signature.....

Investigator's Statement

I, the undersigned, have explained to the volunteer in a language s/he understands the procedures to be followed in the study and the risks and benefits involved.

Name of Interviewer.....Date.....

Interviewer Signature.....

Appendix III: Introductory Letter to Respondents

To whom it may concern

Re: Informed Consent

Dear.....

I am Emily Nasimiyu, a Master's student at Kenya Methodist University School of Science and Technology. I am researching "Analysis of the Evolving Roles of Librarians in Enhancing Knowledge Management in University Libraries in Nairobi County." The objectives of the study are to:

- i. Assess the existing knowledge management practices employed by librarians in university libraries in Nairobi County.
- ii. Examine librarian's role in promoting information literacy skills among users at university libraries in Nairobi County.
- iii. Evaluate the librarian's role in organizing knowledge management at university libraries in Nairobi County.
- iv. Evaluate the librarian's role in preserving the cultural heritage at university libraries in Nairobi County.

As my possible respondents, I sincerely ask for your input and involvement in finishing the interviews, document analysis, and interview schedules. Participating is entirely voluntary, and all information gathered will be kept private. The study's findings could influence how decisions are made to comprehend best how librarians are evolving to improve knowledge management in university libraries in Nairobi County. Those who are interested in participating can get in touch with information.

Yours sincerely,

Emily Nasimiyu

Phone:.....

Email:

School of Science and Technology

Appendix IV: Interview Schedule for the Sample Participants

Dear respondents,

Interview Schedule for all participants on “Analysis of the Evolving Roles of Librarians in Enhancing Knowledge Management in University Libraries in Nairobi County.” This interview schedule aims to gather your ideas, insights, opinions, and firsthand accounts of how knowledge management at Nairobi County College has been affected by the evolving roles of librarians. It is predicted to fill in between ten and twenty minutes. Please indicate your replies in the space provided by checking (√) or providing the appropriate information. Please remember there are no right or wrong responses, so feel free to respond directly, honestly, and viewpoint-based. Please do not write your name on this schedule.

PART A: Pertinent Information

- i. Institution Name
- ii. **Gender:** Male Female
- iii. Time you have worked at the institution: yrs 5 – 10 10 yrs
- iv. Participant Description: ent Lectur mniLibrar

PART B: Knowledge management at TUK and UON

- i. Provide your comments on the changes in the description of librarians' roles at the institution with respect to knowledge management.
- ii. Could you give an overview of the tools your university library uses for knowledge management?
- iii. How do these tools aid in the management of knowledge?

PART C: Existing knowledge management practices in universities

- i. Do you know of other Kenyan university libraries that have effectively changed librarians' duties? If yes, could you provide an account of their experience in terms of knowledge management effectiveness?
- ii. Which aspects contribute to the successful diversity of librarian jobs in university libraries, and how do these factors fit in with your university library's existing practices?

PART D: Librarian's role in promoting information literacy skills for utilizing knowledge

- i. In what way does knowledge management aid in promoting information literacy at the university?
- ii. How is information literacy, in your opinion, affected by the evolving roles of librarians?
- iii. Regarding information literacy, what are your opinions on the possible advantages, difficulties, and disadvantages of changing librarians' roles?
- iv. In closing, what recommendations would you make to enhance these positions in university libraries to promote information literacy better?

PART E: Librarian's Role in Organizing Knowledge Management

- i. What abilities or proficiencies, in your opinion, should library employees possess to promote information literacy?
- ii. To promote information literacy, what kind of assistance or training would you need to provide these librarians to raise their level of competency?

PART F: Librarian's role in preserving the cultural heritage

- i. What changes should the library and the university make to help librarians preserve the institution's cultural heritage?
- ii. What are the current practices that librarians have engaged in as a platform for preserving the university's cultural heritage?

Thank you for your feedback and time.

Appendix V: Questionnaire

INSTRUCTIONS

Please complete this questionnaire completely without using your name. To answer the questions honestly, you are asked to tick (√) or fill in the blanks as given.

Section A: Demographic Information

1. What is your gender?
 - a) Male []
 - b) Female []
2. Level of education?
 - a) Masters []
 - b) Doctorate []
3. Who is most important in facilitating effective knowledge management?
 - a) The student []
 - b) The university []
 - c) Librarians []
 - d) All the above []

Section B: Knowledge Management

4. Statements on knowledge management at universities are included in the table below. Please rate the degree to which you believe this to be satisfactory, given your level of comprehension. This will be measured using the Likert scale, whereby 1 is strongly disagree, 2 is disagree, three is moderately agree, 4 is agree, and 5 is strongly agree.

Statements on knowledge management at universities	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Moderately Agree</i>	<i>Agree</i>	<i>Strongly agree</i>
Librarians' role diversifications relate to knowledge management.					
The competency level of library staff is positively correlated with the efficiency of knowledge management at the university library.					
Technology is an essential factor attributed to the successful changes in the roles of librarians.					
My university has implemented policies emphasizing efficient knowledge management.					
Our librarians and library offer assistance to students conducting research.					

5. What knowledge management practices exist in Nairobi County's university libraries?

.....

.....

.....

.....

Section C: Role of Librarians in promoting information literacy skills for utilizing knowledge

6. The table below includes statements on promoting information literacy skills. Please rate the degree to which you believe this to be satisfactory, given your level of comprehension. This will be measured using the Likert scale, whereby 1 is strongly disagree, 2 is disagree, three is moderately agree, 4 is agree, and 5 is strongly agree.

Promoting information literacy skills	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Moderately Agree</i>	<i>Agree</i>	<i>Strongly agree</i>
Librarians have a significant impact on promoting information literacy.					
The university conducts continued training to help librarians improve their information literacy.					
The adoption of technology has been critical to improving information literacy.					
There are strict policies and regulations relating to enhancing information literacy for librarians.					

7. What is your opinion on how to examine the librarian’s role in promoting information literacy skills among users at university libraries in Nairobi?

.....

Section D: Role of librarians in preserving cultural heritage

8. The table below includes statements on preserving cultural heritage. Please rate the degree to which you believe this to be satisfactory, given your level of comprehension. This will be measured using the Likert scale, whereby 1 is strongly disagree, 2 is disagree, 3 is moderately agree, 4 is agree, and 5 is strongly agree.

Preserving cultural heritage	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Moderately Agree</i>	<i>Agree</i>	<i>Strongly agree</i>
The university's knowledge management methods have been crucial to preserving its cultural heritage.					
Librarians are actively involved in the preservation of the cultural heritage at the institution.					
The general information literacy of librarians has enhanced their ability to preserve the institutions' cultural heritage.					
Cultural preservation has helped create an environment of consistency and efficiency, especially within the institution's library.					

9. What should universities do to effectively evaluate the librarian's role in preserving the cultural heritage at university libraries in Nairobi County?

.....

.....

.....

.....

Section E: Existing Knowledge Management Practices

10. The table below includes statements on existing Knowledge Management Practices. Please rate the degree to which you believe this to be satisfactory, given your level of comprehension. This will be measured using the Likert scale, whereby 1 is strongly disagree, 2 is disagree, 3 is moderately agree, 4 is agree, and five is strongly agree.

Evaluate the librarian’s role in organizing knowledge management at university libraries in Nairobi County.	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Moderately Agree</i>	<i>Agree</i>	<i>Strongly agree</i>
There are benefits of using technology to enhance knowledge management.					
Our library has made it easy to access information by implementing technology within its operational model.					
Staff members at our university's library help postgraduate students access information through technology.					
Universities should educate and train librarians on using advanced technology to enhance knowledge management.					
Librarians should embrace technology without needing to be pushed to adopt this technology-based system.					

11. What are your suggestions on assessing the existing knowledge management practices employed by librarians in university libraries in Nairobi County?

.....

.....

.....

Section F: Role of Librarians in Organizing Knowledge Management

12. Statements on organizing knowledge management are included in the table below. Please rate the degree to which you believe this to be satisfactory, given your level of comprehension. This will be measured using the Likert scale whereby *one strongly disagrees, two disagree, three Moderately agree, four agree, and five strongly agree.*

Organizing Knowledge Management	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Moderately Agree</i>	<i>Agree</i>	<i>Strongly agree</i>
The various roles that librarians play are largely related to knowledge management.					
The effectiveness of knowledge management at the university library is positively correlated with the competency level of the library staff.					
One major reason for the effectiveness of the changes in librarian duties is technology.					
Effective knowledge management is emphasized in the policies my university has put in place.					

13. What role do the librarians play in organizing knowledge management in Nairobi County's university libraries?

.....

.....

.....

.....

APPENDIX VI: Implementation Budget

ITEM	AMOUNT
PROPOSAL PREPARATION	
Typesetting	2000
Printing	2000
Photocopying	3,000
Spiral binding	3,000
PILOTING	
Typesetting	3,000
Printing instruments	3,000
Photocopying instruments	2,000
Transport and lunch	10,000
DATA COLLECTION AND ANALYSIS	
Typing and printing instruments	3,000
Transport	15,000
Accommodation and meals	25,000
Photocopying instruments	120,000

Research assistants	81,800
Communication (telephone)	6,000
Stationery	2,000
Data analysis	5000
THESIS PREPARATION	
2ream printing paper	1200
Typesetting	5,000
Photocopying	3,000
Printing and binding	20,000
Grand Total	260,000


APPENDIX VII: Implementation Schedule

Description	Jan	Feb	Mar	April	May	June	July	Aug	Sep
Identification of the topic									
Topic Approval									
Presentation of the research proposal									
Pre-test of the research instruments and Data collection									
Data Analysis									
Thesis writing, corrections, and defense									
Thesis Report Submission									

APPENDIX VIII: Universities within Nairobi Country

Rank	University	Town
17	Adventist University of Africa	Nairobi
13	Africa International University	Nairobi
9	Africa Nazarene University	Nairobi
12	Amref International University	Nairobi
10	Daystar University	Nairobi
25	International Leadership University, Kenya	Nairobi
22	Islamic University of Kenya	Kisaju
4	Jomo Kenyatta University of Agriculture and Technology	Nairobi ...
24	KAG East University	Nairobi
6	KCA University	Nairobi ...
2	Kenyatta University	Nairobi ...
19	Kiriri Women's University of Science and Technology	Nairobi
18	Management University of Africa	Nairobi ...
14	Multimedia University of Kenya	Nairobi
20	Pan Africa Christian University	Nairobi
21	Pioneer International University	Nairobi
15	Riara University	Nairobi
3	Strathmore University	Nairobi
8	Technical University of Kenya	Nairobi
7	The Catholic University of Eastern Africa	Nairobi ...
11	The Co-operative University of Kenya	Nairobi ...
23	The East African University	Nairobi
5	United States International University Africa	Nairobi
1	University of Nairobi	Nairobi ...
16	Zetech University	Ruiru ...

APPENDIX IX: Research Permit NACOSTI

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Rel No: 205806	Date of Issue: 11/July/2024
RESEARCH LICENSE	
	
<p>This is to Certify that MSc. Emily Nasimiya Makokha of Kenya Methodist 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: ANALYSIS OF THE EVOLVING ROLES OF LIBRARIANS IN ENHANCING KNOWLEDGE MANAGEMENT IN UNIVERSITY LIBRARIES IN NAIROBI COUNTY for the period ending : 11/July/2025.</p>	
License No: NA.COSTI/P/24/37603	
205806 Applicant Identification Number	 Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
	Verification QR Code 
<p>NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.</p>	
See a verleaf for conditions	

APPENDIX X: LETTER OF AUTHORIZATION



KENYA METHODIST UNIVERSITY

P. O. Box 267 Meru - 50200, Kenya

Fax: 254 64-30162

Tel: 254-064-30301/31229/30367/31171

Email: dean@dkemu.ac.ke

DIRECTORATE OF POSTGRADUATE STUDIES

Our Ref: KeMU/NACOSTI/ISK/04/2024

June 24, 2024

Commission Secretary,
National Commission for Science, Technology and Innovations,
P.O. Box 30623-00100
NAIROBI.

Dear Sir/Madam,

RE: MAKOKHA EMILY NASIMIYU – (REG. NO. ISK-3-2918-3/2022)

This is to confirm that the above named person is a bona fide student of Kenya Methodist University, in the School of Science and Technology, Department of Information Science undertaking a Master's Degree in Information Science. She is conducting research on; "Analysis of the Evolving Roles of Librarians in Enhancing Knowledge Management in University Libraries in Nairobi County".

We confirm that her research proposal has been presented and approved by the University.

In this regard, we are requesting your office to issue a research license to enable her collect data.

Any assistance accorded to her will be appreciated.

Yours sincerely,

Dr. John M. Muehiri (PhD)

Dean, Postgraduate Studies

Cc: Dean SST

CoD, IS

Postgraduate Coordinator - IS

Supervisors