

**UTILIZATION OF SOCIAL MEDIA IN KNOWLEDGE SHARING IN ACADEMIC
LIBRARIES IN KENYA: A CASE OF KIRINYAGA UNIVERSITY LIBRARY**

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DECLARATION

This research project is my original work and has not been submitted for examination to any other university.

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DEDICATION

This project is dedicated to my husband, my parents, my brother, and my friends for their love, great support and encouragement to do my best.

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First I give thanks to God for giving me strength and divine wisdom throughout my time of study. To my supervisor, Dr. Grace Irura and Dr. George Kingori, I am greatly indebted to your guidance, support and your timely comments to this work. To all my friends: your continued encouragement and support has made me reach this far.

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May God bless you all.

ABSTRACT

Knowledge is an asset that is increasingly being recognized by organizations as a crucial base of achieving an upper hand and the concept of sharing knowledge is not exception in this regard. However, organizations risk the failure of capitalizing most of its intellectual knowledge if employees don't share the knowledge they hold using platforms such as social media. The aim of this study was to investigate the utilization of social media in knowledge sharing practices in academic libraries with reference to Kirinyaga University library. The objectives of the study were to: examine knowledge sharing at Kirinyaga University Library; to find out the use of social media in creating awareness on knowledge resources at Kirinyaga University library; to find out the social media tools and technologies used and examine the effect of social media towards library services offered at the university. The study adopted a case study approach that was descriptive in nature. The study adopted Nassiuma (2000) model to determine the sample size from the target population of 2,800 respondents drawn from undergraduate, diploma and certificate students, as well as the library staff. Stratified sampling was applied in selecting a sample size of the students and simple random sampling for library staff. A sample size of 169 was drawn from the respondents. Out of this, only 96 of the questionnaires were returned and 7 university staff interviewed (key informants), representing 61% response rate. The study found that the email was the most utilized medium for knowledge sharing at 66%; the respondents had been using social media accounts in sharing knowledge for less than 6 months (78%); social media use could be used to create more awareness on knowledge resources of the library by attracting more library clients to use the library services. The respondents had not been trained (87%) on how to use social media in the library in the context of knowledge sharing; the respondents also found utilization of social media in providing library services to be highly effective; the challenges encountered with the use of social media were, low internet bandwidth and WIFI connectivity (71%), virus threats (65%) and lack of orientation (87%). The study concluded that there was need to increase more usage of social media only for academic use and ethical use so as to reduce on the cost and time spent on answering library queries. The study revealed that the library experienced low internet bandwidth and low WIFI connection which greatly hampered social media use, also technophobia among library clients and inadequate computer facilities were some of the noted challenged experienced. The study recommended that Kirinyaga University library needs to engage with other libraries in the country and beyond in order to benchmark with them on their progress on knowledge sharing using social media sites and also there is need of investing more time in exploring new technology. The library should also increase internet bandwidth to facilitate easy access to social media platforms. The study would add to the general body of knowledge and offer practical solutions to challenges experienced when using social media in knowledge sharing in academic libraries. It will also inform policy formulation utilization of social media in knowledge sharing in academic libraries.

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LIST OF ABBREVIATIONS& ACRONYMS

CAS:	Current Awareness of Services
ICT:	Information Communication Technology
ISO:	International Organization for Standardization
JKUAT:	Jomo Kenyatta University of Agriculture and Technology
KENET:	Kenya Education Network Trust
KLISC:	Kenya Library and Information Services Consortium
KyU:	Kirinyaga University
OCLC:	Online Computer Library Center
RSS:	Rich Site Summary OR Really Simple Syndication
SDI:	Selective Dissemination of Information
TRA	Theory of Reasoned Action
URC:	Uniform Resource Citation

CHAPTER ONE

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

This chapter presents an introduction to the research. The topic being utilization of social media in knowledge sharing in academic libraries in Kenya: a case of Kirinyaga university library. It starts with background information of the study, the statement of the problem, purpose of the study and objectives of the study. It also seeks to identify the research questions, scope of the study. It further outlines the significance of the study, limitations of the study, research assumptions, and winds up by providing definition of terms used in the study.

1.2 Background of the study

Cao and Xiang (2012) describes knowledge sharing as an important element in organizations where knowledge creation is part of the organizations daily activities. Therefore, organizations must have to put in place some functions in the organization to facilitate packaging and sharing of knowledge. From their research, Cao and Xiang (2012) adopted the definition of knowledge sharing as a link between knowledge held by an individual and that held by an organization, which may enhance ability to learn and be creative for sustainable competitive advantage. In their 2012 study, Cao and Xiang noted that both knowledge sharing and team efficacy, can impact positively on empowering leadership and team performance in knowledge sharing organizations. Sharing of knowledge is achieved when ideas, expertise, innovations and suggestions are shared by members within an organization.

Omona *et al.*, (2010) describes knowledge management as the examination and specialized backing of traditions exercised in companies to recognize, develop, serve, apportion and allow the acceptance of good processes to be accepted in cooperation with the company's knowledge processes. Zoltan (2016), explains that many organizations globally acknowledged the significance of managing knowledge in organizations future performance and the society as well. The European Commission (2010) report is an example of a European vision in the 21st century that has a social market economy. Its fronts the promotion of smart advancements in an economy that adopts knowledge and innovation to develop itself. Such smart advancements need the improvement of innovation and sharing of knowledge to utilize ICT's and establish

creative ideas that can be spanned into new products and services. International organization for Standardization (ISO) which is a widely applied standard for quality management systems has also recognized the importance of knowledge management in its new revised standard 9001:2015 as a crucial element of business excellence and strategic quality program in gaining global recognition. Novak and Hammer (2009), laments that organizations turn themselves into success stories if they utilize their knowledge resource valuably. At times organization do not realize the importance of an employee until they have gone. Only then do they realize that they have lost crucial knowledge. This turns out to be an expensive learning process for the organization, one that the organization should have learnt from the requirements of ISO 9001:2015. Knowledge management is a process in an organization that requires better planning and organization in the immediate and long run.

Harden (2012), also notes that sharing of knowledge is a crucial aspect of managing knowledge in an organization. Knowledge management should be the most crucial resource of an organization. Sharing of this knowledge therefore becomes vital in making the organization capable of converting individual knowledge into organizational knowledge. Brcic and Mihelic (2015) explain that sharing knowledge leads to generation of knowledge, creation of belief, and solving of problems. Subsequently, it is an important innovation element, team creativity, sustainable competitive advantage and ultimately organizational success.

1.2.1 Social Media

Manning (2014) defines social media as an instrument that involves interactive participation. For researchers to understand social media better, Manning categorizes social media in to two different categories. The first one is the broadcast age where the media are almost exclusively centralized and one entity distributes messages to many people. Feedback at broadcast age is often indirect, delayed and impersonal. Examples of these media are Radio and Television. The second category is the interactive age. In this age the social media platform allows a form of participation and not completely passive. An Example is the electronic mail (e-mail) which acts as a quick and highly reliable method to send documents, images, updates or important details at a moment's notice. Electronic emails also share one piece of information with a large number of people.

According to Nielsen and Razmerita (2014), social media is an experience that cannot go unnoticed. Instruments such as Facebook, Twitter, LinkedIn, My Space and YouTube have changed the communication methods. Social media has in other many institutions been applied differently as a facet of service provision. Brcic and Mihelic (2015) highlight that, it is logical and natural for academic universities to integrate social media to library services such as reference and digital libraries. This is because social media was established to enhance user communication and connection. Additionally, scholarly communication can occur through social media which results in efficient and effective reference services, library users would feel more comfortable using social media to access the library services. For instance, users can be able to place a request for a book they need via SMS or Facebook. The impending benefits of embracing and implementing social media are enormous.

Social media on the other hand has turned out to be a concept that organizations are adopting as a means to reshaping their knowledge management. Nelson *et al.*, (2015) explain that more and more organizations in a bid to become productive and competitive are embracing communication approaches that enhance partnerships both internally and externally. New opportunities are offered by social media through sharing knowledge in social media platforms such as Wikis, Facebook, Blogs and Twitter which enable effective and effective knowledge dissemination by employees across departments and geographical locations. Chatter is an example of an internal organizational cloud computing application which is a collaborative based application and more so enterprise social network. Podio is another example of an online organizational platform that users can collaborate as groups through creating workspaces in organizations. Yammer is another platform. It is considered one of the few private networks that is secure for use by organizations for employee engagement. Organizations therefore harness new opportunities from such social media platforms by enhancing the knowledge that exist with the human resource in the organization. The organizations human resource is responsible for the daily processes, business practices and sharing of knowledge.

According to Nielsen and Razmerita (2014) organizations that have deployed use of social networks have benefited immensely through improved mechanism of accessing knowledge, reduced business operation cost, increased incomes and more creative products and services.

Bughin *et al.*, (2012) conducted a study whose findings showed there was an increase of 20 - 25 percent production on staff whose organization adopted and utilized social media. According to the findings, employees spent 28% of their time weekly reading and responding to emails. An average employee spent 20% of their time weekly searching for information or seeking for a workmate who could assist them with their duties. When social media is used in organization, internal messages become easy to circulate and time staffs spend in searching for organization information is saved by 35 percent.

As organizations change with the changing times, academic libraries are also taking up new challenges by providing users with improved and better ways of accessing information resources and service deliver. Chu and Du (2013) posits that the information environment has changed the way academic environment is operating which has in turn challenged academic librarians. The academic demands of users keeps shifting which makes the work of librarians challenging even as alternative sources of information such as the World Wide Web (WWW) becomes available and attractive to users. It is being argued that librarians are beginning to lose their pertinence as other sources of information gradually become available. In the 21st century, it's not enough for a library just to equip itself with all the required information resources and provide the required services. It's important for it to properly market itself and the services it provide for it to become relevant. Online habits of students have shown that when they go online, usually with their phones, it's to connect to social media platforms such as YouTube, Facebook, Blogs and Twitter. According to Kemibaro, M (2016) 58 percent of Kenyans access social media on a weekly basis. Librarians therefore have no choice but to adopt social media in knowledge sharing.

1.2.2 Context of the study

Kirinyaga University (KyU) was formerly known as Kirinyaga Technical Institute. It was not until 2012 that it partnered with Jomo Kenyatta University of Agriculture and Technology to make it its constituent college. This led to it being renamed Kirinyaga University College. A charter was then granted in 2016 by His Excellency Uhuru Kenyatta. The Charter thus converted it to a fully-fledged university making it among eight other public universities. Its successor Kirinyaga Technical Institute, was conceived by the people of Kirinyaga way back

in 1971 when fund drive was launched by then His Excellency President Daniel Arap Moi through the request of the people of Kirinyaga. A parcel of land totaling 200 acres was set aside by the then Kirinyaga county council for the development so the institution at Kutus. At Kangaita area, an additional 50 acres was acquired at the slopes of Mt. Kenya. The university has a population of 2,500 students and 300 staffs. It has five faculties, which are; School of health Sciences, School of Pure and Applied Sciences, School of Hospitality and Textile Technology, School of Engineering/Built Environment and School of Business/Economics.

The KyU library provides resources both in print and non-print, necessary to support teaching, learning and research for all the schools in the University. Its core activities consist of acquisition, processing and making current information available to the university and neighboring community. Being a newly accredited university, the library is continuously upgrading its services to meet internationally recommended standards for a university library.

In terms of utilization of social media in knowledge sharing, KyU library only uses one form of social media which is Facebook and it's not as interactive as it should be. For example, in the year 2016 only nine messages were posted on the platform. From observation the researcher noted that most of the library users have to go to the library physically for their information needs to be met, which has led to most users not accessing the library due to distance, busy working schedule and time constraints.

1.3 Statement of the problem

Even though social media has seen an increase in interest, the researcher noted that newly chartered academic libraries in Kenya in particular are yet to embrace social media. According to Nielsen and Razmerita (2014), social networking sites can no longer be ignored; applications like Facebook, Twitter, LinkedIn, My Space and YouTube have changed the communication methods. Many organizations have adopted social media platforms in other aspects of providing services. Brcic and Mihelic (2015) highlight that; it is logical and natural for academic universities to integrate social media to library activities such as reference services and digital libraries. This is because social media was established to enhance user communication and connection. Additionally, scholarly communication can occur through

social media which results in efficient and effective reference services, library users would feel more comfortable using social media to access the library services. For instance, users can be able to place a request for a book they need via SMS or Facebook. The impending benefits of embracing and implementing social media are enormous.

Utilization of social media at Kirinyaga University has not been fully realized due to the fact that its implementation is at its infancy and it is coupled by lack of enthusiasm which has resulted in minimal use of social media tools. Kirinyaga university library is facing challenges in promoting its services online. The university needs to implement new ways to drive its clients to visit its newly implemented digital repository and the library website to foster exchange of information in various formats and attract more publications from the University fraternity and to also improve its ranking on webometrics. The KyU library should utilize the use of social media platforms such as twitter and Facebook in answering of library queries, dissemination of information and giving feedback, rather than wait users to physically visit the library to get these services. This exploratory study investigates how social media technologies can be utilized for knowledge sharing for gaining global, regional and local competitive edge for academic university libraries in Kenya.

1.4 Aim of the study

The aim of this study was to investigate the utilization of social media in knowledge sharing in academic libraries with reference to Kirinyaga University Library.

1.4.1 Objectives of the study

The specific objectives of the study were to:

1. Examine knowledge sharing practices at Kirinyaga University Library.
2. Find out the use of social media in creating awareness on knowledge resources at Kirinyaga University Library.
3. Find out the social media tools and technologies used at Kirinyaga University Library.
4. Examine the effect of social media towards library services at Kirinyaga University library.
5. To find out the challenges experienced in the utilization of social media in knowledge sharing at Kirinyaga University library.

1.4.2 Research questions

1. What knowledge sharing practices are used at Kirinyaga University Library?
2. How has social media been used to create awareness on knowledge resources at Kirinyaga University Library?
3. What are the social media tools and technologies at Kirinyaga University Library?
4. What effects do social media have on library services at Kirinyaga University library?
5. What are the challenges experienced in the utilization of social media in academic libraries?

1.5 Significance of the study

The significance of the study was:

1.5.1 Theoretical Significance

The study constitutes a new addition to the general body of knowledge relating to application of social media in knowledge sharing in academic libraries.

Knowledge management become a resource of strategic importance and a crucial agent of accomplishment in the organization. Location of knowledge is either within the individuals mind (tacit knowledge) or encapsulated in the companies practices or condensed in mechanized tools (explicit knowledge) (Yesil & Dereli, 2013).

Sharing of knowledge has become an essential responsibility to organizations. This is not just because of the increasing significance of the worth of knowledge (Huysman, 2004) but also due to a growing appreciation to the significance of tacit knowledge as compared to explicit knowledge when it comes to the process of innovation (Marouf, 2005).

The evolution and appreciation of knowledge and knowledge economy as crucial elements in attaining competitive advantage, has become crucial in comprehending the management and approaches of managing knowledge. Globally, organizations have focused on managing knowledge and coming up with programs which support knowledge sharing as a means of bolstering the organizations performance with mixed results.

1.5.2 Practical Significance

The study provides practical solutions to the challenges experienced when using platforms of social media in sharing knowledge in academic libraries. The sharing of knowledge when applied in a competitive environment will determine the organizations ability to effectively develop new products, services and process as compared to its competitor (Omotayo, 2015).

For academic libraries like KyU to be successful, they need to generate new knowledge constantly and transfer it to others within the organization through its systems and its products and services (Yesil & Dereli, 2013). The broader context of using social media platforms seems to have reached universities and including academic libraries. Burkhardt (2010) argues that academic libraries can take up the social media and use it to provide services such as marketing, selective dissemination of information, and current awareness.

Sharing of knowledge in KyU library will provide the available sections with chances of continuous bilateral learning and mutual effort and thus produce fresh knowledge. An increase of empirical studies has shown that organizations with departments which share knowledge within themselves are more productive and more like to be sustainable than companies that don't share knowledge within its ranks (Marouf, 2005). Due to recognition of knowledge sharing as a source of competitive advantage and the growing significance of knowledge in academic libraries, the significance of this study was to find solutions and recommendation on how academic libraries can be motivated in utilization of social media in knowledge sharing.

1.5.3 Policy Formulation Significance

The research informs policy formulation in utilization of social media in knowledge sharing in academic libraries.

1.6 Assumption of the study

The following were the assumptions of the study:

- 1) Utilization of social networks in sharing knowledge is one of the answer to tenable competitive advantage in a knowledge economy.
- 2) Kirinyaga University Library plays a major role in knowledge management processes by making available and providing the required knowledge through

education, creating and disseminating information to its community, and directly contributing to economic development of knowledge.

1.7 Scope of the study

The study was limited to one academic library in Kenya, the Kirinyaga University library. The purpose of the study was to evaluate the utilization of social media in knowledge sharing in academic libraries in Universities. The researcher conducted interviews and administered questioners among students and library staff in KyU. Data was specifically collected from these responders and participants because they were considered to be conversant with the subject matter of review.

1.8 Limitation of the study

The study was limited to the fact that it only concentrated on one academic library, this might not be the actual reflection of other academic libraries across the country. Due to the large numbers of the target population and time allocated for the research, the researcher only used a sample of the target population. The study was mainly limited to the responses given by the respondents both using the questionnaires and during the interview sessions. The researcher provided questionnaires for students and face to face interviews with the sampled university staff. The study was also limited to the variables used in this study and also the application of the chosen theory.

1.9 Operational terms and concepts

Academic libraries: An academic library is a library situated within a college, university or polytechnic (institution of higher learning). The library is funded by that institution and supports its programmes and by extension the teaching, learning and research.

Information: Information is a sequence of symbols that can be interpreted as a message. Information can be recorded as signs, or transmitted as signals. Information is any kind of event that affects the state of a dynamic system. Conceptually, information is the message (utterance or expression) being conveyed. The meaning of this concept varies in different

contexts. Information is valuable because it can affect behavior, a decision, or an outcome (Oxford Dictionary, 2005).

Information and communication technology (ICT): consists of the physical facilities and services that support technology. They include hardware, software, networks and communication facilities (internet, intranets, and telephone).

Library: Organized collection of printed books and periodicals of any other graphic and audio visual materials and the services of the staff to provide the facilitate the such materials as are required to meet the information, research educational or recreational needs of its user. A library's collection can include books, periodicals, newspapers, manuscripts, films, maps, prints, documents, microform, CDs, cassettes, videotapes, DVDs, e-books, audio books, databases, and other formats (Bosque *et al.*, 2012).

Library 2.0 tools: A model for library service that encourages constant and purposeful change, inviting user participation in the creation of both the physical and the virtual services they want, supported by consistently evaluating services (O'Reilly, 2004).

Model: A representation of a system that is constructed to study some aspects of that system or the system as a whole.

Online Public Catalogue (OPAC): A computer-based library catalogue for use by the public. It is accessed through a dumb terminal or personal computer. It replaces the card catalog.

Selective Dissemination of Information (SDI): A service provided by a library or other information agency whereby its users are periodically notified of new publications, report literature, or other sources of information in subject in which they have specified an interest.

Social Media: Social media are computer-mediated technologies that allow the creating and sharing of information, ideas, career interests and other forms of expression via virtual communities and networks (Zoltan, 2016).

Social network: A place where people create their own space or home page on which they write blogs (web Blogs), post pictures, videos or music, share ideas and link to other web locations they find interesting.

1.10 Chapter summary

This chapter introduced the concept of utilization of social media in knowledge sharing. It gave detailed information covering the background of the study, statement of the problem, aim and objectives of the study, research questions, significance, assumptions, scope and limitations of the study, and the operational terms and concepts used in the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

According to Kumar (2014), literature is the consulted work that a researcher makes use of in the course of establishing a study problem. A literature review is a published account of other researchers and scholars on a particular area of study. According to Wisker (2008), researchers who complete reviewing literature have acquired a deeper understanding of the topic under study because they have reviewed previously completed studies and gained insight from them. The aim of reviewing literature was to explore the utilization of social media in knowledge sharing in academic libraries.

2.2 Social media and Academic Libraries

The advent of social media and its relationship with the academic library community has dynamically changed access and sharing information. The term Web 2.0 was coined by O'Reilly in (2005) which involves delivery of services through use of lightweight computer applications and user interfaces. The abilities of Web 2.0 have enabled users to communicate with the library in a two-way communication and exchange of information in an efficient and effective manner. Conversely, library users are able to receive services without physically visiting the library. The implementation and integration of social media technology into library services is now referred to as Library 2.0 (Bosque *et al.*, 2012). Social media has emerged as a medium of communication with the use of internet which has resulted to embracement of social communication. The primary focus of such a study is to evaluate utilization of social media in academic libraries as cultural institutions (Xie & Stevenson, 2014).

The various types of social media that have found their use in academic libraries include, Facebook, blogs, microblogging, YouTube, twitter, Wikis, Mash Up, Digg, Delicious Second Life, Flickr, Picasa, amongst others. Vuori (2011), states that' social media tools can be categorized according to the extent to which it enhances communication, collaboration, connecting, completing and packaging of information, these are considered as the (5C) of social media. Jalonen (2014) suggests that social media enhances communication by providing fresh techniques to share, store and publish contents, discuss and express opinions and

influence through the use of online communication tools such as blogs, microblogs (Twitter), Video sharing (YouTube), presentation sharing (Slide Share) and Instant messaging service (Skype). Additionally, social media plays a collaborative role by enabling creation of content through collaboration and online editing without constraints of time through use of tools such as Wikis (Wikipedia) and Groupware/shared workspaces (GoogleDocs). Consequently, people have been provided with current networking ways, socializing themselves with their societies through social media networks and community of practice (Facebook, LinkedIn).

In conclusion, social networks have the capabilities of geotagging, describing content, filtering and adding information and linking contents with the use of such tools as Visual bookmarking tool (Pinterest) and News aggregator (Digg). The combining aspect of social media, enables the development of mixing and matching contents. The bringing together of previously available online services enhances within a platform to make utilize a different application, in a specific window, without the need to get out of the initial website for example, Mash-ups (Google Maps) (Bonson & Flores, 2011).

2.3 Knowledge Sharing in Academic Libraries

The contributions of social media platforms have enabled and enhanced sharing of knowledge within communities that are online. This knowledge in particular can be attributed to information on products, information on travel arrangements and experiences of customers.

An investigation was conducted by Chang and Chuang (2011) to discover the influencers of sharing knowledge. The study targeted virtual communities. The study findings showed that the behavior of sharing knowledge was being influenced by factors such as a common language, reciprocation, altruism and identification. The study found that the quality of sharing knowledge could be enhanced through social interactions and trust unlike the quantity of sharing knowledge. Finally, the study established that the overall behavior of sharing knowledge was not positively correlated to reputation. An investigation was conducted by Chai and Kim (2010) to establish if knowledge sharing practices of bloggers was positively being affected by their trust. Four dimensions of trust were explored in this study which reflected an

extension in this area. The study found economy-based trust, trust in bloggers and trust in the internet as factors positively correlated to sharing knowledge.

The intentions of users on the online community in relation to knowledge sharing was studied by Shiue *et al.*, (2010). The study narrowed down to association between social loafing and group cohesion. Social loafing was found to be negatively influencing user group cohesion. Social ties and perceived risk were found to have influenced social loafing negatively and positively respectively. In addition, media richness, anonymity, quality of knowledge and offline activities strongly impacted perceived risk and social ties (Shiue *et al.*, 2010).

An investigation was conducted by Chiu *et al.*, (2011) concerning knowledge sharing and what motivate the intentions of individuals. The study targeted open professional virtual communities. According to the study, sharing of knowledge is crucial. The study found that the satisfaction of the members and the intention of the membership for the community members could be directly affected by playfulness. The satisfaction of the members could only be positively impacted by distributive justice, self-worth disconfirmation and interactional justice.

Social media platforms have also been studied in relation to the sharing of knowledge in cases of emergency. In January of 2010, earthquake struck Haiti making Smith (2010) to establish how information sharing responsibilities of traditional public relations were disseminated to users of social media platforms. The study broadened the comprehension of online engagements and showed the appreciation that users can get from social media. A similar application of social media was used by Yates and Paquette (2011) to examine its use as in cases of emergency as knowledge management tool. The research adopted a case study research design. This was informed by how social media tools were used in sharing knowledge, making decision, and maintaining systems of sharing knowledge effectively. As similar case study was conducted by Gruber *et al.*, (2015) to show how transparency of information can be improved by Twitter and by so doing public universities can engage in managing crisis. The study demonstrated the increasing significance of social media platforms to be used in making communications and discussions in real time by the management of an organization.

2.3.1 Collaborative Learning Process

Social media platforms have the advantage of being used as platforms where users can come together and cooperate with each other as well as with the organization in various activities. Researchers have conducted a number of studies directed towards utilization of social media platforms towards collaborative ventures. These studies have concentrated their efforts towards learning. An investigation was conducted by Pepler and Solomou (2011) on how in a social climate, collaborative learning and creativity can be built. The study targeted collaborative learners in a 3D architectural building learning environment. According to the findings, collaborative creativity emerges and is facilitated by the community's social media cultural values. Also, that the process of collaborative learning in individual engagement is crucial to advancing and maintaining social engagements. The construct social presence was considered by Remesal and Colomina (2013) as a crucial element while studying the process of collaborative learning in computer supported systems. The study established that organizations make the greatest impacts when employees can forge connects and understandings that enable their knowledge and thoughts. According to Hooff and Simonovski (2012), new knowledge is created in an organization when individual members share knowledge with each other.

2.3.2 Supportive Leadership

The sharing of knowledge is a process that can be impromptu or officially facilitated. Senior management and the support they provide influence greatly the effectiveness of knowledge sharing. Carmeli *et al.*, (2013) argue that sharing knowledge is directly and indirectly influenced by the behavior of supportive leadership. According to Kovacic *et al.*, (2006), organizations need to have an understanding of employees of with key knowledge within the organization. This will enable the organization to build a conducive environment for employee to contribute knowledge. Wang *et al.*, (2014) posits that the success of sharing of sharing knowledge is hinged upon the ability of an organization to support the knowledge sharing through its formal and informal systems and allowing its employees to share by providing them with incentives. The dependability of social media platforms in information dissemination is without question. They have also gained the reputation as mechanisms of giving feedback, conduct research and sharing of knowledge within individuals and organizations. Libraries

have gained popularity in promoting their services and resources through social media platforms such as Wikis, Facebook, YouTube, Twitter and Flickr to enable them collect responses from their patrons in a speedy manner. It is however worth noting that in itself there are challenges in handling actual knowledge: getting knowledge from people; knowledge grouping; incentivizing knowledge sharing; comprehending knowledge management; ensure groups share knowledge amongst them; and widely avail knowledge. Quinn, (2014) argued that professional people were cautious to share knowledge with their colleagues as they consider their knowledge valuable assets. The biggest obstacle faced by organization is in regards to professional who are competing regarding contributing intellectually. The problem is worsened when professional from other disciplines consider their disciplines superior and so fail share knowledge with their colleagues. Quinn (2014) observed that a majority of professionals lacked respect for those not within their field even though they work towards the achievement of similar goals within the organization.

2.3.3 Information Resource Sharing

Information resource sharing is necessary in academic libraries. Okeagu and Okeagu (2008) affirmed it is becoming difficult to make available to library clients the required resources irrespective of the funding the library get. Crawford and Pollack (2004) adds that resources sharing as the activity, that results from an agreement, formal and informal among a consortium of libraries to share collection, data, facilities and personnel for the benefit of the users and reduce the expense of collection development. Information professionals use consortiums for example, the Kenya Library and Information Services Consortium (KLISC) and Kenya Education Network Trust (KENET), to acquire affordable information resources and improve on knowledge sharing. Through the consortium, information professionals and users can access different online databases freely and quickly, for instance, Emerald, Springer, JSTOR, EBSCO, Oxford, Wiley, Hinari among others.

Shafique and Riedling (2013), opines that libraries can use SlideShare which is a form of social media tool for information resource sharing. Miller (2005) defines SlideShare as the world's largest community for sharing presentations. With SlideShare, the library can upload Power Point presentations to share privately to a specific user or to publish to the entire library users.

Library users can use SlideShare to find presentations that interest them and network with other users.

2.4 Social Media Tools and Technologies

According to Kaplan and Haenlein (2010), social media cannot be considered so much as a breakthrough but as an advancement of web 2.0 platform. Web 2.0 is a technology that includes basic ways of online publishing static web pages such as HTML and server side and more techniques and technologies for coming up with active web pages to assist users engage and cooperate such as RSS.

A study was conducted by Buigues-Garcia and Gimenez-Chornet (2012) on national libraries and how they were being impacted on by social media. The study sought to examine the most suitable technologies and services the libraries could use in its website. The mode of accessing the libraries was through the URL repositories and also through their social media platforms. According to the findings, in the world, only a quarter of the websites of the national libraries can be considered library 2.0; America and Europe form a big portion of the websites. According to Buigues-Garcia and Gimenez-Chornet (2012) libraries have mostly implemented Facebook and Twitter as a social media platform of choice while digital libraries, RSS, blogs and bulletins as user information services. The study however only gathered information on the popularity of social media platforms on the perspective of the digital librarian and not the user. Gerolimos (2011) conducted a study reviewing the circumstances under which social media was being utilized in academic libraries. The author argued that the lack of a social media framework in academic libraries might lead to the division of academic library sections into several elements of information.

Social media has been used in other avenues and areas in different aspects of the organization. It is therefore crucial to adopt and implement it in digital libraries so that library users can engage exchange information with each other. Communication of intellectual nature can also take advantage of social media platforms.

2.4.1 Specific Social Media use in Libraries

According to Cho (2013) there exist specific social media tools that can be utilized by an academic in disseminating information. It is argued by Gu and Widen-Wulff (2011) that a need has arisen requiring librarians to implement the use of social media platforms to further intellectual communication. To achieve this, librarians can adopt the utilization of social media platforms in digital library records as a way of enhancing practices of information. Denver public library is an example of a library that has unified the digital library with social media. Individual items at the Denver public library is viewed by users and shared through social media. Information sharing at the digital library is shared by users via popular social media applications such as Twitter and Facebook and Reddit, an application which is user driven. Unifying the library with social media platforms has many benefits even though many organizations have not linked their digital library collections with social media sites.

McDonnell and Shiri (2011) conducted a study on integrating social media platforms with digital libraries. The integration it was found made the digital library more user friendly to the users. The users ended with better search results because of this. According to Russo *et al.*, (2009), education is currently exhibiting characteristics of emerging media which is a move away from conventional paper based resources. More insight need to be shed on how social media is being utilized by digital libraries with particular focus to digital collection.

Organizations have started to increase their focus on their users and more thought is being put into developing new programmes. A survey was conducted within archival research in 2012 by OCLC in a bid to establish the behavior of users towards social media usage in archives. Sharing of archival research was mainly done through email and word of mouth according to the findings of the study. The respondents numbering fewer than half found features of social media to be useful (tags, reviews, recommendations). Gu and Widen-Wulff (2012) echo the findings by OCLC which recommended that social media was to be better integrated to enhance intellectual communication to the users. Social media integration and digitization are some digital activities that the library can use as its outreach programme (Taranto, 2009). This study did not however provide empirical data other than just providing guidance principles. Charitonos *et al.*, (2012) provided the perspective of a museum by using a mixed method

approach in examining if school field trips experience could be improved by using social and mobile technology. It is the experience of the visitors in the museum that informed the curator's interest to integrate social media. Descriptive numerical analysis was used by the study. According to Charitonos *et al.*, (2012) the students and participants created a chain of tweets that increased the interest of other students.

2.4.2 Social Media in Digital Libraries

Social media was developed to enable communication and networking amongst users. The digital library has developed to a point where many organizations consider them an extension of the organization. Effective outreach programmes can only be provided by the digital librarians only if they know their users. A number of organization have adopted social media application in different aspects of their organization processes and so it's only fair to interface digital library with social media. Organizations can only successfully implement utilize social media if they adopt its culture of following and being followed by users on these platforms. According to Sacks and Graves (2012), the size and quality of the network is determined by the strength of the network.

Anderson (2007) opines that social media technology allows personal interaction with information on an individual and group level that assist in the development of a network of mutual and professional interest. Such social media platforms comprise: video sharing sites such as YouTube, blogs such as Wikis, groupware such as Google Doc and social networking site such as Facebook. These platforms build a connection within users.

2.5 Social Media in Creation of Awareness on Knowledge Resources

Facebook has been known to academic librarians for quite some years now though it's initially received a lukewarm perception. A survey was conducted by Charning and Barnett-Ellis (2007) on how Facebook was being perceived by academic librarians. The study found the attitude of academic librarians towards Facebook, and found that most could be described as being pathetic. Social media can be used not only as a tool for advocating library use but also for promoting the services it's offers and thus assist in bringing back the users. Social media tools can be used by the library to enhance engagements never before experienced. The image

of the library is in the process built. The awareness of knowledge resources in a university library is built when it uses social as a tool to increase reliability. To support this, Chan (2011) posits that even celebrities and media personalities have used social media to create their social brands and so should the library. Libraries are known to build lasting relationships with other departments within an organization as well as stakeholders. The library can therefore utilize social media in knowledge sharing to ensure that such relationships last through providing long term services to people who utilize library resources. Late in 2010, the library at Hong Kong Baptist University conducted a study on advertising through Facebook. The findings showed positive results. According to Chan (2011), libraries could use social media to promote their services in a cost effective way.

To effectively understand the impact of Facebook on advertising library services, one can only target users of Facebook who have answered on the questionnaire that they are students at the university under study. According to Chan (2011), a total of US\$60 was listed as having been used in SNA campaign in a period of two months by an academic library. Worldwide the literature on SNA has been marked by disagreements and is therefore not positive. Social network advertisement however has been in most cases been ignored by patrons (Hadija *et al.*, 2012). According to Taylor *et al.*, (2011), the reason behind it might be because the interest of the users have not adjusted with the advertisements such as the information, entertainment or social values. It is advisable that any library planning to venture into SNA should give it proper thought and meticulously plan before committing funds. Links and library resources can use Facebook advertisement to promote it beyond its system. This only requires linking these advertisements to other external pages and they will be viewed by others who don't frequent Facebook.

A study was conducted by Khan and Bhatti (2012) on how library services can be marketed by different types of social media platforms. The study was conducted in Pakistan and targeted librarians and academic staff of LIS at two universities. The results of the study showed that the different social media sites positively marketed library services in the two universities. The study sheds light on both librarians and other professionals and how the use of social media impacts them as it's used in promoting library services. It is important to consider the

perspective of the user because it is crucial in selecting which type of social media platform the library will use to market library services.

2.6 Library Services

In Kenya, for social media to be adopted and survive its evolution in academic libraries, then academic librarians need to embrace it and utilize it in provision of information. This attitude in response is more so required by user services and librarians. Academic librarians who do not embrace and acknowledge the significance of social media in providing services will eventually be faced with the challenge of disseminating information to its users from wherever they are. Social media has been utilized in some numerous academic libraries all over the world not just as a communication tool but also a platform for research. The library at the University of Ohio has for instance created a subject guide platform known as Biz wiki. This particular platform connects business resources with the subject guide. It enables the students to cooperate with the academic librarians (Proctor *et al.*, 2010). The ability of social media to enable creation through cooperation has enhanced dissemination making it appealing to students, researchers and academics who are the library patrons. Research has also seen social media being utilized at nearly all its stages, that's problem definition to results reporting results (Proctor *et al.*, 2010). The new breed of user services librarians will therefore be required to be social media literate.

It is worth noting that when it comes to social media, the competencies of academic librarians have not received much attention. There exists a lot of literature concerning the way libraries are using social media platforms. Studies of libraries particular utilization of specific social media platform is not much. What is even rarer is the empirical data showing how libraries are implementing social media platforms (Vanwysberghe *et al.*, 2015). This could be the reason behind the availability of majority of literature on social media use in libraries and librarians in relation to competencies of social media (Huvila *et al.*, 2013).

2.6.1 Library Services Using Social Media

According to Loo *et al.*, (2014), the core responsibility of user services librarians has never changed, that is to ensuring seekers of information are connected with the information they seek and vice versa. The remaining bit is to grant them the requisite training to become social media literate through a well-designed continuous professional programme to equip them with the necessary skills needed to adopt and embrace the new innovations and technologies. Social media tools aid in promoting library and information services which in turn saves man power hours. Library patrons have benefitted by being provided with timely updates and speedy feedbacks courtesy of the implemented social media platforms. It has now become easier to reach a large number of patrons at a short time through the use of social media, even though initially the notion was that it will take quite a long time to reach users through social media if knowledge was shared, time would be wasted as well as energy. According to Street (2014), the biggest benefit of social media in knowledge sharing was that marketing mix could be achieved through the dissemination of information online.

Advancement of technology has made information professionals develop new information services, for example, ask a librarian which is a type of Question and Answer Services which enhances quick delivery of services to users. In this case, web forms are created on web portals and users can fill in their requests and submit them to online librarians, these forms allow users to get back their comments to the libraries, make book request, renew a book or schedule a library orientation etc. Earlier in the century their existed catalogue which were web based in nature that applied this technique to engage with users in a better more improved manner. Frequently asked questions was an integrated feature of OPAC in previous version and contained answers to many questions in the libraries. This feature contained static data. At the moment, library systems have advanced and therefore the existing integrated library systems have interactive online reference librarian features. Because of their interactive nature, the user can ask a number of library related questions and get instant help with multimedia experience such as video and audio or both. The transcripts gotten from the online platforms can be used for evaluation purposes and be advantageous to the library for analysis for reference in future. Very many currently available library management systems utilize this service to share knowledge with their users.

2.6.2 Applying Social Media in Library Services

According to Villoldo *et al.*, (2012), utilization of social media has seen communication with users improve immensely above all library services. Librarians are currently engaging patrons through the utilization of digital signage, social media platforms profiles and thematic blogs. According to Hussain (2012), Facebook, Twitter, RSS Feeds, LinkedIn, Web-blogs are some of the social media platforms that enjoy audio-visual features while some features include the ability to enhance synchronous and asynchronous engagements and interactions.

Current Awareness Services (CAS) is a system of disseminating information that has been newly acquired, picking the resource based on the user's needs, and sending a notification to the availability of this resource. Depending on their choice and interest, the varying choices of users are supposed to be catered for Current Awareness Services. Libraries can use social media to share knowledge to users on the new materials available in the library.

Mahapatra and Chakrabarti (1997) argues that Selective Dissemination of Information (SDI) is part and parcel of CAS. According to Dawra (2004), selective dissemination of information is regarded in part as a byproduct service emanating from current awareness service. Not because it involves current information but also because it focuses on users.

Internet connectivity is all it takes for one to be part of the online community. The activities of one member of a social media platform are often known by his/ her connections within the same platform. This means therefore that if a contact of a library page comments or likes an item or post put up by the library, then other members within his/her platform will have knowledge of it. This is informative and helps in advertising library activities. Users who contact the library using social media tend to be more satisfied with the library. Steadily social media platforms are being used to predict the behavior of library users towards services offered in the library. Librarians can therefore use social media as a tool to maintain their relevance in the digital age and at the same time maintain their users through knowledge sharing.

2.7 Challenges in Utilization of Social Media

Kakabadse *et al.*, (2001) outlines some challenges that can prevent tacit knowledge from being shared. Four core factors are highlighted as follows: personnel, administration, framework and knowledge. Personnel or people is the greatest challenge. People may resist change, be occupied and lack opportunity to learn, lack patience, be demotivated, change jobs often and transfer ideas to retiring people.

Administration can hinder the transfer of knowledge in ways such as: fear change of power, have problems transferring power and question conventional organizational style. The framework on the other hand can be rigid, disorganized, dysfunctional and asymptomatic. Knowledge in itself is a challenge since it's difficult to transfer, group, incentivize, comprehend and guarantee its exchange yet making it available.

2.8 Research Gaps

Global and regional studies have been conducted on the integration of social media use and their effect in academic institutions. In Kenya, various studies have highlighted the utilization of social media in various library services such as marketing, user services, communication, public relations, reference services, current awareness services, selective dissemination services among others. The introduction of knowledge sharing in organizations and especially in academic libraries has brought a new dimension in the operations of libraries. The use of social media as a tool for knowledge sharing has therefore presented itself as a gap in academic libraries especially in Kenya which has traditionally been using social media as a communication tool.

It is important therefore for library staff to embrace social media and conduct research in their library services mainly to maintain their existence and importance, improve on service delivery as well as how to share knowledge to library users, market library services, keep abreast with emerging social media technology and create innovative ideas in provision of information services.

2.9 Theoretical Framework

The study made use of the theory of reasoned action (TRA) to put into context the theme of the study which was utilization of social media in knowledge sharing practices in academic libraries in Kenya.

2.9.1 Theory of Reasoned Action (TRA)

Ajzen and Fishbein (1970) are attributed with the development of this theory. The theory was developed as a persuasive strategy. The theory considers attitude and behavior as factors that influence human actions. The preexisting attitude and behavior can be used to predict the outcome of his actions. According to the theory, an individual's actions are influenced by motivation factors. An individual will engage in a particular behavior in belief that a certain outcome will come out of it. According to Razak, *et al.*, (2014) the intention and social norms of an individual impact their knowledge sharing behavior. The theory offers an explanation intention to share knowledge is influenced by their attitude (Rahab & Wahyuni, 2013). Individuals therefore will behave different depending on the attitude they have towards sharing of knowledge with others or the institution. An individual with a positive attitude will be influenced to share the knowledge they have. The intention to share knowledge is dependent on the individual's attitude which is an aspect of behavior. An individual will voluntarily share knowledge based on their intention and behavior. According to Aliakbar, *et al.*, (2012), the performance of a specific behavior by an individual depends on their behavioural tendency to achieve the behavior. The theory was used to emphasize the fact that sharing of knowledge within academic libraries relies on the attitude of the students, staff and library employees. These categories of users intend to use social media different and their behavior therefore results into whether they decide to share the knowledge they have or not. The utilization of social medial in itself is influenced by the attitude of the person intending to use it or who is currently using it. Sharing of knowledge is also dependent of the same behavior. This makes the sharing of knowledge using social media platform purely a behavioral matter which is defined by the theory of reasoned action (TRA).

2.10 Conceptual Framework

A conceptual framework is a basic structure that consists of certain abstract blocks which represent the observational; researchers own representation and analytical aspects of a process or system being conceived and presents the study variables and sub-variables in a diagrammatic form (Sekaran and Bougie 2016). The conceptual framework according to Mugenda and Mugenda (2003) defines a conceptual framework as a graphical representation of the variable and their relationship in relation to the study. The conceptual framework of this study consists of the independent variables of utilization of social media in knowledge sharing. These relationships are represented in Figure 2.1.

The dependent variable was knowledge sharing in academic libraries, while the independent variables are: knowledge sharing practices, library services, use of social media and knowledge resource sharing in utilizing social media tools in academic libraries. While the intervening variables included training and improved use of technology by ensuring the current version of the social media tools and library system have been implemented for effective and efficient delivery of library services. A change in tools and technology would definitely impact on the delivery of social media and cost of integration with the library services. Thus better technology would result to improved library services, market and brand the library to its users.

Independent Variables

Knowledge Sharing Practices

- Behavior
- Trust
- Attitude

Library Services

- Dissemination
- Collaboration
- Communication

Use of Social Media

- Content sharing
- Instant messaging
- Presentation

Knowledge Resources awareness

- Image
- Attitude
- Marketing

Intervening Variables

- Trainings
- Enhanced Knowledge Sharing Practices, CAS, SDI
- Improved use social media
- Efficient and effective access to knowledge resources

Dependent Variable

Knowledge Sharing in Academic Libraries

Figure 2. 1: Conceptual Framework

2.11 Chapter Summary

This chapter discusses in the literature reviewed the utilization of social media in knowledge sharing practices in academic libraries in relation to the various arguments by scholars. The following variables have been discussed in detail, which include; social media in academic libraries, knowledge sharing in academic libraries, social media tools and technologies, social media effect on brand loyalty and reference services. The chapter concludes by analyzing the research gaps within the study and conceptual framework.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter presents a step by steps account of the methodology used by the study in establishing the study objectives. Research methodology is a systematic strategy or approach of solving a problem in a study. The process culminates into a study design, consideration of target population; specifically, a sample through a technique known as sampling, collection of data and finally its procedures of analysis. Research methodology has also been defined by Mitchell and Jolley (2012) as logical and consistent procedures that augment the other and are capable of collecting data and arriving at findings that echo the questions beings asked by the research and conform to its purpose. The methodology reflects to the framework of the processes or the tools used for the purpose of the study. Detailed procedures are therefore given in this chapter on how the study was carried out. The section carried out a discussion of pertinent issues surrounding key areas such as the design of the study, the population targeted, the method used in sampling and the sample itself, the instrument of research and its description, data collection procedures and ethical consideration.

3.2 Research design

Research design has been defined by Kothari and Gaurav (2014) as a framework for acquiring and examining data in an aspect that desires to integrate pertinence of the purpose of research with procedural cost. Kothari and Gaurav (2014) continue to argue that research design is a framework of different forms of concepts where a study can take place; it comprises the plan for the data acquisition, calculation and examination. According to Kumar (2014), a research design is an approach, framework and procedure for establishing conceived answers to important questions of research. Research design comprises a description of the researcher's accomplishments through writing the supposition and the ramifications of the eventual data analyzed. Kothari and Gaurav (2014) states that there is a need for research design because aids in the continuity of operations in the research therefore making the study efficient, optimal in generating information and minimal in terms of effort, time and cost.

The study adopted a mixed method research design that involves combining qualitative and quantitative data methodologies in a research study. The researcher chose to use the mixed method of research because it allows one to tackle a broader and more complete range of research question owing to the fact that the researcher is not confined within the tenets of a particular method of research and also mixed method research design incorporates the concept of complementarity. The mixed method is useful in generalizing qualitative data. Quantitative tools validate or invalidate observations made in the qualitative data collected. The mixed method overcomes the limitations of a single method. Kasomo (2006) explains that quantitative method measures the responses of a selected set of samples on given questions. This enables contrasting and analytical manipulation of the data. It also gives a broad generalizable set of results. On the contrary, qualitative methods typically produce a wealth of detailed data about a much smaller number of people, objects, events or cases.

3.2.1 Case study

This study limits itself and concentrates on one academic library in Kenya, the Kirinyaga University library. The study deals with utilization of social media in knowledge sharing in academic libraries. The study adopted a case study approach. A case study according to Swanborn (2010) is an approach by which researchers use to delve into the activities, and processes of an individual or more. Cases are dictated by time and processes. The researcher therefore compiles data over a period of time using different data collection tools. Mugenda and Mugenda (2003) supports this by restricting the appropriateness of a case study approach to one research problem at a time. Massive amounts of data related to the problem is collected to relate it to the other variables in the hypothesis. It also involves a concentration of one hypothesis and the utilization of a variety of data collection tools. A case study's purpose is to gather information that is comprehensive enough about the research problem.

3.3 Target population

Sekaran and Bougie (2016) define a target population as a sum of objects, items or people that a researcher is interested in studying either as a group or as individuals with characteristics that are shared and observable. To them, population is the totality of a conforming group with like specifications. In this study, the target population was derived from the undergraduate,

diploma, certificate students and university staff as follows: Undergraduate (1,500), Diploma (750), Certificate (250) and University Staff (300). The university staff category in this study includes both academic staff and library staff. The table below shows the distribution of target population in the four groups interested in the study.

Table 3. 1: Target population

Respondents	Target Population
Undergraduate	1,500
Diploma	750
Certificate	250
University Staff (academic & library staff)	300
Total	2,800

3.4 Sampling Methods

According to White (2013) the population of interest is not often possible to consider in research. Sekaran and Bourgie (2016), advises that instead of collecting data from several hundred or thousands of elements in a population, which would be time consuming and costly, one can sample the population instead. Sampling therefore gives the researcher an opportunity of inferences about a population merely by studying the sample. The technique of sampling is an approach that has been used to derive a representative sample from a population for purposes of conducting a study so that the researcher can still produce reliable, dependable, accurate and generalized findings about the population (Pyrzczak *et al.*, 2017).

The main concern of this study was selecting a sample that was representative of the population of study. Sampling is usually done in order to save on time and funds. According to Mugenda (2008) a sample is a subject of a particular population. The study adopted Nassiuma (2000) model was adopted by the study for purposes of determining the sample size from the target population of 2,800 of respondents. The sample size in this study was determined using the following formula:

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

Where: -

n = Sample size

N = Target population

CV = Co-efficient of variation which is taken as 0.5

e = Tolerance at desired level which is taken at 0.05 or at 95% confidence level

The researcher calculated the target population and got the following tabulation for the sample size:

$$\frac{1500 \times (0.5)^2}{\{0.5^2 + (1500 - 1)0.05^2\}} = 54$$

$$\frac{750 \times (0.5)^2}{\{0.5^2 + (750 - 1)0.05^2\}} = 48$$

$$\frac{250 \times (0.5)^2}{\{0.5^2 + (250 - 1)0.05^2\}} = 32$$

$$\frac{300 \times (0.5)^2}{\{0.5^2 + (300 - 1)0.05^2\}} = 35$$

Table 3. 2: Sample size

Respondents	Target Population	Sample size
Undergraduate	1,500	54
Diploma	750	48
Certificate	250	32
University Staff (academic/library staff)	300	35
Total	2,800	169

3.5 Sampling Techniques

The study used stratified random sampling to form the stratus of the student category. Creswell (2009) explains that a stratified sample is used whenever researchers need to ensure that a certain sample of the identified population under examination is represented in the sample. The population was divided into three strata namely: certificate, diploma and undergraduates. For the library staff category simple random sampling was done. Creswell (2009) notes that simple random procedure is intended to produce a representative sample. The process draws subject from unidentified population in such a manner that every unit in that population has precisely the probability of being included in the sample. These two sampling techniques ensured that the data collected was derived from a non-biased sample which assisted in increasing utility of findings, since both are convenient and relatively inexpensive.

3.6 Data Collection Methods

Rugg and Petre (2007) states that data collection is a term used to describe a process of preparing and collecting data. The researcher used face to face interview for students and questionnaires for library staff. The choice of these data collection methods assisted the researcher in gathering data from the selected students and entire university staffs, to enhance efficiency and accuracy of information.

3.6.1 Questionnaires

A standardized set of self-administered questionnaire were designed with both open-ended and close-ended questions. It was used to collect data from the student sample and academic staff of Kirinyaga University. Wisker (2008) states that a questionnaire is a collection of items to which a respondent is expected to react usually in writing. Kothari (2010) adds that a questionnaire consists of a set of structured and close-ended questions relating to the research study dispatched to respondents who are expected to write down their reply in the spaces provided in the questionnaire. The researcher found this instrument appropriate due to the following reasons; respondents had sufficient time to think through the questions and give well thought out answers: there is convenience in approaching respondents who are not easily approachable and a large number of respondents could be reached using this method making it more dependable and reliable.

3.6.2 Interview Schedules

An interview according to White (2013) is a two-way exchange of verbal communication that often takes place on a face to face basis but can also take place through the phone. It involves an interviewer trying to get the interviewee to respond through eliciting information. Kothari (2010), also defines an interview as a data gathering technique comprising the stimulation of the oral-verbal from both parties. It's a technique that is suitable for conducting personal interviews and at times through phone interviews. Interview guides were prepared and face to face interviews conducted with the seven (7) library staff identified as key informants. The researcher booked interview appointments with the respondents at their convenient time and place.

3.7 Research Instruments

A research instrument is a means by which a researcher uses to collect data for the study. These are tools that have been designed for use by the researcher to obtain data necessary for the research.

3.7.1 Questionnaires

The study objectives were turned into questions to be answered by the study then further broken down into individual questions in the questionnaire for purposes of gathering appropriate data for the study. The questions in the questionnaire were guided by the study objectives. The questionnaires were physically distributed to the respondents within the study area for answering. A research assistant took part in the questionnaire distribution and gathering to and from the respondents respectively. The questionnaires were distributed randomly to 252 respondents (students and academic staff) within the different academic programmes within the study area. An introductory letter was attached to the questionnaire. It reminded the respondents of the importance of understanding the questions before commencing to answer them. The researcher and the research assistant patiently waited for the questionnaires to be filled and collected them afterwards.

3.7.2 Interview Schedules

Interview sessions were arranged with the seven respective library staff at their convenient time and place of choosing. The respondents interviewed were the seven (7) library staff identified as key informants. The questions tackled in the interview sessions conformed to the study objectives. The interview sessions enabled the respondents to spell out and clarify their responses in their own words. It also allowed the researcher to pose follow up questions that enabled an in-depth understanding of the responses provided. The interviews yielded quantitative data that formed the study.

3.8 Data Collection Procedure

The researcher made use of a research assistant to collect the necessary data. The researcher with the assistance of the research assistant physically distributed the questionnaires to the respondents. The questionnaires were then filled and returned as the researcher and the assistant waited. Interviews were only conducted by the researcher.

3.8.1 Pilot Study

Cresswell (2009) describes a pilot study as “a preliminary small-scale study that researchers conduct in order to help them decide how best to conduct a large-scale research project. It can be said to be a smaller version of a full-scale study as well as an exercise to pre-test certain research instruments such as a questionnaire or interview schedule. The researcher conducted a pilot study at Embu University. The purpose of the pilot study was to ensure that during the actual study the respondents understood the questions as a result of mistakes identified and corrected earlier. The researcher conveniently selected a group of individuals to pre-test the instruments for reliability. According to Mugenda and Mugenda (2003) a sample size for a pilot study may range between 1% and 10% of the sample. The sample size consisted of Twenty (20) students, seven (7) library staff which represents 10% of the target population. The seven library staff were interviewed while the rest of the respondents were given questionnaires which they filled and returned. The pilot study helped the researcher to correct inconsistencies arising from the instruments, which ensured that they measured what was intended.

3.8.2 Data Validity

Validity is the ability of an instrument to measure what it is designed to measure (Kumar, 2014). Validity is defined as the degree to which the researcher has measured what he has set out to measure (Wisker, 2008). Basically it's the level of accuracy of collecting accurate data from the sample. Mugenda and Mugenda (2003) argues that researchers can achieve instrument validity by subjecting it to the experts in that field. The said professionals will assess the instrument and give views on what changes to make to the instrument before it is used for data collection. The researcher thus passed the research instrument through the study supervisor for comments on adjustments and structure adjustment. The researcher invested on these comments and made the adjustments as pointed out. This enable the research instrument to achieve validity. The process therefore enables the instrument to be revised and modified in accordance with set standards and improved content validity.

3.8.3 Data Reliability

Blumberg *et al.*, (2008) opines that reliability as the characteristic of measurement concerned with accuracy, precision, and consistency. To ensure reliability of the research instruments, a pilot study was carried out at Embu University. The responses were generalized as suggested by Stenbacka (2001) as the structure for both doing and documenting high quality qualitative research as a way of determining the trustworthiness or credibility and dependability of the data.

3.9 Data Analysis

Creswell (2009) argues that data analysis is the reorganization of raw data for purposes of making sense of it. The end product in this process is information that is relevant to the data provided. Data analysis involves a set of activities that begins with the collection of data and ends with a detailed presentation of the findings. The collected data is assessed and bits of information compiled in the entire process. Shamoo (2013) opines that there exist several steps of analysis. Despite this, they are all based on separation of useful data from the entire collection of data provided. The quantitative data was collected from rating scales and closed question within the questionnaires. Data was collected and cleansed in order to determine

partial, erroneous and or irrational data. Quality of data was then developed through corrections of detected errors and or omissions.

Quantitative data derived from the demographic section, other closed questions and interview schedules was analyzed using statistical software (Statistics Package for the Social Science – SPSS). This assisted in further analysis and tabulation of the data. The qualitative data involved manual analysis that established patterns, similarities and differences in the responses. Qualitative data was analyzed using descriptive, cross tabulation and referential statistics. It was then organized according to the study objectives and categorized after scrutiny of the content. The analyzed data was generated through tables, graphs and percentages. Findings were given leading to discussions, recommendations and finally suggestions.

3.10 Ethical Considerations

According to Patton, (2002) ethics encompasses the analyses and employment of concepts such as right and wrong, evil and good, transparency, responsibility and accountability. Mugenda (2008) continues by stating that in research process, ethics focuses on the application of ethical standards in the planning of the study, data collection and analyses, discrimination and use of the results. Ethical standards also include those that enjoy virtue of honest, compassion and empathy when dealing with subjects or other living things in research. These standards must include the right to life, the right to protection from pain and injury and the right to privacy. Adequate standards of research were supported by consistent and well-founded reasons.

Data collected for this study was obtained from respondents of 18 years and above. The researcher informed the respondents the purpose of the study through a letter attached at the beginning of the questionnaire and interview session. Their identities were concealed and responses treated anonymously as data was collected with their consent in consideration of their privacy. All information collected was treated with utmost confidentiality. The respondents were treated as anonymous. The researcher informed the respondents the aim of the study so they participated without the fear of the outcome and exploitation. All the information resources used were acknowledged.

3.11 Chapter Summary

The methodology of the study was represented in this chapter. A detailed description of the research design followed. The study area was made clear to be Kirinyaga University. The target population was also an area highlighted in this section. The sampling technique used was simple random sampling then using Nassiuma (2000) model to determine the sample size. Two data collections instruments were used, namely; questionnaires and interview guides. Content validity was ensured by factoring opinion of experts in adjusting the data collection instruments.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the results and analysis of the data that was collected during the study. The aim of the study was to investigate the utilization of social media in knowledge sharing in academic libraries with reference to Kirinyaga University Library. The view was to emphasize on the usage and integration of social media in library services. For this to be achieved the study was based on five objectives which were to: examine knowledge sharing practices at Kirinyaga University Library; find out how social media is been used to create awareness on knowledge resources at Kirinyaga University Library; find out the social media tools and technologies used at Kirinyaga University Library; examine the effect of social media towards library services at Kirinyaga University library and find out the challenges experienced in the utilization of social media in knowledge sharing at Kirinyaga University library. Thus, this chapter presents data analysis on the grounds of the five objectives.

4.2 Response Rate

The study used the both questionnaires and interview guides to collect data from the respondents. The study was based on a sample size of 169 respondents. A total of 162 questionnaires were distributed. Out of this number, ninety-six (96) of the questionnaires were returned. The researcher also conducted interview sessions with seven (7) library staff. The study therefore realized a response rate of 61%.

Table 4. 1: Response Rate

	Questionnaires distributed	Interview sessions	Questionnaires returned	Interviews conducted	Response rate (%)
Undergraduate students	54	0	30	0	17.8
Diploma students	48	0	24	0	14.2
Certificate students	32	0	18	0	10.7
Library staff	28	7	24	7	18.3
TOTAL	162		96	7	61

The study realized a response rate of 61%. A 50% response rate is regarded as acceptable in social science. This is according to Richardson (2005) as cited by Babbie (1973). This response rate is also acceptable as argued by Mugenda and Mugenda (2003) that a response rate of 50% is adequate for analysis and reporting. They consider a response rate of 60% to be good and a response rate of 70% and above as excellent.

4.3 Socio-demographic Findings

The respondents who filled the questionnaires were asked to state their gender, education level, age and academic program. This was because the general information of the respondents had a high impact in terms of establishing how differently the respondents responded to social media use. Gender and age of respondents is important in research as different genders and age groups respond differently to technology.

4.3.1 Gender of Respondents

The gender of the respondents was as follows: the majority of the respondents were male (77%) while that of female respondents was (23%). The study was therefore able to capture views of both male and female respondents concerning utilization of social media in sharing knowledge in academic libraries. According to Hu, Al-Gahtani and Hu (2010), gender seems to moderate the effect of perceived usefulness on attitude, more so for men than for women. This means that male respondents will consider a technology's usefulness more important than female respondents when shaping their attitude towards technology.

4.3.2 Level of Education of Respondents

The respondents were asked to state their highest level of education attained. Majority of them had graduate and diploma qualifications each (31%), (25%) had post graduate qualification, and (13%) had certificate qualification as shown in figure 4.2.

Level of Education of Respondents

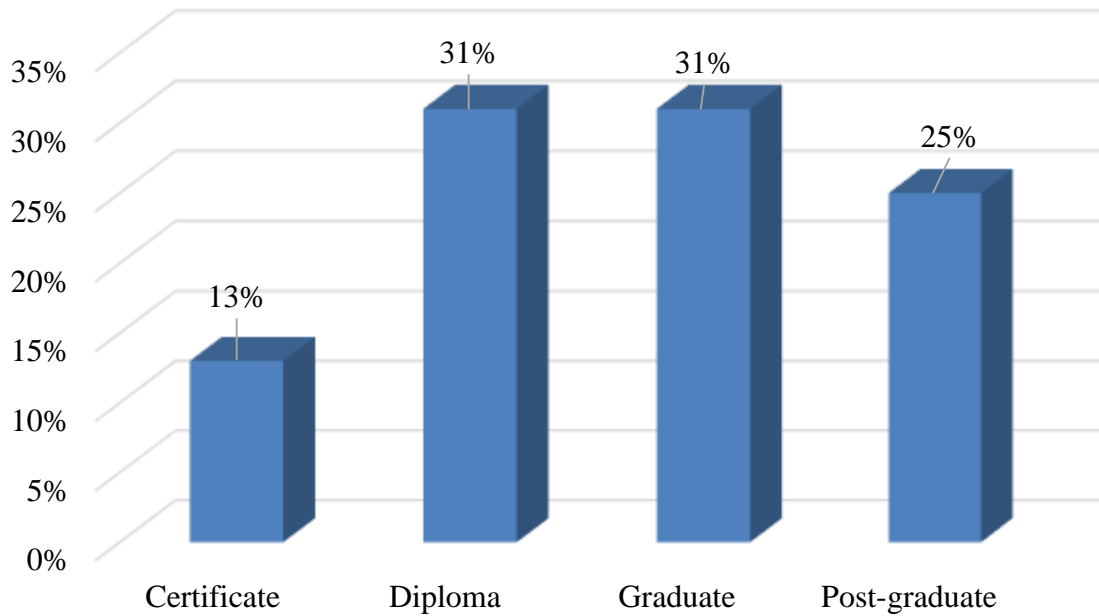


Figure 4. 1: Level of Education of Respondents

The findings show the various level of education of the respondents. The majority of the respondents were either having a diploma level or being of graduate level of education. According to Jolles and Crone (2012) and Greenhow (2011), people with different categories of education use social media differently.

4.3.3 Age of Respondents

The respondents were asked to state their age bracket. Table 4.2 shows the age group of the respondents. Majority of the respondents (45%) were within the age group of below 25 years, 20% were between 35-40 years, 16% were between 25-30 years, 12% were between 45-50 years, 5% were between 55-60 years while 2% were between 65-70 years. The findings are shown in figure 4.2.

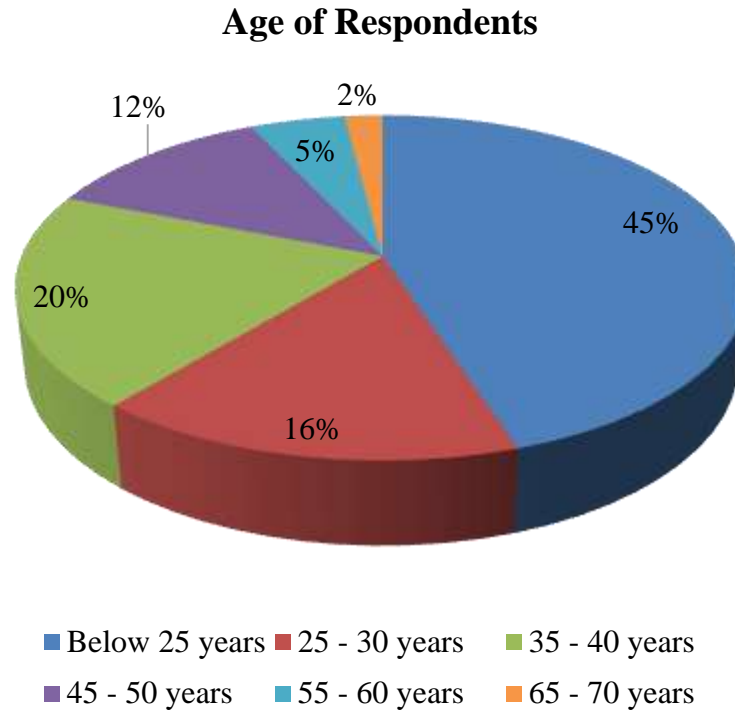


Figure 4.2: Age of Respondents

An influential theory hypothesizes that younger persons, termed ‘digital natives’ (Prensky, 2001) may be more digitally minded and more inclined to adopt digital technologies than older persons, ‘digital immigrants’. This study having captured young respondents therefore concurs. The study was composed of mostly young respondents of below 25 years.

4.4 Knowledge Sharing in Academic Libraries

This section sought to examine knowledge sharing practices at Kirinyaga University Library.

4.4.1 Knowledge Sharing Practices

The respondents were asked to state the knowledge sharing practices that were being used at Kirinyaga University library. Majority of the respondents stated email (66%), notice boards (21%), Facebook (7%) while library portal and website had 3% each. The findings are shown in table 4.2.

The researcher also interviewed the seven library staff who were identified as key informants on knowledge sharing practices. The interviewees were asked to state the various media platforms that Kirinyaga University library had implemented for knowledge sharing. The respondents indicated “Facebook”, “university website”, “library portal” and “email communication” as some of the social media tools used by the library for knowledge sharing at Kirinyaga University library.

Table 4. 2: Knowledge Sharing Practices

	Frequency	Percent
Email	63	66
Facebook	7	7
Notice Board	20	21
Library Portal	3	3
Website	3	3
TOTAL	96	100

The findings of the study show that Kirinyaga University library used several tools and techniques for sharing knowledge. The most commonly used knowledge sharing tool was the electronic mail.

4.4.2 Social Media Account

The respondents were asked if they had any social media account. The study sought to establish whether the respondents had opened accounts with the various social media accounts. The study showed that 81 percent of the respondents had opened an account with various social media accounts while 19 percent had no accounts with any social media platform. This was important in identifying the popularity of social media platforms amongst the respondents.

4.4.3 Period of Use of Social Media

The respondents were asked how long they had used social media to share academic information. The findings show that a majority of the respondents had social media accounts

for less than 6 months (78%), 1-3 years were 13 percent while respondents who had social media accounts for over 3 years were at 9 percent. The findings are shown in table 4.3.

Table 4. 3: Period of Use in years

	Frequency	Percent
Less than 6 months	75	78
1-3 years	12	13
Over 3 years	9	9
TOTAL	96	100

The findings showed that majority of the respondents have been using social media to share academic information for the past less than 6 months. It was important for the researcher to analyze whether there was a pattern with the period of use in relation to the period of active social media account. The frequency of use of social media to share academic information over the past 6 months reflects to the ease of adoption to this technology.

4.4.4 Time Spent on Social Media Group Discussions

The respondents were asked how much time on average they spent on a daily basis on social media group discussions. The findings show that the respondents who spent more than 7 hours per day were at 68 percent, 5-7 hours were at 15 percent while 2-4 hours were at 13 percent and less than 1 hour were at 4 percent. The findings are shown on figure 4.3.

The key informants interviewed were asked to state how frequent both students and staff used social media. Majority of the interviewees said that “students and staff regularly engaged them through social media”. Some interviewees said that “students and staff were on a daily basis using social media platforms”. The findings from the respondents show a steady daily pattern of using social media platforms by both the students and staff.

Time Spent on Social media Group Discussions

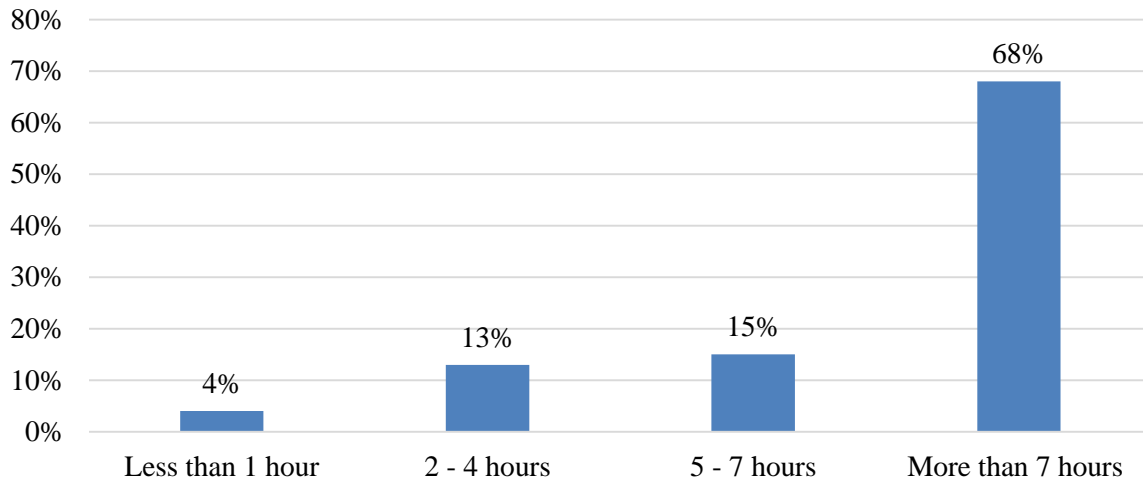


Figure 4. 3: Time Spent on Social Media Group Discussions

The findings show that the respondents spend an average of more than 7 hours on social media group discussions daily. These findings were an indication of a frequent use of social media as a tool for sharing information among the respondents on a daily basis.

4.4.5 Social Media Benefits

The key informants interviewed were asked apart from knowledge sharing, how else Kirinyaga University library was benefitting by using social media. The respondents had several responses. Majority of the respondents indicated that the “library was using social media as a marketing tool”. Some answered that “social media was a tool the library used for selective dissemination of information and current awareness services”. Other respondents answered that “the library interacted faster with its patrons through use of social media in its daily operations”.

4.5 Awareness of Knowledge Resources

The researcher sought to establish whether social media platforms increased the awareness of knowledge resources.

4.5.1 Library Social Media Tool

The respondents were asked to state which social media tool attracted their attention to use library resources. The study focused on the two social media platforms that have been included in the library website namely; Facebook and twitter. From the study it was noted that both social media platforms were utilized by the university to share knowledge. Facebook was rated at 52 percent while twitter at 48 percent. The findings are shown in figure 4.4.

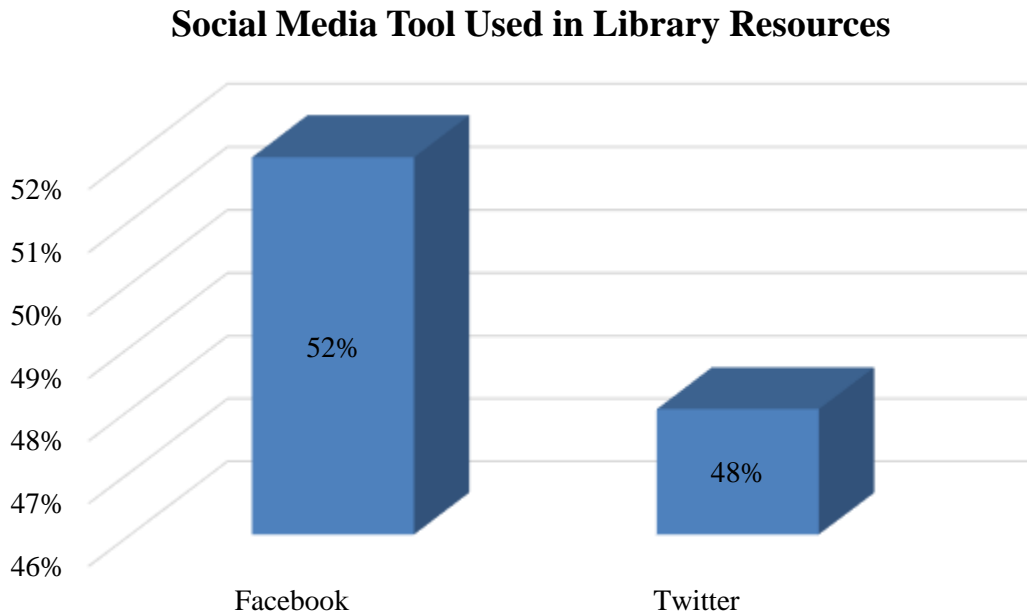


Figure 4. 4: Social Media Tool Used in Library Resources

The findings of the study show that Kirinyaga University library has two major social media platforms that is Facebook and Twitter. The study found the two social media platforms to be almost equally popular but Facebook being slightly popular in attracting their attention than twitter.

4.5.2 Friendliness of Social Media Interface

The respondents were asked if the interface of the social media applications used in the library were user friendly. This was a question that required a yes or no response. Majority of the respondents indicated in the affirmative (96%) while 4% indicated in the negative. The findings show that most of the respondents find the social media interface to be friendly. This is supported by the majority of the respondents who responded in the affirmative. The

friendliness in the interface of the social media platform is important as it determine its uptake and use. An interface that is easier to use forms a positive attitude.

4.5.3 Library Training on Use of Social Media

The respondents were asked if the library has offered training on how to use the social media in relation to the library. The majority of the respondents answered in the negative (87%) while 13% answered in the affirmative. The findings of the study show that most of the respondents have not been trained on how to use social media in relation to the library. The findings show therefore that most respondents do not know or are not aware of how well they can use social media in relation to the library. This may hinder knowledge sharing.

4.5.4 Impact of Social Media in Creation of Awareness of Knowledge Resources

The key informants interviewed were asked to state how social media has impacted on the creating awareness of knowledge resources. The interviewees stated that “the use of social media by the library had gone a long way to inform the users of the various services offered in the library”. Use of social media in the library was also hailed as having “assisted in marketing services that were rather not known to users but were being offered by the library”. At the same time, the interviewees stated that “use of social media by the library has made communication much easier and faster hence facilitating service delivery”.

4.6 Social Media Tools and Technologies

The study sought to examine the various social media tools and technologies used in Knowledge sharing at Kirinyaga University Library.

4.6.1 Social Media Effectiveness

The respondents were asked to rate some social media platforms used in the library. Majority of the respondents rated institutional repository as moderately effective (56%), very effective (24%), effective (10%), not effective (6%) and don't know (4%). Majority of the respondents rated intranet as moderately effective (52%), not effective (30%), effective (13%), don't know (3%) and very effective (2%). Majority of the respondents rated virtual library as moderately

effective (60%), effective (20%), very effective (12%), don't know (6%) and not effective (2%). The findings are shown in figure 4.5.

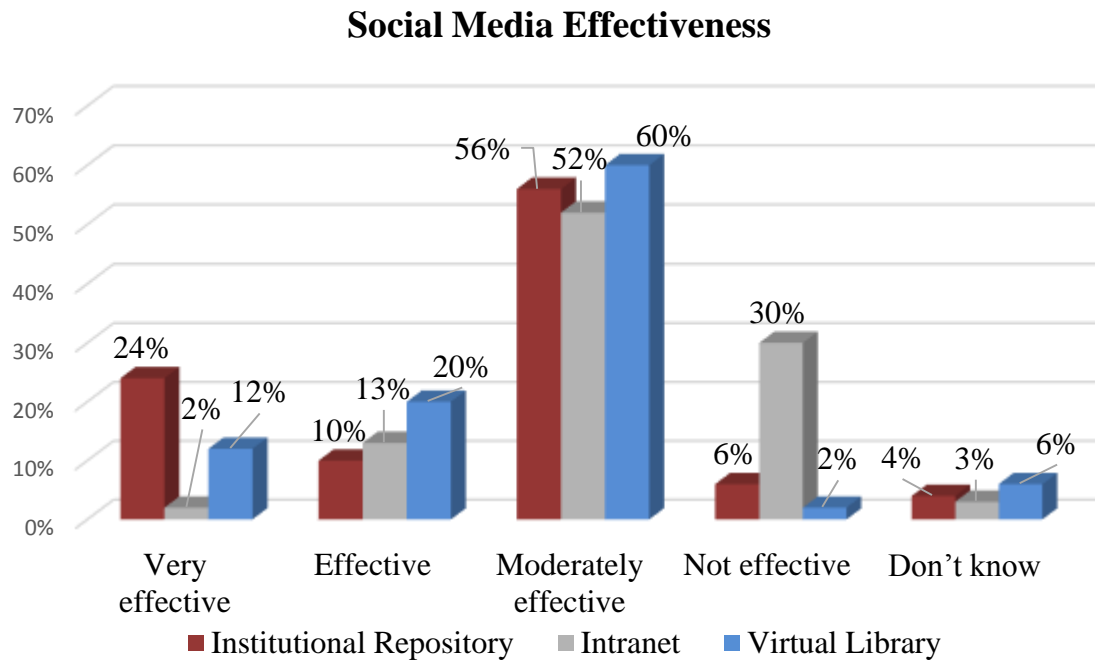


Figure 4. 5: Social Media Effectiveness

The findings show that majority of the respondents find the rated social media platforms to be moderately effective. This is not a satisfactory rating and therefore means more needs to be done by the library for the social media sites to be appealing to the respondents.

4.6.2 Use of Social Media

The study sought to measure the various ways in which the respondents used social media. Table 4.4 illustrates the various uses identified by the respondents. Sixty-six (69%) percent used social media for communicating with class mates, while 12% used it for getting in touch with family and friends, 7 percent used social media to share files while 7 percent used social media for knowledge sharing, and 11 percent used social media for research. Findings are shown on table 4.4.

Table 4. 4: Uses of Social Media

	Frequency	Percent
Classmates	66	69
Family/Friends	12	13
Sharing of Files	7	7
Knowledge sharing For Research	7	7
	4	4
TOTAL	96	100

The findings of the study show that the respondents use social media for several purposes. The respondents mostly used social media for communicating with their classmate. Even though they also used social media for knowledge sharing and for research, it was not so much used for this purpose.

4.7 Library Services

The study sought to examine the effect of social media on delivery of library services.

4.7.1 Effectiveness of Social Media on Library services

The respondents were asked to state the effectiveness of social media on the provision of library services. Majority of the respondents indicated that social media was highly effective (57%), moderately effective (19%), not aware (13%) and not effective (11%). The findings are shown in table 4.5.

Table 4. 5: Library Services

	Frequency	Percent
Highly effective	55	57
Moderately effective	18	19
Less Effective	11	11
Not aware	12	13
TOTAL	96	100

The study findings show that majority of the respondents find use of social media in providing library services to be highly effective. This shows that social media is a highly effective tool in the provision of services in academic libraries. According to Okite-Amughor (2017) social media is a tool to be highly effective in knowledge sharing and provision of library services.

4.7.2 Social Media Platforms Used for library Services

The respondents were asked which social media platforms they have used for library services. Majority of the respondents indicated WhatsApp (54%), Facebook (24%), twitter (12%), Googleplus (3%) and Flicr (3%). The findings are shown in figure 4.6.

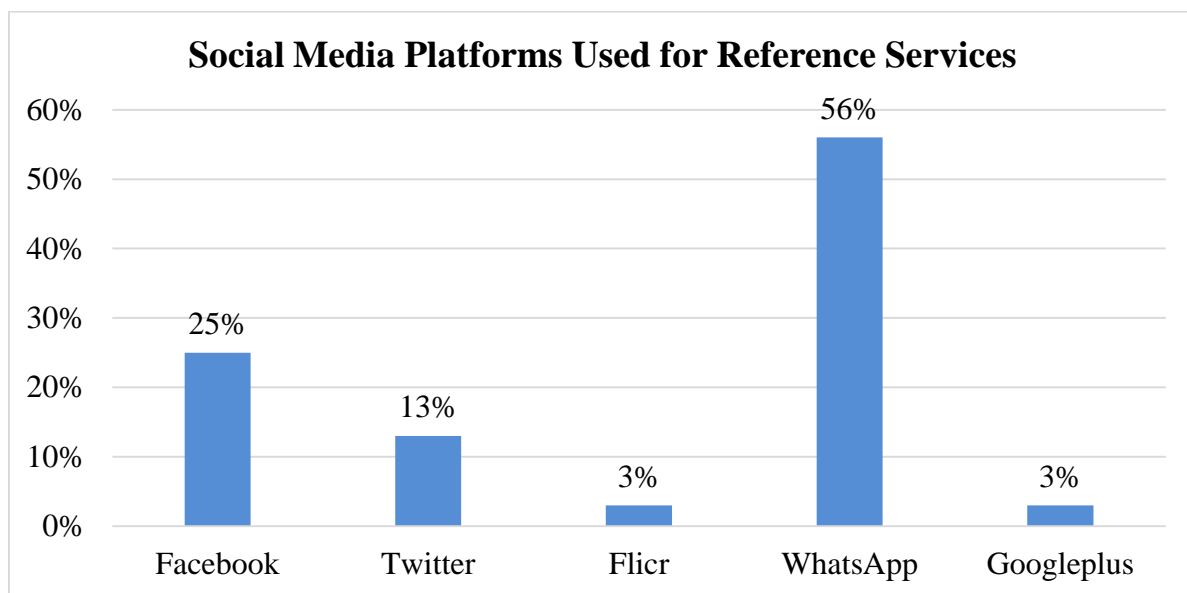


Figure 4.6: Social Media Platforms Used for Library Services

The study found that there were various social media tools that were popular with the respondents. The most popular social media platform that was used by the respondents in library services was the WhatsApp platform. This finding therefore means that the library needs to popularize the other social media platforms as tool of providing services as each social media platform could be used differently.

4.8 Challenges of Using Social Media in Knowledge Sharing

The study sought to establish challenges that were being faced in knowledge sharing at Kirinyaga University Library.

4.8.1 Types of Knowledge Sharing Challenges Using Social Media

The respondents were asked to state the challenges they were facing in the sharing of knowledge through social media. The respondents indicated low bandwidth and WIFI connection (71%), virus threat to both the computer and phones (65%) and lack of library training/ orientation (87%). The findings are shown in figure 4.7.

According to the key informants interviewed, the University library experienced some challenges when implementing social media with library activities. These were: low internet bandwidth, technophobia among library clients and inadequate computer facilities. The solution to the foregoing challenges was to increase both the bandwidth, WIFI connection and computer facilities and training for both library staff and clients on social media use.

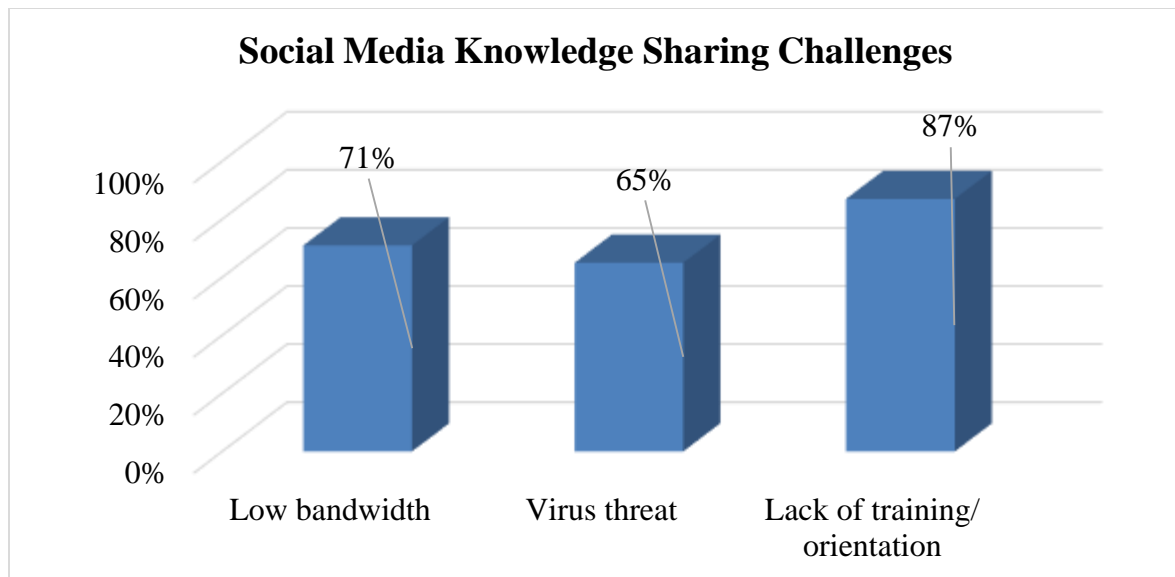


Figure 4. 7: Social Media Knowledge Sharing Challenges

The study found that there were some challenges that were attributed to the use of social media in knowledge sharing. The challenge stated the most by the respondents was lack of library training/ orientation. Patrons found it challenging to use social media in sharing knowledge because they were not trained by the library on how to do so. This negatively impacted on sharing of knowledge using the social media platforms.

4.9 Chapter Summary

This chapter provided the analysis of the findings in form of tables; pie chart of the outcome of the research questions in relation to the study objectives. The study had a response rate of 61%. The first objective was to examine the knowledge sharing practices. The study findings showed that email was the most used form of knowledge sharing. Interviewees listed Facebook, University website, library portal and email communication as forms of knowledge sharing platforms. The study sought to establish the effect of social media platform on the level of library service branding. Twitter and Facebook were identified as social media platforms the library was utilizing for branding. The findings showed that Facebook was the most effective tool for library branding.

The study sought to examine the various social media tool and technologies used in knowledge sharing. The study identified the social media tools as Facebook, Twitter, Flickr, WhatsApp and Googleplus. The study also sought to examine the effect of social media on deliver of library services. Majority of the respondents indicated that social media was highly effective in the provision of library services. Finally, the study sought to establish challenges that were being faced in knowledge sharing. The respondents identified technophobia, low bandwidth and WIFI connection, threat of virus attack and lack of library training/ orientation as the challenges they were facing.

CHAPTER FIVE

SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter highlights the summary of the findings, the discussions of the study, conclusion and recommendations. The aim of this study was to investigate the utilization of social media in knowledge sharing in academic libraries with reference to Kirinyaga University Library.

The study was guided by five objectives which were to: examine knowledge sharing practices at Kirinyaga University Library; find out how social media been used to create awareness on knowledge resources at Kirinyaga University Library; find out the social media tools and technologies used at Kirinyaga University Library; examine the effect of social media towards library services at Kirinyaga University library and find out the challenges experienced in the utilization of social media in knowledge sharing at Kirinyaga University library

5.2 Summary of the Key Findings

This section provides the summary from the findings based on the objectives of the study. The objectives of the study were used to formulate the themes and subthemes of the research objectives as follows.

5.2.1 Knowledge Sharing Practices at Kirinyaga University Library

The study sought to identify the various knowledge sharing practices that the respondents have been using. The study revealed that the email was the most utilized medium for knowledge sharing at 66%. Facebook and library portal were not heavily utilized compared to the email and notice board. This showed that the University had a long way to instill its clients on use of social media for sharing knowledge. The study also revealed that the most respondents (81%) had opened accounts with various social media platforms. This was important in identifying the popularity of social media platforms amongst the respondents. The study sought to find out from the respondents how long they have been using social media to share knowledge. The findings show that a majority of the respondents had been using social media accounts in sharing knowledge for less than 6 months (78%). It was important for the researcher to analyze whether there was a pattern with the period of use in relation to the period of active social

media account. This showed that the University had a long way to instill its clients on use of social media for sharing knowledge.

5.2.2 Social Media Tools and Technologies Used at Kirinyaga University

The aim of this objective was to establish whether the respondents thought that social media tools when properly integrated with the library activities and other features would be effective in knowledge sharing. Majority of the respondents considered the various social media tools as moderately effective in knowledge sharing. This was an average rating and therefore means more needs to be done by the library for the social media sites to be appealing to the respondents. The study also found that the respondents were using social media platforms more for communicating with each other than for sharing knowledge or research.

5.2.3 Impact of Social Media in Creation of Awareness of Knowledge Resources

The study revealed that social media use could be used to improve on the branding of the library by attracting more library clients to use the library services. This can only be achieved by incorporating the various and popular social media tools like Facebook and twitter which the library portal has encouraged. Both tools had a near equal percentage of 52 percent for Facebook and 48 percent of twitter. The study revealed that the respondents found the social media interface to be friendly. The study also revealed that the respondents had not been trained (87%) on how to use social media in the library in the context of knowledge sharing. The findings show therefore that most respondents do not know or are not aware of how well they can use social media in relation to the library. This may hinder knowledge sharing.

5.2.4 Effect of Social Media on Library Services at Kirinyaga University Library

The findings in this case, revealed that majority of the respondents indicated that social media was a highly effective (57%) tool in providing library services. The study findings show that majority of the respondents found utilization of social media in providing library services to be highly effective. The study also revealed that WhatsApp (54%) was the most popular social media platform used for reference services. This finding therefore means that the library needs to popularize the other social media platforms as tools of providing reference services as each social media platform could be used differently.

5.2.5 Challenges Experienced in the Utilization of Social Media in Knowledge Sharing

The study revealed that the challenges that the respondents encountered with use of social media in relation to delivery of library services were, low internet bandwidth (71%), virus threats (65%) and lack of orientation (87%). Others were: implementing social media with library activities, technophobia among library clients and inadequate computer facilities. The solution to the foregoing challenges was to increase both the bandwidth and computer facilities and training for both library staff and clients on social media use.

5.3 Conclusion

In relation to the above findings the study made the following conclusions. The study concluded that there was need to increase more usage of social media only for academic use and ethical use so as to reduce on the cost and time spent on answering reference queries in the library. This would have an impact to the number of staff the University would require employing at one time. The study also concluded that the university's internet bandwidth and WIFI connection was low hence restricting the number of users who could use it to access social media tools from both their cell phones and laptops/ computers. The lack of or ineffective of the available antivirus was also a cause of alarm for users accessing the internet using shared computers made available by the library. Finally the Kirinyaga University was not adequately providing training of its library staff and clients on the use of social media tools yet the library had an operational OPAC and library portal.

5.4 Recommendations

Library users and especially academic students require up-to-date information in order to carry out their research activities. They require modern technologies to communicate with their other users. KyU library should move with the current trends in order to satisfy their users. Users require sharing their ideas/opinions with their colleagues using social media tools for example, Slide share, Twitter, Yammer, Blogs, and Facebook among others. The study recommends the following to enhance use of social media in knowledge sharing in academic libraries:

5.4.1 Regular Promotions for Enhancing Social Media Use

Library users need information quickly and effectively. Therefore, the use of social media platforms could facilitate library users to get various information required more rapidly, more reliable and has an up-to-date approach. Consequently, the KyU library staff should keep monitoring, updating and providing information required by the users as efficiently as possible. Any delay in distributing information through social media tools services may result in the users no longer being interested in using it in the future. For example, by using Facebook or Twitter, library staff can directly disseminate information related to library materials, new services or service development. In addition, libraries need to take the advantages of social media tools services as a mechanism to build relationship and communicate with the users which would eventually improve their awareness of the existence of social media tools services provided by library. Through this services, it is very easy, quick and cost-effective for the library to inform users about their current service and activities as a marketing and promotional strategy. It is recommended for the library to offer regular promotions through social media tools services not only in the library portal itself but also during library orientation, knowledge sharing sessions, library events and activities and so on. This would ensure that the users could increase their knowledge and become interested to use this services in future.

5.4.2 Training

The study recommended more training for the library clients such as information literacy for both staff and students and investing more time in exploring new technology in terms social communication that may develop better understanding of how the social media tools can be utilized to enhance the library services. KyU needs to engage professional organizations to come in and train its staff on how to effectively use social media platforms.

5.4.3 Benchmarking

KyU library needs to engage other libraries in the country and beyond in order to benchmark with them on their progress on knowledge sharing using social media sites. The benchmarking will give the staff at KyU first-hand experience on how to use social media in knowledge sharing.

5.4.4 Improved Access

The KyU library needs to improve on its internet bandwidth to allow a large number of users to access the social medial tools from both their cell phones and computer. Improved and steady internet speed will motivate the patrons in accessing the university social media sites.

5.4.5 Security

Additionally, the University should strive to purchase a reliable anti-virus software or better still use the in-built security platforms provided by Microsoft.

5.4.6 Encourage Membership to Professional Associations

The study recommends that KyU library should join professional organizations like Kenya Library Association (KLA) so as to learn current trends in Information Sciences and especially advancement in computer technology.

5.5 Suggested Areas of Further Studies

The study suggests that more research should be conducted on social media use in public academic libraries using different variables other than the ones used in this study. More research would also be suggested to be conducted on use of social media as a tool in providing reference services in both private and public academic libraries. This will provide more insight on the impact of social media in this area in comparison to the two types of academic libraries.

5.6 Chapter Summary

This chapter summarizes the findings of the study in relation to the aim and objectives of the study. The various findings were discussed within the chapter in relation with recommendations and solutions to the challenges realized. Further the study identified areas for future study that would be of benefit to utilization of social media in public Universities libraries. The study revealed that the email was the most utilized medium for knowledge sharing. The respondents considered the various social media tools as moderately effective in knowledge sharing. The study revealed that social media use could be used to improve on the branding of the library by attracting more library clients to use the library services.

The findings revealed that majority of the respondents found social media to be a highly effective tool in providing reference services. The study identified challenges encountered with use of social media in relation to delivery of library services to be low internet bandwidth, virus threats and lack of orientation. The study concluded that there was need to increase more usage of social media only for academic use and ethical use so as to reduce on the cost and time spent on answering reference queries in the library.

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APPENDICES

APPENDIX I: INTRODUCTION LETTER

Dear Respondent,

RE: INTRODUCTION LETTER FOR RESEARCH

September 2017

Dear Respondent,

I am a postgraduate student at the Department of Information and Library Science, Faculty of Arts, University of Nairobi, currently carrying out a research titled 'Utilization of Social Media in Knowledge Sharing in Academic Libraries with Reference to Kirinyaga University Library, Kenya. The purpose of this study is to investigate the utilization of social media in knowledge sharing in academic libraries with reference to Kirinyaga University Library.

The specific objectives of the study were to: Examine knowledge sharing practices at Kirinyaga University Library; find out how social media been used to create awareness on knowledge resources at Kirinyaga University Library; Find out the social media tools and technologies used at Kirinyaga University Library; Examine the effect of social media towards library services at Kirinyaga University library; To find out the challenges experienced in the utilization of social media in knowledge sharing at Kirinyaga University library.

You have been selected as one of the respondents in this study. I therefore request you to kindly facilitate the collection of the required data by answering the questions herein. This interview is purely for academic purposes and the data collected will be treated with utmost confidentiality. A copy of the completed project report shall be availed to you upon request.

Your assistance and cooperation will be highly appreciated. Thank you in advance.

Yours faithfully,

Joan Wanjiru Karanja

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APPENDIX II
QUESTIONNAIRE FOR STUDENTS
SECTION I: DEMOGRAPHIC DATA (PART A)

INSTRUCTIONS

Please indicate your response by ticking the provided boxes. For questions that require suggestions or comments, please use the provided space.

Background Information

1. Gender:

2. Highest Educational level:

3. Age:

a) Below 25 []

b) 25-30 []

c) 35-40 []

d) 45-50 []

e) 55-60 []

f) 65-70 []

4. Which academic program are you pursuing?

Undergraduate [] Diploma [] Certificate []

Knowledge sharing in Academic Libraries

5a. What knowledge sharing practices are used at Kirinyaga University Library?

b). Do you have an account with any social media?

Yes [] No []

c). How long have you been using social media to share academic information

Less than 6 Months [] 1-3 Years [] Over 3 Years []

d) On average how much time do you spend daily on social media on group discussions

Less than one hour []

2-4 hours per day []

5-7 hours per day []

More than 7 hours a day []

Creation of Awareness on Knowledge Resources

6. Which social media tool has attracted your attention to use library resources?

7. Is the interface of the social media application user friendly? YES [] or NO []

.....

8. Has the library offered training on how to use the social media in relation to the library?

.....

Social Media Tools and Technologies

9. Using the scale below, indicate how you have been using the various social media tools.

Type of Social Media	Mostly	Moderately	Neutral	Small extent	To a very small extent
I use Facebook for knowledge sharing					
I use WhatsApp for knowledge sharing					
I use google plus for knowledge sharing					
I use slide share for knowledge sharing					
I use flickr for knowledge sharing					
I use twitter for knowledge sharing					

10. What is your level of agreement with the following statements regarding your reasons for using social media? By ticking (√) in the appropriate box, consider the extent to which you agree with each statement.

	Use of Social Media	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
1	I use social media to keep in touch with classmates					
2	I use social media to keep in touch with friends and family					
3	I use social media to exchange files					
4	I use social media for knowledge sharing					
5	I use social media for research					

11. Rate the following ICT components in relation to utilization of social media at Kirinyaga university library.

On a scale of: 1. Don't know, 2. Not effective, 3. Moderatel, Effective, 4. Highly effective:

STATEMENT		1	2	3	4
UTILIZATION OF SOCIAL MEDIA					
1.	Institutional repository				
2.	Intranet implementation and ustilization				
3	Virtual libraries/ Online library (OPAC)				

PART B

Library Services

12. Please state any other various technologies that the Library has implemented to enhance delivery of library services.

.....
.....

13a. Which type of social media does the University library use to share information?

.....
.....
.....

(b) Do you find the social media used relevant to your information needs?

.....
.....
.....

14. Briefly explain how social media has enhanced access to reference services at the University Library.

.....
.....

Challenges and Recommendations

15. What challenges do you experience in the utilization of social media at Kirinyaga University?

.....
.....
.....

16. What recommendation would you give in utilization of social media in the library?

.....
.....
.....

Thank You for Your Cooperation and Participation

APPENDIX III

INTERVIEW GUIDE FOR LIBRARY STAFF

1. State the various social media tools and technologies that Kirinyaga University library has implemented for knowledge sharing.
2. State the extent and effect to which social media tools have been used to enhance the interface features on the Koha library system and Kirinyaga institutional repository for knowledge sharing.
3. How has social media impacted on the creation of awareness and delivery of library services?
4. What type of tools has University library been using to share knowledge before the implementation of social media at the library?
5. Apart from knowledge sharing, how has Kirinyaga University library benefited by using social media?
6. Highlight the training requirements for both staff and students in relation to social media use and access to library services.
7. What challenges are you experiencing with the implementation of social media in knowledge sharing?
8. What is the expected outcome of social media use to library services at Kirinyaga University library?
9. State the events used to promote library services through the use of social media.
10. Identify the methods used to evaluate the impact of social media in relation to branding of the library services.
11. State how frequently both students and staff use social media
12. Highlight the extent to which Kirinyaga University management has supported the use and implementation of social media to enhance library services?
13. Identify the cost benefits that will be realised through use of social media for knowledge sharing at Kirinyaga University library?
14. Highlight the challenges that the University library has experienced though use of the koha library system and Kirinyaga institutional repository in knowledge sharing?