JIMMA UNIVERSITY
COLLEGE OF NATURAL SCIENCE
DEPARTMENT OF INFORMATION SCIENCE

DESIGNING A FRAMEWORK FOR KNOWLEDGE MANAGEMENT PRACTICES
IN ACADEMIC LIBRARIES
A COMPARATIVE STUDY IN JIMMA AND MEKELLE UNIVERSITIES

BY:

TEWELDE TESFAY

JUNE, 2016

JIMMA, ETHIOPIA

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IN ACADEMIC LIBRARIES
A COMPARATIVE STUDY IN JIMMA AND MEKELLE UNIVERSITIES

A Thesis Submitted in Partial Fulfillment of the Requirements for Degree
of Masters of Science in Information Science (Information and
Knowledge Management)

BY:
TEWELDE TESFAY

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As members of the board of examining of the MSc thesis open defense examination of the above title, we members of the board (listed below), read and evaluated the thesis and examined the candidate.

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DEDICATION

This work is especially dedicated to my beloved Family my father Haleka Tesfay Kahsay, my mother w/r Assefu Alefe, My Wife Mileat Abay and our three children, Kaleab, Amanuel and Yeabsira for their invaluable and enormous support, prayers, sacrifice, understanding and encouragement all through this academic journey.

Tewelde Tesfay

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Table of contents

Contents page

List of tables

List of figures

Acronyms and Abbreviations

CIO	Chief Information Officer
EiT-M	Ethiopian Institute of technology Mekelle
GAELIC	Gauteng and Environs Library Consortium
HR	Human Resource
ICT	Information and Communication Technology
ILS	Integrated Library System
IM	Institutional memory
JU	Jimma University
JULS	Jimma University Libraries System
KM	Knowledge Management
KMO	Knowledge Management Opportunities
KMP	Knowledge Management practices
MU	Mekelle University
NLM	National Library of Malaysia
OCAI	Organizational culture assessment instrument
OCLC	Online Computer Library Center
OhioLINK	Ohio Library and Information Network
OULS	Oxford University Library Service
SDI	Selective dissemination of information
SPSS	Statistical Package for Social Sciences

Abstract

The conventional function of academic libraries is to collect, process, and store, disseminate and utilize information to provide library service to the University community. This research focuses on university academic libraries and presents the findings of a study carried out to investigate and compare the Current KM practices in Jimma and Mekelle university libraries. Academic libraries emphasize on the knowledge gaps found, namely as an ineffective knowledge retention process resulting in the loss of knowledge and experience of skilled and valued employees, technology usage problems for the knowledge management practices, Lack of motivation, Lack of standardized processes that define each and every KM activity .The reason is that those making it important to find out how it applies to a KM oriented organization and enhance knowledge preservation. The study adopt the descriptive research design method using a survey approach as the study is to help establish an accurate profile of the determinants KM practices in university libraries and the study location are Jimma and Mekelle universities. The study target population is 240 library staff is used that formed the target population. The researcher used Quantitative and qualitative methods to collect the data from respectively libraries. A total of 223 staff returned their questionnaires constituting 92.9% response rate. The results of the study revealed that in both libraries knowledge management is still in its infancy as they did not have clearly established strategies and policies to make use of knowledge. However, KMPs is not a function of the library. So, the researcher concluded that KM Practices in both university libraries are weak as it has not well understood KM. Furthermore, there are no significant differences between the two libraries in the various aspects of KM investigated. The study therefore recommended a road map for implementing knowledge management in the libraries this requires academic librarians to reassess their functions, expand their roles and responsibilities to effectively contribute and meet the needs of varied university community. KMPs is a viable means in which academic libraries could improve their services in the present knowledge era base technology. The study findings established that Current KM practices in university Jimma and Mekelle the understanding of KM as a term is from literacy sources that include library meetings, reading in books and communications with peers. The investigation results of the study conducted to establish the ways in which the University academic librarians of Jimma and Mekelle could add value to their services by engaging in KM practice.

CHAPTER ONE

1.1 Background of the study

University academic library services have significantly developed and are applying knowledge management (KM) practice principles in the provision of library services (Rowley, 1999; Gandhi, 2004; Singh, 2007). The reason for doing so is to try and meet or anticipate new needs and demands that result from a new information environment. Knowledge is embedded in the processes and documentation as explicit and in the heads of the workers as implicit knowledge. KM in libraries can be defined as: not managing or organizing books or journals, searching the internet for clients or arranging the library circulation of materials. However, each of the activities can in some way be part of the knowledge management practices and process. KM is about enhancing the use of university library knowledge practices through sound KM and organizational learning: with a combination of information management (IM), communication and human resources (Trivedi, 2007).

KM is an appropriate discipline for enabling a smooth integration of new needs that have arisen from the present economic, social and technological context, into higher institution education. The application of knowledge management practices (KMP) should aim at both internal reorganization of resources and improving teaching and research (Wen, 2005).University academic library's mandate is to provide information that is required for learning, teaching and research. The libraries are regarded as the hub of teaching-learning in their respective Universities, therefore, have a major task to meet the information demands, expectations and needs of users for the university community. Jimma and Mekelle academic libraries set out to use individual tacit, explicit and collective organizational knowledge to improve their performance in rendering services at their university environment. The conventional function of university libraries is to collect, process, disseminate, store and utilize information to provide service to the university community. They are part of the university organizational structure and culture. The roles change in providing the competitive advantage of both staff and users (Foo et al,2002).

Abell & Oxbrow (2001) argued that "for University libraries to compete effectively in the knowledge economy, they need to change their values and establish a new focus on creating and using intellectual assets. The success of university academic libraries depends on their ability to utilize information and knowledge of its library staff to better serve the needs of the academic community of the university. Lee (2000) pointed out that the knowledge and experiences of librarian are the intellectual assets of any library and should be valued and shared. University library services have now significantly developed and are applying some knowledge management principles in the provision of library services.

KM tools would ensure that tacit knowledge buried in the minds of more experienced personnel as well as explicit knowledge that has been captured and stored in repositories, databases and various online resources, is shared (Jashapara, 2005). And further that the knowledge that staff have is not lost when they retire or leave the library because the knowledge is managed by different tools and mechanisms for using system and creating awareness on KMPs (Mavodza, 2010).

KMP leads to increase use of organizational knowledge. And through a number of initiatives involving the creation of KM systems in the area of university academic libraries, activities such as creation, dissemination and application of knowledge can be supported in libraries, and they better fulfill their mission to the community and meet users' needs. In University academic libraries, KM proves its usefulness not only in the context of the growing volume of information available, but also in the context of the changes in the higher education teaching learning process. The processes of knowledge practices generation and harnessing are enhanced by KM system (Madge, 2013).

A KM practice encompasses the capture and acquisition of knowledge, its retention and organization, its dissemination, re-use, and responds to the new knowledge. The focus of this research is being on current KM practices and principles that could be in place in the Jimma and Mekelle universities academic libraries. The objective is to find out how knowledge is identified, captured, organized and retained in order to enhance performance and improve the quality of service in the library. This study aimed at providing a comparative study on KMPs in academic

libraries of JU and MU universities as well as developing practical framework used for the operations of the services.

1.2 Background of Mekelle and Jimma Universities

1.2.1 Background of Jimma University

Jimma University (JU) is a one of Ethiopian public higher institution established in December 1999 by the amalgamation of Jimma Agriculture College (founded in 1952), and Jimma of Health Sciences Institute (established in 1983).The two campuses are located in Jimma city, Oromia region, 352 km southwest of the capital city of Addis Ababa, Ethiopia.

JU is Ethiopia's first Innovative Community based Oriented Education Institution of learning. The University adopted the city's name for logically sound reasons. So, Jimma is one of the biggest cities in Ethiopia noted for its coffee production. Secondly, during the 19th century Jimma is the seat of the King of the Five Gibe States. The Main Campus is situated in the neighborhood of the Aba Jifar ex-palace, now an open museum. Jimma is known among other things for its year round green attractive landscape scenery and coffee production as mentioned above. The University has a mission of training higher caliber professionals at post-graduate and undergraduate levels through its appreciated and innovative community based education while retaining its academic excellence in integrating training, research and service. It also has more than 100 undergraduate programs, 30 Postgraduate degree programs and 4 PhD programs (www.ju.edu.et, 2016).

Jimma University Libraries: Jimma University Libraries System (JULS) is established in 1999 to upgraded instruction, research and public service goals of the university through organizing of information resources and provision of different formats. The resources and information services required for improvement of learning, teaching and research activities of the university is enhanced through managing of resources efficiently and economically; the establishing of an environment conducive to study which caters for multiple learning styles Liaising with the university users and establishing their needs in cooperation with other university services; carrying out smooth and attractive work conditions in the university library systems and information professionalism with the objective of improving the library's services; maintaining

effective links with all other similar public and private universities and colleges` staff to share experiences, resources and other important things assist; as well as to respond to changes in education, approaches and policy of university academic library systems in general.

Achieve the mission and objectives of the University Libraries System (ULS) set out deliberately to functions such as developing and managing collections, identifying and providing learning resources to instructor, researchers, students and external users of the university library, managing available resources economically, establishing an environment conductive to study which caters for multiple learning styles, liaising with users' needs and to cooperate with management and other university services activities to meet these needs, training users and staffs to develop their information exploitation skills for efficient and effective utilization of university information resources, Carrying out appropriate development work in library and information professionalism high role for the improving library's multiple purpose services and maintaining effective links with other domestic as well as international level (www.ju.edu.et, 2016).

1.2.2 Background of Mekelle University

Mekelle University is found at the town of Mekelle in Tigray region of Northern part Ethiopia, at 783 Kilometers distance from the capital city of Addis Ababa. The merger the two former colleges: Mekelle University College and Mekelle Business College of agriculture Dryland established the University in May 2000 by the Ethiopian Government (Council of Ministers, Regulations No. 61/1999 of Article 3) as an autonomous higher learning institution. The two colleges have their own historical developments after beginning from scratch, and have also experienced exhausting ascends and descend, with voluminous relocations from place to place.

Mekelle Business College established as a school of Economics in 1987 by the Ethiopian People's Revolutionary Democratic Front (EPRDF) in one of the liberated areas of Tigray-Dejena (in Western Tigray region). The main objective of the school is to train middle-level experts in financial and administrative responsibilities of the public in the liberated areas during struggle armed. Following the Derg regime downfall, the School investigated the demand in the country in different parts and designed the new curriculum to meet the country demand. And, in 1991, the school is upgraded to a college diploma program level and renamed Mekelle Business College, marking the establishment of the first higher learning educational institution in Tigray.

During the first few years, there are no infrastructure- such buildings, furniture and other necessities facilities need for the establishment of such a college. The government found a solution when it decided to use the political training center of the prior government as a campus for the new college. Regardless of the challenges it faced, the college be gained a diploma program began in October 1991. At the beginning the intake capacity of the college are 150 students. It starts with 16 academic staff and 20 administrative staff members. At the end of the first year, the college received students with full accreditation by the Ministry of Education. Since then, the college has been continuously expanding its programs and building its capacity (www.mu.edu.et, 2016).

Mekelle University College is incepted in 1993 as the Arid Zone College Agricultural which had been recited in Mekelle after a series of relocations. During the former regime, the College is originally founded to be located near Selekleka, in northwestern Tigray. But, due to many reasons, first established at University Asmara as a faculty, but moved to Agarfa, in southern Ethiopia, when the Dergue displaced University Asmara in 1990 due to the political instability problems. In 1991, after some years, Asmara University retuned to Asmara and the Arid Zone Agricultural Faculty moved temporarily to Alemaya University. In 1993, the Arid Zone College of Agricultural is again relocated, this time to Mekelle city. As the Dry land Agriculture and Natural Resources Management College, and permanently settled at the Endayesus Campus, which had been a military barrack since starting the time of Emperor Menelik.

With all the challenges it faced, the Arid Zone Agricultural College started with three undergraduate degree programs in 1993 with 42 students. After two years, the Faculty of Science and Technology is established within the same campus and, together, these two faculties were then upgraded to Mekelle University College. Side by side the Faculty of Law then began by accepting diploma students in the continuing education program.

The quality, standard and relevance of education, research and consultancy services delivered by both colleges to the society of the two Colleges to become very popular in the country and abroad in short period of time. Even though management of both the two colleges is officially independent, initiatives were taken by both institutions to work closely, with a vision of developed University. Having a common Board of Governors played a significant role for the

establishment of Mekelle University and becoming to achieve rapid growth after its official inauguration in May 2000. At present, the University has seven colleges and eight institutes.

At this time MU hosts over 31,000 students in the regular, continuing programme education and evening, summer, distance education and in-service programs in both undergraduate and post graduate programmes.

Mekelle University is thus now a government-funded higher institution with an international reputation for teaching and research and with collaborative understanding with national and international partner institutions. Since its establishment, it shows the fastest growing Universities in Ethiopia. The fundamental elements of the University's mission are teaching, research and community service consultancy. Thus, ultimate goal is to pursue standards of excellence in teaching, research and community service for the betterment of the society (www.mu.edu.et, 2016).

Mekelle University Libraries: In September 1999, the Mekelle Business College (established in 1991) and Mekelle University College (established as Mekelle College of Dry land Agriculture and Natural Resources) merged creating the basis for the Mekelle University. MU currently has nine colleges and institute libraries. There were minimal library and documentation facilities and services. First, there is no any purpose built library except renovated buildings. Second, there were no information sources and services that could adequately satisfy user's needs.

Immerge of the two colleges into Mekelle University and its official inauguration in May 2000 has greatly improved the library facilities and services. As a result, there are now purpose built libraries and relevant information sources. As an academic wing of MU, the library and information services are vital components playing an important role in to the university teaching, learning process. This is quite obvious that MU libraries should establish, promote, maintain and evaluate the quality services that support the missions and goals of the institution (Mekonnen, 2005).

1.3 Statement of the problem

Knowledge management practices are one of the main parts of academic libraries in every higher learning institution (Maponya, 2004).In Ethiopian higher learning institutions, few researches

have been done on some aspects of KMP which includes knowledge sharing, knowledge generation, codification and utilization (Berhanu, 2015).This makes it difficult to identify which of the institutions practice KM and to what extent does the knowledge sharing practices among Ethiopian Higher Institutions? Due to this they are not fully able to give the real picture about the overall KMPs among academic library of Ethiopian higher education institution in detail.

KMPs includes the understanding of KM practices: knowledge generation, knowledge acquisition, knowledge organization, knowledge storage, knowledge transfer, knowledge sharing, and knowledge retention (Daud, 2008).KMPs in all organizations can benefit from their sharing, innovating, reusing, collaborating and learning, enabling better and faster decision making, Making it easy to find relevant information and resource (Garfield, 2014).

 David (2002) states in his study that there are many kinds of methods that are used for capturing, sharing, transferring, exchange and re-applying knowledge but the ability to use it is inadequate. According to Uriarte (2008) who opined that retirement, mobility of the work forces and changes in strategic direction are resulting in the loss of knowledge.

Mavodza (2010)in his study, suggested further research, This is because issues still remain about how to measure the value of academic library service, Ineffective knowledge retention processes, understanding of existing KMPs in their regular duties, lack of motivation, lack of strategy supportive policies, lack of standardized processes to recommend for other similar African university academic libraries requires further investigation. These effects consequently limit academic library activities such as circulation, reference, and digitization, technical processing section in both Jimma and Mekelle universities academic libraries.

Based on the view of Mavodza it is important to find out how it applies to a current KM oriented organization that enhances knowledge preservation in both Jimma and Mekelle University libraries. So, the problems that motivated to make this study because KM is learning as a course and interesting in the area helping to conduct an effectives KM practices in academic libraries. To this way, this is a comparative study in Jimma and Mekelle universities is undertaken in this research for a practical framework development so as to improve service delivery.

1.4 Research questions

1. What is the perception of the different levels of library staff on various aspects of KM?
2. What are the knowledge management practice tools and mechanisms applied in both Jimma and Mekelle library, academic library systems by the librarians?
3. What are the possible barriers/obstacles to implement a proper KM practice framework in the academic libraries of Jimma and Mekelle?
4. To what extent does developing a framework support KMPs in Jimma and Mekelle university academic libraries?

1.5 Objectives of the study

1.5.1 General objective

The general objective of this research is to undertake a comparative study of knowledge management practices in academic libraries: Jimma and Mekelle universities for so as develop a practical framework that enhance the library service qualities and user satisfaction.

1.5.2 Specific objectives

The specific objectives of the proposed study are the following:-

1. To determine the perception of different levels of library staff on KM as a function of their libraries.
2. To assess the knowledge management practices, tools and mechanisms applied in both Jimma and Mekelle university academic library systems by the librarians.
3. To identify the barriers/ obstacles to implement a proper KM practice framework in Jimma and Mekelle University academic Libraries.
4. To develop a framework to support KMPs in Jimma and Mekelle university academic libraries.

1.6 Scope and limitation of the study

The scope of this study is to investigate and compare the existing knowledge management practices in academic libraries of Jimma and Mekelle university higher learning institutions, required competencies for KM practices. It is also limited to developing a practical KMPs

framework of the academic libraries. The study covers two university libraries; data are collected from the university librarians from the various sections of the library and a sample of staff librarians within those units. The respondents in this study include academic and administrative librarians of Jimma and Mekelle Universities librarians. Although the academic library and information service as well as the knowledge management practice survey can only succeed mainly in obtaining responses from the overall library activities of both universities and provide input into the development of academic library services.

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This study has several limitations. Firstly, the study concentrated only on academic libraries providing academic library services in Jimma and Mekelle University, leaving out all the other types of libraries in the country. Secondly, the investigation academic libraries are only done from the librarian's perspective, and not from the user's perspective. The study is further limited to librarians' competencies and training. This is because if librarians working with academic library have received good training and competent in their work, they will have a certain level of comfort working with KM based library services.

1.7 Significance of the study

The study is tried to investigate and compare KM practice in Jimma and Mekelle Universities. This comparative study and investigation of KM practice in the academic libraries of Jimma and Mekelle universities are concentrating on the resources and information services to support the teaching, learning, research and development endeavors of the University community. This study is great benefit to the universities as a whole as the findings of the study is instrumental in helping the libraries develop skilled manpower in KM. Such manpower is in turn to identify expert sources and other resources within the universities libraries in a position to direct and guide on ways of acquiring and appropriately coding tacit knowledge. Such knowledge base is help the universities exploit their intellectual assets cheaply and gain a competitive advantage. The study also identifies factors that affect KMPs among librarian staffs of Jimma and Mekelle Universities. Specifically, the study has the following significance

• It is also help to apply the value of KM practice in academic library services.

- Contribute to university academic libraries in terms of narrowing or reducing the research gap between Jimma and Mekelle academic libraries KMPs and would add to the literature KMPs and practical application of frameworks of the systems.

1.8 Operational definitions

Comparative study: for the investigation and comparing which a participant is randomly assigned to different treatment groups for purposes of comparing the university library effects of the relations in both universities.

Framework: Frameworks define the relevant objects and their coherences as well as provide a scaffold for the aspects that have to be considered during the design and implementation process.

Knowledge management practices framework: AKM framework is thorough system of People, Process, and Technology, which ensures that Knowledge management is applied systematically and effectively to improve the organization performance results.

Barriers: factors or obstacles that negatively impact or hold-back organizational knowledge management practices in university academic libraries.

Knowledge management practices: KM practices in higher education teaching-learning process aimed at improving the internal flow and use of information through knowledge acquisition and knowledge sharing for organizational effectiveness (Kidwell, Vander Linde and Johnson, 2000; Williams *et al*., 2004).

CHAPTER TWO

LITERATURE REVIEW

This literature review attempts to identify the main research issues related to KM practices in academic libraries and examine the causes that have influence or impede in order to have a basis to recommend measures to enhance accessibility and utilization of Knowledge assets in university academic library. Consequently the review literature touches on the following variables for the investigation:

2.1 Overview of knowledge management

The concept and name "Knowledge Management" was started and popularized in the business world during of the 20th century. It was the business world that first recognizes the importance of knowledge in the "global economy" of the "knowledge age". The applications of knowledge management have now spread to other organizations including government agencies, research and development departments, universities and others. Knowledge embedded in the organization's business processes and the employee's skills provides the firm with unique capabilities to deliver customers with a product or service. Knowledge management is a form of expertise-centered management which draws out tacit knowledge making it accessible for specific purposes to improve the performance of organizations. Successful application of knowledge management practices involves understanding and constructively utilizing information for organizational learning. Social science institutions, government and non-government organizations, etc. are knowledge intensive and the use of advanced technology may transform these institutions and organizations in the future. Librarians and information professionals are trained to be experts in information searching, selecting, acquiring, organizing, preserving, repackaging, disseminating and serving. However, professionals in information technology and systems have also regarded information management as their domain because of the recent advances in information technology and systems which drive and underpin information management. One of the clearest evidences of this is that the positions of "Chief Information Officer" (CIO) in many organizations are generally held by information technologists instead of librarians. In fact, most of the work of CIOs has to do with developing and managing the IT infrastructure.

What is Knowledge Management? Knowledge plays an important role in modern world of organization. Knowledge management is a newly emerging interdisciplinary business model that has knowledge with the frame work of an organization. Knowledge Management involves people, technology and processes in parts. It rests on two foundations first utilizing and exploiting the organization information, second the application of people's skill, talents, thought, ideas, commitments, motivations and imagination (Aswath and Gupta, 2009).

2.2 Types of Knowledge

Tacit Knowledge:- Tacit knowledge is knowledge embedded in human mind through experience and jobs Coined by Hungarian Medial Scientists Michael Polanyi, it include institutions, values and believes that stem from years of experience (Aswath and Gupta, 2009)..

Explicit Knowledge:- In contrast explicit knowledge is knowledge codified and digitized in books, document, reports white paper, spread sheets, training courses and explicit knowledge can be retrieved and transmitted more easily than tacit knowledge. Because it is knowledge learned directly from experience, tacit knowledge is difficult to share across space and time. • Externalized Knowledge: One of the aspects of tacit knowledge is the cognitive dimension that comprises beliefs, ideals, values and mental models (Aswath and Gupta, 2009).

Components of KM:- The knowledge management environment centered round three components such as People – Technology experts Knowledge professionals Knowledge managers, Process - Creation, capturing, storing, sharing, application, and Technology-Hardware and software packages (Robertson and Brun,2005)

2.3 Knowledge management practices

KM Practices refer to the way ideas are translated into action in the process of accomplishing job functions. KM practices include the understanding of knowledge management: knowledge generation, acquisition, organization, storage, transfer, knowledge sharing, and knowledge retention (Nonaka and Takeuchi, 1995; Davenport and Prusak, 1998; McAdam and McCreedy, 1999; Nonaka, Toyama and Konno, 2000; McManus and Loughridge, 2002; Jashapara 2005; Jain, 2007; Daud, Rahim, Alimun and Lloria, 2008).

KM practices are viewed as having the possible way to make university libraries more relevant to their parent institutions and their users (Sarrafzadeh, Martin and Hazeri, 2006). According to Singh (2007) information professionals need to develop the capabilities to survive in a knowledge-based society, organizations also need to increase investment and put more effort into ensuring that the information and KM available in databases, patents, trade secrets or in the minds of people is fully utilized and translated into products and services of the organization (Jain, 2007). Jain (2007), stats that academic libraries sharing to their associated organizations can be work in close relationship to collaborate, share, and disseminate knowledge". It is important for university library to have a clear understanding of what KMPs means to its operations if it needs to consider using the KM practices that enhance success and lend value to organizational knowledge. These practices include generation of knowledge which encompasses activities that bring to light all knowledge that is new to a group or to an individual. That comprises of the exploitation of existing knowledge to create new knowledge, or finding new knowledge through interacting and collaborating within individuals or systems (Nonaka and Takeuchi, 1995; Nonaka and Teece, 2001).

KM affects the university academic library strategic planning, its ability to meet its goals and objectives, and its projection on how best to use the services and knowledge products for the future (Stankosky, 2005). They include the fact that KMPs may not necessarily be a way of doing everyday business, therefore policy that could guide it does not exist, fear of adopting new or different ways of doing things that causes human resistance, lack of appropriate organizational infrastructure to handle some KM practices, and it may be deemed unsuitable for some settings. This view concurs with the suggestion made by Singh and Kant (2008) that KMPs barriers include the lack of library management commitment, lack of technological infrastructure utilization, lack of clearly defined methods or processes for KM practice in library, lack of organizational structure that supports a KM strategy, lack of organizational culture, lack of motivation and rewards, staff retirement, lack of ownership of problem, and staff turnover. Despite these barriers, the modern information environment the university library that includes a wide variety of information, information providers and platforms for doing so has made it necessary for organizations, including libraries, to consider using KM practices to survive.

Advantages of using KM practices include the fact that they helped organizations to refocus on using their already existing knowledge, they create the environment for innovation rather

limiting them to best practice solutions only, and they promote interconnectedness among college libraries, employees, and systems in an organization. Kidwell and Maponya (2004) suggested that in an university academic institution, KMP can lead to better decision-making capabilities, reduced product development cycle time for example, development of curriculum and research, improved academic and administrative services, and reduced costs". This approach has been termed by some authors, such as Chase (1998), Branin (2003), Rowley (2003), and Hillenbrand (2005) a paradigm shift. The paradigm shift in library practice can be put into perspective by providing the historical development of library services.

KM practices could be defined in various forms and utilized in different configuration. For example, the life cycle model by Nissen et al., (2000) divided a knowledge flow into five phases. These five phases are knowledge creation, organization, formalization, distribution, application or implementation, and evolution of knowledge. Moreover, Wiig et al., (1997) described KM as including eight practices: reviewing, analyzing the KM processes, analyzing the application risks, executing the plans, developing, consolidating knowledge, sharing knowledge, and combining knowledge. As discussed in series different models are considered to describe KM practices in various ways. So, in this research, five main practice activities are adapted from the models of (Nonaka et al. 1996, Bhatti and Qureshi 2007, and Dahiya et al. 2012). These practices encompass creation knowledge, acquisition, sharing, storage, and implementation, which are frequently applied in investigation of KM practices.

Figures 2.1 represent a five stage cyclic model of KM process to emphasis and recognize the cyclic nature of knowledge management process and emphasize that KM process is never ending
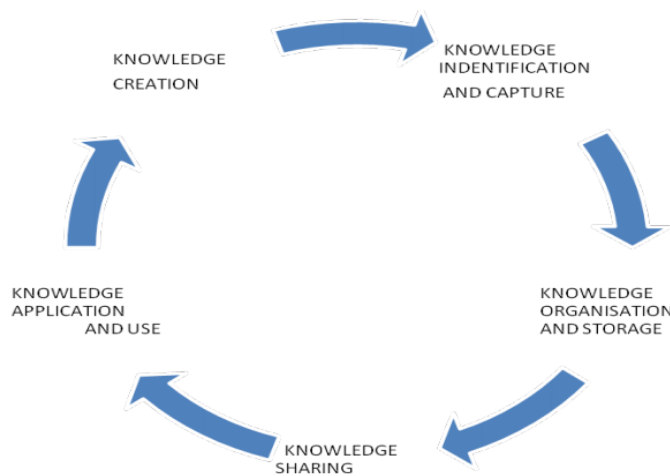
Figure 2.1 Knowledge Management Process   Source: (AMREF, 2010)

At each stage of the KM process several elements need to be in place and their presence or absence could contribute to the state of KM in place. These are the variables that the study investigated. For KM practices to be effective, understanding of the KM concept is critical. The understanding of KM processes would greatly contribute to the level of KM practices. This study therefore investigated KM process as an important consideration for successful KM.

Knowledge Identification and Capture: Knowledge identification and capture refers to the stage of identifying the critical knowledge and the right persons who have the necessary expertise that should be captured. It is the stage where critical knowledge held in processes, systems, documents, as well as persons with necessary expertise are identified. Maponya (2004) urges libraries to identify the expertise and the skills of staff and capture it to avoid collective loss of organizational memory. Hence this study was to shed light on how the libraries were identifying their expert sources and the measures put in place to manage staff as a strategy of retaining them and continuously benefit from their experiences and insights. Without clear cut formal systems of identifying and capturing both explicit and tacit knowledge, libraries' role as knowledge repositories would greatly be compromised.

Knowledge Organization and Storage: To make retrieval of stored knowledge fast, its organization is paramount to KM process. Organizing knowledge helps one to identify, retrieve and access knowledge created and stored in the past as well as in the present. This stage involves obtaining the knowledge from the identified sources and coding it in a systematic manner for latter retrieval. The captured knowledge is organized and stored in knowledge centers or repositories to be managed and shared or transferred across or outside the organization.

Knowledge sharing: Knowledge sharing is a process through amongst personal and organizational knowledge is exchanged. Knowledge sharing refers to the process by which knowledge is conveyed from one person to other person, from persons to groups, or from one organization to other organization (Frappaolo, 2006).

Knowledge Application: When knowledge assets are documented and shared within the organization knowledge utilization is facilitated. The captured knowledge when accessed and shared by users it is contextualized and then used for enhancing or updating existing services and

/or development of new innovative services. Knowledge application refers to the process of taking the stored and shared knowledge, internalizing it and putting it to use.

Knowledge creation: Knowledge creation involves in the utilization of internal and external resources of an institution to generate new knowledge for achieving the institutional goals. Brainstorming methods and conducting research to make the best use of the knowledge assets of customers, suppliers and staffs are strategies applied in many prosperous for creating knowledge (Moodysson, 2008).

2.4 Academic libraries

University academic library is a library that is attached to academic institutions of higher learning level, serving the teaching, research and community service needs of the students and staff. Libraries to serve the two complementary purposes: to support the school's curriculum, and to support the research of the university college students. Academic libraries are information centers established in support of the mission of their university colleges, institutions, and school the respective libraries to generate knowledge, equip people with knowledge in order to serve the university society and advance the well-being of mankind. Maponya, (2004) defines academic libraries while special libraries found in educational learning institutions and whose main purpose is to the special purpose of serving the special needs of the focused or homogenous customers. (Maponya, 2004) noted that the university library is the core of the university.

2.4.1 Development of university library services

The historical development of library service helps understand the paradigm shift and the reason for considering KM in the information environment of today. The transition that Hillenbrand (2005) refers the information age to the age of knowledge is described as collection development, management of collection to KM by Branin (2003) in two point discussed below.

Collection development: This stage is characterized by building collection through acquisition and selection. It: the era of scouring in-print and out-of-print book vendor catalogues, clearing out the inventories the library book stores, raiding foreign libraries, and international book

buying excursions. Print material, in the form of journals, books, and manuscripts, pretty much the exclusive, or at least predominant, medium for academic library acquisitions (Branin, 2003).

Collection management: The explosion in literature is not matched by budget expansion. Technology took a sharp improvement, so that digital technology came to the forefront. Use of the internet became a way of life. Libraries "emphasized "management" over "development" in the collections field of librarianship" (Branin, 2003). Focus on the shifting to more than collection development policy to include allocation materials budget, collection analysis, many use and user studies. Due to changing technology, it became important to make sure to train and organize collection managers. Issues of preservation of old material, as well as life span of new digitized material came to the fore-front of discussions. The fact that no library could collect every library material needed by its users led to more efforts at cooperative collection development, such as Online Computer Library Center (OCLC) (2009), OhioLINK (Ohio Library and Information Network) (2009), GAELIC (Gauteng and Environs Library Consortium) (2009), Washington Research Library Consortium (2009).

2.5 knowledge management practices in academic libraries

The basic goal of KM within libraries is to leverage the available knowledge that may help academic librarians to carry out the library tasks more efficiently and effectively. KM is also aimed at extending the role of librarians to manage all kinds of information and tacit knowledge for the benefit of the library. KM can help transform the library into a more well-organized, knowledge sharing institutions (Jantz, 2001). Kim (1999) pointed out that KMPs aim to draw out the people have tacit knowledge, what they carry around with them, what they observe and learn from experience, rather than the usually explicitly stated. It is important for academic libraries to determine and manage their knowledge assets to avoid the duplication of efforts. KM practices process involves the creation, capturing, sharing and utilization of knowledge.

Jantz (2001) at Rutgers University, New Jersey, suggests that it is possible to apply KM principles in a library. A tool for capturing knowledge is developed, with the purpose of "information capture, auditing of information, maintaining and updating the based the technology platform, marketing, education and training" (Jantz, 2001). Besides the capture and

sharing of knowledge, mention is also made of the importance of understanding the KM process and cultural issues in an organization as essential for the organization to benefit from KM. Expressing agreement with the same idea, the Network of Alabama Academic Library's network case study of Graham, Skaggs and Stevens (2005) reminds librarians to "remember the liaison commandment and look to see how you can interest the rest of your college or university community to be involved". This is a point also raised by Skyrme (2004) on the need for information professionals to stay connected to the organizational decision makers.

Hayes (2007), from the University of Edinburg in Scotland experience, suggested the creation of a strategic plan that focuses on KM principles. In her case: the first objective relates to the provision of high quality, sharable, relevant information for teaching, learning, research and management. The second relates to efficient and successful information and IT infrastructures, systems and services; and the third to developing a culture that supports collaboration and sharing knowledge as a routine way of working. This is where executive support as envisioned by Gandhi (2004), Jain (2007), and Stankosky (2005) is seen in practice. The concept of a strategic plan being part of the reason for success is also expressed by White (2004) in a case study at the Oxford University Library Service (OULS). White (2004), from a study on KM in an academic library at the OULS, supports the idea that KM practices can enhance the quality of library service. The study is intended to show the need to include KM in library strategy to retain know-how for the benefit of users and staff, to "provide an additional tool in assessing staff's perception of change, knowledge creation and sharing at University library" (White, 2004).

According to the empirical study of Jain (2007), whether libraries deal with KM or information management is often unclear, especially as these are concepts that originate from the business perspective. Jashapara (2005) suggested that "much greater philosophical introspection is required to understand the nature of knowledge before it can be managed in organizations". Barquin (2001) described KM as a process, with phases and components, embedded in time, and there is more than one approach and different structures and architectures to this process, as well as expected outcomes and performance to be measured.

Maponya (2004) suggests that KM practices aim to draw out the tacit knowledge people have. Understanding the practices requires a close look at library policies and strategies, leadership, knowledge capturing and acquisition, and knowledge sharing. To be effective, it is important for

the librarian to understand the context that the information is required, as well as organizing the information (re-packaging) in a manner most useful to the users, at the same time learning from previous experiences and situations, and as a result be able to anticipate user requirements. This knowledge then needs to be retained so that continuity remains even when the creator leaves the organization. Eventually, a knowledge bank (Branin, 2003), or repository (Bailey, 2005), or portal may be the result. As a way of helping librarians understand the concept of KM better, some library, for example, London Metropolitan University (UK), University of Johannesburg (UJ), and University of Stellenbosch (US) now train graduates to bring the skills of organization, classification, evaluation, training and synthesis to transform data repositories into value-added information sources that can constitute knowledge and knowledge services.

The research of Maponya (2004) referred to academic librarians" need to be involved in KM activities such as "creating, capturing, sharing and utilizing knowledge to achieve the library goals". Wen (2005) mades the suggestion that the use of KM practices can help in the processes of capturing, collecting, organizing, and disseminating information.

Green (2008) said that "the librarian must be at the center of managing information, and the tools used must be designed to facilitate this requirement". A good understanding of the meaning of KM application to libraries is therefore essential. The current fast changing information environment has created a need for library service to be of high quality. It is therefore essential that while placing importance on information services, instructional tasks and interactions with patrons (Lynch and Smith, 2001), moved from being service-oriented to being value-oriented (Sarrafzadeh, Martin and Hazeri, 2006).

Jain (2007), on value addition, said that the "partnership of librarians and academics are transform the librarians?   Status from service oriented to value-oriented. Value-orientation happens when the library streamlines its day-to-day operations to improve visibility and involvement in the larger organization, and assume a leadership role in helping to capture an institutional memory (Rowley, 2003; Gandhi, 2004; Sarrafzadeh, Martin and Hazeri, 2006, Patrick and Dotsika, 2007).

According to Zhang, Tian and Qi (2006), institutional memory (IM) consists of: documentary materials, regulations, procedures, conventions and organizational culture, provide the necessary knowledge for the organization. In the process of practice, every organization develops OM, thus guiding present activities. This also means that the leadership of the organization has to be aware of the importance of KM in the library, and have its essentials incorporated into the organization's strategic plan, and the strategic goal (Stankosky, 2005).

According to Wen (2005) an organizational culture of sharing of knowledge and expertise should be established with appropriate rewards and incentives. Those staff members who share their tacit knowledge and experiences through writing, publishing, lecturing, tutoring, or mentoring should be appropriately recognized and rewarded.

These studies confirm the view of Barquin (2001) who also believed in giving incentives to encourage participation in KM activities. Effective information retrieval and service requires the professional mix of knowledge of information, users, and KM "cannot be efficient without educating customers speak to. This is where information literacy comes into the focus of KM" (Mahnke, 2007) and information technology. Information literacy is important to KM because of its focus on sharing and learning from information. This way, it facilitates KM practices.

These core pillars are interrelated, and are at the heart of most activities within KM. Library practice based on KM principles and practice has the potential to allow for the study of library and information variables, their measurement and evaluation, the creation, retention, and dissemination of knowledge. It appears to be more comprehensive than other models that focus only on circulation, or technical services, or reference.

This literature review has pointed to the fact that to become aware of a KM strategy in a library, an assessment of the current situation needs to be carried out by highlighting existing KM activities and experience, outlining the benefits, explaining how these can be built upon, and exposing barriers to further progress (Maponya, 2004). This brings out how current KM practice (or lack of it) affects the ability of all those involved in library service to meet intended goals, and how it affects the effectiveness of individuals and teams, and to what extent professionals" culture, processes and systems currently act as enablers of, or barriers to, good KM practice (McManus and Loughridge, 2002). Jain (2007) suggested "mapping knowledge or knowledge

gap exercise. Knowledge mapping can identify organizational knowledge assets as well as knowledge gaps". This exercise helps in the eventual measurement of the effectiveness and success of implementing KM tools and principles.

The literature also indicated that KM implies that librarians have to deal with a broader range of information resources and services than traditional; they have to encourage a culture and environment for active learning and information sharing (especially as they are a part of larger institutions which affect the way the library operates); and they have to collaborate much more proactively and deeply with other libraries, information technology services, and users.

Lloria (2008) is of the impression that "what began as three divergent approaches to knowledge management are coming together in this new era of synthesis to form a universal foundation". Because KM is introduced as part of trying to find ways of enhancing library science practice, it is important to evaluate and synthesize library science research theories to give insight into the validity and viability of introducing KM principles.

2.6 Framework development

The framework is developed using the approach of designing short-term, midterm and long-term actions with the focus of supporting the team's capabilities for knowledge sharing. The project with overall can thereby only evaluate the short-term and parts of the midterm solutions because of time constraints over the phase of the research. The short-term solutions in the framework are mainly solutions that are characterized by pragmatic approaches of giving the team members the opportunity to achieve success right out of actions. The midterm solutions are taking into account planning activities based on the results of implemented short-term activities and prepare the continuous integration into the framework on the one side and on the other side they are focused on facilitating methods that support the knowledge sharing with tools. The long-term activities in the process of framework development are mainly focused on bringing the short-term and midterm solutions into a consistent background while defining the goal of supporting any kind of knowledge sharing (Hussock, 2009).

2.6.1 Short term solutions framework

The short term solutions build up on existing best practices to share knowledge and experiences. The survey in the analysis part of the project is used as starting point for taking up approaches that are already existent more in an informal approach. However, there are important reasons for at least beginning with the simplest tools that is enable measurable improvement in knowledge exchange. As one of the requirements is the focus on the personal interaction to build up on existing knowledge sharing structures within the team; the author would like to highlight the use of Communities of Practice. Gruner (2008) analyzed the usage of "Communities of Practice in an international, intercultural, fast changing working environment" and explored the benefits of this approach already. The author is just highlight up some existing points and in not go into a deeper analysis of this approach in this project.

Menken (2009) and suggested leveraging the advantages that are mainly coming from the interaction between team members: "Workers are more likely to turn to a co-worker in their community of practice than to look for information in a database." This advantage and behavior has been identified during the analysis of the results of the survey. With communities of practices, an organization can benefit in the: Avoiding mistakes; solving problems; saving time; Standardize practices; -Develop new capabilities; Increase talent; and Leverage solutions. This short-term solution took the results of the survey to use what is already integrated in the team and leveraged it when building up the framework for knowledge sharing(Menken, 2009).
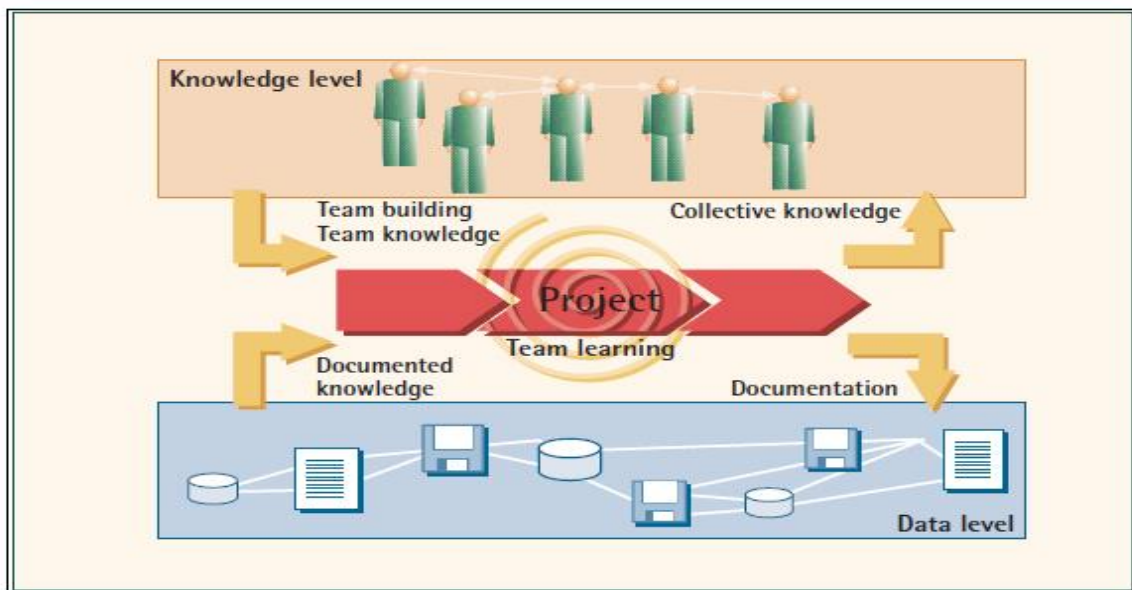
Fig. 2.2 Framework for knowledge creation and application (Wissensmanagement-Forum, 2003)

The Wissensmanagement-Forum (2003) describes in their model the different levels in this process. The levels are linked with the five core knowledge processes - information, documentation, communication, application and learning – to form a basic model of KM. As the short-term solution is hereby only facilitating the more interaction part of the five core knowledge processes, the solution is really focused on bringing short-term results.

2.6.2 Mid-term solutions framework

As an appropriate knowledge sharing framework consists also of mid-term solutions; this section is elaborate on suggested solutions. The first part of possible mid-term solutions is to integrate successful short-term solutions into consideration for a mid-term strategy. The need of a platform for knowledge sharing is answered by the author with the framework that is developed in this project, but to facilitate other outcomes of the survey the author suggests furthermore that a clear communication within the overall framework must be enabled. The clear communication is supported by these previous proposed meetings and should be encouraged by the management to motivate the overall team (Hussock, 2009). Therefore the definition of a framework for knowledge sharing in this project is only cover parts that can be classified into solutions for each of these solutions. To finalize the view on possible approaches to create a framework for knowledge sharing the next chapter is focus on possible topics targeted on long-term solutions and the general goal of the framework.

2.6.3 Long-term solutions framework

To summarize, the whole experimentation process is structured with the taken into account the approach of the introduction of KM described by Keller and Kastrup(2009), which can be divided into the following steps (Keller & Kastrup 2009): initializing; analysis and planning; implementation; assessment; continued optimization and transfer.
The requirements of a long-term solution in this context are to maintain these previous described solutions and to implement the continuous optimization and transfer them into the team. For this reason the author would like to highlight his suggestion for a long-term solution as the development of a statement of a goal of how participants in the circle of KM should communicate with knowledge, knowledge sharing and the view on knowledge sharing within the

team. The definition of a goal in this context is used to define a long-term solution of the developed framework for knowledge sharing. The overall framework in this state of development, keeping in mind that continuous improvement is part of the definition is representing the main points covered in analysis of the sales organization. The highlighted need for a platform for knowledge sharing discovered during the survey is answered with the proposed knowledge sharing framework and its parts (Hussock, 2009). The following diagram shows a summary of the framework.
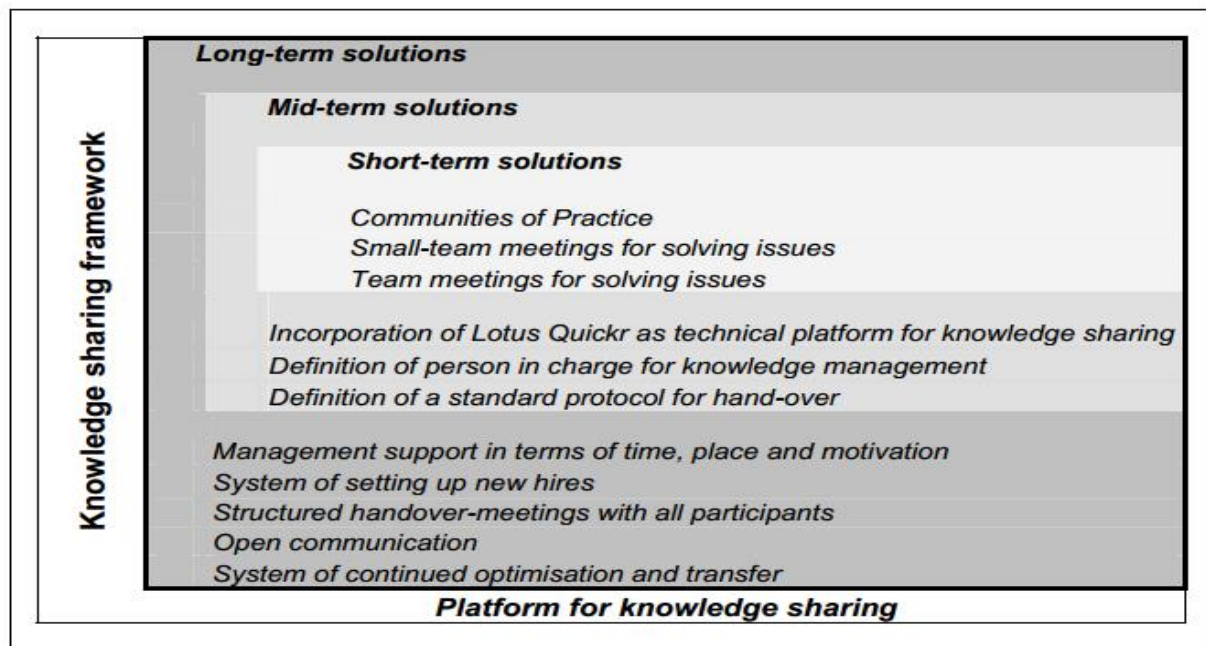
Fig. 2.3 Knowledge sharing framework (Hussock, 2009)

The investigation phase of this research is used to decide on possible solutions for defining short-term, mid-term and long-term solutions, but the most important point of this overall research is the analysis of the sales organization to gather a close view on the current capabilities regarding knowledge sharing. In addition to these points it seems to be useful to define a common goal for the current state of the study. This statement can be used to keep the focus on the achieved points and to optimize the knowledge sharing within the team.

2.7 Knowledge management practice tools

According to Ruggles (1997) KM tools are technologies, broadly defined, which enhance and enable knowledge generation, codification and transfer. Using them is planned to ease the weight

of work and to allow resources to be utilized efficiently to accomplish the tasks they are most appropriate. Ngulube and Lwoga (2007) confirm that KMPs tools "provide the strategies that used to manage and integrate both tacit and explicit knowledge". The difference with information management tools is that information management tools are a subset of KM tools. Most of the operations that happen in the library, that is, generation, access, storage, and analysis of data, usually in the form of facts and figures are handled by information management tools. However, while information management tools include tools that also handle data and information, Ruggles (1997) points out that: KM tools (for example, data warehouses, data search engines, data modeling tools) and information management (for example, automated search and retrieval agents and document management tools) are different because the latter do not capture the complexity of context and the richness of knowledge and are not robust enough to truly facilitate KM. Knowledge management techniques are those activities associated with the use of KM tools. They encompass documenting both explicit and tacit knowledge, building knowledge repositories, organizing internal conferences and symposia, how to using social software for knowledge sharing and transfer, using email, shared file and documentation storage, mentoring, and training programs.

2.8 Knowledge Management in libraries development

Shanhong (2000) maintains that KM practices in libraries should be interested in effective research and development of knowledge, knowledge creation basis, and exchange and sharing of knowledge among library staff and even the library clienteles. In a knowledge based economies, the efficient management of knowledge is very important in achieving the institutional aims and objectives. This is because in the present global economy, the resources are mainly confined in human capital anywhere potential talents are resident. Services in university libraries are provided mainly to help the teachers, students and visitors within and beyond the university library environment to achieve success in their academic pursuit and researches right through provision of information resources and access in an enabling environment that fosters intellectual development (Onuoha, 2010).

According to Sowole (1995) users' satisfaction is a reason for the existence of the academic library. Meeting the information needs of academic library users require conscious effort to

provide actual and timely information resources and services to satisfy the needs of library users. Kumar (2008) outlined lending services, bibliographic instruction, library orientation, general and specific information provision, literature search, reader's advisory service, selective dissemination of information (SDI), bibliography compilation, abstracting and indexing services, reprographic services and translation service among others as services that are provided by a university library.

Echezona and Edoka (2009) argued that university library should provide extensive holdings of the journal, books, microforms, audio-visuals, print and electronic media materials, information services and reference, bibliographic instruction programs at levels appropriate to the needs of the clientele. Though, with the advent of computer, university academic libraries are in best position to provide variety of services over a wide variety of areas. The nature and efficiency of services provided differ from library to library and the study on library services provision in university libraries is no longer new. Example, Echezona and Edoka (2009) identified the advisory services, reprographic services, selective dissemination of information, and indexing, abstracting and short loan services as the services provided for the management of special collections being provided.

The study investigated the status of KM in JU and MU with the objective of discovering how the organization went about creating, disseminating and applying knowledge practices internally. It also tried to assess whether the working environment in the JU and MU Library supported the adoption and implementation of KMPs. The study revealed that a clear organizational strategy and the understanding of KMPs potentials and challenges could be described as the basic formula for success. It also revealed the importance of capturing tacit knowledge that resides in employees" heads. The recommendations that resulted from the investigation included the need to define and document the organization's policy for KM, documenting best practices and expertise required for KM practice, and a system that allows for the easy location of specific knowledge and expertise. The examples used to give the impression that KM happens only in digital libraries. However, libraries that are not equipped with sophisticated technology can also use KM practice in limited ways.

Ruggles (1997) points out that paper and pen can be used to generate, codify and transfer knowledge too. The consensus from the literature and case studies is that technology is an expediter; therefore it makes sense to, for long term survival, think of investing in digital technology. This is because the technology enables faster information and knowledge processing as well as more interactivity. Having discussed the foundations of KM as a theoretical framework on which to ground this study, and looked at instances where it has been used in libraries in order to study its relevance or applicability to the JU and MU library, it has become clearer that its practices are effective if implemented in the modern information environment.

2.8.1 Knowledge development

Knowledge development is a concept that relates to the development of the conceptual, behavioral and technical abilities of an individual. Such development requires a structural competency based learning that is aimed at ensuring an overall competency of employees in an organization (Rowley, 2000). In other words, organizations should be competency driven so as to bring about a high level of competency among employees in an organization. To succeed in the competitive global world, organizations should become what are called learning organizations. A learning organization is defined as "an organization skilled at creating, acquiring, and transferring knowledge and insights" (Garvin; 1998). Thus ideas which can either come from within or outside the organization itself are essential for learning to take place. Garvin (1998) further outlines the main activities that he suggests are the building blocks of learning organizations and which provide effective learning. These are discussed in the following paragraphs.

The first activity is systematic problem solving, which relies on the scientific method to identify and solve problems. This means that data and not just assumptions should be used as a background to make decisions. In other words, decisions should be based on information that already exists within or outside the organization. Thus, employees should be taught to become aware of what goes on around them. Experimentation is another essential activity for a learning organization. This involves the searching for and in turn testing of newly acquired knowledge. For instance, employees could be involved in ongoing test programmes that seek the best way to achieve the highest level of performance of a particular task in an organization. However, there

is also what is called demonstration projects or experiments. Such projects are usually built from the beginning as a result of a need for change in a particular area in the organization must also continuously review their successes and failures and assess them systematically so that they form a basis for their future performance. There is a lot that can be gained from past failures despite what most people might think. Thus, learning from past experiences is very important for the success of an organization. Most organizations learn from past failures by closely examining the causes and in turn avoiding them in the future (Garvin, 1998).

2.8.2 Successful knowledge management practice

There are a number of elements required to successfully create, implement and support KM. An Australian Standard (AS 5037, 2003) outlines a KM model comprising five components – strategy, organizational capability and culture, drivers, elements and enablers. The key themes of the standard are that organizational capability and culture are given direction by the overall business strategy; KM must be aligned with organizational strategy, serving the business's drivers and contributing to the organization's objectives; KM must balance the four elements of people, process, technology and content against the demands of the organization's context; enablers are the tools, techniques and approaches used by the knowledge managers to support employees in the organization (Standards Australia, 2003).

KM capabilities comprise process capability and knowledge infrastructure capability, which collectively represent an organization's ability to establish internal structures and processes to create organizational competencies. Knowledge process capability is the organization's ability to create new knowledge by converting tacit knowledge to explicit knowledge, and eventually transforming it to organizational knowledge. KM infrastructure capability refers to the tools and organizational design which enable KM activities, typically organizational culture, organizational structure, and information technology. Business strategy is a key imperative for effective KM, and business strategy linked to KM initiatives is important for organizational effectiveness, thus creating the need for KM initiatives to be aligned with the organization's business strategy (Smith, Mills and Dion, 2010).

KM success is a multidimensional concept. It is defined by capturing the right knowledge, getting the right knowledge to the right user, and using this knowledge to improve organizational and/or individual performance. KM success is measured by means of the dimensions: impact on business processes, impact on strategy, leadership, and knowledge content' (Jennex, Smolnik & Croasdell, 2009).

This research is investigating the existing KMPs in academic libraries a comparative study in Jimma and Mekelle universities for practical framework development. The study aims to find out the effectiveness of Knowledge management is a viable means in which academic libraries could improve their services and become more responsive to the needs of users in the university academic library.

The purpose of this study was to analyze and evaluate key factors affecting knowledge management practices in university libraries. Indeed one of the objectives of the study was to propose a KM model for determinants that affect KM practices in university libraries. However these studies have been conducted at different times, for different organizations and in different environments but none addressed the library environment. The present study, addressing the investigation of knowledge management practices in university libraries of Jimma and Mekelle are designed to fill that gap addressed.

CHAPTERTHREE

METHODOLOGY

The focus of this study is to establish the state of knowledge management practices in academic libraries bold on a comparative study in JU and MU for practical framework development. The ultimate aim is to make recommendations that would assist with improving the service to the library clients. Therefore, the present the research methodology this is used by the researcher to collect the data requirements.

3.2 Research design

The study adopted both the quantitative and qualitative approaches to research. This research design is followed to investigate KM practices in Jimma and Mekelle University academic libraries. A cross-sectional study is selected because it is relatively easier to conduct the research to collect all the necessary data at a single time (Ragin 1987). Accordingly, in this study both quantitative and qualitative research design approach is used. A questionnaire is the primary tool that is used to collect data. It focused on the elements of knowledge management that indicate the level of KMPs in academic libraries. In addition, an interview is used to obtain further information, clarify ambiguities and anomalies of the questionnaire study and to ensure the validity of the results. A literature study is further conducted to identify major conceptual issues approach for this study.

3.3 Justification of the Study Site

In Ethiopia there are 33 universities and have your own academic libraries in different part of the countries among them Jimma and Mekelle universities academic libraries are selected because these are using similar library systems such as structures, both are supported by Institutional University Cooperation (IUC) library project, good relationship among both university libraries, using similar library software (i.e. ABCD, DSpace).Existing experience sharing among the librarians and my interest in the two university areas for working successful research completion. Then, in this study Mekelle and Jimma universities are purposively selected based on the above mentioned reasons. In addition Jimma and Mekelle Universities located in different regions and

environments so between jimma and Mekelle around 1138 KM far. Jimma is located in south west of Ethiopia and Mekelle in the Northern part of Ethiopia.

3.4 Study population

The population of the study includes all the librarians of Jimma and Mekelle universities libraries based on their staff size in order to get detail and relevant information about the existing KM practice. The total target population comprised of 240 library staff, 10 Library leaders such as Library director, college library heads and different library section heads amounting to a total of 639 library staff across library sections in all the targeted libraries. Table 3.1 below shows the population distribution

Table 3.1: Total Population in the study area

No	University	Library Staffs
1	MU	374
2	JU	265
Total		**639**

Source: (JU, 2016 and MU, 2016) HR.

3.5 Sample size and Sampling technique

3.5.1 Sampling technique

The study focused on JM and MU library, among the Ethiopian higher learning institution of the country that exists. Also, it has a different number of methods used to determine sampling size of the study. Simple random sampling helps avoid bias as units of the population are given an equal chance of being selected (Kerlinger, 2002). In the selection of library staff sample, simple random sampling technique is applied. A census are also applied to the University librarians and their college heads. All the university librarians and their section heads were selected as their positions placed them strategically to give the researcher insights and deeper understanding of the phenomenon under investigation.

Study Variables: The study explored two levels of variables which are independent and dependent variables. The variables considered in this study is Sex, Age, Educational status, College library, sections /Office, Years of services, KMPs facilities, people and organization related factors.

Conceptual Framework

Independent Variables   Dependent Variables

```
┌──────────────┐
│  Knowledge   │───────────────┐
│  Creation    │               │
└──────────────┘               │
                               │
┌──────────────┐               │
│  Knowledge   │───────────────┤
│  acquisition │               │
└──────────────┘               │              ┌──────────────────┐
                               │              │    Knowledge     │
┌──────────────┐               │              │   management     │
│  Knowledge   │───────────────┼─────────────▶│    practices     │
│  storage     │               │              └──────────────────┘
└──────────────┘               │
                               │
┌──────────────┐               │
│  Knowledge   │───────────────┤
│  sharing     │               │
└──────────────┘               │
                               │
┌──────────────┐               │
│ Knowledge use│───────────────┘
└──────────────┘
```
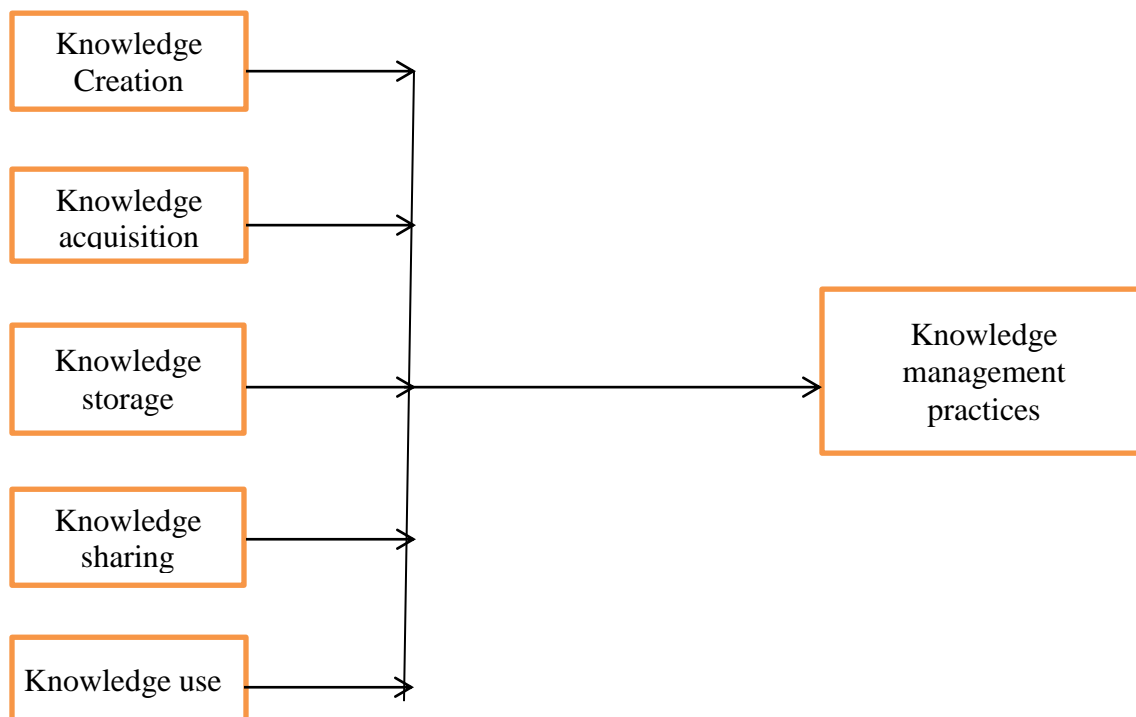
Figure 3.1: KM in University Libraries

The above conceptual framework depicts the interaction of many factors that could contribute to the establishment of effective KM Practices. It reflects the interaction of five factors that could drive and sustain KM practice. These elements, supported by appropriate ICT infrastructure formed the basis of analyzing and evaluating the existing state of KM practices in University libraries. The study investigated the above variables as key contributors to effective KM practices in university libraries. For these factors to enhance and sustain KM practices the staff understands and perception of KM concept and its benefits to their libraries is a key consideration.

3.5.2 Sampling Size

The total populations identified in this study from selected universities were 639. From this total number of populations 374 were JU Library staffs and 265MU Library staffs, with a total sample size of 250 participants thus, the sample size is determined using the sample size determination formula by (Kothari, 2004) so, and the sample size is determined by using the statistical formula given below:

The sample size is calculated using a single population proportional formula.

$$n = \frac{z\left(\frac{\alpha}{2}\right)2 * P(1-p)}{d^2}$$

(Kothari, 2004)

Where

          n= the desirable calculated sample size

          Z (=1. 96 (95% confidence level for two sides)

          p= proportion of population and barriers (50%)

          d= degree of accuracy desired setting at (5%)

Therefore the value of n is calculated as follows

n = (1.96)2* 0.5(1-0.5)   =384

(0.05)2

Use this formula

Considering the population correction factor into account the sample size is:

$$n = \frac{384}{1 + \frac{384}{639}} = 240$$

Sample size allocation (proportional allocation for JU Academic Library)

$$n_1 = \frac{n * N1}{N}, \ n_1 = \frac{240 \times 374}{639} = 140$$

Sample size allocation (proportional allocation for MU Academic Library)

$$n_2 = \frac{n * N2}{N} \quad n_2 = \frac{240 \times 265}{639} = 100$$

3.6 Sampling procedure

The list of all Librarians staffs were be retrieved from each human resource (HR) offices/website of the correspondence Universities and this is used as the sampling frame for the quantitative study. The probability techniques systematic sampling design is used to select representative respondent. This study is conducted on all the university librarians of Jimma and Mekelle University libraries respectively.

3.7. Data collection Instruments

Questionnaires and interview schedules were used as the instruments to collect quantitative and qualitative data respectively. The questionnaires were developed for university academic library staff and different college/university librarians heads while an interview schedule is developed for the university librarians. When well designed and distributed, the questionnaire has proved to be an ideal tool in a survey research approach. Interview schedule is developed and used to collect qualitative data pertaining to university librarians' views of KMPs in their respective libraries. In order to collect the required data for the study, the following three types of data collection tools were used:

3.7.1 Questionnaire

The questionnaires were developed for the library staff and head of college librarians. The form of the questionnaire is structured and the questions were presented with exactly the same wording and in the same order to all the respondents. The reason is to ensure that all respondents replied to the same set of questions. The form of the questionnaire had both open and closed ended questions. The questionnaire is also designed to collect opinion based qualitative data from respondents. Consequently, rating questions were included. Such questions were to be scored using a 5- point Likert scale. The staffs were asked to choose from five responses: Strongly Agree, Agree, Uncertain, Disagree, and Strongly Disagree. This response is assigned scores as follows: Strongly Agree (5), Agree (4), Uncertain (3), Disagree (2) and Strongly Disagree (1). The researcher ensured proper question sequence to reduce any chance of misunderstanding. The sequence also ensured that relations of one question to another were

readily apparent to the respondent. In terms of wording, the researcher ensured that each question is very clear to avoid any form of misunderstanding. The questions were simple, tangible and conformed as much as possible to the research questions.

3.7.2 Interview

The Interview questions listed were based on the particular data that university librarians were perceived to possess due to their positions in the establishment. The interview schedule is used to collect data pertaining to university librarians' opinions about KMPs, their level of support and general guidance in application of KM

3.7.3 Observation

The researcher papered the observation check list to observe the mechanisms for KM practices in Jimma and Mekelle university libraries respectively. It is the process of acquiring data, using sense organs. It has three components consisting of attention, sensation, and perception in the library. In sensation, we use sensory organs like eyes, ears, etc. Attention is the capability of concentrate on subject matter under study. Perception enables one to recognize facts, using experience, introspection and sensations (Kumar, 1999).The researcher check list has been prepared based on the related literature review for the study. The researcher thus did detailed observation during the interview period with directors and head of college library of Jimma and Mekelle university academic libraries respectively by prepared observation checklist.

3.8. Validity and reliability

The validity and reliability of this research first distribute sample questionnaires. The researcher undertook a pre-test on selected employees to check the validity of the questionnaire and corrections are made based on the feedbacks collected. The content validity also assured when the questionnaire is prepared based on extensive reading of literature review. According to Howard (1985) the definition of validity is influenced by accuracy which in turn is related to content validity. Content validity, he argues, is characterized by a sample that is representative of the entire population from which it is selected. Baumen (1992) further states in this context that data can only make sense if it relates directly to the purpose of the study. Bernard (2011) also concurs with the above. He asserts that validity refers to the accuracy and trustworthiness in terms of the instrument used for research, the data itself, as well as the findings. For instance, the instruments used for collecting data must be appropriate for gathering data that is able to answer

the research question, or measure a particular concept. The questions asked should, therefore, address the objectives of the study.

Reliability, on the other hand, refers to "a scientific observation's repeatability or reliability" (Howard, 1985). Bernard (2011), in turn, refers to reliability as being related to the possibility of coming to the same answer if a particular instrument is used to measure a specific theory more than once. In other words, to call data and findings reliable, one must get the same answer every time it is measured or tested. As Yin (2009) puts it, "the goal of reliability is to minimize the errors and biases in a study".

It is obvious that both validity and reliability are important components of a good research project. Denscombe (2007) further identifies factors that could hinder reliability. For instance, he argues that the presence of the interviewer at the data gathering stage of research can have an adverse effect on the consistency and objectivity of the data collected. The combining both quantitative and qualitative data collecting techniques, it would help to counter or eliminate the limitations inherent in each method. Consequently, in this study the researcher is able to support the data collected from the academic university librarians by means of a questionnaire with the data obtained from the in-depth interviews with the leaders.

3.9 Data Collection Procedures

The researcher began preparation of data gathering by first seeking authority from the JU and MU academic libraries .The data for this research is used to collected questionnaire, interview and observation in each university libraries respectively. The questionnaire is created using suitable questions modified from related research and individual questions formulated by the researcher. The researcher to collect data from the respondents got official letter from the Department of Information Science, Jimma University requesting for assistance from institutions (departments) of all study site. Then the researcher submitted the letter to library directors of the study site to get permission to conduct the survey. After the recruitment of three data collectors and trained them; the researcher and data collectors went to main campus of JU and MU for data collection. The researcher did the observation in both universities library systems and interviews with library directors and technical processing staff.

3.10 Data Analysis

The collection of data is analyzed using both quantitative and qualitative data obtained through the use of questionnaires and interview schedules respectively. Once all data is collected, it is cleaned, edited, coded and screened for accuracy. All the quantitative data were analyzed using the Statistical Package for social science (SPSS version 20) computer program is used to prepare and organize quantitative data from the questionnaires for analysis.

Mean value ranges as follow: 0-1.49 as very low, 1.50-2.49 as low, 2.50-3.49 as moderate, and 3.50-4.49 as high and 4.50-5.00 as very high implementation of activities, (standardized ideal mean value ranges, with 5- point-Likert). Moreover, linear regression was employed to predict statistical effect and relations between variables. The p-value is either < 0.05 or > 0.05. If it is less than 0.05, there is a statistical significant effect and correlations. If the p-value is greater than 0.05, there is no statistical significant effect and correlations (Kenate, 2013).

The quantitative data is tabulated with simple graphics such as statistical tables using frequency distributions with appropriate percentages; Bar graphs, Independent Samples T-Test, and Compared mean scores were also used to form the basis of quantitative data analysis. Qualitative data were organized into themes, categories and patterns pertinent to the study.

3.11 Ethical Consideration

Ethical issues are, or should be, an important consideration in the design and conduct of research (Wilkinson, 2000). This research is not enforced and deceived the participants. It does not involve people without their knowledge or consent. It keeps the privacy of each participant. The information gathered is used only for the reason of conducting this research. All activities in this study is conducted in a legal way. It is conducted by taking and distributes the permission letter from the department of Information Science of JU during the data collection period.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Response rate

The results and discussion chapters deal on the data analysis and statistical interpretation. It addressed the research questions and inferred on the purpose of the study. The response rate covered the library staff responses of the categories of universities involved in the study and the demographic information of the respondents that include: gender, academic qualifications, age and working experience. This section presents the results of data analysis using SPSS version 20.

A total of 240 library staff, university librarians and their college library heads were sampled from a population of 639 staff from both Jimma and Mekelle Universities libraries, 223 responded translating to 92.9% response rate. Table 4.1 below represents the response rate of library staff, according to Jimma and Mekelle universities.

Table 4.1: Response Rate of Library Staff by University

University	Staff population size	Sample size	Responses	Rate (%)
Jimma	374	140	127	90.7
Mekelle	265	100	96	96%
Total	639	240	223	92.9%

Table 4.1 above shows that among the 240 respondents about 90.7% respondents are returned from Jimma university libraries while 96% respondents came from Mekelle university libraries. Among the respondents from JU 9.3% and 4% form MU libraries did not respond the questionnaires.

4.2 Demographic Information

4.2.1 Gender of the respondents

This part shows the demographic information about the university academic library staffs with particular reference to the gender of the respondents. Table 4.2 shows the gender of sample respondents of the study consisting of male and female individuals.

Table 4.2 Gender of the respondents

University	Gender				Total
	Male	Percent	Female	Percent	
JU	79	62.2%	48	37.8%	100%
MU	46	47.9%	50	52.1%	100%
Total	125	**56.1**	98	**43.9%**	

The above table 4.2 shows that the male respondents are found to be 56.1% percent of the total sample, whereas the remaining 43.9% percent were female. Thus, most respondents were male respondents than female in both universities.

Table 4.3 Profile of Library staff respondents

Respondent status	Universities		Gender			
Respondent's position/role in the library	Jimma	Mekelle	Male	Female	Frequency	Percentage
Library Director	1	1	2		2	20%
Head of Library Section	2	2	2	2	4	40%
ICT Coordinator	1	1	2		2	20%
Deputy librarian	1	0	1		1	10%
Head of Digital Library	0	1	1		1	10%
Total					10	100%

The above table 4.3 illustrated the librarian's respondents of the interview questions in both university libraries respectively. Then Out of 10 respondents 80% were male and 20% of the respondent's female. Except one respondents, JU library heads IKM professional but MU respondent's nonprofessional including the university library director. So JU University library leaderships were professional comparing within the MU library leaders.

4.2.2 Academic qualification of the respondents

Jimma and Mekelle universities academic libraries respondents 'are educational status. The library staff is requested to show their appropriate academic qualifications as indicated in Table 4.4 below.

Table 4.4: Academic Qualifications of the respondents

University	Diploma		Degree		Master	
	Count	%	Count	%	Count	%
Jimma	52	40.9%	71	55.9%	4	3.1%
Mekelle	34	35.4%	55	57.3%	7	7.3%
Total	86	38.6%	126	56.5%	11	4.9%

The findings as reflected in Table 4.4 above revealed that most of staff 56.5% are degree holders 38.6% has a diploma, and 4.9% has a master qualification. This findings reflect a scenario where majority in both JU and MU librarians most of respondents degree qualifications in both university librarians revealed a similar pattern where all had a degree qualification of the staff requisite professional qualifications that can be harnessed in the application of KM in libraries.

4.2.3 Age group of the respondents

Table 4.5 below depicts the age range of respondents from the both universities (i.e. JU and MU).

Table 4.5: Age group of the respondents

Age group	Frequency	Percent
Less than 25 years	51	22.9
25-35 years	148	66.4
35-45 years	23	10.3
Above 45	1	.4
Total	**223**	**100.0**

The highest number of the respondents that is 66.4% falls into the age group of 25-35 years, followed by the second highest respondents that is 22.9% were from the age group less than 25

years, while about 10.3% were from the age group 35-45 years, and 4%, respondents were respectively above 45 years age groups.

4.2.4 Year of Experience of the respondents

Responses were received from four categories of librarians regarding their experience in the libraries of JU and MU as reflected in Figure 4.1 below.
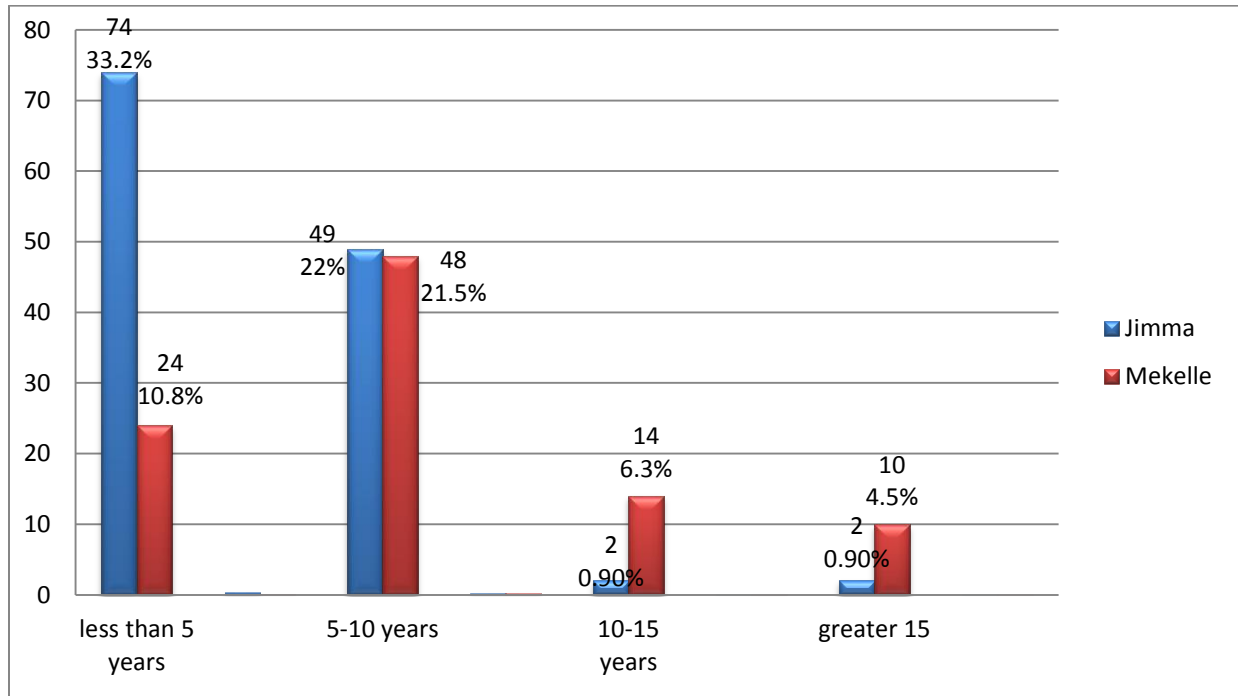
Figure-4.1: Experience of the respondents

Figure-4.1 above focuses the majority of the respondents that is 43.9% have less than five years of experience while 43.5% respondents have 5-10 years of experience and 7.2% respondents have more than 10-15 years of experience. However, 15.4% respondents were found to have greater than 15 years of experience. Most of the librarians are 43.9% respondents less than 5 years. This indicates the library has less experience staff in both university libraries of Jmma and Mekelle. While comparing both university libraries in the librarians experience the MU library staffs bit better experience than JU.

4.3 Existing Knowledge Management practices

The current KM practice in Jimma and Mekelle university libraries has been investigated in this study. This study objective is to assess the current KM practices in JU and MU university libraries. Through the practice of KM, the university library focuses on the systematic utilization and reuse of knowledge. To start, it is imperative to determine whether KM is in place or not in respective university libraries. Table 4.6 shows respondents opinions on the low of KMPs in the academic libraries of Jimma and Mekelle Universities. The researcher considers a Mean scale value: 1.0-1.49 very low, 1.5-2.49 low, 2.5-3.49 medium, 3.5-4.49 high and 4.5-4.99 very high. (Kenate,2013).

Table 4.6: Existence of KMPs in JU and MU

Variable	University	N	Mean	SD	Decision
Existing KMPs in	Jimma	127	2.17	.889	Low
library	Mekelle	96	2.25	.918	Low

From Table 4.6 above, responses revealed that there is KMPs in JU and MU academic libraries. Because X the mean(X) and standard deviation (SD) of both libraries as: X=2.17 and SD=.889 for JU, while MU X=2.25 and SD=.918, which is low mean scale of KMPs. This indicates there is weak existence KM in library.

An independent sample mean t-test is existing KMPs in library table 4.7 to test for equality of variances at level of significance 0.05.

Table 4.7 T-test summary of existing KMPs at JU and MU academic libraries

		Levene's Test for Equality of Variances				
		F	Sig.	t	df	Sig. (2-tailed)
Existing KMPs	Equal variances assumed	1.308	.254	-.694	221	.488
in libraries	Equal variances not assumed			-.691	201.210	.490

The result of the analysis in Table 4.7 above shows that there is no statistical significant effect in the opinions of the library staff on the Existing of KMPs in academic libraries of JU and MU.

Because the value of Sig. (2-tailed) greater than the level of significant at 0.05. Hence, respondents indicated yes. However, the researcher wanted to know the levels of agreement on the application of the KMPs in the libraries.

However, majority of the respondents indicated hearing the term of KM in different events as Figure 4.2. Consequently, the figure indicated that the library staffs practice KM in their library activities that include library meetings, reading in books and communications with peers.
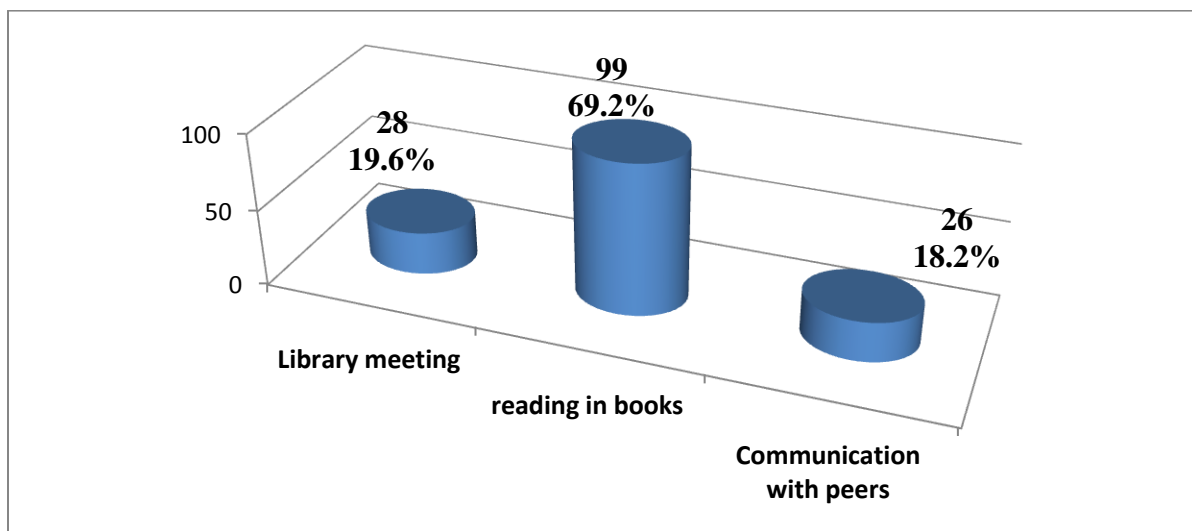
Figure-4.2: Contexts in which KM is heard

Based on the figure 4.2 above the majority of the staff 69.2% came to know about KM from reading in books, 19.6% from library meetings, and 18.2% from general communication with peers. This way to show easily practice and accept the transformation of the library services using KMPs in both JU and MU libraries.

The University library respondents were asked this understanding of KMPs in their library work activities or other ways of services in their university. The response is summarized in table 4.8 below.

Table 4.8: Understanding of KMPs respondents

Understanding of KMPs	MU	JU	Total
An extension of library work	35 36.5%	36 28.3%	71 31.8%
Nothing new from what we do	10 10.4%	13 10.2%	23 10.3%
A process of creating, capturing, sorting, sharing and applying information	43 44.8%	65 51.2%	108 48.4%
I don`t know	8 8.3%	13 10.2%	21 9.4%

The above table 4.8 shows that an understanding of the KMPs in both university libraries of Jimma and Mekelle is crucial since 48.4%, respondents process of creating, capturing, sorting, sharing and applying information for competitive advantage while 31.8%; regarded KM as just an extension of library work; 10.3%   Nothing new from what we do, and 9.4%, I don`t know. Most of the respondents of KMPs understood on the process of creating, capturing, sorting, sharing and applying information for competitive advantage of the respondents better understanding KMPs in both university activities respectively.

4.3.1 KM practice in library

Most of the library staff 50.2% who responded to this question rated the level of KM practice in their libraries as good, 20.6% as very good, 17.5% as not good, while 11.7% had no idea. Feedback from university librarians pertaining to their rating of KM practice in their respective libraries ranged from low to average. JU and MU university librarians rated the level of KM in their libraries as low, whereas JU and MU rated KM practice in their libraries as average. Figure 4.3 summarizes the scores below.
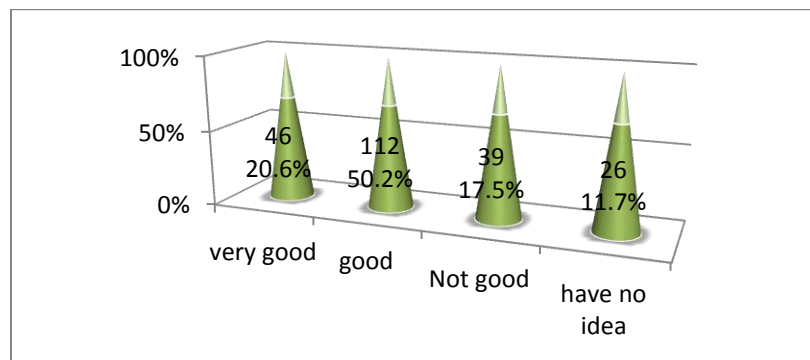
Figure-4.3: KM practice in library

The University library leadership is involved in championing KM, library staff respondents were requested to indicate on a 5 point likert scale the extent to which they agreed or disagreed that library leadership had championed application of KM in their respective libraries from a list of pre listed leadership initiatives. Table 4.9 below depicts responses by library staff to that effect.

Table 4.9: Application of KM in library

	University	N	Mean	Std. Deviation	Decision
Vision on the strategic importance of KMP for achieving library objectives	Jimma	127	4.19	.974	No significant
	Mekelle	96	3.78	1.135	No significant
Policies that encourage Knowledge practice in the university library	Jimma	127	3.89	1.002	No significant
	Mekelle	96	3.16	1.208	No significant
library has an induction program for new staff	Jimma	127	3.49	1.147	No significant
	Mekelle	96	3.14	1.253	No significant
incentives are provided to sharing new ideas	Jimma	127	3.46	1.390	No significant
	Mekelle	96	3.17	1.287	No significant
library management encourage knowledge creation, collection & use	Jimma	127	3.84	1.224	No significant
	Mekelle	96	3.74	1.190	No significant
Provision of more &varied training sessions to library staff	Jimma	127	3.47	1.252	No significant
	Mekelle	96	3.32	1.119	No significant
library staff to participate in appropriate forums	Jimma	127	3.29	1.398	No significant
	Mekelle	96	3.35	1.214	No significant

Level of significant at 0.05

NS = No significant

From Table 4.9 above, the mean scores reflect a scenario that shows that library leadership in university libraries are trying to champion application of KM in their libraries. Most of variables tested were above the mean using the t-test. The respondents that mean scores (4.19) were the Vision on the strategic importance of KMP for achieving library objectives,(3.89) Policies that encourage Knowledge practice in the university library,(3.84) library management encourage knowledge creation, (3.49) collection &use, library has an induction program for new staff,(3.47)

Provision of more &varied training sessions to library staff, (3.46) incentives are provided to sharing new ideas, and (3.29) library staff to participate in appropriate forumsrespectively for JU. And MU respondents that mean scores (3.78) were the Vision on the strategic importance of KMP for achieving library objectives,(3.16) Policies that encourage Knowledge practice in the university library,(3.74) library management encourage knowledge creation, collection & use,(3.14) library has an induction program for new staff,(3.32) Provision of more &varied training sessions to library staff, (3.17) incentives are provided to sharing new ideas, and (3.35) library staff to participate in appropriate forums respectively.

Based on the above t-test results compared the two university academic libraries leadership have championed application of KM in the library except library staff to participate in appropriate forums, In all of the other points stated above JU librarians respondents better Mean score than MU.

In addition, further insight in this regard from the university library management perspective, a related question is asked the librarian heads. Though the head librarians had previously concurred that they regarded KM as an important function and they encouraged staff to appreciate and practice it when asked in a question to indicate the various KM initiatives they had in place. But remaining within creating awareness in the KMPs advantages and opportunism we need further efforts in both university libraries.

Table 4.10 T-test summary of application of KM in library

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Decision
Vision on the strategic importance of KMP for achieving library objectives	Equal variances assumed	1.251	.265	2.882	221	.004	.408	SD
	Equal variances not assumed			2.821	186.558	.005	.408	SD
Policies that encourage Knowledge practice in the university library	Equal variances assumed	7.816	.006	4.952	221	.000	.734	SD
	Equal variances not assumed			4.826	182.292	.000	.734	SD
library has an induction program for new staff	Equal variances assumed	1.399	.238	2.185	221	.030	.353	SD
	Equal variances not assumed			2.158	194.550	.032	.353	SD
incentives are provided to sharing new ideas	Equal variances assumed	.617	.433	1.592	221	.113	.290	NS
	Equal variances not assumed			1.610	212.092	.109	.290	NS
library management encourage knowledge creation, collection & use	Equal variances assumed	.232	.630	.629	221	.530	.103	NS
	Equal variances not assumed			.632	207.635	.528	.103	NS
Provision of more &varied training sessions to library staff	Equal variances assumed	1.154	.284	.924	221	.357	.150	NS
	Equal variances not assumed			.938	214.841	.349	.150	NS
library staff to participate in appropriate forums	Equal variances assumed	7.145	.008	-.351	221	.726	-.063	NS
	Equal variances not assumed			-.358	216.731	.720	-.063	NS

Significant level at 0.05

NS = Not significant and

SD=significance difference

The result of the analysis in Table 4.10 above shows that there is significant difference in the Vision on the strategic importance of KMP for achieving library objectives, Policies that encourage Knowledge practice in the university library, and library has an induction program for new staff. But incentives are provided to sharing new ideas, library management encourage knowledge creation, collection & use, Provision of more &varied training sessions to library staff, and library staff to participate in appropriate forums have no significance differences of KMPs in academic libraries of JU and MU. Hence, most of the respondents indicated no significance differences. However, the researcher wanted to know the levels of agreement on the application of the KMPs in the libraries.

4.3.2 Jimma and Mekelle University library KMPs Function status

In both universities the responses on KM practice functions in university libraries most of the library staff 65.4.3% respondents form JU library and 57.3% respondents form MU library who responded to this question rated the level of KM practice in their libraries as disagree, 34.7% from JU Library and 42.7 respondents from MU library agree. The responses were summarized in figure 4.4.below
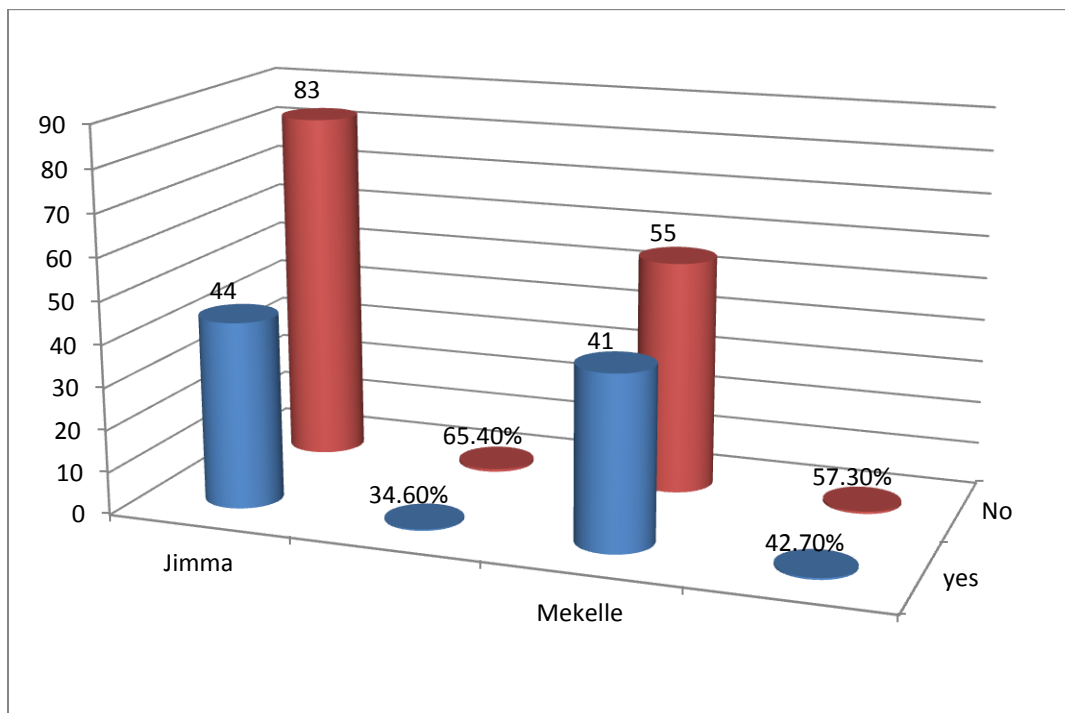
Figure 4.4: KMPs function in university Libraries

The study findings showed the majority of respondents were of the view that KM is not formally introduced in the university libraries and consequently there were mixed feelings about whether KM is a function of the libraries or not. Their opinions were thus taken to mean that KM per se is not in place. The findings also revealed that although the majority of the staff is familiar with the term KMPs their understanding is obtaining from literary. Despite the fact that KM is not officially endorsed in the university libraries the study did bring that KM practices were nonetheless in place although informally and uncoordinated. The majority of the respondents KMPs were not a function of academic libraries in both universities.

Table: 4. 11 T-test on KMPs function in library

	University	N	Mean	Std. Deviation	Decision
KMPs function of your library	Jimma	127	1.35	.478	Very low
	Mekelle	96	1.43	.497	Very low

From Table 4.11 above, depicts that there KMPs functions in library at both of JU and MU academic libraries. The mean(X) and standard deviation (SD) of both libraries as: X=1.35 and SD=.478 for JU, while MU X=1.43 and SD=.497, which shows very low of KMPs function in the library in each universities respectively. Based the above table 4.11 the score mean of MU is a little bit better than JU.

An independent sample mean t-test of KM function in library is presented in table 4.12 below to test for equality of variances at level of significance, 0.05.

Table: 4. 12 summery T-test on KMPs function in library

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Decision
KMPs function of your library	Equal variances assumed	5.017	.026	-1.226	221	.221	-.081	NS
	Equal variances not assumed			-1.219	200.296	.224	-.081	NS

Level of significant at 0.05

NS = Not significant

The above T- test table 4.12 revealed that there is no significant difference found in both JU and MU university libraries in terms of KMPs function in library at the value level of significance 0.05; since the t-test showed the p -value at 0.221 at Sig(.2-tailed) which is greater than 0.05. This shows the university library functions about the term of KMPs no significant differences.

4.4 Barriers/Obstacles for KMPs

Figure 4.5 below, 6% of the respondents from the questionnaire study strongly disagreed with the statement of KMPs is the same as Information Management, 40% of the respondents perception that KM and IM mean the same thing indicates that most responses are agree than strongly disagreeing, and 14% respondents disagree. While 17% respondents uncertain, and 23% responded strongly agree. So most of the University library respondents KM is the same as IM agreed.so this response indicates misconception in the understanding of KM. The researcher also understands the gaps because KM and IM is different.
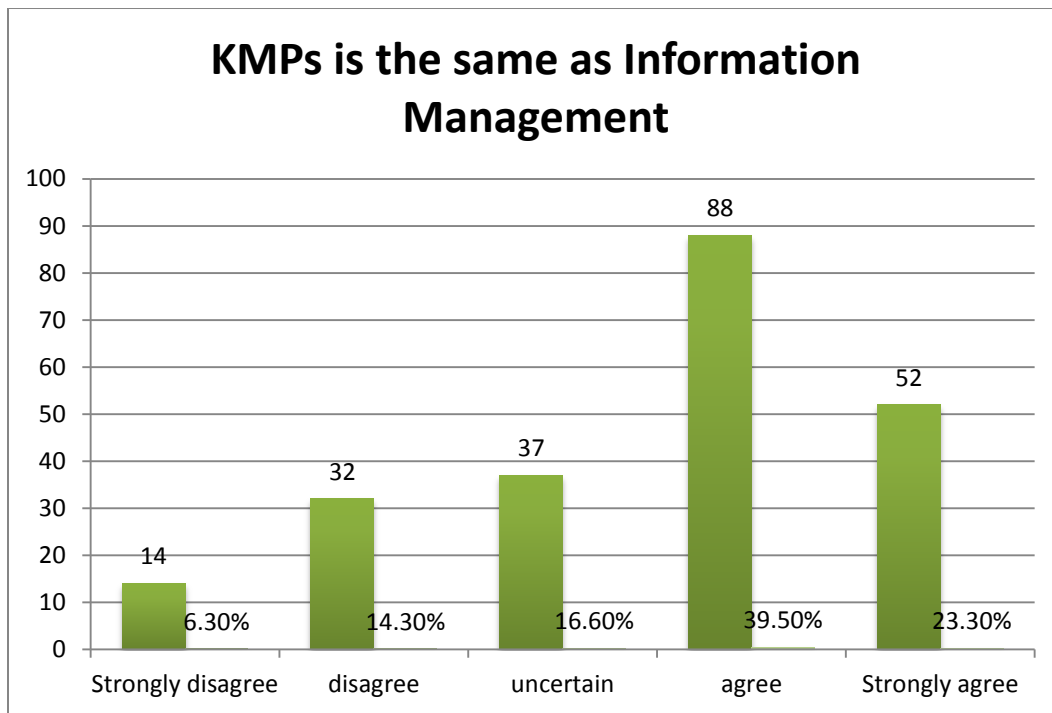
Figure 4.5: Understanding of KM and Information management at MU and JU

4.4.1 Complexity of KMPs in library

In terms of KM is a Complexity practice 30.9%, respondents are agreed this is indicated the most of the respondents opinion, 9.9 % of the respondents strongly disagree, and 21.5% disagreed. Concerning whether KM complex practice at MU and JU libraries, 19.3%, respondents uncertain, whereas, 18.4%, gave a strongly agreed. These perceptions are reflected in Figure 4.6 below.
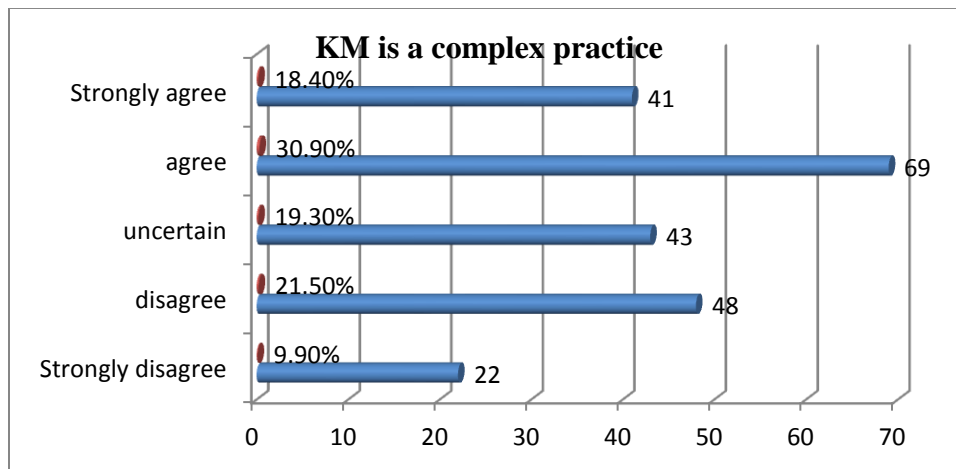
Figure 4.6: KM complex practice.

Table 4.13 below shows respondents opinions on the KMPs applicable high technology in academic libraries of Jimma and Mekelle Universities. Mean scale value: 1.0-1.49 very low, 1.5-2.49 low, 2.5-3.49 medium, 3.5-4.49 high and 4.5-4.99 very high (Kenate, 2013).

Table 4.13: Dependent of KMPs on high technology

	University	N	Mean	Std. Deviation	Decision
KMPs is only applicable where high technology in place	Jimma	127	3.02	1.422	Medium
	Mekelle	96	2.95	1.301	Medium

With regard to the question of whether there are KMPs is only applicable where high technology is in place, the questionnaire results showed that the mean(X) and standard deviation (SD) of both libraries as: X=3.02 and SD=1.422 for JU, while MU X=2.95 and SD=1.301, which shows in existence of technologies to compare the both universities within the above scored mean JU is a little bit better than MU in KMPs is only applicable where high technology is in place.

Table 4.14: summary T-test on KMPs applicable high technology

|		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Decision
KMPs is only applicable where high technology in place	Equal variances assumed	3.146	.078	.408	221	.684	.076	NS
	Equal variances not assumed			.413	213.091	.680	.076	NS

Level of significant at 0.05

NS = Not significant

Based the above T- test table 4.14 above revealed that there is no significant difference found in both JU and MU university libraries in terms of KMPs applicable high technology in library the value of 0.05 level of significance; since the t-test showed the p -value at 0.684 at Sig(.2-tailed) which is greater than 0.05. This shows the university library KMPs applicable high technology no significant differences.

The purpose of asking the question is to find out if KMPs is vital in the librarians' daily activities to obtain benefits of KM Figure 4.8 below reflects the responses from the questionnaire respondents:

	Jimma		Mekelle	
yes	97	76.40%	74	77.10%
No	30	23.60%	22	22.90%
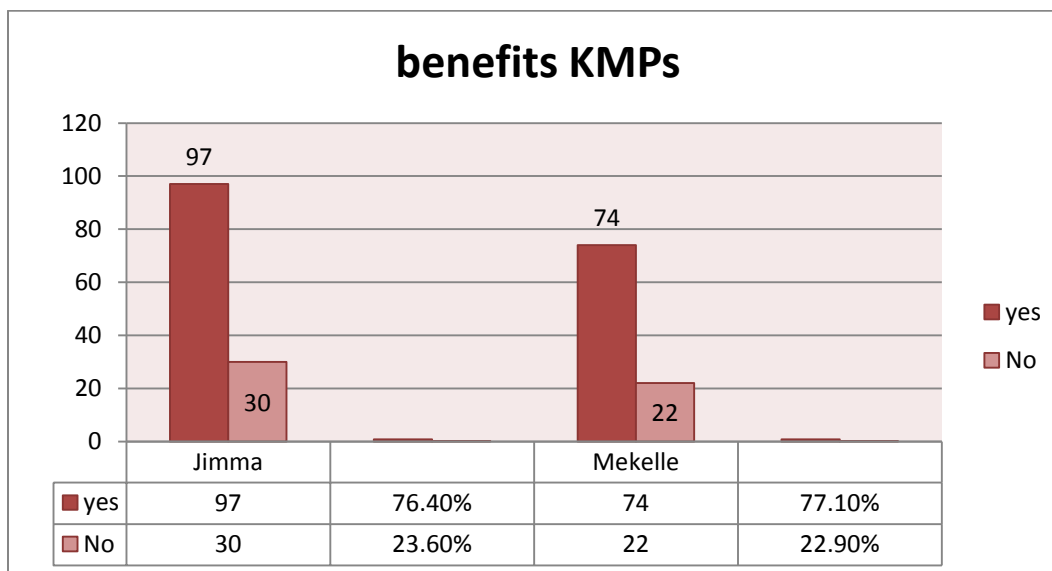
Figure 4.7: Benefits of KMPs in Library

As is evident from the figure 4.7 above, a considerable majority of the questionnaire respondents

were positive about the benefits of KMPs 76.4%, respondents agreed the benefits of KMPs in JU library whereas, 30(23.6) gave negative response which is cannot render a library and 74(77.1%) agreed with the benefits of KMPs whereas 22(22.9%) of the respondents were not sure. It would seem, from the interviews with the managers that they mainly belong to the benefits of KM that pertain to the management of the library and the library activities.

Findings, as reflected in table 4.15 below show that library staff respondents were in agreement that their libraries encouraged and facilitated knowledge sharing. The researcher considers a Mean scale value: 1.0-1.49 very low, 1.5-2.49 low, 2.5-3.49 medium, 3.5-4.49 high and 4.5-4.99 very high (Kenate, 2013).

Table 4.15 library encourages and facilitates knowledge sharing practices

	University	N	Mean	Std. Deviation	Decision
library encourage and facilitate KS practices	Jimma	127	1.42	.495	Very low
	Mekelle	96	1.33	.474	Very low

As shown in table 4.15 above whether library encourages and facilitates knowledge sharing practices showed the mean(X) and standard deviation (SD) of both university libraries as: X=1.42 and SD=.495 for JU, while MU X=1.33 and SD=.474, which shows a very low of library encourages and facilitates knowledge sharing practices to compare the two universities libraries within the above scored mean result JU is a little bit better than MU.

Table 4.16 Summary T-test on library encouragement and facilitation of knowledge sharing practices

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Decision
library encourage and facilitate KS practices	Equal variances assumed	6.594	.011	1.278	221	.203	.084	NS
	Equal variances not assumed			1.285	209.105	.200	.084	NS

Level of significant at 0.05

NS = Not significant

The above table 4.16 revealed that there is no significant difference in both JU and MU academic libraries in terms of library encourages and facilitates knowledge sharing practices in level of significance at 0.05. Then the t-test showed that .203 Sig. (2-tailed) which is greater than 0.05. This indicates in both universities libraries there are no significant differences. JU and MU library staff respondents were requested to choose from a list provided, the knowledge sharing forums and practices that were in place in their respective libraries. From the statistics displayed in table 4.17 below it is evident that university libraries that facilitate knowledge sharing. The most common forums and practices created include discussion forums with users 49.3%, librarians encouraged to be speakers in library forums 50.2%, induction of new staff 76.7%, users access to KM services in the library 69.1%, reward systems are in place for sharing new ideas and innovations 43.5%, and tolerance in the library 77.1%. Other equally good forums encouraged included recognition of expertise and know-how of library staff, and a climate of openness and trust and tolerance in the library and presentations of research papers in conferences by librarians. The findings generally reflected a scenario where knowledge sharing forums and practices were in place despite lack of a reward system.

Table 4.17 Knowledge sharing forums

	Jimma		Mekelle		Total	
	yes	no	yes	no	yes	no
Discussion forums with users	57	70	53	43	110	113
	44.9%	55.1%	55.2%	44.8%	49.3%	50.7%
Librarians encouraged to be speakers	75	52	37	59	112	111
	59.1%	40.9%	38.5%	61.5%	50.2%	49.8%
Induction of new staff members to library culture	100	27	71	25	171	52
	78.7%	21.3%	74.0%	26.0%	76.7%	23.3%
library users access to KM services	91	36	63	33	154	69
	71.7%	28.3%	65.6%	34.4%	69.1%	30.9%
reward systems are in place for sharing new ideas and innovations	0	127	0	96	97	126
	.0%	100.0%	.0%	100.0%	43.5%	56.5%
tolerance in the library	97	30	75	21	172	51
	76.4%	23.6%	78.1%	21.9%	77.1%	22.9%

Table 4.17 above reflects these findings. To validate these findings the university librarians during their interviews and in response to a similar question asserted that they created forums where staff and other stakeholders shared knowledge among them or listened to experts either physically or online.

The JU and MU librarians' response on whether they had a KM policy and strategy revealed that such were not in place and what existed were various policies developed to regulate library processes which touched on some aspects of KMPs . Both from JU and MU 90% and above of the respondents librarian heads, representing the university librarian, indicated that the library did not have a KM policy. However, the absence of a KM policy and strategy though, points to the fact that KM as a library function has not been officially endorsed to enable the libraries harnesses the knowledge assets within and without (Kim, 2000). This is because a strategy is a plan of action with a shared understanding to accomplish a specific goal that focuses on how a given objective is achieved. Thus it could rightly be assumed that any KMPs in place in the university libraries is not by design. Therefore, there are situations where JU and MU libraries do not have a formal or informal KM policy, but nevertheless engage in KM activities.

The majority of respondents, 89.8% from JU and 94.8% from MU agreed that a KM policy is nonexistent. However some respondents 10.2% from JU and 5.2% from MU indicated that a KM policy is in place on some aspects of KM. The interview responses from the University librarians pertaining to the same question shed light to the matter as all agreed that a policy for KM nonexistent. Responses were summarized in figure-4.8: below.
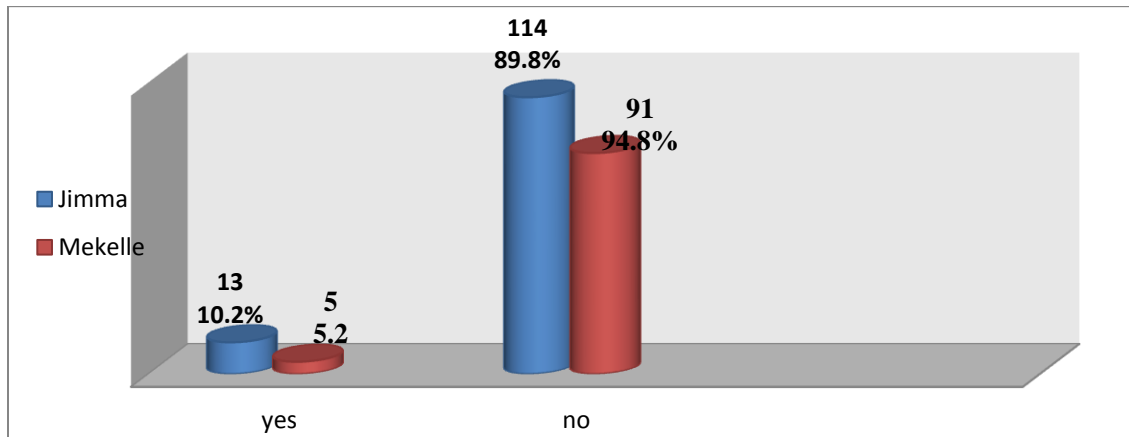
Figure-4.8: library has a KMPs policy

The research question aimed to determining whether knowledge sharing practices are coordinated and systematic revealed that 70.9% of the respondents indicated that knowledge sharing practices are not coordinated and systematic. University librarians interviewed also agreed that sharing tacit knowledge is not in their strategy and therefore lacked coordination and systematic in both university librarians staff respondents. Thus, KM has not been fully understood by the librarians who are expected to respondents of the questionnaire. These findings are reflected in table 4.18 below.

Table 4.18: Knowledge sharing practices coordinated and systematic

	Frequency	Percent	Valid Percent	Cumulative Percent
yes	65	29.1	29.1	29.1
no	158	70.9	70.9	100.0
Total	223	100.0	100.0	

4.5 KM Practice tools and mechanisms

To determine the librarian staffs level of computer literacy a research question is asked. Most of the staff 87% who responded indicated that they had computer literacy skills. Further questioning revealed that most 23% of the staff possessed moderate level of computer proficiency, 61% had basic level of proficiency and 16.4% were computer experts. The library leaders to agree within participate any training in computer application skills. These perceptions are demonstrated in Figure 4.9.below.
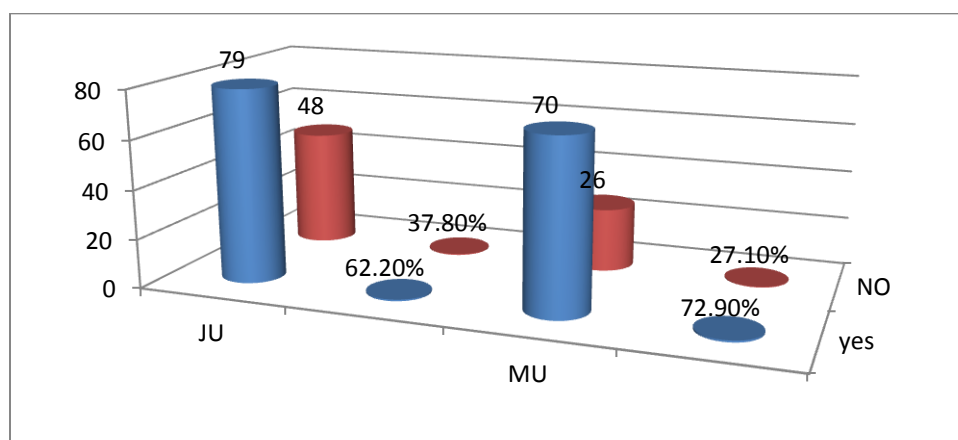
Figure 4.9: Training on computer application

These findings could be interpreted to mean that library staff had moderate IT skills which could be used in the application of KM especially in the processes of capture, storage, retrieval and dissemination. The librarians with IT expertise could work with IT professionals to develop appropriate KM systems. All the respondents were in tandem that the computers in their libraries were enough. In response to a question that aimed to establish the number of computers in respective libraries 58.3% of the staff who responded indicated that library computers were over 25 computers and 23.3% of the respondents are 10-25 computers available in the respective library while 18.4% gave 1-10 computer in the libraries. Then each college libraries are available computers in library to support activities. Respondents replay are demonstrated in Figure 4.10 below.
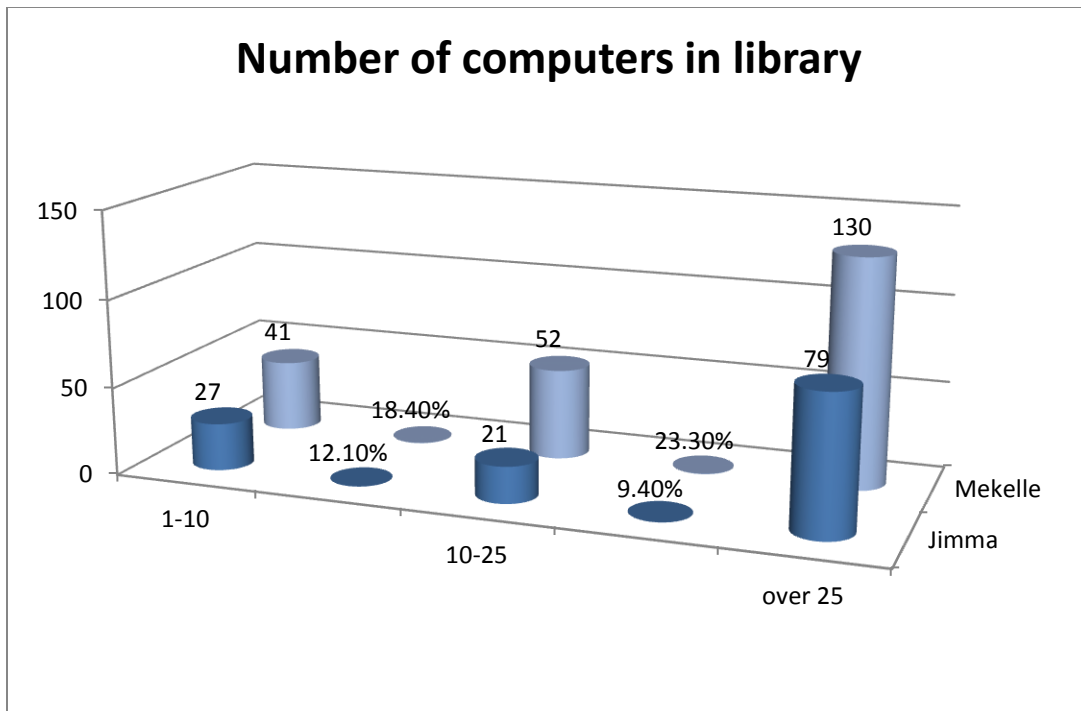
Figure 4.10: Number of computers in library

Within this regards most of the computers had internet connectivity that facilitated exchange of knowledge. These perceptions are reflected in figure 4.11 below.
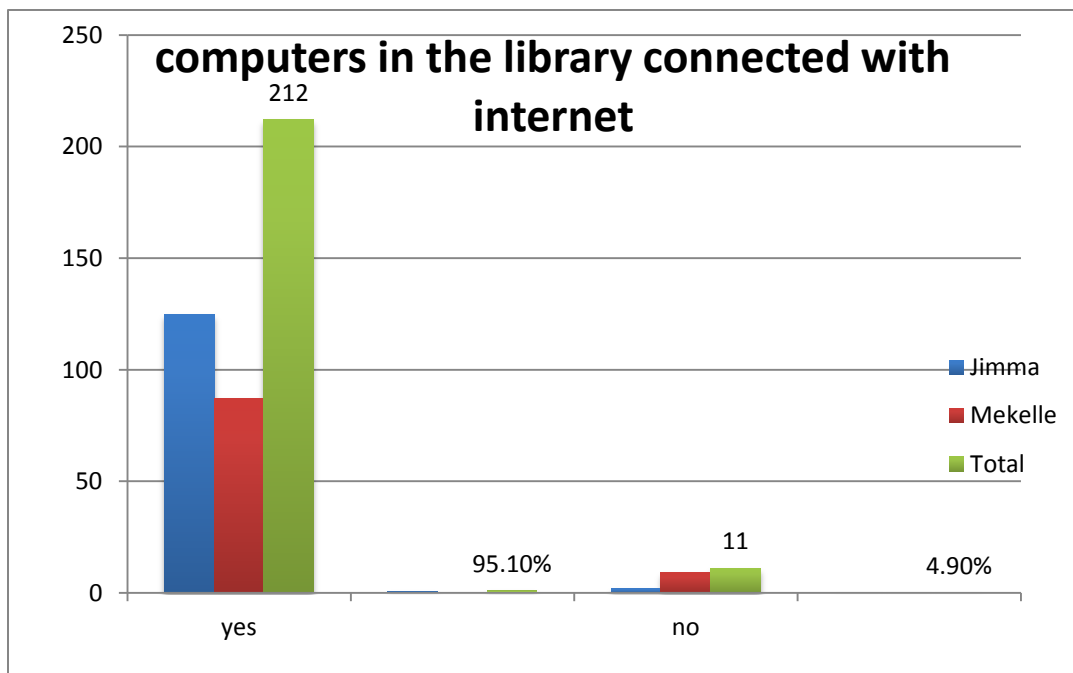
Figure 4.11: Internet connection status

The entire library staff except 12.1% had e-mail addresses. That means 87.9% of the librarians in JU and MU library has a personal e-mail address. The responses of respondents were summarized in table 4.19 below,

table 4.19: E-mail users librarians

Do have e-mail address		Rating	University		Total
			Jimma	Mekelle	
	yes	**Frequency**	115	81	196
		%	51.6%	36.3%	87.9%
	no	**Frequency**	12	15	27
		%	5.4%	6.7%	12.1%

The libraries email facilities were used for both personal and Library work. In JU though, majority of the staff 56.6%) acknowledged that the emails were used more for personal pursuits and 33.3% of the respondents used for both library and library work. Whereas, 7% respondents are used for library only. The responses were summarized in figure 4.12 below

University librarians using of e-mail address

	JU		MU	
■ Personal use	59	59.60%	47	54%
■ Library Use	7	7%	13	15%
■ Both	33	33.40%	27	31%
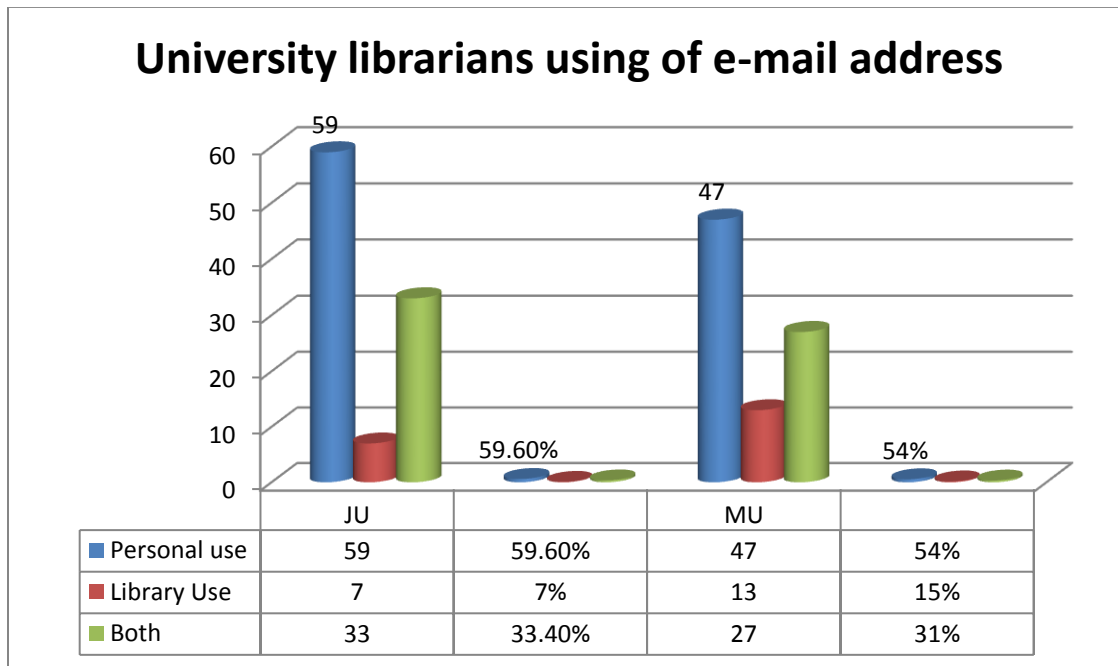
Figure 4.12: e-mail use status

The findings brought out that email addresses were mostly used for personal rather than for administrative purposes. With this regards MU librarians similarly to JU librarian's response. The fact that computers were adequate and were interconnected gives credibility to library management. With greater understanding of KM, the current ICT infrastructure is important to help for KM practices.

	yes		no	
Jimma	49	22.00%	78	35.00%
Mekelle	29	13.00%	67	30.00%
Total	78	35.00%	145	65.00%
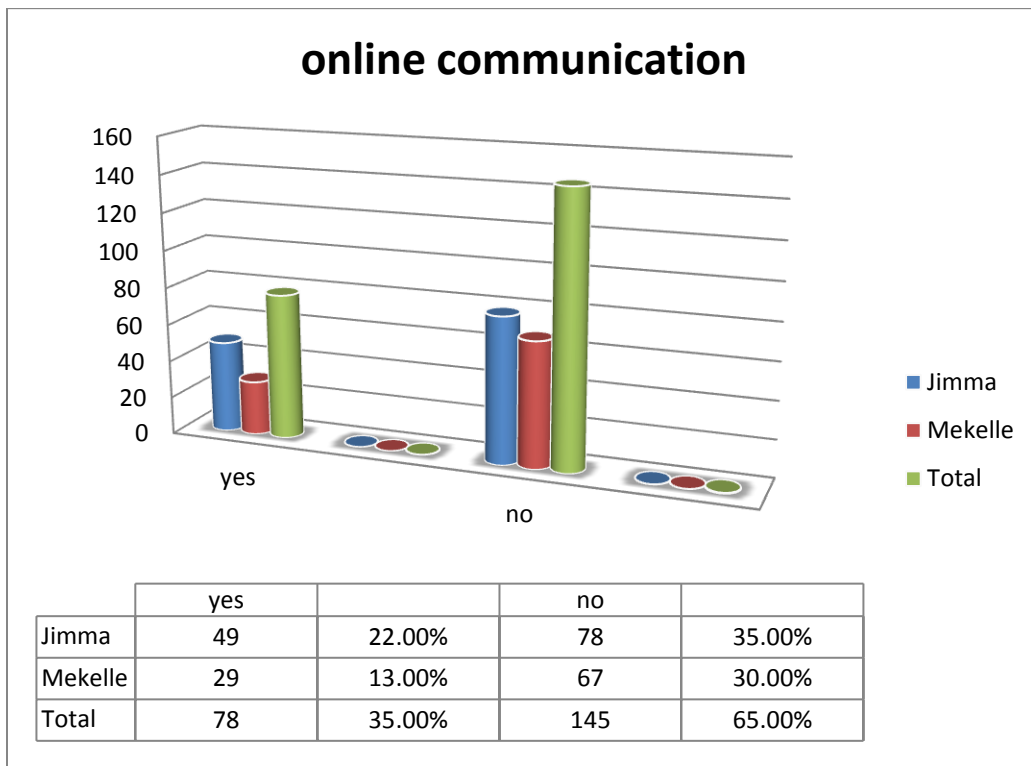
Figure 4.13: encouraged online group discussions

From the above figure 4.13 the majority of libraries 35% from JU and 30% from MU library staff respondents are the view that their libraries cannot encouraged online group discussions. Whereas, 22% from JU and 13% from MU gave agreed the library encouraged online conversation. To share knowledge and expertise held by staff, the use of IT is vital. It is possible and easy to link closely knowledge sources and knowledge workers by computer networks to establish the type of ICT tools the libraries provided for online group conversation the library staff were requested to indicate from a list provided which ICT tools were in use in their respective libraries.

In both university libraries most of the librarians are used e-mail tool with 42 (81.81%) from JU and 34(47.88%) from MU librarian responses. The findings are as shown on table 4.20 below

Table 4.20: ICT tools used in library

	JU		MU	
	Freq	**%**	**Freq**	**%**
E-mail	42	61.81	34	47.88
Chat	12	17.63	14	19.71
Instant messaging	5	7.42	3	4.22
Message on boards	4	5.97	7	9.85
Peer-to-Peer applications	3	4.46	8	11.26
Real Time Meeting Interfaces	2	2.94	5	7.04

Table 4.20 above shows the KM practice tools in different ways but except e-mail users the mentioned tools are low users in the library in both university librarians. So the library leader has to work more in the awareness of the utilized the library service activities.

The findings of the study also showed that the required technical structures that enhance online communication were in place. All the libraries have access to intranets, portals as well as websites as reflected in Figure 4.14 below.

enhance communication to library activities

	Jimma yes		Jimma No		Mu yes		Mu No	
Internet structures to enhance communications	112	61.90%	15	35.70%	69	38.10%	27	64.30%
portal structures to enhance communications	39	59.10%	88	56.10%	27	40.90%	69	43.90%
website structures to enhance communications	104	63.40%	23	39.00%	60	36.60%	36	61.00%
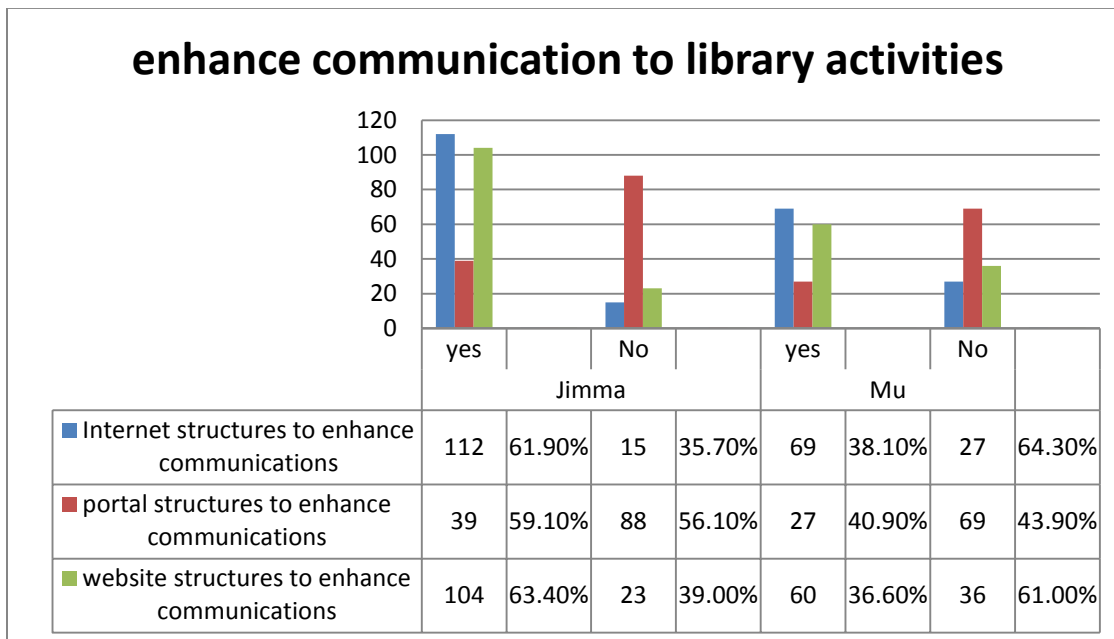
Figure 4.14: Technical structures in place to enhance communication

The study is vital factor to support the process of storing and distributing knowledge for practice. It is also worth noting that though KMPs is enhanced by technology, it is not a technology discipline and thinking in terms of a KMS refer to any kind of IT system that stores and retrieves knowledge, improves collaboration, locates knowledge sources, mines repositories for hidden knowledge, or in some other way enhances the KM process. The focus should be on the functionality of the IT systems required for the specific activities within the organization. In this regard the university librarians were asked whether they had KM systems that supported the creation, capture, storage and dissemination of knowledge. The university librarians were in agreement in saying that they did not have a specific system for KM.

4.5.1 ICT support to KM practices in librarians

ICT support KM to practices in library and dissemination of knowledge is enhanced by the system used in the university library. The study wanted to establish whether there is adequate ICT support for KM in place. Using a 5 likert scale rating the staff is asked to rate the extent to which they agreed that the listed ICT support is available to librarians. Table 4.21 below presents the findings.

Table 4.21: ICT support for KMPs

Statement	Rate (frequency ,percentage)					Descriptive statistics & decision		
	SDA	DA	UC	A	SA	X	SD	DN
Technology has created an Institutional memory accessible to the entire university libraries.	7 3.1%	9 4.0%	21 9.4%	77 34.5%	109 48.9%	3.22	.991	SA
Collaboration is rapidly in university employees	10 4.5%	18 8.1%	42 18.8%	74 33.2%	79 35.4%	2.87	1.122	SA
University library invested in IT literacy its staff	15 6.7%	31 13.9%	41 18.4%	72 32.3%	64 28.7%	2.62	1.224	A
academic library service not limited by geographical barriers	9 4.0%	45 20.2%	55 24.7%	62 27.8%	52 23.3%	2.46	1.169	A
Knowledge practice outcomes through the ICT technology	16 7.2%	29 13.0%	41 18.4%	77 34.5%	60 26.9%	2.61	1.214	A
Knowledge systems enable knowledge identification, capture, organization, sharing and dissemination and utilization	10 4.5%	27 12.1%	24 10.8%	81 36.3%	81 36.3%	2.88	1.162	A
Library has a knowledge repository	16 7.2%	24 10.8%	39 17.5%	73 32.7%	71 31.8%	2.71	1.222	A

Scale: 5=strongly Agree (SA), 4=Agree (A), 3=Uncertain (UC), 2=Disagree (DA), 1 =strongly Disagree (SD), Mean (X), Std. Deviation (SD), (DN=decision

The mean scores in Table 4.21 above confirm that ICT support is available to support KM. The most prevalent indicators of ICT support agreed by the majority of respondents of JU and MU librarians were the fact that technology had been used to create an institutional memory accessible to the entire university (3.22). A big group also agreed that KMPs systems enable knowledge identification, capture, organization, sharing and dissemination and utilization (2.88). Other mean scores oscillated towards agreeing that the other listed ICT support were equally

available to librarians. Most of the respondents agreed that technology that supports collaboration is in their hands (2.87), The library has a knowledge repository where staff can get all information and appropriate sources of knowledge (2.71), the university library has invested greatly in IT literacy for its staff (2.62), that Knowledge practice outcomes are communicated to the staff Through ICT technology (2.61), as well as the academic library service is not limited by geographical barriers (2.46).

These findings could be interpreted to mean that with such kind of ICT infrastructure in place KM could be effectively applied in university academic libraries keeping other factors continuous. To determine whether the available ICTs were adequately utilized for KMPs are worth investigating. In both universities academic libraries compared the ICT supporting for the library KMPs activities in all parts of the library section the respondents agreed within the supporting of ICT technologies.

4.5.2 Application of ICT in library utilization among colleagues

Respondents were asked question about the available ICTs that have been adequately utilized for knowledge sharing practice among your colleagues. The Majority 74% from JU and 67.7% from MU of the library staff respondents were of the view that the available ICTs were well utilized while 26% from JU and 32.3% from MU librarians were of a opposing view that the ICTs were not adequately utilized. Thus, though the findings of the study established that ICT support to librarians are good some respondents were still of the view that the available ICTs had not been adequately utilized for knowledge sharing among their colleagues. Responses were summarized in figure 4.15 below.
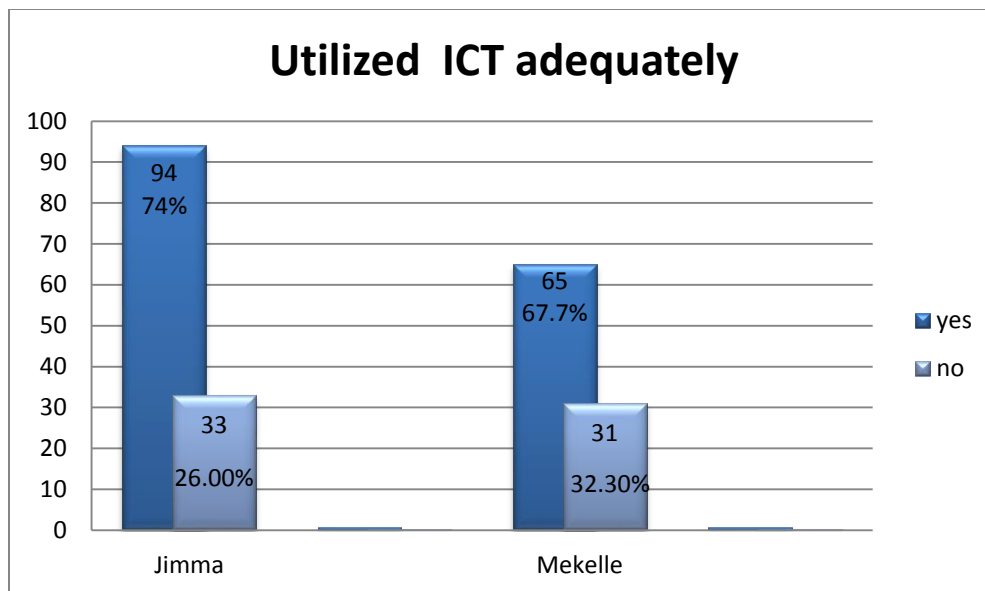
Figure 4.15: ICT utilization status

Based the above Figure 4.15 the reasons why some university library staff felt that the level of ICT utilization was not adequate a follow up question was asked. Several factors were floated notable among these being that libraries had not embraced ICT adequately, has more access ICT but does not working properly, library staff needed more training in the use of ICT, there was lack of good polices and that generally there is always room for improvement

4.6 KMPs framework in libraries

This study is to establish the extent to which the organizational framework enhanced KM practice. The organizational framework encompasses the organizational processes, structural elements, policies and systems put in place and supported by an organization deliberately to support the knowledge management process (Debowski, 2006). Consequently, the study sought to establish the type of support services and facilities in place to enhance KM practice in respective university libraries. The findings were based on a 5 point likert scale rating. The mean scores calculated for most of the variables were relatively high meaning that the libraries had put in place some support services and facilities that could enhance KM. The study findings revealed that university libraries' organizational framework is moving close to providing an ideal infrastructure for enhancing KM practice as shown in table 4.22 below.

Table 4.22: Organizational framework

Organizational framework	Rate (frequency ,percentage, mean and SD)							
	SDA	DA	UC	A	SA	X	SD	DN
Knowledge policies are formulated and accessible all library staffs	18 / 8.1%	36 / 16.1%	42 / 18.8%	66 / 29.6%	61 / 27.4%	2.52	1.269	A
knowledge practice values are explicitly stated in library	14 / 6.3%	31 / 13.9%	60 / 26.9%	89 / 39.9%	29 / 13.0%	2.39	1.077	A
lines of communication across the university library well developed	23 / 10.3%	35 / 15.7%	49 / 22.0%	72 / 32.3%	44 / 19.7%	2.35	1.250	A
Vision, missions & strategic plans reflect KM oriented within the library	15 / 6.7%	20 / 9.0%	32 / 14.3%	96 / 43.0%	60 / 26.9%	2.74	1.148	A
Library structures has provision for meeting rooms for KS and discussion	21 / 9.4%	42 / 18.8%	42 / 18.8%	68 / 30.5%	50 / 22.4%	2.38	1.278	A

Scale: 5=strongly Agree (SA), 4=Agree (A), 3=Uncertain (UC), 2=Disagree (DA), 1 =strongly Disagree (SD), Mean (X), Std. Deviation (SD), (DN=decision

From the statistics displayed in Table 4.22 above it is clear that there are adequate support services and facilities that could enhance KMPs in university academic libraries. A mean score of 2.74 reflects that Vision, missions & strategic plans reflect KM oriented within the library. A mean score of 2.52 Knowledge policies are formulated and accessible all library staffs while a mean score of 2.39 knowledge practice values are explicitly stated in library. With a mean score of 2.38 Library structures has provision for meeting rooms for KS and discussion and a mean score of 2.35 lines of communication across the university library well developed. The fact that the mean scores ranged between 2.35 to 2.74 could point to the conclusion that library staff are not very clear about KM. The purpose of the study is to establish key elements that could have influenced the state of KM

4.6.1 Effective application of KMPs in library

The determination of the study is to establish key elements that could have influenced the state of KM. Therefore defining these factors are useful for structuring an environmental analysis because there is an important link between environmental analysis and critical success factors.

To assess what factors could have generally influenced effective KM application in university libraries a question is asked. Library staff respondents were asked to indicate to what extent various variables listed in the questionnaire could have influenced lack of effective application of KM in their libraries. Feedback is as given in table 4.23 below.

Table 4.23: factors influenced effective application of KMPs in library

Factors	Rate (frequency ,percentage, mean and SD)							
	SDA	DA	UC	A	SA	X	SD	DN
staff perception of KM as a vital practice in library operations	10 4.5%	24 10.8%	34 15.2%	74 33.2%	81 36.3%	2.86	1.156	SA
personal motivation to share knowledge	31 13.9%	22 9.9%	95 42.6%	75 33.6%	0 .0%	1.96	.997	UC
resistance to changing traditional library service system	10 4.5%	22 9.9%	34 15.2%	96 43.0%	61 27.4%	2.79	1.089	A
the way KMPs is introduced	9 4.0%	21 9.4%	45 20.2%	84 37.7%	64 28.7%	2.78	1.088	A
inadequate knowledge of technology application by staff	10 4.5%	43 19.3%	33 14.8%	88 39.5%	49 22.0%	2.55	1.161	A
inadequate IT infrastructure	16 7.2%	58 26.0%	32 14.3%	62 27.8%	55 24.7%	2.37	1.298	A
poor leadership support	26 11.7%	45 20.2%	42 18.8%	63 28.3%	47 21.1%	2.27	1.315	A
library culture that inhibits sharing	0 .0%	41 18.4%	63 28.3%	74 33.2%	45 20.2%	2.55	1.012	UC
rigid & hierarchical library organizational structure	10 4.5%	43 19.3%	60 26.9%	62 27.8%	48 21.5%	2.43	1.156	A
staff can meet formally or informally practices KM	10 4.5%	35 15.7%	44 19.7%	89 39.9%	45 20.2%	2.56	1.113	A
Lack of specific training in KMPs	9 4.0%	34 15.2%	32 14.3%	79 35.4%	69 30.9%	2.74	1.168	A
Inadequate knowledge of the benefits of KM in library operations	9 4.0%	34 15.2%	38 17.0%	90 40.4%	52 23.3%	2.64	1.118	A

Scale: 5=strongly Agree (SA), 4=Agree (A), 3= Uncertain (UC), 2=Disagree (DA), 1 =strongly Disagree (SD), Mean (X), Std. Deviation (SD), (DN=decision

From Table 4.23 above most of the respondents were of the view the staff perception of KM as a vital practice in library operations (2.86) , resistance to changing traditional library service system (2.79) , the way KMPs are introduced (2.78), Lack of specific training in KMPs (2.74) and Inadequate knowledge of the benefits of KM in library operations (2.64) staff can meet formally or informally practices KM (2.56) where library culture that inhibits sharing (2.55) and inadequate knowledge of technology application by staff (2.55) as well as inadequate knowledge of technology application by staff (2.43), inadequate IT infrastructure (2.37) ,poor leadership support (2.27), while personal motivation to share knowledge (1.96) among others were factors highlighted as having affected effective KM application. These findings imply therefore that several factors had inhibited effective KM application in university libraries in Jimma and Mekelle. The perception that KM is too expensive and too time consuming to implement, existence of closed office design, a library culture that inhibited sharing, and inadequate infrastructure were not factors mentioned as having affected effective KM application.

4.7 Discussion of the interview findings

The researcher carried out interviews with Mekelle and Jimma universities library Directors and College library heads from the two universities. The researcher wanted to know the understanding of the current KMPs in JU and MU academic libraries Interviews are the most important technique to serve scientific research studies such as the qualitative research method. Alternative for each question is added for interviews as it is easier for the librarian to understand what is exactly meant in our questions and kept us focusing on my aim of the study. Semi-structured interviews were carried out. The questions were formulated on the basis of reviewing literature. The interview method provides the best way to clarify ambiguities in questions and responses as any misunderstandings are corrected immediately. In this study, they were used to verify responses and to obtain further information on issues raised in the questionnaire study.

The researcher used ten library leaders, five from JU library and five from MU library were interviewed. The interviewees were selected from respondents in the questionnaire study. In addition to indicating the possibility of interviewing the questionnaire respondents on the questionnaire, the researcher asked the respondents individually to take part in the interviews.

The interviews including 12 questions in the study were divided into three key areas understanding of current KM practice, Tools and mechanisms and framework development and ICT to achieve the goal of the study: This theme examines through the questions the importance and value of KMPs and academic libraries in the realization of the respondents as well as in their working lives. Several interviewing methods were used in the study to face to face. This style of interviews is open-ended questions and can present the participant views and opinion. In order to increase the effectiveness and the rigor of the interview questions, the questions were piloted with some of the librarians and their suggestions were considered while finalizing the interview questions.

The Jimma University library Director and Four Librarian leaders mentioned that at the interview: the understanding the current KP practice and function the university librarian's leader for their part when asked during the interview whether they had taken measures to champion KM. had different responses. Indeed JU university librarian leader responding to the question affirmed positively that they championed KM in their library because the libraries have Information and knowledge management (IKM) professionals except one. whereas, to compared with MU University library director and four Librarian heads mentioned librarian have not any one professional in the library supported KMPs activities and their functions.

In both university libraries have not KMPs policy. The interview responses from the University librarians pertaining to the same question shed light to the matter as all agreed that a policy and strategies for KM as such is nonexistent. We do not have a KM policy and strategies formally and planning but we have a policy of institutional repository for regulating local research.

Jimma and Mekelle university libraries all of the college libraries have your own computers and internet connections refer to any kind of IT system that stores and retrieves knowledge, improves collaboration, locates knowledge sources, mines repositories for local knowledge such as dissertations, journals and other sources, or in some other way enhances the KM process. The focus should be on the functionality of the IT systems required for the specific activities within the academic university library. In this regard the university librarians were asked whether they had KM systems that supported the creation, capture, storage and dissemination of knowledge. The university librarians were in agreement in saying that they did not have a specific system for

KM but the JU library director mentioning progress currently on the way to establishing ICT team leader, Training of trainee and multimedia recording sections functioning to help the improvement of the library KM practices. In both university libraries do not have a specific system for KM practice functions but KOHA,ABCD, DSpace and Greenstone are doing well .Other KM systems in use included Resource mate, Face book, library portal, email, internet and intranet.

The university librarians and library heads have not reward or motivation incentives to done KMPs and knowledge creators agreed both library leaders in the activities of the library services. And have not structure to encourage knowledge management practices.

JU library leader understood the scope and opportunity KMPs then the library on the way to practice KM in the library. Because the library have professional and also four JU library staff leaders studding IKM in order to work manage the library environment after they finish their study. Whereas, MU library still there is no one IKM professional then difficult to manage KM practices because the MU library director KM assuming as Information to done library activities. In general both university academic libraries compared at the questionnaire and interview time in addition of my observation JU library is better statue to compared MU library.

4.8 Summary of the Findings

The study findings showed that majority of respondents were of the view that KM had not been formally or officially introduced in both university libraries and consequently there were mixed feelings about whether KM is a function of the libraries or not. The Head librarians and the library staff held that KM is a function of their libraries while the university librarians were of the view that KM per se is not a function of their libraries. So KMP is done in informal way within day to day library activities The opinions expressed by the university librarians were taken seriously as the university librarians are the authority in the libraries and are better placed to know what is and what is not. Their sentiments were thus taken to mean that KM per se is not in place formally. The findings also revealed that although majority of the staff were familiar with the term KM their understanding is largely from literary sources. Despite the fact that KMPs are not officially endorsed in the libraries the study did bring to the fore that some KM practices were nonetheless in place albeit informally and uncoordinated. For example, the study

established that the JU and MU academic libraries did capture knowledge using a variety of techniques.

The academic university libraries also, when they did not possess certain knowledge internally and had no skills to find it, opted to acquire it externally if they felt it is useful to the goals of the library service activities. In this regard, the study established that the university libraries networked and had established working links with other libraries and institutions. They also searched online databases to build their own knowledge databases as well as acquiring knowledge sources conventionally through purchase of explicit resources. On the strengths of the above findings the researcher concluded that the cited KM process is not well grasped and KM practices in both university libraries were not in place through deliberate planning as KM forums. The librarians could have incorporated these KM practices in their operations without prior planning or clear understanding that these were indeed KM practices. These practices could only be seen as off shoots of what their daily operations entail as they manage information.

The fact that the research revealed that majority of the staff's knowledge of KMPs is through literary sources, and that the libraries lacked KM strategies and other forms of KM guidelines are a pointer to the fact that KMPs in JU and MU academic libraries are not formally established. Fortunately, both the university librarians were passionate about KM and concurred that they had intentions of incorporating it in their operations the head librarian at JU, interviewed on behalf of the librarian, are optimistic that incorporating KM function is just a matter of time. Indeed he added that they had started sensitizing their user community about KM.

Knowledge communities are characterized as open communicative cultures which encourage sharing, tolerance, collaboration and trust (Debowski 2006). KM relies on people who share and use knowledge to perform their work roles. In this regard the study revealed that Knowledge sharing practices are encouraged and facilitated in all libraries and that some tacit knowledge sharing forums were in place although largely unplanned, uncoordinated and not supported by a policy or strategy and were organized as need arose. Indeed library management is credited for communicating with their staff often using a variety of channels with meetings cited as the most used channel. The university libraries lacked strategies to share knowledge and particularly those to help link people to each other and help them communicate so as to achieve complex knowledge transfers. The knowledge stored in their existing knowledge bases pertains to

documentary sources they acquire or subscribe to for their normal daily operations. It is worth noting that knowledge codification serves a pivotal role of allowing what is known in an organization to be shared and used effectively.

4.9 Proposed Framework development for KMPs in university libraries

The proposed framework development for KM practices in JU and MU academic libraries are modified to reflect insights that evolved during this research as shown, in Figures 4.16 below. Firstly shows the distinction made under the organizational culture section between assessing culture types through the organizational culture assessment instrument (OCAI), and the sharing practice characteristics of university academic library. The benefit from this separation is the identification of group as the dominant culture in JU and MU academic libraries. This orientation is found to positively influence the JU and MU academic libraries' attitudes towards knowledge creation, organizational structure, social interaction, leadership, and incentives. Secondly, organizational leadership is divided between aspects of leader communication and leader control, where leader communication incorporated the commitment of managers in communicating and supporting the benefits of KM in university library, and leader control focused on the extent of power exercised by library leaders. This separation highlighted the strong positive influence of leader communication on KM practice in both university libraries.

Thirdly, management of the KM practices are originally included under managerial infrastructure, but this is found to be misplaced, as it is realized that managing the KM process is inherent in the implementation and development of KM, rather than a supporting infrastructure item. Consequently, it is included as a KM process factor, which is ultimately divided between two elements – process management, focusing on management activities, and process incentives, which embraced recognition for knowledge sharing practices and encouraging learning and new ideas. This separation revealed a lack of affirmative action in administrating KM in Jimma and Mekelle university libraries, and also found little evidence of recognition for sharing knowledge and developing new ideas. Fourthly, the KM practice of knowledge transfer is divided into the two components of transfer interaction and transfer resources, revealing a strong distinction between these factors. Transfer interaction, the face-to-face exchange of knowledge, the major

method for transferring knowledge in both JU and MU libraries, but little attention is paid to other resources such as communication media, training sessions, meetings or other forums.

A KM framework defines the domain of KM and its components, fostering a common understanding of the activities involved. KM frameworks facilitate comprehension within the university library of Jimma and Mekelle by identifying characteristic knowledge elements and their relationships, providing a foundation for implementing and executing KM. The framework developed for this research may therefore provide a foundation for JU and MU academic libraries that wish to implement KM, or conduct an assessment of their KM program, or identify factors that could assist them in improving their practice.

The revised framework validates the working definition of KM, as relevant for university library. That is: KMPs is the pursuit of academic library objectives and improved performance by leveraging knowledge resources through the systematic management of people, technologies, systems and processes. However, technologies in JU and MU academic libraries are of less significance than the other factor

As those who work in organizations know, organizations are not homogenous entities where grand theoretical systems are easily put in place. Change is difficult. A special challenge in deploying knowledge management is that is requires systemic change. Isolated initiatives fail, but are also impossible to revamp the whole organization in one sweeping wave of change. A consideration for a knowledge management framework, therefore, is that it needs to address systemic change in organizations. In practice, the framework has to provide a coherent language and a point of view that enables the various organizational actors to see their activities within the overall effort to develop organizational knowledge management. This requires that the current state and the vision of the organization can be seen together, in a way that enables the organization developers to bridge the gap. Moreover, we need to take into account the simultaneous existence of several competing frameworks. In any large organization, it is impossible to develop one single approach to knowledge management and simply roll it out. Knowledge management is already happening, and much of the organizational development is working on solutions to its problems.

Generally, in knowledge management similar waves of excitement and frustration follow each other when technology gets too much attention compared to organizational practice. The framework is summarized in Figure 4.16 below.
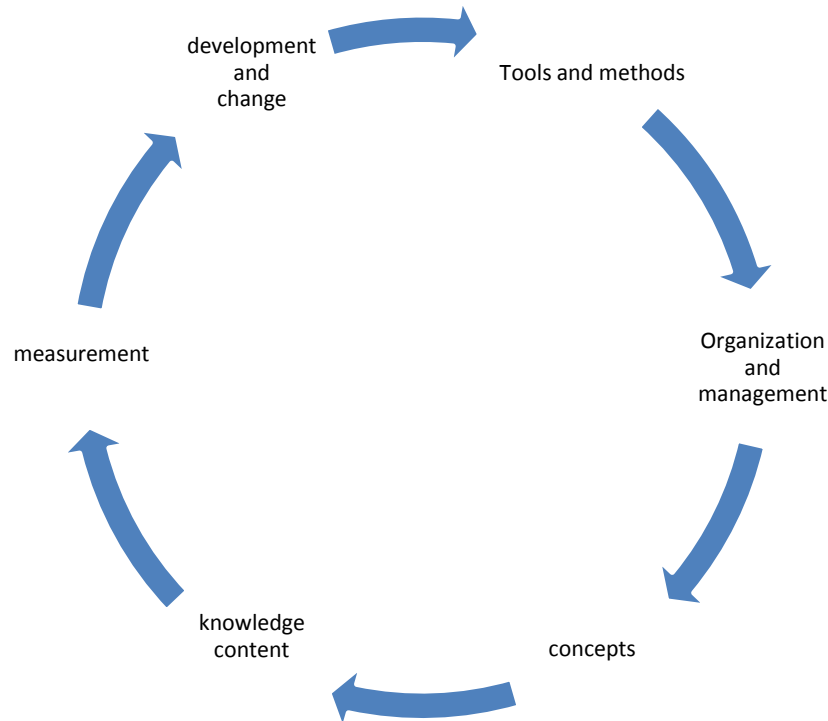
Figure 4.16 Knowledge management practices Framework

Framework interpretation

Concepts: an integrated set of constructs for understanding knowledge and its management in organizations

Knowledge contents: characteristics and typologies of the products of knowledge processes

Measurement: valuation of knowledge content, capabilities, and potential opportunities for their utilization; measuring knowledge processes, and locating areas of improvement

Development and change: migration and co-existence of knowledge frameworks, processes, tools, and behavior

Tools and methods: methodologies, organizationally tailored "communication packages," information systems

Organization and management: integration and institutionalization of formal, informal and knowledge processing structures; knowledge management roles; organizational institutions, including incentive structures, knowledge sharing policies, and culture

4.9.1 Implications for university library practice

Jimma and Mekelle university academic libraries are under strain trying to meet the needs of their client's so the university community. Knowledge is a key asset in equipping personnel to meet the needs of clients. It also determines the university library' ability to achieve a sustainable competitive advantage for the organization funding, making it important for university academic library to preserve and expand their core competencies by tapping into the knowledge base of skills and experiences held by their people, and finding ways to access existing KMP and create new knowledge. KM therefore has a major role in assisting university library activities to achieve performance excellence and to support the university teaching learning. This research has highlighted the significant role of mission in JU and MU library. It identified a clan culture as an appropriate model for university library, However, this research found no significant difference in the extent of KM between respondents who were the college library heads. In addition JU and MU Library heads should develop and exploit their organization's knowledge capabilities by taking a holistic approach across all aspects of the KM process and the factors that influence the success of KM practices

Knowledge creation: The attitude towards knowledge creation in JU and MU library may be described as laissez-faire in that it is generally confined to routine activities. The stock of knowledge would increase by taking a proactive approach to knowledge acquisition, exploring for knowledge beyond day-to-day tasks and responsibilities..

Knowledge storage and retrieval: In both university librarian's maintenance of a database or register of people with skills and expertise, who act as sources of knowledge, would enhance the storage and retrieval process.

Knowledge transfer: Knowledge transfer could be improved by increasing the distribution of

knowledge through more formal communication media, training sessions, meetings, conferences, and other forums.

Knowledge application would be improved by taking a proactive approach in converting knowledge into practical actions, developing new ideas and methods, and regularly reviewing and challenging existing information. Discussion groups or external advisors could be specifically tasked to assess how KMP is being used and how it could be better applied.

Effectiveness of KM. Library leaders could do more to evaluate the effectiveness of their KM. Staff surveys, seeking their views on improvements in collaboration, communication, learning and organization performance, conducted over yearly intervals, would indicate what benefits had been achieved as a result of KMPs, and identify areas which require remedial action.

Organizational culture: A clan culture is ideal for library, suggesting that those with other culture types may benefit by changing to a clan culture. The OCAI is designed to facilitate this change. Library Leaders should encourage and support an organizational culture of openness, honesty and concern for others, where staff receives recognition or accreditation for sharing practices.

Organizational structure: Organizational structure did not significantly influence KM activities. However, managers should ensure that their structure does not impede knowledge sharing. Empowering people, encouraging teamwork, and avoiding an organizational structure that upholds strong bureaucratic formality is promote open communication and facilitate the exchange of knowledge.

Technological infrastructure: Opportunities for maximizing and exploiting technological applications should be explored. In addition to improving internal IT functions, external clients should also be considered. For example, application forms for services or activities, and online loan and service options, could be included on the JU and MU library website. Such facilities demonstrate a joint application of knowledge by operational, administrative and IT personnel, producing internal efficiencies and improved services to clients.

University library leadership: Leaders should ensure that KMP is aligned with the business strategy and that the strategy is communicated and explained to library staffs. Their participation in KMP is encouraged by actively communicating the benefits of KM, openly supporting

knowledge sharing and learning opportunities, and involving staff in decision making. The used of management power through titles and status. Professional librarians' members can enhance the exchange of knowledge by demonstrating an active interest in all aspects of the JU and MU academic library operations.

Generally, based on our findings, we can say that the improvement of KM practices can play a significant role in improving productivity, staff performance, innovation, work relationships, and customer satisfaction, and thus in improving the university academic library performance. Moreover, the conclusions of this research suggest that KM practices are the critical elements for promoting the performance of in both university libraries. When knowledge is recognized, acquired, and stored, library can implement this knowledge to explore problems and create solutions, producing a structure for facilitating efficiency and effectiveness. In the modern dynamic and complex environment, university library need to acquire, create, share, save and implement new knowledge in order to make strategic decisions that can lead to improvements in productivity, staff performance, innovation, work relationships, and customer satisfaction. Thus, university leaders should be committed to providing a supportive climate and culture, one that motivates librarians and supervisors to implement the mentioned KM practices. In order to foster the university library quality of services to the university users we follow the process shown in the figure 4.17 below.
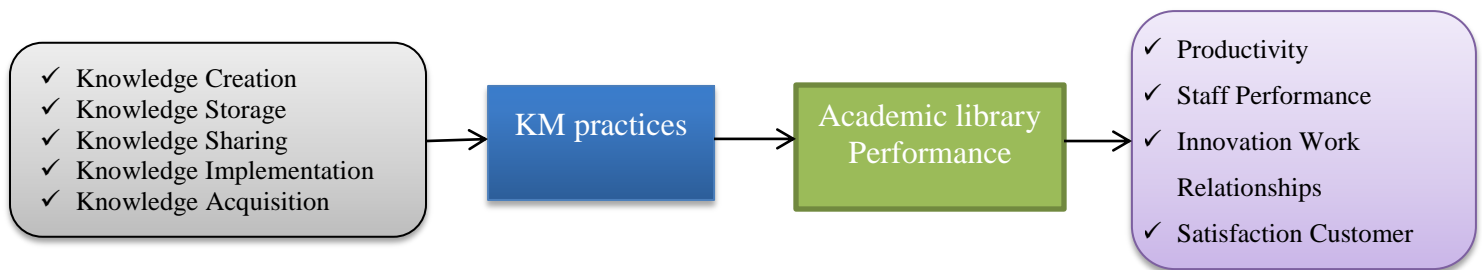
Figure 4.17: KMPs process

Basing the Figure 5.1 shows the factor loading of KM components (knowledge acquisition, knowledge storage, knowledge creation, and knowledge sharing and knowledge implementation) and organizational performance components (productivity, staff performance, innovation, work relationships and customer satisfaction). As this figure shows, KM practices in University libraries significantly and positively influenced the university library performance

CHAPTERFIVE

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

The aim of the study is to examine the current KM practice in library service at JU and MU libraries in order to establish how to enhance the quality of service in a fast changing information environment. The current use of KM practice system at JU and MU library is still low. This study sought to identify and examine determinants affecting effective KM practices in university libraries in Jimma and Mekelle. Findings from this study have clearly shown that KM in university libraries is weak. This effective KM practices in university libraries were many. The study established that there is lack of clear understanding of the current knowledge management process and its associated practices leading to failure to have KM incorporated as a library function or formally endorsed. JU and MU academic libraries lacked KM strategies and policies to guide the process and hence left KM function without an official back up. Findings also revealed that the KM budget did not have a budget allocation, no designated officer is in charge, and library leadership did not lead example, their input to the KM initiatives is not much. The findings also revealed that the so called KM initiatives in place were actually part of the documentary management initiatives not KM itself.

Lacks of leadership involvement in driving KM initiatives are identified as the most critical factor that had affected KM application negatively. Lack of an incentive package and appropriate KM competences also influenced KM application. On a more positive note the libraries' culture, organizational framework, IT and perception were positively dispensed to facilitate KM effort. The ICT infrastructure is good and only needed a systems expert to configure it and integrate it with other systems to work as a KMS at minimal cost. Knowledge sharing is in place though to a great extent the knowledge shared is the explicit type. Tacit knowledge identification, capture and dissemination were adhoc and not planned for. The organizational framework is to a great extent dispensed for KM. Other determinants that were identified included failure of staff to differentiate between IM and KM, lack of KM competences and training, KM not formally introduced, lack of motivation, and benchmarks to emulate. It is therefore concluded that the

above factors were instrumental in influencing KMs either positively or negatively. The researcher, basing on the Diffusion of Innovation (DOI) theory, that formed the basis of this study, also observed that these university libraries are aware of KM, have interest in it and are eager to have KM as one of their library functions. But JU and MU librarians most of the respondents KM is not a function of the university library formally.

These calls for leadership to reorient their focus and organize awareness forums, seminars and workshops to enable the staff appreciate KM and its benefits to their libraries and parent bodies. Such forums would also 'open' their 'eyes' to recognize that KM is not IM and that the former is broader than the latter and that both complement each other. Lack of observable results also contributed to the current state of KM in university Libraries. Rogers (1995) argued that when people start to observe positive results of an innovation in their lives or that of their neighbor(s) they find it difficult to resist the temptation to adopt it. As it were, the study did establish a local university library that had implemented KM to act as a benchmark for others. Other factors that affect DOI as outlined by Rogers (1995) were well disposed for a KM effort. Communication is good and the IT infrastructure in place in Both JU and MU libraries studied is ideal to support KM initiative. All what is required is for the leadership to collaborate with IT section of the library within their universities to see how the current IT infrastructure can be configured to KMPs. Staff perception of KM is also positive and generally the organizational structure and culture were ideal for KM. So both of the university respondents agreed within the number of computers in the library and internet connection is well to support the KMPs for the library quality service improvement very curial.

This study, there are indications that libraries faced some challenges that included: inadequate understanding of what KM meant, lack of written knowledge retention policy, lack of knowledge sharing mechanisms, lack of professional librarians, problems to use KM practices tools and technologies and that led to the KM practices are weak in academic libraries, and under usage of library resources.

5.2 Recommendations

The study identified various factors which affected KM practices in JU and MU academic libraries. The study therefore makes recommendations to address the KM issues identified by the study in order to enhance the value of service offered by the library.

The study established that majority of the library staff and their leaders did not have a clear understanding of KMPs. Indeed the university librarian of Jimma and Mekelle confided to the researcher that what they desired before implementing KM is an expert to educate them on KM and its benefits as a library. This lack of grounded understanding of KM is apparent throughout the research findings. The leadership of the libraries for example had considered themselves as both Information and Knowledge Managers yet findings revealed that they continued to champion application of explicit knowledge at the expense of tacit knowledge .The library staff and their leaders need an in depth understanding of KM process in order to direct their efforts to realizing something tangible and real in their minds. Awareness forums for KM such as through workshops, seminars and even teambuilding activities would enable staff and management differentiate and understand similarities between KM and Information Management and appreciates the significance of KM in their operations and realization of their goals. Through such forums the staff would be able to understand and appreciate for instance, that they are great "storehouses" of knowledge that need to be tapped and hence learn to appreciate each other. Through such forums the staff would also be able to appreciate that their current IT infrastructure would be appropriate for KM without waiting to invest heavily in a KMPs. The university library leadership is understand that using available ICT infrastructure is help them harness tacit knowledge by developing knowledge yellow pages (expert directories) that is help employees locate required expertise using telephones, electronic mails, as well as video conferencing facilities. The staff is also appreciating that their physical transfer across the library sections or between offices is also crucial to knowledge exchange.

Increased interest in the library knowledge and its resources through a practice: the library needs to implement KMPs to increase knowledge sharing practice, understand the library's information and knowledge flows, found best practices in place, and to face the problem in capturing staff's undocumented knowledge continuously.

Reward and incentive: this can be done by giving staff training, workshop, conferences, financial rewards and moral encouragement; this is making staff in the university library to be creative and practice KM in daily activities.

This study utmost importance to address the librarians" information and knowledge needs to ensure improvement of the libraries" performance. Certain information needs such as „general management skills, customer care, etc." which were mentioned by the JU and MU librarians and budgeting and strategic planning by the university librarians can be addressed by on-the-job training and mentoring. The other information needs that were mentioned can better be addressed by sending librarians to workshops or even allowing them to attain further formal professional education. The libraries should encourage lifelong learning to ensure that employees cope with changing professional and user needs. Especially MU library more focus for further education and short training in the IKM profession and JU ingoing to the using of the IKM professional to improve the KM practices in the library environment. So JU is better foundation to preform KM practice than MU library.

Different interventions like training and awareness creation workshops on knowledge management practices should be used to bring librarians staff to similar level of understanding regarding the concepts and benefits of knowledge management practices.

Libraries should also encourage the transfer of knowledge and experience from experienced staff to new staff members in each respective college libraries. A mentoring system should be adopted to assist new staff members to learn from experienced library staff. Informal seminars, discussion sessions for staff can interact and exchange best practices and other experiences should be scheduled at more regular intervals.

The library has to measure and observe the progress/barriers of KM initiatives within the university academic libraries. Training of library staffs that are able to teach them how to deal with the various available knowledge in their work, subject to documentation, storage and reproduce a manner that makes it easy to take advantage of them in the future JU and MU Library staff has to increase his attitude towered KM practice, which can help in getting the knowledge from key librarian if they leave or not. In both university libraries build integrated

system for the collection, classification, preservation and retrieval of the available knowledge in the library. Also to make the knowledge available to all employees to take advantage of them in develops their performance and the performance of their University library.

The study also noted the absence of KM strategies, policies and guidelines in both libraries. The libraries need well developed KM strategies and policy to act as guidelines and reference tool kits for KM. Such tools would also guide the libraries on what needs to be done at what time. A KM strategy could provide a framework development that describes how university libraries could effectively carry out KM and particularly guide in what knowledge is needed, where it is likely to be found and how it is to be captured the KM. The essence of a KM strategy lies in developing the University library capability to assure, create, accumulate and exploit knowledge. A KM strategy would help libraries create a clear vision about what kind of knowledge should be developed and to effectively implement that vision in practical terms (strategy operationalization).What the study proposes is that each library should, as a matter of policy, employ a strategy that suits it.

Hence it is recommended that libraries should formulate retention strategies to ensure important knowledge held by staff does not get lost through retirement, dismissals, and death or through any other way. In both university libraries one of the most challenges staff turnovers because most of the librarians working in the library it are assuming temporary that means after a time to changing the university other working section/departments. The formulation of such a strategy is demand a librarian understanding of which knowledge is important to them and is at risk and determines therefore what it is take them to keep such knowledge in the organization. Such an appraisal is help a library to identify and chooses to implement one or more of the many initiatives and tools available such as, putting in place reward structures, mentoring, and interviewing staff as they leave. The KM strategy in place is help the libraries outline what knowledge to capture, the process, the tools and infrastructure available or required for knowledge to flow to effectively. With a KM strategy, university libraries are able to enhance collaboration and knowledge sharing within the organization and beyond, be more innovative, reduce operating costs and ensure quick and easy access to knowledge.
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The study revealed a situation whereby library leadership had not embraced KM formally as a key function of their libraries for it to be given critical support for its success. For KM initiatives to succeed, leadership support and commitment to change key activities the library. Promoting a culture of knowledge sharing for example is only be possible if the leadership of the JU and MU libraries is committed to change the understanding is purely personal and held thus. The library leadership should therefore take up the challenge and drive the KM initiative if it has to succeed and give the KM responsibility to an individual well conversant with KM and support him in all aspects. The leadership should ensure that KM is integrated into all library processes and on the other hand call for a deep and broad individual as well as corporate responsibility for understanding, sharing and using knowledge in the library environment.

Recommendations for future research

- Evaluating the study of University academic library qualities of services in the light of the requirements and challenges of KM. Obstacles of KM practice in an academic library of Ethiopia public and private universities comparison.

- It is also interesting to conduct a comparative study of KM practice in university within developed and developing countries.

- Evaluating the study of KM Practices in other Types of Libraries such as in public and special libraries and other types of libraries needs further research.

- Investigating KM practice in an academic library between public and private universities and developed and developing countries comparison needs further study.

References

Bailey, C.W. (2005). The role of reference librarians in institutional repositories. *Reference Services Review,* 33(3): 259-267. Available: http://www.digitalscholarship.org/cwb/reflibir.pdf.

Barquin, R. (2001). What is knowledge management? Knowledge and innovation. *Journal of the KMCI,* 1(2): 127-143.

Baumen, J. Ed. (1985). *Mixing methods: qualitative and quantitative research.*Aldershot: Avebury. *Long Range Planning, 30*(3), 427-441.

Bernard, H. R. (2011). Research methods in anthropology: qualitative and quantitative approaches. 5th ed. Lanham: AltaMira Press.47-80.

Bhatti, K. K., and Qureshi, T. M. (2007) Impact of Employee Participation on Job Satisfaction, Employee Commitment and Employee Productivity. *International Review of Business Research Papers.* 11(1), 137-153.

Bollinger, AS & Smith, RD. (2001) 'Managing organizational knowledge as a strategic asset', *Journal of Knowledge Management*, vol. 5, no. 1. p.968.

Bornemann, M., Graggober, M., Hartieb, E., Hympl, B., Koronakis, P., Primus, A. and Wols, K., (2003).An illustrated guide to knowledge management. *In Wissensmanagement Forum*. Graz, Austria. Vol. 8 No. 1, pp. 61-81.

Branin, J.J. (2003). Knowledge management in academic libraries: building the knowledge bank at the Ohio State University. *Journal of Library Administration*, 39(4): 41-56.

C.R. Kothari. (2004). Research Methodology: methods and techniques. Second edition. Published by New Age International (P) Ltd., Publishers. 4835/24, Ansari Road, Daryaganj, New Delhi – 110002

Chase, R.L. (1998). Knowledge navigators. *Information Outlook,* 2(9): 17-26.

Cunningham, J.B. (1993). *Action research and organizational development.* London: Praeger.

Dahiya, D., Gupta, M., and Jain, P. (2012) *Enterprise Knowledge Management System: A Multi Agent Perspective.* Information Systems, Technology and Management.6th International Conference, ICISTM 2012, Grenoble, France, March 28-30.

Daud, S., Rahim, R.E.A. & Alimun, R. (2008). Knowledge creation and innovation in classroom. *International Journal of Social Sciences*, 3(1): 75-79.

Davenport, T., (1998). "Successful knowledge management projects", Sloan management

Review, Vol.10, No.5

Davenport, T.H. & Prusak, L. (1998). Working *knowledge: how organizations manage what they know*. Boston, Mass.: Harvard Business School Press. *Information Services and use* 19(1): 17-32.

David J. Skyrme. (2002). Knowledge Management: Approaches and Policies. David Skyrme Associates Limited, Highclere, England. *College and Research Libraries* 62(1): 44-55.

Debowski, S. (2006).*Knowledge management.* Melbourne: John Wiley and Sons Australia, Ltd.

Denscombe, M. (2007).*The good research guide: for small-scale social research projects*. 3rd ed. Berkshire: Open University Press.

Denzin, N.K., & Lincoln, Y.S. (1994).*Handbook of qualitative research*. London: Sage.

Foo, S., Chaudhry, A. S., Majid, S. M. and Logan, E. (2002). Academic libraries in transition: challenges ahead. Proceedings of the World Library Summit, Singapore.

Frappaolo, C. (2006) Knowledge Management. West Sussex, England: Capstone Publishing

Gandhi, S. (2004). Knowledge management and reference services. *The Journal of Academic Librarianship,* 30(5): 368-381.

Garvin, D. A. 1998. Building a Learning Organization.InHarvard Business Review on knowledge management. Harvard Business School Press.

Glazier, J.D. & Grover, R. (2002). A multidisciplinary framework for theory building. *Library Trends,* 50(3): 317-329.

Green, P. (2008). Social libraries: the next generation of knowledge management. *Information Outlook*, 12(12): 10-15.

Gruner, N (2008). *Communities of Practice in an international, intercultural, fast changing working environment*, MSc Thesis, Dublin Institute of Technology.

Hazeri, A. & Martin, B. (2009). On the need for collaboration in KM education in the LIS sector: some professional perspectives. *International Journal of Information Management*, 29(5): 380-388.

Hillenbrand, C. (2005). Librarianship in the 21st Century crisis or transformation? *The Australian Library Journal.*

Hillenbrand, C. (2005). Librarianship in the 21st Century – crisis or transformation?. The *Australian Library Journal*, 52(4). Available:

http://www.alia.org.au/publishing/alj/54.2/full.text/hillenbrand.html.

Howard, G. S. (1985). *Basic research methods in the social sciences*. Glenview, Ill: Scott, Foresman and Company.

http://www.alia.org.au/publishing/alj/54.2/full.text/hillenbrand.html

Hussock, J. (2009). Defining a framework for knowledge sharing in a dynamic sales oriented organization. Dublin Institute of Technology.

Jain, P. (2007). An empirical study of knowledge management in academic libraries in East and Southern Africa. *Library Review,* 56(5): 377-392.

Jantz, R. (2001). Knowledge management in academic libraries: special tools and processes to support information professionals. *Reference Services Review,* 29(1): 33-39.

Jashapara, A. (2005). The emerging discourse of knowledge management: a new dawn for information science research? *Journal of Information Science,* 31(2): 136-148.

Jimma University (March, 2016). Historical background of Jimma University Retrieved from www.ju.edu.et on 15/04/2016.

Judith Mavodza.(2010). Knowledge management practices and the role of an academic library in a changing information environment: the case of the metropolitan college of New York. University of South Africa, Pretoria.

Karadsheh, L., Mansour, E., Alhawari, S., Azar, G., and El-Bathy, N. (2009). A Theoretical Framework for Knowledge Management Process: towards Improving Knowledge Performance. *Journal of Communications of the IBIMA*.

Keller, C & Kastrup, C.(2009).Wissensmanagement: Wissen organisieren Wettbewerbsvorteile sichern, Cornelsen Verlag Scriptor, Berlin.

Kerlinger, F.D. (2002). *Foundations of behavioral research.* Delhi: Surgeet Publications.

Kidwell, J.J, Vander Linde, K.M & Johnson, S.L (2000). Applying corporate KM practices in higher education, *Educause Quarterly*, 4, 28-33.

Kim, S. (1999). The roles of knowledge professionals for knowledge management. In: 65th *IFLA Council and General Conference*, Bangkok, Thailand, August 20- August 28, 1999. *IFLA Conference Proceedings*. Code number 042 - 115E, Meeting number 115, IFLA.

Koenig, M. (2003). Knowledge management, user education and librarianship. *Library Review,* 52(1): 10-17.

Lee, H-W. (2005). Knowledge management and the role of libraries. *Chinese Librarianship: an International Electronic Journal,* 19. Available: http://www.white-clouds.com/iclc/cliej/cl19.htm.

Lloria, M.B. (2008). A review of the main approaches to knowledge management. *Knowledge Management Research & Practice,* 6(1): 77-89.

Lynch, B.P. & Smith, K.R. (2001). The changing nature of work in academic libraries. *College & Research Libraries*, 62(5): 407-420.

Mahnke, C. (2007). Using knowledge management to facilitate information transfers in our multicultural world. *IFLA Knowledge Management Newsletter,* 4(2): 1-7.

Mavodza, J., 2010 . *Knowledge management practices and the role of an academic library in a changing information environment: the case of the Metropolitan college of the New York*. PhD. The University of South Africa.

Maponya, P. (2004). Knowledge management practices in academic libraries: a case study of the University of Natal, Pietermaritzburg Libraries. Available:
http://www.ukzn.ac.za/department/data/leap_scecsalpaper.pdf.

McAdam, R. & McCreedy, S. (1999). The process of knowledge management within organizations: a critical assessment of both theory and practice. *Knowledge and Process Management*. 6(2): 101-113.

McManus, D. & Loughridge, B. (2002). Corporate information, institutional culture and knowledge management: a UK university library perspective. *New Library World,* 103(9): 320-327.

Mekelle University (March, 2016). Historical background of Mekelle University Retrieved From www.mu.edu.et on 05/04/2016.

Menken, I (2009) Knowledge Management and Ital. V3: Creating the Adaptive Organization - Making Knowledge Management Work with It Service Management, Emereo Pty Limited, Brisbane.

Merton, R.K., Fiske, M. & Kendall, P.L. (1990).*The focused interview: a manual of problems and procedures*. London: Collier MacMillan.

Mihai, A. (2009) Improving Knowledge Sharing in an open Informal Networking: *Knowledge Management in Open Coffee.* Dublin Institute of technology.

Murugan, S. (2013). User education: academic libraries: *International Journal of Information Technology and Library Science Research* Vol. 1, No. 1, Available online at http://acascipub.com/Journals.php

Namondwe, T. (2011) *implementing knowledge management in academic libraries*: a comparative case study of the Kamuzu College of nursing and Bunda College of

agriculture libraries. M.Bibl. Dissertation. University of Cape Town..

Newman, B. D. and Conrad, K. W., 2000. A framework for characterizing knowledge management: methods, practices, and technologies. *In Proceedings of the third international conference on practical aspects of knowledge management*, pp. 16. 1-11, Basel, Switzerland.

Nissen, M., Kamel, M. N., and Sengupta, K. C. (2000) Integrated Analysis and Design of Knowledge Systems and Processes. *Information Resources Management Journal*.

Ngulube, P. & Lwoga, E. (2007). Knowledge management models and their utility to the effective management and integration of indigenous knowledge with other knowledge systems. *Indilinga - African Journal of Indigenous Knowledge Systems*, 6(2): 117 - 131.

Nonaka, I. & Takeuchi, H. (1995).*The knowledge-creating company: how Japanese companies create the dynamics of innovation.* New York, N.Y: Oxford University Press.

Nonaka, I. & Teece, D.J. (2001). Research directions for knowledge management. In: Nonaka, I. & Teece, D.J. (eds). *Managing industrial knowledge: creation, transfer and utilization*. Sage, London: 330-335.

Nonaka, I., Toyama, R. & Konno, N. (2000). SECI, *Ba*, and leadership: a unified model of dynamic knowledge creation. *Long Range Planning*, 33(1): 5-34.

Nonaka, I., Umemoto, K., and Senoo, D. (1996) From Information Processing to Knowledge Creation: a Paradigm Shift in Business Management. Technology in Society.

Onuoha, U.D. (2010). Faculty Assessment of, and Satisfaction with, Library Services in Babcock University, Nigeria. Contemporary Humanities.

Patrick, K. & Dotsika, F. (2007). Knowledge sharing: developing from within. *The Learning Organization*, 14(5): 395-406.

Patton, M. Q. (2002). *Qualitative research and evaluation methods*. 3rd ed. Thousand Oaks, CA: Sage.

Ragin, Charles C. (1987) the comparative method: moving beyond qualitative and quantitative strategies. Berkeley (CA): University of California Press.

Rogers, E.M. (1995). *Diffusion of innovation theory* (.4th ed.). Retrieved from: (http://www.wisegeek.com/what -is-the diffusion theory.htm)

Rowley, J. (1999). What is knowledge management? Library Management.

Rowley, J. (2003). Knowledge management – the new librarianship? From custodians of history

to gatekeepers to the future. *Library Management*, 24 (8/9): 433-440.

Sarrafzadeh, M., Martin, B. & Hazeri, A. (2006). LIS professionals and knowledge management: some recent perspectives. *Library Management*, 27(9): 621-635.

Scale, M-S.E. (2009). Cloud computing and collaboration. *Library Hi Tech News*, 26(9): 10-13.

Schwarzwalder, R. (1999). Librarians as knowledge management agents. *EContent,* 22(4): 63-65.

Sharma, R. & Chowdhury, N. (2007). On the use of a diagnostic tool for knowledge audits. *Journal of Knowledge Management Practice*, 9(4). Available: http://www.tlainc.com/articl145.htm (accessed 04/08/2009).

Shanhong T (2000). *Knowledge management in libraries in 21st century*. Paper presented in the 66th IFLA Council and General Conference, Jerusalem, Israel.

Singh, M.D. & Kant, R. (2008). Knowledge management barriers: an interpretive structural modelling approach. *International Journal of Management Science & Engineering Management*, 3(2): 141-150.

Singh, S.P. (2007). What are we managing − knowledge or information? *VINE: The Journal of Information & Knowledge Management Systems,* 37(2): 169-179.

Sowole, I.A. (1995*). Information Needs of Farm Management Personnel*: A Case Study of Two Universities and Two Agricultural Research Institutes in Western Nigeria. Lagos Librarian.

Stankosky, M.A. (2005). Advances in knowledge management: university research toward an academic discipline. In: Stankosky, M. (ed.) *Creating the discipline of knowledge management: the latest in university research*. Burlington, MA: Butterworth-Heinemann: 1-14.

Steyn, C & Kahn, M 2008, 'Towards the development of a knowledge management practices survey for application in knowledge intensive organizations', *South African Journal of Business Management*, vol. 39, no. 1.

TFPL. (1999). Skills for knowledge management: building a knowledge economy. London: http://www.lic.gov.uk/publications/executivesummaries/kmskills.pdf

Trivedi, M. (2007).Knowledge management in health science libraries. *Electronic Journal of Academic & Special Librarianship.*

Uriarte, Filemon A. (2008). Introduction to Knowledge management: A brief introduction the basic elements of knowledge management for non-practitioners interested in

understanding the subject. Jakarta: ASEAN Foundation, Jakarta, Indonesia.

Wen, S. (2005).Implementing knowledge management in academic libraries: a pragmatic approach. Chinese Librarianship: *an International Electronic Journal*, Available: http://www.white-clouds.com/iclc/cliej/cl19.htm

White, T. (2004). Knowledge management in an academic library: based on the case study "KM within OULS". Paper presented at the 70th IFLA General Conference and Council, Buenos Aires. Available: http://www.ifla.org/IV/ifla70/papers/089eWhite.pdf

Wiig, K. M., DeHoog, R., and Vander Spek, R. (1997) *Supporting Knowledge Management*: A Selection of Methods and Techniques. Expert Systems with Applications.

Wilkinson, D. (Ed.). (2000). The Researcher's Toolkit: The Complete Guide to Practitioner Research, *2*(5), 1-4.

Wissensmanagement-Forum (2003) an illustrated guide to Knowledge Management. Graz, Austria, Retrieved April 19, 2009,

Yin, R. K. (2009).*Case study research: design and methods*. 4th ed. Thousand Oaks, CA: Sage. Vol. 2, 53 -55.

Zhang, L., Tian, Y. & Qi, Z. (2006). Impact of organizational memory on organizational performance: an empirical study. *Business Review, Cambridge,* 5(1): 227-232.

APPENDICES

Appendix A: Questionnaire for Library Staff

Questionnaire on the investigation of knowledge management practices in academic libraries a comparative study in jimma and Mekelle universities for practical framework development

Dear respondent,

This questionnaire is prepared and distributed for the attainment of a Master's Degree in Information Science (Information and Knowledge management) from Jimma University. The questionnaire is prepared to be filled by selected staff of Jimma and Mekelle University Librarians of both universities.

The focus of the questionnaire is collect data on Knowledge Management Practices in Academic Libraries within the organization and all participants of the study are highly encouraged to fill the entire questionnaire. The information in this questionnaire is shall be used for academic purpose and is strictly kept confidential. No responses are used against the organization, Heads and employees. Genuine, frank and timely responses are therefore much appreciated as they lay the foundation for realistic and sound research work and thus contribute to the quality and success of the study. To keep confidentiality, names of respondents are not required. The dully filled questionnaires shall be returned on time and the potential benefits the results might contribute to the improvement of the library services.
.
Thank you,

Tewelde Tesfay

Please tick (√) in the appropriate box

PART 1: Demographic Profile

1. Your gender?   Male [____]   Female [____]
2. Your University   Jimma [____]   Mekelle [____]
3. Your age group? Less than 25 years [____]   25-35 years [____]   35-45 years [____]
   Above 45 [____]
4. Your Educational Status? Diploma [____]   Degree [____]   Masters [____]   PhD [____]
5. Your experience in the University (the current or prior)   Less than 5 Years [____]
   5 -10Years [____]   10-15 Years [____]   Greater than 15 Years [____]

Part 2: Existing Knowledge Management practices

6. Have you ever heard about the term knowledge management practices?
   Yes [____]   No [____]

7. If yes, to Question 6 above, in what context did you come to hear about the terms?
   Library meeting [____]   Reading in books [____]

General communication with peers [____]

Any other way (Please specify) -----------------------------------

8. What is your understanding of knowledge management practices?
   An extension of library work [____]

   Nothing new from what we do [____]

   A process of creating, capturing, storing, sharing and applying information for competitive advantage [____]

   I don't know [____]

   Any other (please specify) --------------------------

9. How would you rate the Existing KM practice in your library?
   Very good [____]

   Good [____]

   Not good [____]

   Have no idea [____]

10. On a scale of 1-5, when 5 is 'strongly agree' and 1 is "strongly disagree", please indicate the extent to which you agree or disagree that library leadership have championed application of KM in your library. Tick as applicable:

Item		Strongly agree(5)	Agree (4)	Uncertain (3)	Disagree (2)	Strongly disagree(1)
10.1	The library has a vision on the strategic importance of Knowledge management practice for achieving library objectives.					
10.2	There are policies that encourage knowledge practice in the university Library.					
10.3	The library has an induction program for new staff.					
10.4	Incentives are provided to sharing new ideas					
10.5	Library management encourages knowledge creation, collection and use					
10.6	Provision of more and varied training sessions to library staff					
10.7	Library staff to participate in appropriate forums.					

11. a) Is KMPs a function of your Library?   Yes ☐   No ☐

(b) If NO, what reasons would justify its lack of application in the library?

Have no idea what KMPs is all about ☐   not interested ☐

KM is the same as Information management ☐

ICT infrastructure is inadequate ☐

No time for KM practice ☐   Do not know ☐

Any other (please specify) --------------------------

Part 3: Barriers/Obstacles KMPs

12. In a scale of 1-5 ,where 5 is ' strongly agree' and 1 is' strongly disagree', please indicate the extent to which you agree that the following misconceptions could have affected KM practice in your library.

Item		Strongly Agree(5)	Agree (4)	Uncertain (3)	Disagree (2)	Strongly Disagree(1)
12.1	KMPs is the same as Information Management					
12.2	KM is a complex practice					
12.3	KMPs is only applicable where high technology is in place					
12.4	KM has not worked in libraries					

13. Are you aware of the great benefits KMPs can render a library?

    Yes ☐   No ☐

14. What is your contribution to the achievement of library objectives?
    ………………………………………………………………………………………………
    ………………………………………………………

15. Does the library encourage and facilitate knowledge sharing practices?

    Yes ☐   No ☐

16. If the response to q15, is 'Yes' indicate with a [√] in the table below if your library encourages and creates forums for the following KM practices.

Item	KM Practice	Yes	No
15.1	Discussion forums with users		
15.2	Librarians encouraged being speakers in Library Forums.		
15.3	Induction of new staff members to library culture		
15.4	Library users access to KM services		
15.5	Reward systems are in place for sharing new ideas and innovations.		
15.6	Having openness, trust and tolerance in the library		

17. Does your library have a KMPs policy?   Yes ☐   No ☐

18. Is knowledge sharing practices coordinated and systematic   Yes ☐   No ☐

Part 4: KMP tools and mechanisms applied in academic libraries

19. a) Are you participate any training in computer application skills? Yes ☐   No ☐

    b) If yes, to Q 19, what level of computer proficiency do you have?

Basic ☐   Moderate ☐   Expert ☐

20.   How many computers does the Library have?   None ☐   1 – 10 ☐

10-25 ☐   Over 25 ☐

21.   Are the computers in the library connected with internet?   Yes ☐   No ☐

22.   (a) Do you have an e-mail address?   Yes ☐   No ☐

    b) If yes, for what purpose do you use the e-mail address? Personal use ☐

                Library use ☐   both ☐

Others (specify --

23.   (a) Does the library encourage online group discussions among staff? Yes ☐   No ☐

    b) If yes, to question 23a, above indicate with a tick the ICT tools the library provides for that

    purpose. E-mail ☐   Chat ☐   Instant messaging ☐   Message on boards ☐

    Peer-to-Peer applications ☐   Real Time Meeting Interfaces ☐

Others (specify} --

24.   Does the library have the following technical structures to enhance communication?

        (a) Intranet   Yes ☐   No ☐

        (b) Portal   Yes ☐   No ☐

        (c) Website   Yes ☐   No ☐

        (d) Others (please specify) ------------------------------------

25. On a scale of 1-5, where 5 is "strongly agree" and 1 is "strongly disagree", please indicate the extent to which you agree that the following ICT support is available to librarians.

Item	ICT	Strongly Agree(5)	Agree (4)	Uncertain (3)	Disagree (2)	Strongly Disagree(1)
24.1	Technology has created an Institutional memory accessible to the entire university libraries.					
24.2	Technology that supports Collaboration is rapidly being placed in the hands of staff and university employees.					
24.3	The university library has invested greatly in IT literacy for its staff.					
24.4	Academic library service is not limited by geographical barriers					
24.5	Knowledge practice outcomes are communicated to the staff Through ICT technology.					
24.6	Knowledge systems enable knowledge identification, capture, organization, sharing and dissemination and utilization.					
24.7	The library has a knowledge repository where staff can get all information and appropriate sources of knowledge					

26. In your own view, do you think the available ICTs have been adequately utilized for knowledge sharing practice among your colleagues?   Yes ☐   No ☐

27. If your response to question 26 above is "No" kindly give reasons why.

…………………………………………………………………………

Part 5: KMPs framework in libraries

28. Please indicate the extent to which you agree that the following support services and facilities are available to enhance KM practice.

Item	Organizational framework.	Strongly agree (5)	Agree (4)	Uncertain (3)	Disagree (2)	Strongly Disagree (1)
28.1	Knowledge policies are formulated and accessible to all Library staffs					
28.2	Knowledge practice values are explicitly stated and promulgated in the library.					
28.3	Lines of communication across the university library are well developed.					
28.3	Vision, Mission & Strategic plans reflect KM orientation within the library.					
28.4	Library structure has provision for meeting rooms for knowledge sharing and discussions.					
28.5	How would you rate the overall knowledge management practices framework?					

29. Please indicate the extent to which you agree that the following factors have influenced effective application of KMPs in your library. Tick [√] as applicable.

30.

Item	Factors	Strongly Agree (5)	Agree (4)	Uncertain (3)	Disagree (2)	Strongly Disagree (1)
29.1	Staff perception of KM as a vital practice in Library operations					
29.2	Personal motivation to share knowledge					
29.3	Resistance to changing traditional library services systems					
29.4	The way KM practice is introduced.					
29.5	Inadequate knowledge of technology application by staff.					
29.6	Inadequate IT infrastructure					
29.7	Poor leadership support					
29.8	Library culture that inhibits sharing					
29.9	Rigid and hierarchical Library organization structure.					
29.10	Staff can meet formally or informally practice KM.					
29.11	Lack of specific training in KMP					
29.12	Inadequate knowledge of the benefits of KM in library operations.					

I sincerely thank you for taking time to complete this questionnaire.

APPENDIX B: interview guide for university library directors and library section heads

1. Does your library have KM practice as one of its core functions / processes?

         Yes ☐   No ☐

2. If yes, to Question 1 above do you have a Knowledge policy in place?

3. If yes to Question1 above, do you have a KM strategy that lays the framework in realizing KM effort?

4. How would you rate the existing KM practice in the library? High ☐   Average ☐ Low ☐

5. Do you have plans for KM practice formally introducing it in the library in the next?

         Yes ☐   No ☐.

6. What technological tools and mechanisms do the library using for Knowledge management practices?

7. Do you have a KMPs framework that supports creation, capture, storage and dissemination of knowledge?

8. Does the library have a knowledge management repository? Who accesses it?

9. What are the barriers to knowledge management practices in library?

10. What reward or motivation incentives do you have for knowledge creators or those who share valuable insights?

11. Does the library structure encourage knowledge management practices?

12. As a leader, do you understand the scope and opportunity KMPs would offer to your library?

Thank you

APPENDIX C: Observation Checklist

	Yes	No	Remark
High Staff turnover rate			
Availability of tools and mechanisms work in the library			
There are formal mechanisms for sharing information			
Incentive mechanism for knowledge sharing practice			
Availability of ICT Tools for knowledge management practices			
The university library have enough ICT infrastructure			
Is an overall assessment of KM practices undertaken from time to time			
Availability knowledge networks such as of e-mail, web social media			
Availability of framework supporting systems in the library for KMPs.			