ASSESSMENT OF KNOWLEDGE MANAGEMENT PRACTICES IN ACADEMICS: A STUDY OF THE UNIVERSITY OF DODOMA

By

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Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Business Administration of the University of Dodoma

The University of Dodoma

October, 2015

CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by the University of Dodoma a dissertation entitled ***"Assessment of Knowledge Management Practices in Academics: a Study of the University of Dodoma"*** in partial fulfillment of the requirements for the degree of master of Business Administration of the University of Dodoma

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(SUPERVISOR)

Date …….....

DECLARATION

AND

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I, **Fumbuka Abraham Adam,** declare that this Dissertation is my own original work and that it has not been presented and will not be presented to any other University for a similar or any other degree award.

Signature……

ACKNOWLEDGEMENT

Although, this dissertation springs from what I have been seeing and researching and from vast amount of researches and references, I am grateful to express my sincere thanks to a number of those who were prominent in the progress of my graduate profession and finally, this thesis.

First of all, I would like to articulate my sincere thanks to the Almighty God who gave me health and strength to encounter my studies up to this triumph.

Second, I express my gratitude to my supervisor, **Dr. N Viswanadham**, who through his diligence guided me until this work was enhanced.

Third, my appreciation also goes to all those who assisted in the collection of data, UDOM academic member of staff

Fourth, enormous support of my course mates and friends is accordingly acknowledged.

Finally, I convey my sincere thanks to my beloved family and my friends, for their emotional support throughout the pursuit of this programme.

DEDICATION

This work, the pinnacle of my Masters in Business Administration Degree is dedicated to God Almighty, for making the impossible possible. Also, to my magnificent parents; Mr. Adam Marandu and the late Mrs. Apolina Ruvaeho Marandu who acted as the driving force in my academic life. May God bless them all. I also bestow thank to my fiancée Ms Chiku M. Mwakisunga for her love and strong support and encouragements and lastly I dedicate this work to my beautiful daughter Liesel Apolina Marandu for her love and support.

ABSTRACT

In this dissertation we present an assessment of knowledge management in higher learning institution a case of university of Dodoma (UDOM). Specific objectives of this study are to assess ways of managing knowledge, to assess to check if the technical specifications needed for technical specification are satisfactory and to assess the relationship between knowledge management and the efficiency of the organization.

The study has three significances to the government, to researchers and hosting institutions. To the government it can help the government in policy making that will govern higher learning institutions to develop knowledge management; to researchers, it provides a solid foundation for other researcher to do their researches on knowledge management practices; to the hosting institution, it will provide awareness to UDOM community on how important knowledge management is.

A stratified sampling technique and a case study were employed. A sample size of eighty two (82) respondents was selected to contribute in the study. The study made use of both primary and secondary sources of data collection. The results show that, the current ways of managing knowledge are not conducive. This is supported by the results which shows that there is no existing policies for knowledge management, it takes a lot of time for a member of staff to get relevant knowledge document, culture does not support knowledge management and level of strategy is not satisfactory. The results also shows that technology relevant in implementing knowledge management is not implemented in most of the colleges in the university. The results of the study confirmed that there is a relationship between knowledge management and efficiency of the organization. The study also revealed that knowledge management is not practiced at UDOM.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

COED	College of Education
COES	College of Earth Sciences
CHSS	College of Humanities and Social Sciences
CHAS	College of Health and Allied Sciences
CIVE	College of Informatics and Virtual Education
CONAS	College of Natural and Applied Sciences
HLI	Higher Learning Institution
HR	Human Resources
ICT	Information and Communications Technology
IT	Information Technology
KM	Knowledge Management
KMS	Knowledge Management System
PKMSS	Process Based Knowledge Management System for Schools
ROI	Return on Investment
SR	Students Records
TCU	Tanzania Commission for Universities
UDOM	University of Dodoma
UK	United Kingdom

CHAPTER ONE

1.1 Introduction

This chapter presents background information to the study. It discusses knowledge management practices in general in different organizations and the origin of knowledge management. It briefly point out types of knowledge and how they are acquired. The contents under this section are overview of the study, the background to the study, statement of the research problem, study objectives; study questions, significance of the study and finally it states the limitations of the study.

1.2 Overview of the Study

The words knowledge and management are two very broad concepts when separated. When the two words come together, it speaks of a concept that strives to organize information in a way that produces an advantage for an organization.

While anyone would think that harnessing the knowledge of an organization is a positive thing to do, there are many who do not see the value of knowledge management. They may see this as a waste of time. This is true of many other disciplines like project management. Many see planning and assessing risk as time consuming. Therefore, they do not support initiatives that bring this change. In all honesty, change is the real issue.

This research aimed at giving tools to present knowledge management system in organizations particularly UDOM in order to gain the right support and a competitive edge. The more we can manage the knowledge of the organization the more we can improve the competitive edge of the organization.

Knowledge management system is a program or system designed to create, capture, share and leverage knowledge towards the success of the organization. This is easier said than done because instituting a knowledge management system requires many changes and support at all levels of the organization.

Knowledge can be tacit or explicit, which requires different strategies to capture each type. Another challenge is to distill the practice of knowledge management system into one neat concept. This research provided specific understanding needed to take away a good conceptual framework of knowledge management system.

1.3 Background to the study

Although it can be said that various forms of knowledge management have been around for a very long time, the explicit notion of managing knowledge started as an offspring of rapid developments in information and communication technology. At the same time current knowledge management efforts sometimes resemble older methods such as apprenticeships, which have been around for millennia.

The origins of knowledge management can be traced back to the late 1970s. Rogers (2003) work in information transfer laid the foundation to the concept of how knowledge is created, implemented, and integrated throughout an organization. In the 1980s, knowledge became a focal point to increasing the competitive edge for companies. Senge (2010) discussed the advantages of creating learning and knowledge based organization.

Knowledge management can be applied to many areas of the organization. Knowledge management is not only storing knowledge but also focus on knowledge

sharing. With this in mind, applying knowledge management in the workplace is nearly unlimited. Areas that can benefit from knowledge management are as follows but not limited to these: Corporate governance, Staff training, Operations, Human resources, Marketing, Information technology, Research and development and academics. Applying knowledge management in any one of these areas will lead to improved communication and responsiveness to change. Some potential benefits to implementing knowledge management include Encourage innovation by allowing ideas to flow throughout the organization, Improve customer experience by becoming more efficient in service, Increase profits by capitalizing on opportunities because of faster product-to-market time, Increase retention rate of employees because of recognition and reward for their valuable knowledge input, Reduce cost through improved internal efficiencies (ibid).

The survey conducted in 1997 by Ernest and Young Center for business innovation over 400 firms in USA and Europe indicated that 50% of surveyed companies adopted people oriented solutions (establishing new roles to leverage knowledge; training and communications), 25% of companies adopted process solutions (mapping sources of internal expertise, creating networks of knowledge) and 25% of company adopted system solutions (intranets & collaborative systems, business intelligence) (Ruggles, 1998).

Delphi group (Boston) also conducted a survey on knowledge management in 1998 gains across 575 professionals in a cross section industries and the results showed that 34% of the firms have been able to increase customer value due to knowledge management practices, 30% of the firms reported that they have been able to

produce fast responsiveness, 25% have been able to increase the level of innovation and 10% have been able to reduce running cost. The statistics shows that there is a raise on concern on knowledge management from time to time and knowledge management have a greater role in efficiency improvement of the organization (Rutherford & Tait 2004).

Knowledge management has grown to be one of the most important features in any organizational well being from 1970s to current years. With the growth of knowledge management there are different views on who is responsible to manage the knowledge of the organization. A survey of knowledge management practice in Europe sponsored by information strategy magazine conducted by peter murray and Andrew myers in 1998 reveals some interesting trend, possibly valid also today 46% sees knowledge management as "everybody job" or that there is no formal role existed, 30% said it was a responsibility of several managers/directors, 14% fill it is a responsibility of the top management.

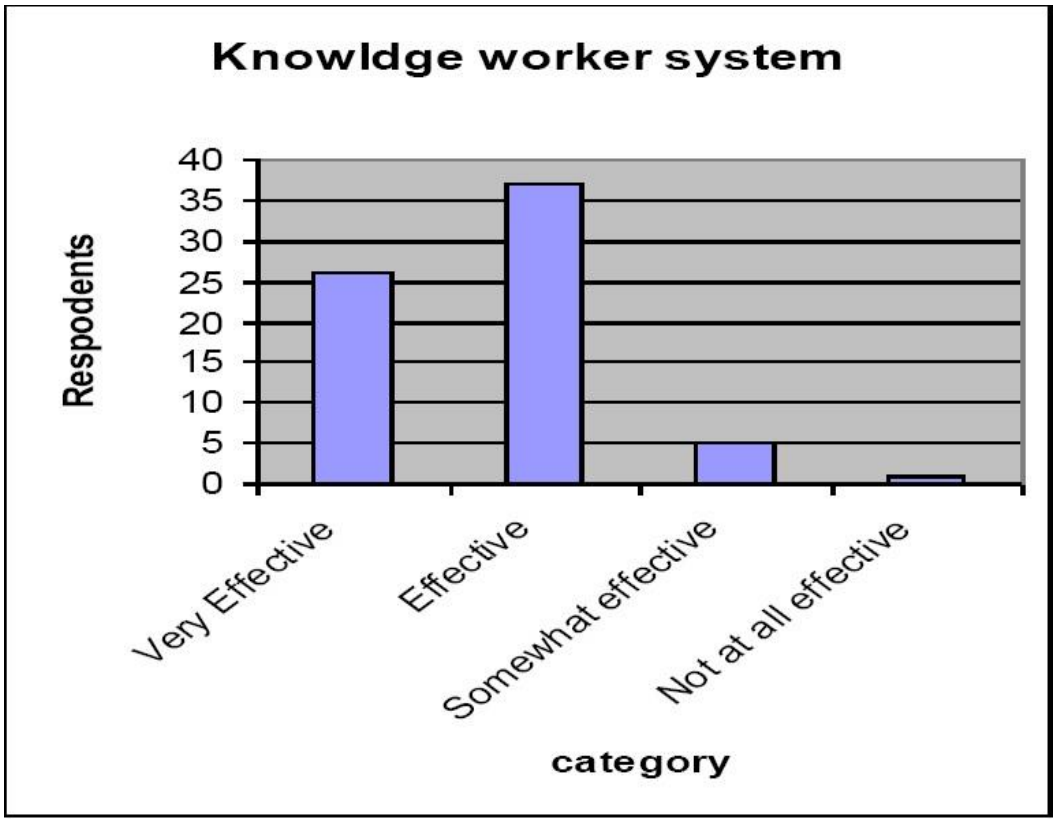
According to Kidwell et al (2000), the adoption of knowledge management can harvest such benefits as excellence at the individual, group, and organizational level, improvement of the decision-making process, an increase in productivity, the development of creative ideas, and effective maintenance of intellectual capital. It also increases the ability to respond rapidly to changes in the surrounding environment.

On the other hand, the development role of the any organization requires the organization to keep up with new trends in management, which will effectively contribute to the achievement of excellence in the delivery of services. Thus, since

knowledge management is one of those trends, there is a need to do a research on knowledge management in academics.

The study conducted in Kenya in 2010 showed that knowledge management is very important when working in a team. Out of the 69 organizations interviewed 26 organizations translating to approximately 38 percent declared it is very effective, with 37 organizations being roughly 54 percent say it is effective. Only 5 organizations at 7 percent said it is somewhat effective and a mere 1 organization pronounced it is not effective at all (Mosoti & Masheka, 2010).

Figure 1. 1: Knowledge worker system



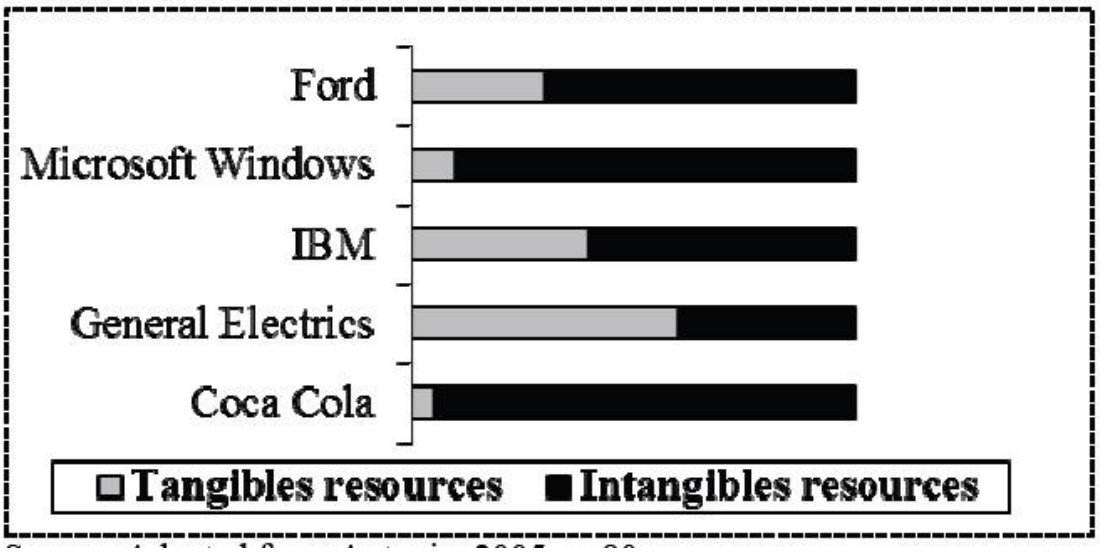
Source: Mosoti & Masheka (2010)

1.4 Statement of a research problem

There are sixty two registed universisties and higher learning institutions in Tanzania (TCU, 2013). These universities are scatted all over the countries. There are private and public institutions. Listing the few popular government institutions include University of Dar es salaam, Mzumbe University, Sokoine University of Agriculture, University of Dodoma, Institute of Finance Management and College of Busisness Education. Some of the popular private institutions include Staint Augustine University of Tanzania, Saint John University of Tanzania, Saint Joseph University of Tanzania and Morogoro Muslism University.

Knowledge dwell in the mind of people. When this knowledge is not organised and kept together it is nothing. Statistics shows that most of the successful companies and organization in todays world have more intangible resources than tangible resources. This means that intangible resources including knowledge contributes more to the success of a company than the tangible resources. This raise a great concern to the management of knowledge.

Figure 1. 2: The approximate relationship between the tangibles and intangibles resources in worldwide companies



Source: Adapted from Antonic (2005)

Basing on the figure above. The five company ford, mocrosoft, IBM, General Electrics and cocacola are among sucessiful company in the world. All the five company have invested more in intangible resources that in tangible resources. It is quite clear that in todays world intangible resources that is knowledge are the sources of any organization success. If any organization invest on intangible resources of its organization it is going to be efficient and successful. Higher learnig institutions as their mission is to teach, doing research and consultations; they are the source of this intangible resources, knowledge in any country. A lot of knowledge is generated in higher learning institution. This knowledge need to be managed for future consuption and for efficiency of the specific organization and the country in general.

According to Davenport & Prusak (1998), Knowledge is recognized as the only asset that could contribute in sustainable competitive advantages for organization. All universities in Tanzania have no tool which organizes the knowledge. This may be the result due to the fact that knowledge management is a new practice.

Most of the higher learning institutions in Tanzania are managing the knowledge using paper work or using international forums like different online journals. The paper work knowledge management is not effective and it is not up to standard of the current world of science and technology. There is no system that organizes individual knowledge for the benefit of the organization at large. In so doing it is very difficult when it comes to problem solving.

With the advancement of science and technology, knowledge management is becoming more sophisticated than before. ICT has been integrated with the knowledge management process to facilitate the efficiency of managing knowledge. The integration of ICT and knowledge management results into knowledge management system. Knowledge management system may comprise of academic portals and webinar software. Academic portal include personal knowledge management, library catalogue, different databases, journals, upcoming publications and may link people in the same professional (Pienaar, 2003) personal knowledge management deals with personal management of academic information and knowledge. Webinar include presentation, lecture, workshop or seminar that is transmitted over the Web using video conferencing software.

Any higher learning institution is a knowledge-based society where value is created through complex dynamic exchanges between individuals and organizations based on a relationship capital through collaborations which create tangible and intangible value. Collaborations requires more than the ability to publish, display or aggregate information but rather through the ability to leverage the know-how of many individuals which can only be achieved through continuous research (Pienaar, 2003). Effective knowledge management with the help of ICT provides a collaborative approach in academic activities. The act of teaching, doing research and consultations can be done in a more efficient way and with minimum cost of time and money.

KM can be of an advantage to the organization due to the fact that good practices of knowledge management focuses on organizational processes based on knowledge

needs of users such as incentives, attitudes, language, culture, and individual knowledge needs. The success of KM initiatives does not simply depend on documenting, managing, and archiving of generated knowledge, but require further research to ensure that knowledge and evidence of what works are contextualized, enriched, interpreted, debated and disputed in order for learning to occur among a multitude of stakeholders with divergent interests and world views (Keizer et al. 2008).

Another advantage which a higher learning institution can obtain from knowledge management is the retention of knowledge. Any higher learning institution has junior staff to senior staff, have tutorial assistant to senior professors. Most of the senior staffs are the more experienced one with a lot of tacit knowledge in them. Also most of the senior staff are almost about to retire from saving the institutions. If the knowledge they have is well organized and well managed junior staff are in position to benefit from their tacit knowledge of senior staff even when the senior staff are no longer in service. The organization in general also benefit from the knowledge. Therefore knowledge management benefits the junior staff and the organization in general on storing and sharing of knowledge.

Good knowledge management practices accelerate innovation among member of staff and the organization in general. Knowledge management links different kind of knowledge from different people of the same professional and from different type of explicit knowledge. Gloet & Samson (2013), shows that organization will improve inovations on research and development or developing new technologies and services. Also knowledge management helps innovation as a series of incremental

improvements. The absence of knowledge management at UDOM denies the innovation to the institution. The institution would be in a very good position in promoting innovations if knowledge among its members of staff is coordinated well. Gloet & Samson (2013) report also indicates that learning is a fundamental component in maintaining competitive advantage. By focusing on learning as a core value, KM facilitates the processes of knowledge generation, sharing and dissemination, all of which are fundamental to innovation, particularly when dealing with tacit knowledge. In 2012, the University Ranking by Academic Performance Center ranked the University of Dar es Salaam as the 1,618th best university in the world (out of 2,000 ranked universities). University of dar es salaam rank as the best university in Tanzania. Being on 1618^{th} position, it means Tanzanian universities are not in a good competitive position.

When organization is not practicing knowledge management it is going to under utilize its intangible resources. Since these resources are not organized the accessibility of these resources will be very difficult. Organization such as higher learning institution which as a diversity of academic member of staff from junior staff to senior staff, from tutorial assistants to senior professors; organization is going to under utilize their staff. Senior staffs are more experienced than junior staff. Availability of proper knowledge management would help knowledge and experience sharing among junior and senior members of staff. This would help and would facilitate the learning process and would shift the knowledge and experienced staff from their abilities and capabilities to become the ability and capability of the organization.

Omona et al (2010) on using ICT to enhance knowledgmanagement in higher education which was also conducted under the same environment as our study where by there was no single or optimum approach to organizational KM and KM framework developed. The study led to the identification of the key higher education process involved in generating knowledge, enabling ICT, KM processes, and KM outcomes; as well as the relationships that link them together. The study showed relationships, which provided a systematic guideline for KM framework development through adoption and use of ICT and the required KM technical functions to support higher education process and activities. The study based on synthesis of several pieces of extant research and it still required empirical evaluation and testing. Therefore the study provided the stimulations for further researches on knowledge management. This raised a call for assessment of knowledge management in academics for this study.

Gloet & Samson (2013) on Knowledge Management to Support Systematic Innovation Capability. Without knowledge management organization may be reinventing the wheel every now and then. One activity can be done repeatedly without the management notice. This is the problem at UDOM.

A study on role of the knowledge management in modern higher education – the e-learning concentrated on knowledge management, knowledge integration and knowledge distribution possibly utilized in higher education. The study indicates that the results found were few small steps on the long road (Kende et al, 2007). The long road to be taken calls for further researches on knowledge management, which triggers the assessment of knowledge management in academics.

Another study conducted by Sokhanvara et al in 2014 on Importance of Knowledge Management Processes in a Project-based organization: a Case Study of Research Enterprise suggested that more studies should be conducted on knowledge management for this study was limited to scientific research organization therefore the results of this study cannot be used as a bench mark for other type of organizations.

KMS activities which are created for encouraging KMS processes must be in agreement with the organization' s goals, social processes, organization behavior, and organization strategy (Ramakrishnan & Yasin, 2012). This calls for assessment to see if the knowledge management in higher learning is in line with the goals, social processes and organization behavior and organization strategy of an organization.

There are number of reasons which may lead UDOM not having the knowledge management system. UDOM is still young institution which is still growing. It is less than 10 years since their establishment. The organizational culture of UDOM does not facilitate interactions among members of staff that's makes it difficult to share knowledge among members of staffs. Some of the members of staff do not know how to use ICT facilities which are available at the university.

UDOM is among the fast growing institution in the country. If it does not consider establishing a knowledge management system among its members of staff it is going to face a lot of challenges in future which will affect its growth. UDOM is expected to be one of the biggest universities in Southern Sahara. It is expected to

accommodate over 40,000 students when it is fully functional. If it does not have a knowledge management system it is going to have a lot of scatted, unused knowledge that will results into under utilization of its academic member of staff . In return it will affect the growth rate and it may not be able to compete with other higher learning institutions.

Knowledge at the University of Dodoma needs to be assessed and to suggest possible solutions on how knowledge management can be improved in the university. This research aims to assess knowledge management and to check the possibility of introducing knowledge management system at the University of Dodoma.

Studies in KM as socio-technical system have been done by researchers for decades. Most of studies note the importance of interplay of knowledge management system process and organizational context. However, the studies presented the whole spectrum of elements that need to be designed and encouraged in order to create an effective knowledge management system in the organization is still limited **(Sajeva, 2010)**. We propose a framework that could be used by the management of the University of Dodoma to check on the possibility of introducing a KMS as a tool to link knowledge among its academic members of staff.

The actual reason for conducting this study is due to number of problems which are being faced by most of the higher learning institutions in Tanzania. University of Dodoma being one of the universities in the country it is a good case study. These problems include poor innovative environment for academicians as a result of scatter

knowledge, UDOM use expatriates from outside the country and there is no mechanism to retain their knowledge for the benefit of the organization even after their departure. UDOM also faces a problem of reinventing the wheel is as a result of poor knowledge management. Example ICT directorate under its department of software development develops software which are also developed under the college of informatics and virtual education. Due to these problems there is a need to assess knowledge management at the University of Dodoma and come up with recommendations on a proper way of managing knowledge.

1.5 Objectives of a study

The general objective of this study is to assess knowledge management in the University of Dodoma and to check whether there is any relationship between knowledge management and performance of the organization.

The specific objectives are:

a) To assess ways of managing and sharing knowledge at the University of Dodoma.
b) To assess if the technical specification needed for knowledge management are satisfactory.
c) To assess the relationship between knowledge management and the efficiency of the organization.

1.6 Research questions

a) How does knowledge management relate to the performance and efficiency of the organization?

b) What are the technical specifications needed for good knowledge management practices?
c) Is there relationship between efficiency of the organization and knowledge management practices?

1.7 Significance of the study

1.7.1 To the Government

The result of this study adds to the body of knowledge for the government to encourage higher learning institutions to practice the use of knowledge management for their academic member of staff as they are the source of knowledge in the country. It can use the results of this research to introduce a policy which will guide higher learning institution to create knowledge management systems.

1.7.2 To the Researchers

As there are no many researches on knowledge management practices in our country, this research is expected to provide a solid foundation for other researchers to do their research on knowledge management practices. It will also contribute to the knowledge and skills to other researchers especially on the practical applications of knowledge management system and how effectively can be utilized.

1.7.3 To the Hosting Institution

It will also provide awareness to the University of Dodoma and its management on how knowledge management is important to the performance of the organization. It will also help the management to see the importance of using systems like knowledge management system in managing and sharing knowledge. The findings

will provide basic information for management and planners who will apply knowledge management system as one of the strategies for performance improvement. It will contribute to the knowledge and skills on knowledge management to the university and everyone who will be interested in reading it. The report also expects to help other organizations which may wish to apply knowledge management practices as one of the strategies of performance improvement.

1.8 Scope of the Study

The study covers the University of Dodoma (UDOM) in Dodoma Municipality, year 2015.

1.9 Limitations of the Study

The researcher experienced the following problems during the study; time was limited, there are few researches on knowledge management which has been done in the same environment, therefore it was very difficult to get relevant literatures for the support of the study. The research was not funded that lead the researcher to utilize his own money to facilitate the study. Some of the respondents did not return the questionnaires given to them. Data collection has been a challenge since respondents where somehow reluctant to provide the detailed answers from the questions because they thought the researcher was directed by the management to investigate their perception of knowledge management. Eight respondents did not return questionnaires at all. However the researcher succeeded to collect enough data after insuring the concrete anonymity to respondents.

1.10 Conclusion

This chapter provides the background information and history of knowledge management in the world. The chapter also described the statement of the problem, objectives of the study, research questions, and significance of the study, the scope of the study and limitation of the study. The next chapter will discuss on the aspect of review of literature that will cover the essence of knowledge management through different studies that have been carried out by different scholarly.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section reviews the literature which is related to the research problem. Its subsections are; Overview of Knowledge management, Theoretical Framework and Knowledge Management Models, Review of literature, Empirical Findings and conceptual frame work.

2.2 Overview of Knowledge management

2.2.1 Definition of Key Terms

Knowledge is a familiarity, awareness or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning. Knowledge can refer to a theoretical or practical understanding of a subject. It can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of a subject); it can be more or less formal or systematic (Wikipedia).

Nonaka et al. (2000) defined knowledge assets firm-specific resources that are indispensable to create value for the firm; knowledge assets are inputs, outputs and moderating factors of the knowledge creating process. For example trust, amongst organizational members is produced as an output of the knowledge creating process, and at the same time trust moderates how functions as a platform for the knowledge-creating process. This definition of knowledge assets focuses on resources for knowledge creation.

Higher learning institution: Institution that offers Higher education, post-secondary education, tertiary education or third level education is an optional final stage of formal learning that occurs after secondary education. Often delivered at universities, academies, colleges, seminaries, and institutes of technology, higher education is also available through certain college-level institutions, including vocational schools, trade schools, and other career colleges that award academic degrees or professional certifications (Wikipedia).

Academic portal include personal knowledge management, library catalogue, different databases, journals, upcoming publications and may link people in the same professional, personal knowledge management deals with personal management of academic information and knowledge (Piennar, 2003).

Webinar include presentation, lecture, workshop or seminar that is transmitted over the Web using video conferencing software (ibid).

2.3 Theoretical Framework and Knowledge Management Models

2.3.1 Theoretical Framework

Knowledge is derived from information, but it is richer and more meaningful. It includes familiarity, awareness, and understanding gained through experience or study, and results from making comparisons, identifying consequences, and making connections. Some experts include wisdom and insight in their definitions of knowledge (De Brun, 2005).

Nonaka and Takeuchi (1995) propose the concept of **explicit** and **tacit** knowledge. **Explicit knowledge** is the knowledge that is processed by information systems,

codified or recorded, archived, protected, and documented by the organization. **Tacit knowledge** represents knowledge that exists in people's heads so that it is extremely difficult to transfer and cannot be written down. Both explicit and tacit knowledge are the intangible assets any organization holds in order to provide excellent service to their customers. Knowledge has become the driving force in our economy today. It empowers the ability of professionals to be their best and to deliver service of value to customers.

In last two decades, the focus on knowledge has led to the advancement of the knowledge management discipline. The processes and activities can broadly be divided into those that bring about the creation of knowledge and those that are willing to share knowledge. In its most basic form, knowledge management is a circular creation process that ensures the availability of new knowledge and makes this knowledge transferable (ibid).

Approach implemented by organizations to manage knowledge recognize as knowledge management (Grover & Davenport, 2001). Today's knowledge management notes as vital integral in business functions. According to Alavi & Leidner (2001) knowledge management process consist of four processes, first knowledge creation, knowledge storage/ retrieval, knowledge transfer and knowledge application.

Knowledge Creation- knowledge creation related to developing new knowledge or replaces existing knowledge in terms of tacit and explicit knowledge.

Knowledge Storage/ Retrieval- Knowledge storage/Retrieval include activities such as knowledge residing in various component forms, knowledge structure, codifying the knowledge and store of knowledge to organizational memory.

Knowledge Transfer – Knowledge transfers exist between individual, individual to groups, groups to groups, groups in organizations and across.

Knowledge Application- Knowledge application is an integration of knowledge to organization process or activities such as directives, organizational routines, and self-contained task teams.

This leads to the creation of further knowledge, and so the process continues.

However, knowledge management is also the practice of harnessing and exploiting intellectual capital in order to gain competitive advantage and customer commitment through efficiency, innovation, and effective decision-making (Chou & Yung, 2005).

Knowledge management requires some essential processes and strategies by which knowledge is created, identified, shared, developed, and used effectively in organizations. It is not about establishing new departments, getting new technologies, or hiring new staff. And there are many approaches, tools, and strategies for adopting knowledge management. In general, knowledge management implementation requires changing people's values, cultures, and behaviors, and providing people with easy access to each other. In addition, it provides access to relevant information resources (ibid).

After reviewing and analyzing 12 frameworks of knowledge management implementation, Kim et al (2006) provide a comprehensive framework for knowledge management implementation. The framework includes six steps: (1) setting a strategy, (2) preparing structure, (3) spreading the culture and values, (4) identifying the needed process and activities, (5) building knowledge management system, and (6) making adjustment needed after the implementation.

Comparatively, in educational settings, knowledge management systems should provide a set of designs that link people, processes, and technologies, and should discuss how organizations can promote policies and practices that help people share and manage their knowledge (Petrides & Guiney, 2002).

In higher education, there are two types of knowledge involved: academic knowledge and organizational knowledge. Academic knowledge is the primary purpose of any higher education institution. On the other hand, organizational knowledge refers to the institution's processes and businesses, the institution's strength and weakness, the markets the institution serves, and the factors that are critical to organizational success (Coukos-Semmel, 2003).

Galbreath (2000) identified four major processes used in building the culture of knowledge sharing and collaboration in higher education institutions. The four processes include: (1) making knowledge visible, (2) increasing knowledge intensity, (3) building knowledge infrastructure, and (4) developing a knowledge culture. From an academic knowledge perspective, the learning community should start at the individual level to create departmental knowledge and domains of knowledge across departments that share academic interests or disciplines, and then

create networks of institutional knowledge and networks with other institutions and corporations.

The knowledge subsystem of a learning organization refers to the management of acquired and generated knowledge within the organization. It includes the acquisition, creation, storage, and utilization of knowledge (Marquardt, 1996).
More specifically, acquisition refers to the collection of existing data and information from within and outside the organization. Creation refers to new knowledge that is created within the organization through problem solving and reflection on experience. Storage is the process of coding and preserving the organization's valued knowledge for easy access by any staff member, at any time, and from anywhere. Finally, utilization involves the mechanical, electronic, and interpersonal movement of information and knowledge, both intentionally and unintentionally (ibid).

These processes are ongoing and interactive rather than sequential and independent. The collection and distribution of information occurs through multiple channels, each having different frames. An example is an online newsletter that systematically gathers, organizes, and disseminates the collective knowledge of the organization members (ibid).

According to Nonaka and Takeuchi`s **model**, knowledge creation is a continuous and dynamic interaction between tacit and explicit knowledge which happens at the level of the individual, the group, the organization, and between organizations. Knowledge is therefore created through the interactions of knowledge in four different models (Nonaka & Takeuchi, 1995): (1) socialization, (2) externalization,

(3) combination, and (4) internalization. As knowledge has to be seen as a valuable resource in organizations, attempts have been made to structure the knowledge base and attribute value to these assets. A widely publicized approach has been developed by the Skandia Insurance Company in Sweden, which structures intellectual capital into (Tiwana, 2002): (1) human, (2) organizational, and (3) customer capital. The intellectual index of (Roos et al, 1998) is based on (1) relationship, (2) innovation, (3) human, and (4) infrastructure capital (Kubr, 2002). For this reason a number of organizations have started to use the balanced scorecard model developed by Kaplan & Norton (2000) to integrate various assets of organization. Modern learning organizations build their lasting competitive advantages on knowledge and intellectual capital which also represents the only economic source of the modern organization (Kubr, 2002).

2.3.2. Knowledge Management Models

2.3.2.1 Nonaka's Knowledge Management Model

Nonaka's knowledge management model (Nonaka & Takeuchi, 1995) presumes that knowledge consists of tacit and explicit elements. In this aspect, tacit knowledge is defined as non verbalized, intuitive and unarticulated, whilst, explicit knowledge is articulated and can be specified in writing, drawings, computer programming and others. This model believes tacit knowledge can be transferred into tacit knowledge in others by socialization and tacit knowledge can be transferred into explicit knowledge by formalizing a body of knowledge or through externalization process. The model also believe that explicit knowledge can be transferred into tacit knowledge in others by translating theory into practice also known as a process of internalization and explicit knowledge can be transferred to explicit knowledge in

others by combining various existing theories – known as combination process. This simple matrix model presume that knowledge transfer in organizations is simple and straightforward but it was argued that it can be complicated and complex than it seems (McAdam & McCreedy, 1999). Even though each of these modes may independently create knowledge, the organizational knowledge creation processes only occur when all the four modes are organizationally managed and dynamically interacted. This process which is highly iterative constitutes 'knowledge spiral' which happens mainly through informal networks of relations in the organization starting from the individual level, then moves up to the group (collective) level and eventually to the organizational level. It creates a 'spiraling effect' of knowledge accumulation and growth which promotes organization innovation and learning (Nonaka, 1994; Nonaka & Takeuchi, 1995).

Figure 2. 1: Nonaka's Knowledge Management Model

		to Tacit	Explicit
from	Tacit	Socialization	Externalization
	Explicit	Internalization	Combination

Source: Nonaka, I. and Takeuchi, H. (1995).

2.3.2.2 Hedlund and Nonaka's Knowledge Management Model

Knowledge transfer in organizations is not as simple as Nonaka's simple matrix suggests.

Knowledge transfer can be very complicated and complex hence, a more elaborate version of Nonaka's model was developed to describe the four levels of carriers or agents of knowledge in organizations. These four levels of 'carriers' perspective assumes that knowledge is categorized into the individual, the group, the organization and inter-organizational domains. In this aspect, inter-organizational domain includes important customers, suppliers, competitors and others. Even though, this model is supportive as it relates the carriers to the types of knowledge, it is complicated as the carriers are segregated and related with the limited types of knowledge, which is consistent with Nonaka's externalization and combination knowledge management process (McAdam & McCreedy, 1999). Indeed, Hedlund & Nonaka (1993) argue that knowledge management characteristics can have serious implications for the various types of activities such as innovation and strategies and this can affect organizations' success or failures. Hence, this suggests that the essence of organizations' survival and success can depend on how they create, transfer and exploit their knowledge resources.

Figure 2. 2: Hedlund and Nonaka's Knowledge Management Model

	Individual	Group	Organization	Inter-organizational Domain
Articulated knowledge	Knowing calculus	Quality Circle's documented analysis of its performance	Organization chart	Supplier's patents and documented practices
Tacit knowledge	Cross-cultural Negotiation Skills	Team coordination in complex work	Corporate Culture	Customer's attitudes to products and expectations

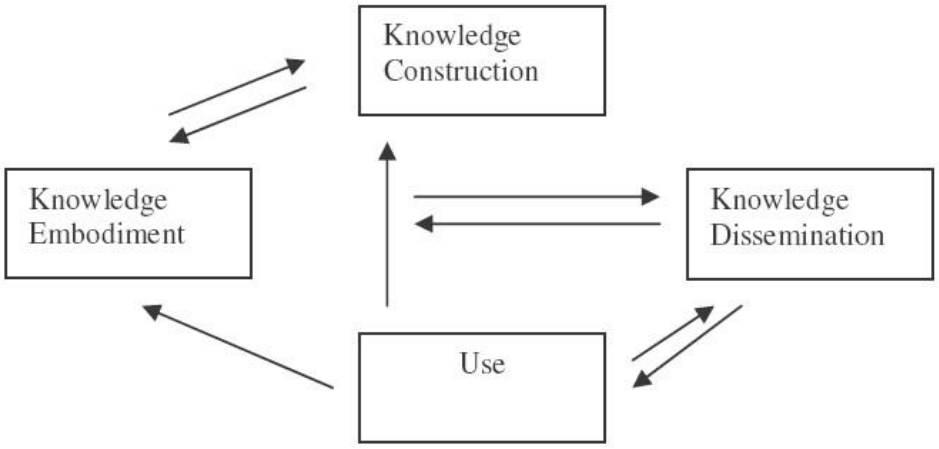
Source: Hedlund, G. and Nonaka, I. (1993).

2.3.2.3 Demerest's Knowledge Management Model

Demerest's knowledge management model emphasize on the construction of knowledge within an organization. This construction is not limited to scientific inputs but is seen as including the social construction of knowledge. The model

assumes that constructed knowledge is then embodied within the organization, not just through explicit programs but through a process of social interchange (McAdam & McCreedy, 1999) Figure 2.3 showed that there is a process of dissemination of the espoused knowledge throughout the organization and its surrounding. Ultimately the knowledge is seen as being of economic use in regard to organizational outputs. The solid arrows in figure 2.3 show the primary flow direction while the plain arrows show the more recursive flows. The model is attractive in that it does not assume any given definition of knowledge but rather invites a more holistic approach while, in reality, the flows of knowledge transfer may be extremely rapid and circulatory, as in the case for some forms of action learning.

Figure 2. 3: Demerest's Knowledge management Model

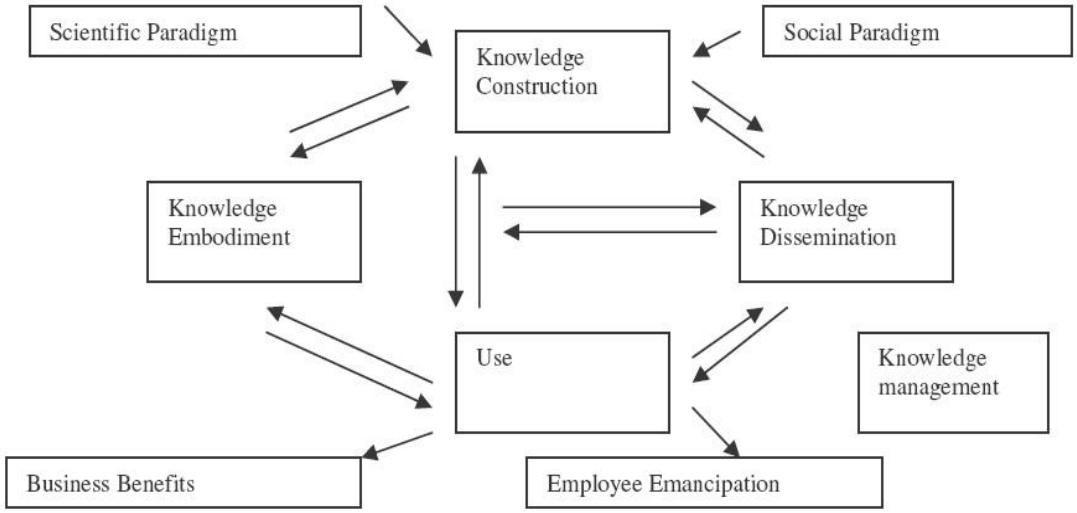


Source: McAdam and McCreedy (1999).

Demerest's model has been slightly modified of which seeks to address these limitations by explicitly showing the influence of both social and scientific paradigms of knowledge construction. The model also extends the "use" element to cover both business and employee benefits. If knowledge management is to have the

support and commitment of all stakeholders in an organization then employee emancipation must be addressed along with the business benefits. These issues should not be seen as mutually exclusive but as complementary. Also more recursive arrows are added to figure 2.4 to show that knowledge management is not seen as simple sequential process. Figure 2.4 is a useful means for structuring further research into field of knowledge management as it represents a balanced view. It allows knowledge management to be associated with the emerging social paradigm while at the same time contributing to the current paradigm.

Figure 2. 4: Demerest's Knowledge Management Model (Modified)



Source: McAdam and McCreedy (1999).

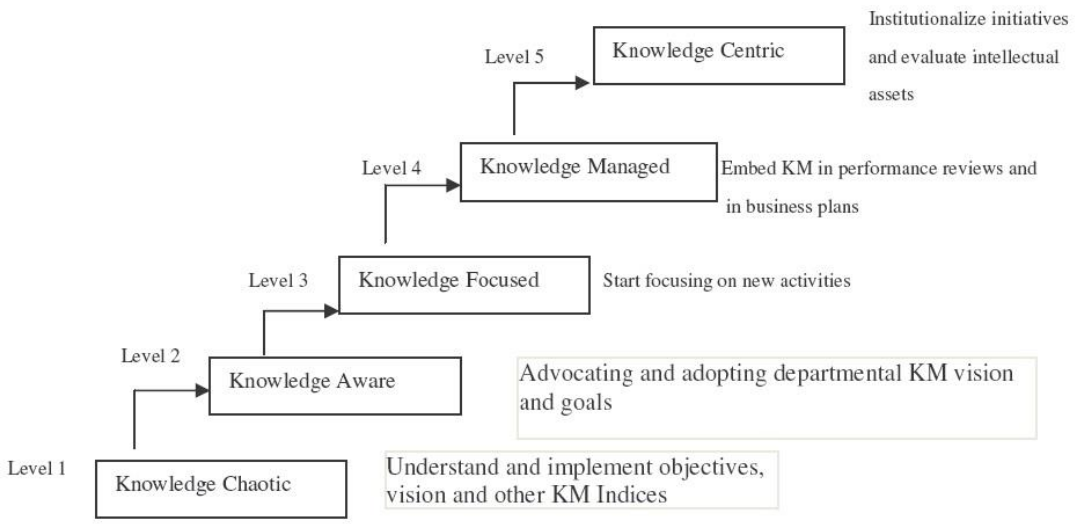
2.3.2.4 Frid's Knowledge Management Model

According to Frid's (2003) knowledge management framework, the knowledge management maturity assessment levels and knowledge management implementation can be divided into five levels. The five maturity levels are knowledge chaotic, knowledge aware, knowledge focused, knowledge managed,

and knowledge centric. The first level - knowledge chaotic suggests that organizations at this level are in the process of understanding and implementation of Frid framework for knowledge management which encompasses knowledge management vision, knowledge management objectives and knowledge management indices. Organization should focus on advocating and adapting departmental knowledge management vision and goals as well as performing Frid's framework knowledge management maturity assessment. Whereas level two - knowledge aware suggests that organizations at this level are a step higher than those at knowledge chaotic. Also, to understand and implement Frid's framework for knowledge management; advocating and adopting departmental knowledge management vision and goals; and performing Frid framework maturity assessment, organization at this point should focus on developing a knowledge management road map and working collaborate with the knowledge management office. At the third level - knowledge focused indicated that organizations should have covered the implantation aspects as in the lower two levels and start focusing on five new activities. Organizations at this point should embed knowledge management into process engineering; provide initial knowledge management infrastructure, services and training; support early adopters and knowledge community; monitor and report on management indices and finally include knowledge management in budgets. However, the fourth level termed as knowledge managed adopt the fundamental activities suggested in level one, two and three other than organizations should attempt to embed knowledge management in performance reviews and also in business plans apart. Finally, knowledge centric as the last level is the highest of all knowledge management implementation maturity level based on Frid's model. The distinctive and differentiating activities that organizations should focus on are

institutionalizing successful initiatives and valuing intellectual assets. These activities differentiate knowledge from other levels. Moreover, all knowledge management activities should be given equal emphasis at this level.

Figure 2. 5: Frid's Knowledge management Model

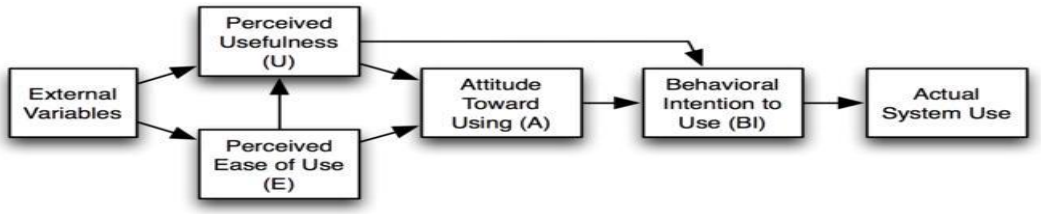


Source: Frid, R (2003).

2.3.2.5 Technology Acceptance Model

Davis (1989) developed the Technology Acceptance Model for explaining behavioral intention and usage behavior of technology. The two main constructs, perceived usefulness and perceived ease of use were proposed to directly influence behavioral intention to use, which furthermore was proposed to be a direct determinant of actual system use. Perceived ease of use was also considered to directly determine perceived usefulness.

Figure 2. 6: The Technology Acceptance Model



Source: Davis (1989).

2.4. Review of literature

2.4.1 Assessment of knowledge management

A study was conducted to examine the performance of second tier UK universities in relation to the effectiveness of their knowledge management systems and involvement in open innovation. Data were acquired using a mail survey of academic staff in social science and business faculties in second tier institutions (Chaston, 2012).

A study was conducted in Taiwan 2010 to assess a process based knowledge management system for schools. The Previous study shows that, Knowledge management systems, or KMSs, have been widely adopted in business organizations, yet little research exists on the actual integration of the knowledge management model and the application of KMSs in secondary schools. In the present study, the common difficulties and limitations regarding the implementation of knowledge management into schools' organizational cultures were reviewed and discussed. Furthermore, relevant theories of knowledge management models were summarized, and a model of process-based knowledge management appropriate for schools was proposed. Based on the proposed model, the study applied a low-cost, open-source software development framework to establish a process-based

knowledge management system for schools, or PKMSS. A 30-day empirical observation and survey was conducted at a secondary school in Taiwan. The case study used methods included a satisfaction survey, qualitative content analysis of knowledge discussion, and unstructured interviews to explore the progress, performance, and limitations of PKMSS implementation. It was determined that PKMSS has some value in promoting schools' knowledge management. It not only facilitated the externalization and combination of knowledge and effectively kept the objectives of knowledge sharing in focus, but it also promoted inter-member interactions. However, the study also found certain restrictions in terms of the classification of knowledge content and system functions. Based on the findings, propose was made for relevant suggestions as references for the evaluation and introduction of a KMS in educational organizations (Chi-Lung, Hsi-Peng, Chyan, & HOU, 2010).

Abdullah, Selamat, Sahibudin, & Alias (2005) analyzed the KM concept, system and architecture; then they propose a framework of KM system implementation in collaborative environment for Higher Learning Institutions (HLI). They also discuss various issues involved in the field that would help organizations to increase productivity and quality as well as to achieve return on investment (ROI).

The study concluded that technological opportunities to improve interaction and increase collaboration in organizations are expanding rapidly. There are many benefits of a well-designed KMS in the organization. These include saving time and effort to get knowledge, so that all interested parties can use the organization's combined knowledge: knowledge is able to be used wherever and whenever it is needed, eliminating time wasting random distribution just-in-case people are

interested. In order to be more beneficial to the HLI (or any other organization), the knowledge, as an organizational asset should be managed carefully. In this case, there are four core features or categories for KMS framework as proposed that should be considered and concerned as listed below: (1) Infrastructure, Content and Portal (2) Collaboration and Learning (3) Social Capital, Expertise and Communities (4) Business Intelligence, Integration and Measurement.

The study was conducted to discuss some of the reasons for implementation of knowledge management. The study found that increasingly, rapid technology changes impact the way people work and live and result in new ways they utilize knowledge in organizations, working practices, and overall activities. The study provided an explanation of general business operations as it used to be during the industrial revolution, the advantages and disadvantages at the point when the world entered the industrial revolution where discussed, as well as how these same advantages and disadvantages are viewed today. The study argued that the industrial way of conducting business operations is not feasible nowadays, and discussed what changes have occurred during the transition to the knowledge economy. Also, the study discussed what knowledge management is and the reasons why KM must be realized in organizations. The concept of a company's intangible assets was also discussed, as well as its relation with the KM issues were discussed. The study concluded that KM is the only concept that promotes progress in society while providing organizations with the key to survival and development in today's highly competitive marketplace (Lovreković, 2013).

The study conducted by Oprea (2011) found that the implementation of an efficient university knowledge management system involves the development of several

software tools that assist the decision making process for the three main activities of a university: teaching, research, and management. Artificial intelligence provides a variety of techniques that can be used by such tools: machine learning, data mining, text mining, and knowledge based systems, expert systems, case-based reasoning, decision support systems, intelligent agents etc. The proposed generic structure of a university knowledge management system, and it is presented an expert system, ACDI_UPG, developed for academic research activity evaluation, that can be used as a decision support tool by the university knowledge management system for planning future research activities according to the main objectives of the university and of the national / international academic research funding organizations.

Newman & Conrad, (1999) conducted a study and found that knowledge management is not one single discipline. Rather, it an integration of numerous endeavors and fields of study. The study provided a framework for characterizing the various tools (methods, practices and technologies) available to knowledge management practitioners. It provides a high-level overview of a number of key terms and concepts, describes the framework, provides examples of how to use it, and explores a variety of potential application areas.

A study conducted by Deve & Hapanyengwi, (2014) saw that Knowledge Management (KM) has come to be regarded as an important activity in today's organizations. Technology plays a crucial role in KM of facilitating knowledge flow through the knowledge life cycle. This role is mostly realized by the implementation of a Knowledge Management System. The study also saw the development of these systems is still haphazard, as organizations implement systems that are not

guaranteed to enhance knowledge processing activities, and which may not be knowledge management systems at all. Most of these systems are groups of technologies brought together, with no theoretic and/or conceptual framework to justify the way in which they are integrated. The various forms of knowledge are not handled appropriately, as there is no distinction between the processes involved in managing these knowledge forms in the systems. Hence knowledge distribution and use is not done consistently, efficiently, and effectively.

A study conducted by Gloet & Samson, (2013) a qualitative research examined the links between knowledge management (KM) and innovation in 16 Australian manufacturing and service organizations that exhibited successful innovation and robust KM practices. A review of the literature indicated the contributions of KM to systematic innovation capability. Using a multiple cross-case analysis methodology and applying a framework of sustained innovation capability, in depth interviews were held with managers of the case study organizations. The analysis of the data revealed the main contributions of KM to systematic and sustained innovation. Areas in which KM could contribute more to sustained innovation capability were also discussed.

The study conducted by Omona, Weide, & Lubega, (2010) on using ICT to enhance knowledge management in higher education. The study found that adoption and use of ICT to enhance and facilitate Knowledge Management (KM) has brought to focus the urgent need to come out with new methods, tools and techniques in the development of KM systems frameworks, knowledge processes and knowledge technologies to promote effective management of knowledge for improved service

deliveries in higher education. To succeed in KM, higher education institutions must endeavor to effectively link KM initiatives and processes with their ever-changing needs to advance their goals. Addressing these challenges call for a new conceptual framework and expanded research agenda to ensure success in the utilization of ICT in KM. Using the synergies from (Stankosky's, 2005) KM pillar for enterprise learning together with the task/technology fit theory (Goodhue & Thompson, 1995) to form the basis for defining our approach, the study proposed a conceptual framework for using ICT to enhance KM in higher education. In addition, the study identified several research issues to bridge the gap that existed between the requirements of theory building and testing to address the different emerging challenges in using ICT to enhance KM in higher education.

2.5 Empirical Findings

The results of a study conducted to examine the performance of second tier UK universities in relation to the effectiveness of their knowledge management systems and involvement in open innovation indicated that there are key factors which influence the effectiveness of knowledge management systems. The key factors influencing the effectiveness of the knowledge management process are organizational climate, structure and process, and strategy implementation. (Chaston, 2012).

A statistically significant relationship was found between effective knowledge management and the variables of open leadership and quality of information. The results supported the validity of hypothesis; that prevailing organizational climate influences the effectiveness of knowledge management in universities (ibid).

Also, a statistically significant relationship found between effective knowledge management and the variables of workforce satisfaction and learning from mistakes. These results supported the validity of hypothesis; that prevailing infrastructure and processes influence the effectiveness of knowledge management in universities. Finally, as also a statistically significant relationship was found between effective knowledge management and the variables of vision and performance orientation. These results support the validity of hypothesis; that prevailing strategy implementation influences the effectiveness of knowledge management in universities (ibid).

The reported value for overall knowledge system effectiveness suggested that, on average, management knowledge systems are not well developed in this UK university sector. The study was unable to validate hypothesis; that highly effective knowledge management systems exist in universities. (Chaston, 2012).

A study conducted by Chi-Lung et al (2010), determined that PKMSS has some value in promoting schools' knowledge management. It not only facilitated the externalization and combination of knowledge and effectively kept the objectives of knowledge sharing in focus, but it also promoted inter-member interactions. However, the study also found certain restrictions in terms of the classification of knowledge content and system functions. Based on the findings, propose was made for relevant suggestions as references for the evaluation and introduction of a KMS in educational organizations.

Abdullah et al (2005), Analyzed the KM concept, system and architecture; The result obtained showed that many respondents (on average is about 78.75 percent) who were interviewed agreed that KM system should be focusing on issues in terms of KM architecture and its functionality (80 percent), KM infrastructure and technology in order to deliver better service to serve the community (85 percent), KM process as a model of acquisition and dissemination (75 percent), and other relevant aspects such as cultural and psychological that reflect enhancing the performance of community in organization (75 percent).

The study concluded that technological opportunities to improve interaction and increase collaboration in organizations are expanding rapidly. There are many benefits of a well-designed KMS in the organization. These include saving time and effort to get knowledge, so that all interested parties can use the organization's combined knowledge: knowledge is able to be used wherever and whenever it is needed, eliminating time wasting random distribution just-in-case people are interested. In order to be more beneficial to the HLI (or any other organization), the knowledge, as an organizational asset should be managed carefully. In this case, there are four core features or categories for KMS framework as proposed that should be considered and concerned as listed below: (1) Infrastructure, Content and Portal (2) Collaboration and Learning (3) Social Capital, Expertise and Communities (4) Business Intelligence, Integration and Measurement.

However, HLI, or any organization that pursues knowledge management policies, is more likely to succeed if they complement technological aspects of KMS developments with the collaborative strategies which to allow people to work together at any time and any place. The encouragement of employee-run networks

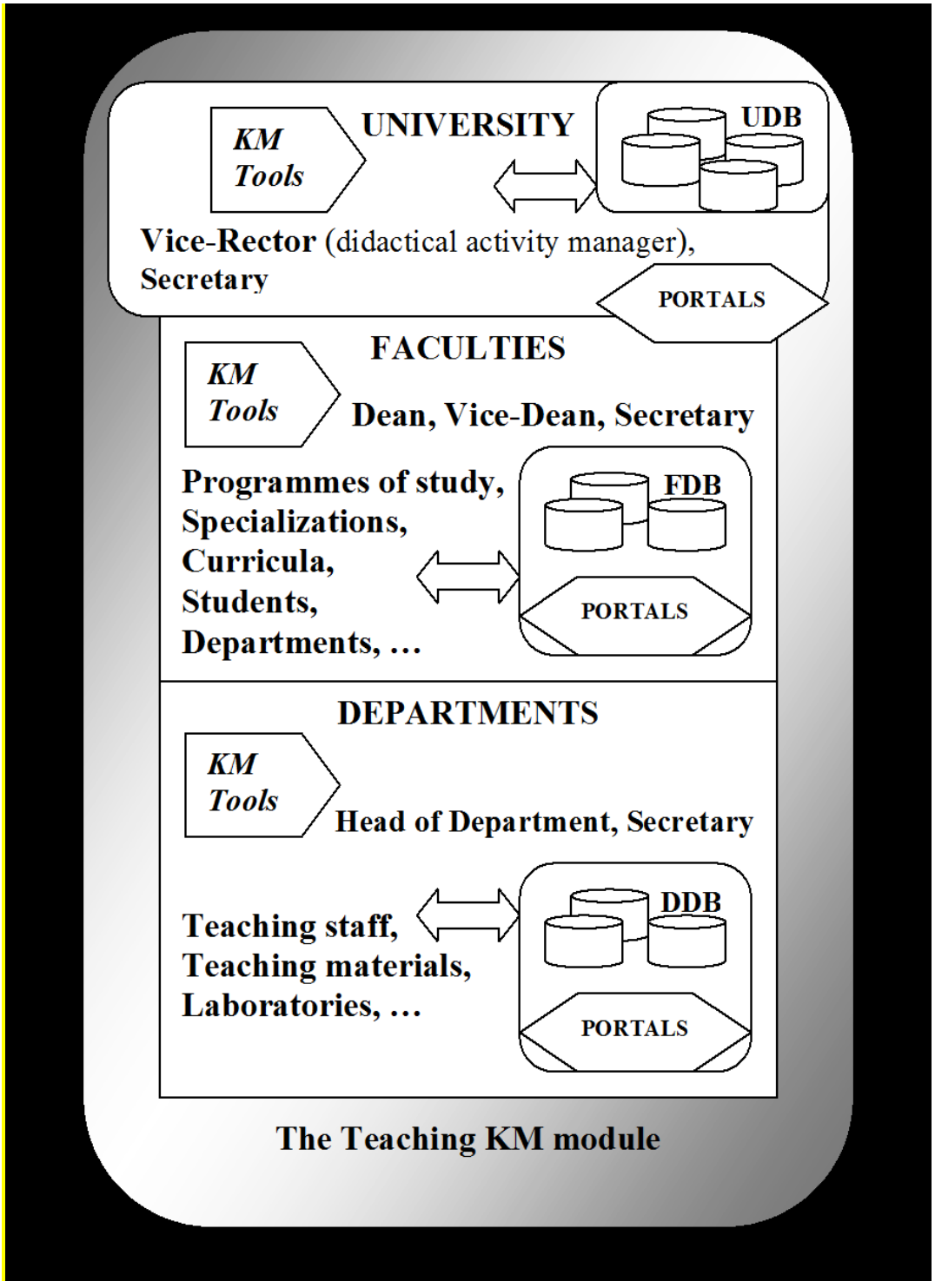
seems to be a successful strategy that provides both employees and the company with rewards from knowledge management within their workspace. For future research, a prototype system was developed based on the KM framework and tests the applicability of the prototype for the CoP. After that, a survey was conducted in the CoP to evaluate the effectiveness of the KM framework in the prototype implementation.

The study conducted by Lovreković (2013) found that in present times markets are oversaturated and competition is difficult to fight off. Product life-cycles and technology are shorter than ever before and working conditions are constantly changing. For these reasons, the best way to survive in today's market lies in the capacity to frequently produce new work knowledge. More specifically, to perform business in such a way that innovations are produced on an everyday basis and not as a mere coincidence.

The study conducted by Oprea (2011) found that the implementation of an efficient university knowledge management system involves the development of several software tools that assist the decision making process for the three main activities of a university: teaching, research, and management. Artificial intelligence provides a variety of techniques that can be used by such tools: machine learning, data mining, text mining, and knowledge based systems, expert systems, case-based reasoning, decision support systems, intelligent agents etc. The proposed generic structure of a university knowledge management system, and it is presented an expert system, ACDI_UPG, developed for academic research activity evaluation, that can be used as a decision support tool by the university knowledge management system for

planning future research activities according to the main objectives of the university and of the national / international academic research funding organizations.

Figure 2. 7: An Overview of Knowledge Management System Module



Source: Mihaela Oprea (2011).

The study conducted by Newman & Conrad (1999) found that selecting knowledge management technologies is often a daunting and risky task. Without an independent frame of reference, attempts to compare knowledge management technologies can be very confusing and fail to drive needed decisions. By providing a means to differentiate technologies according to their impacts on agents, artifacts and behaviors, the characterization framework described in this paper provides just the kind of neutral reference point organizations often need. The framework also adds value to supporting analytical, design, development and deployment activities by guiding the analysis of knowledge flows and construction of a usefully comprehensive picture. The framework provides a mechanism for developing a balanced, high-level view that can be used to set the stage for deeper analysis, identifying the compelling and critical issues that warrant more careful examination. Once the picture is complete, the framework can be used to identify the specific needs that can be met with off-the-shelf technology, localized customizations or change-management programs.

By using the same framework to relate technologies, methods and practices back to targeted knowledge flows and their associated behavioral goals, it becomes easier to balance technical and non-technical approaches. This allows project teams to take a more rational, whole systems approach to development and deployment, improving their ability to develop tools and approaches that target and resolve root problems and not just symptoms, improve organizational performance and lower overall life cycle risks.

A study conducted by Deve & Hapanyengwi (2014) found that there is a need for a reference point from a technical perspective, emanating from a theoretic and conceptual framework that will guide in developing these systems. This reference point is best provided in the form of a generic knowledge management system architecture, which will guide all technological implementations for KM. the study aimed to outline the need for a generic knowledge management system and what is to be taken into consideration in terms of technical as well as organizational objectives when developing it. The study also presented some of the quality attributes to be considered in developing the architecture, and the technologies that can be incorporated.

The first design artifact that addresses quality attributes of a system is the architecture (Bahsoon & Emmerich, 2003). The KMS architecture should exhibit certain qualities that render it able to deliver its expected objectives. Quality attributes can be in the system realm and/or the software realm and how they will be met has to be well illustrated in the architecture developed.

The success of a KMS is partially depended on the extent of use, which itself is tied to the quality of the system, the quality of the information and the usefulness of the system in carrying out knowledge-related activities (Maryam & Leidner , 2001). A system that is of low quality in terms of its construction as well as implementation will not produce optimum performance that can be beneficial to the user. In this case, a set of technical requirements and benchmarks can be produced that will be used in ascertaining the efficiency and effectiveness of the system. By developing a GKMSA, these benchmarks which are the quality attributes and how they are met in

software architecture of a KMS, can then be applied by any organization, in any environment, to aid in implementation of an optimum KMS solution.

KMS requirements can only be gathered if we know how a KMS should be and how the initiative will be implemented (Sultan, 2003). There may be need for a customized KMS for an organization if it fears that the use of a standard market solution threatens the sustainability of its core competences (Galandere-Zile & Vinogradova, 2005). The following section details the requirements and /or quality attributes of a KMS that have been found from literature studies. They are all not meant to work together in one system but are provided here together since the goal is to come up with a GKMSA.

The table below shows studies conducted by different scholars and research from different countries on knowledge management.

Table 2. 1: Summary of Different studies and their results.

S/No	Study topic	Country	Year of study	Results
1	Knowledge Management: The Case for Kenya	Kenya	2010	• new discipline • significant improvements in human performance • competitive advantage
2	Knowledge assets of higher education institutions in Uganda: proposing a framework for assessing human, structural and relational knowledge assets	Uganda	2014	• Development in higher education depend on the strength of the HEI's own knowledge asset bases through both the ability to generate and locate existing raw knowledge
3	Importance of knowledge management In the higher educational institutes	India	2015	• Avoid reinventing the wheel • Better dissemination of organizational goals and practices • Generation of new knowledge and concept

Source: Researcher collected from different sources (2015)

2.5.1 Challenges of the Modern Organizational Environment

The challenges that organizations at the beginning of the 21st century are facing are completely different from the challenges in the 70s' and 80s' of the 20th century. Therefore organizational concepts and the theory of organization are still developing (Palmer & Hardy, 2000). The tackling of fast changes and a learning process are the most challenging problems that modern managers are facing. Many managers are still holding on to the hierarchical, bureaucratic approach for managing organizations, which was dominating during the past decades (DuBrin, 2000). The challenges of today's environment – global competition, ethical issues, rapid advance in information and telecommunication technologies, increasing application of electronic operations, knowledge and information, as the most important organizational capital, increasing employee demands for creative work and opportunities for personal and professional development – require completely different response from organizations, as they were used to up until now (Coulter, 1998). Patterns used in the past, do not satisfy the guidance needs of the 21st century organization.

2.5.2 Towards the Knowledge Based Organization

The knowledge economy is gaining ground and establishing a new framework for modern organizational and management theory. The future of the management process raises the issues how to manage information and knowledge and how to develop intellectual capital. While managers of the industrial age (including higher learning institutions like UDOM) focused on the control of business operations and on hierarchical structures, the new era managers, i.e. e-managers, are suppose to structure and build associations of self-managed virtual teams (Savage, 1996; Earl &

Fenny, 2000). Organizations try to achieve their goals by building, leveraging, and maintaining competences (Sanchez, 2003). Competence building is the process of creating or acquiring new kinds of assets and capabilities use in taking actions. Competence leveraging is a coordination of the use of organization's current assets and its capabilities in taking actions. Competence maintaining is the maintaining of an organization's current assets and capabilities in the state of effectiveness for use in the actions which the organization is currently undertaking. The competitive position of organization will be determined by their capacity to create value through knowledge. In an economy where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge (Nonaka & Takeuchi, 1995).

Figure 2. 8: The Modern Organizational Environment

Source:Takeuchi Nonaka (1995).

This structural change is reflected in theories of endogenous growth, which stress that development of know-how and technological change are the driving forces behind the lasting growth. Much of the literature on organizational learning and learning organizations (Argyris & Schon, 1978; Nonaka & Takeuchi, 1995; Senge, 1990) highlights both, the transformation of personal knowledge into organizational knowledge and the transformation of tacit knowledge into explicit knowledge (Sanchez, 2003).

2.6. Synthesis and Knowledge Gap

Challenges of managing knowledge in organization have been largely increasing due to the fact that knowledge management is becoming a vital issue for any organization survival. Knowledge management has been of a great concern in the past three decades. The rise of concern on knowledge management began on the early 1980s. A lot of scholars have done research to show how knowledge management is important in current era for any organizational success. During the last couple of decades researchers have developed models trying to explain the importance of knowledge and how to extract knowledge from people and manage it for the betterment of the whole organization. These models, such as the Hedlund and Nonaka's Knowledge Management Model, Demerest's Knowledge Management Model, Frid's Knowledge Management Model, Stankosky and Baldanza's and Knowledge Management Framework have been extensively applied in studying the process of knowledge creation knowledge sharing and knowledge storing and The Technology Acceptance Model have been used to integrate these process in a modern technology through the use of software such as knowledge management

systems. Several challenges have been identified as inhibitors for knowledge management through adoption of modern technology.

This study tries to integrate the mentioned models so as to enable the assessment of knowledge management. Most of the studies have been limited to give technical organizational barriers which hinder the smooth implementation of knowledge management systems. There are other studies that have explored social related problems such as organization culture which also hinder the smooth adoption of knowledge management systems.

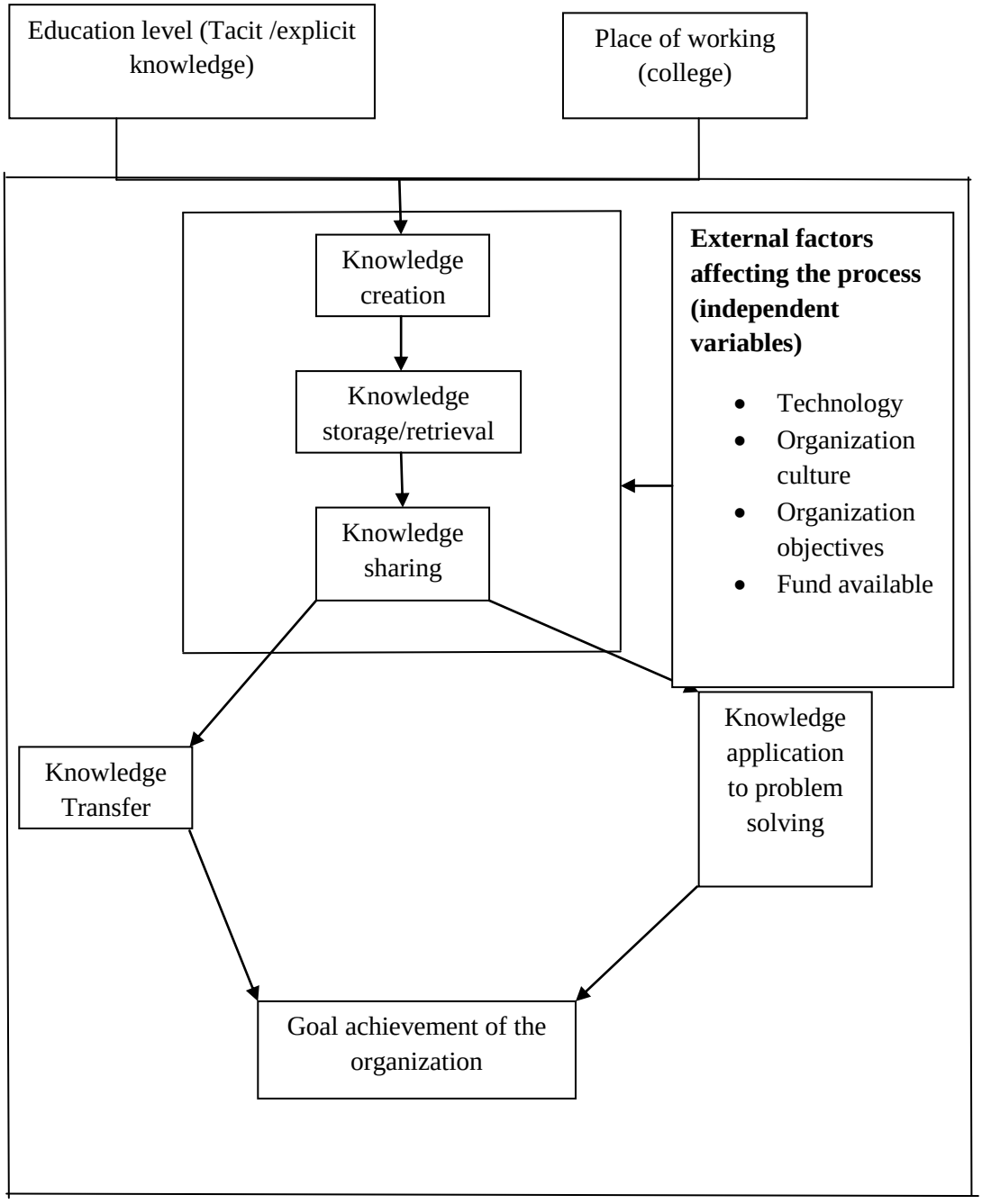
Francisco (2006) called upon researchers to do further research on new understandings of the gap between technical capability and what has been implemented by faculty members using the tools that have already been provided. Understanding why available tools are not being used and what needs to be done to motivate use is a bottom-line issue where budgets are tightening and ways of extending the reach of existing faculty are needed. This study aims at assessing the knowledge management in academic base at UDOM.

2.7 Conceptual Framework

To assess knowledge management in academic and its impact on performance of the organization, the conceptual framework given in the figure below will be used in this study. In the figure below it shows how knowledge management process should be. There are two sources of knowledge that is tacit knowledge and explicit knowledge these two sources of knowledge are dependent variables. Both these two sources of knowledge contribute to the knowledge creation of the organization. The knowledge which has been created need to be stored for easy retrieval whenever it is

needed. The stored knowledge should be accessible to academic members of staff for sharing. There are some internal and external features which affect the process. These features are independent variables which are being depended by tacit and explicit knowledge. These features are as shown bellow. Two ways in which knowledge can be shared is through knowledge transfer from one member of staff to another and also through application for problem solving within the organization. Both ways of should have a common goal to achieve organizational goal. Knowledge management process should be done through a comprehensive platform. This platform is normally an interactive user friendly system known as a knowledge management system.

Figure 2.9: Conceptual Framework of the Study



Source: Developed by Researcher from Literature Review (2015).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section describes the research design which was adopted and the location where the study was conducted. It also describes the sampling procedure, methods of data collection, data analysis and data presentation ways. The section ends with discussing how data validity and reliability were taken care of throughout the data collection and analysis.

3.2. Research design and Approach used

Research design is the conceptual structure within which research is conducted and constitutes the blueprint for the collection, measurement and analysis of data (Kothari, 2004). This study adopted a case study approach at the University of Dodoma. It involved academic members of staff who are directly responsible in providing knowledge to students. It is decided to employ case study design because it provides a detailed analysis of the study was conducted. The rationale of choosing UDOM as the case is based on the fact that UDOM is using local ways on managing and sharing knowledge which is not efficient and there is a need to assess it. In addition, the study allows convenience of data collection in terms of time, cost and accessibility.

3.3. Study settings

Apparently, knowledge management is a new field and most of the organizations in the country do not practice knowledge management. Most of the organization luck the competitive edge just by not applying knowledge management. This means that

the vulnerable groups are scattered all over the country, which is a very large area to be covered by the researcher given time and financial constraints. As a consequence, the study was carried out in Dodoma Region based at the University of Dodoma (UDOM).

The reasons for the setting of this study are the presence of large number of the targeted group (vulnerable groups), the researcher is familiar with the institution (UDOM), and it is the test site as UDOM is the larger institution in Tanzania which is still growing. Basing on the findings it will be more useful and advantageous to the institution management's decisions whether to continue with local ways of knowledge management or to adopt the modern ways of using knowledge management system. Also, the area is convenient for the researcher in terms of time and cost and data is accessible. Gronhaug (2005) said that, while selecting the study area, it is important to consider the ability and effectiveness of the researcher to retrieve data in terms of both time and cost.

3.4 The Population and Sample size

Population is the totality of all units from which the sample is going to be taken, (Gronhaug, 2005). The population for this study includes all UDOM academic members of staff (female and male, young and adults) that in one way or another contribute to knowledge generation. The population of UDOM staff is approximately to 1500 both academic and non academic.

Sample is a population researched in a particular study (Dr. Jonker &Dr. Pennink, 2010). Usually, attempts are made to select a 'sample population' that is considered

representative of groups of people to whom results will be generalized or transferred. A sample of 82 staffs was selected for the study. The decision to use a sample of 82 staffs is because sampling in qualitative research usually relies on small numbers with the aim of studying in depth and detailed. Also, this sample provides the precise picture of the whole population and save cost in terms of time and money.

The actual sample size obtained by using the formula as follows:-

$n= N/ [1+ N (E)^{2}]$ where;

n=sample size

N=Total population

E=Precision

This study uses the sample size derived from 792 UDOM employees who are academic member of staff who in one way or another are directly involved in knowledge generation in the institution. It did not consider other UDOM employee for this research is interested to check knowledge management in academic field only.

It follows that, N = 792, E = 0.1 and therefore $n = 792/ [1 + 792(0.1)^2] = 88.79 = 89$ respondents for academic staff.

After the distribution of questionnaires, 82 respondents returned the questionnaires. Therefore the sample size taken for this study was 82.

There are six colleges at the University of Dodoma. Each college has number of schools and each school there are number of academic department units. The sample

was taken from each academic department. From each department, it took a random sample from the most senior academic member of staff and the most junior academic member of staff. The sample was distributed as indicated in the table below.

Table 3. 1: Sample distribution by department

College	**School**	**Department**	**Sample Number**
Humanities And Social Sciences	Humanities	Art Media And Design	3
		Foreign Language	3
		Kiswahili	3
		History	3
	Business	Management Sciences	2
		Business Administration	2
		Economics And Statistics	2
		Accounts And Finance	2
		Marketing	2
	Social Sciences	Development Studies	2
		Geography And Environmental Studies	2
		Political Science And Public Administration	2
		Sociology	2
		Law	2
Informatics And Virtual Education	Informatics	Information Systems	2
		Telecommunication And Communication Networks	2
		Business Information Technologies	2
		Computer Engineering And Application	2
		Computer Sciences	2
	Virtual Education	Content Engineering And Multimedia Technologies	2
		Virtual Education Technologies And	2

		Applications	
		Virtual Education Delivery	2
Natural And Mathematical Sciences	Physical Sciences	Chemistry	2
		Physics	2
	Biological Sciences	Biological	2
	Mathematical Sciences	Mathematics	2
		Statistics	2
Earth Sciences	Mines And Petroleum Engineering	Applied Geology	2
		Energy and Petroleum	2
		Mining and Mineral Processing Engineering	2
Education	Educational Studies	Education Foundations and Continuing	2
		Educational Management and Policy St	2
		Psychology	2
	Curriculum And Teacher Education	Curriculum, Educational Media and Technology Unit	2
		Language, Fine and Performing Art Ed	2
		Science, Mathematics, and Technology	2
		Social and Business Studies Education	2
Health And Allied Sciences	Medicine And Dentistry	Medicine	2
	Nursing And Public Health	Nursing	2
Total sample number			**82**

Source: Researcher's idea (2015)

3.5 Sampling Technique

Stratified sampling technique was used for this study whereby the population of the study was divided into strata/ groups of similar characteristics, the strata considered the population of employees in different Colleges; other strata consider seniority from professors, doctors, assistant lecturers to tutorial assistants. Other strata

considered gender and age. Stratified sampling favor this study because it is bias free and makes use of strata to explore the knowledge generated in every stratum. The strata directed the researcher on the sample size which is proportionate to the population percentage.

3.6 Data Collection Methods

3.6.1 Primary data

These are the data that were collected for the first time by the researcher. Primary data helps a researcher to get up-to date information. A case study often involves data collection through multiple sources such as verbal reports, personal interviews, focus group discussions and observations as primary data sources (Gronhaug, 2005). Therefore, this study adopted questionnaires, focus group discussions, interviews (face to face and telephone interviews) and observations in data collection.

3.6.1.1 Observation

Researcher takes field notes on the behavior and activities of individuals at the research sites (Creswell, 2003). In this study the researcher observed some few academic staffs that have been key characters in knowledge generation in at UDOM in different Colleges. The researcher observed their working behaviors and capabilities that explain the improvement of their working standards.

3.6.1.2 Questionnaires

Questionnaire is a set of written questions that typically measure many variables (Gall, 2002). In this study questionnaires were used to academic staffs that were selected randomly from each college and department to access how the current

practice of knowledge management has been handled with comparison with the evidence from literature study which can be useful for advancement of knowledge. Questionnaires were used to provide respondents with adequate time to give well enough answers. Questionnaires were prepared in English because UDOM is a higher learning institution and English is an official language of communication during teaching and delivery of knowledge in class, during consultations and researches. Questionnaires were divided in three sections that include demographic characteristics of respondents, closed questions and open ended questions respectively. All questions were focused on the objectives of the study.

3.6.1.3 Interview

Interview was conducted about this study on assessment of knowledge management in academics to seek data from employees themselves and the management as well. The interview based on face to face and telephone interview. The use of this instrument is to avoid the problem of varying quality of interview data. The focus was on checking the awareness of academic member of staffs on knowledge management at UDOM. Interviews allow the researcher to obtain data within the designed scope. The researcher used open ended questions to interview respondents face to face and through telephones. This saved time and cost since the interview were conducted individually and over the telephones.

3.6.1.4 Focus group discussion

The researcher conducted focus group discussion based on sex, age and educational qualifications discussing on various issues on knowledge management at UDOM. The researcher conducted the discussion with respondents at different time using the

same questions from the questionnaires particularly the open ended questions to get the correct answers; the open ended questions were designed in such a way that it covers important elements that are needed for the study.

3.6.2 Secondary data

These are the data that are collected sometime earlier for specific objectives or project. Secondary information for this study was collected from the various reports which were available in the relevant offices within the university and outside which provided relevant information for the study.

3.7 Data Collection Procedure

The researcher prepared the instruments of data collections into pilot testing through pre-testing the questionnaires. Questions were translated into the appropriate language for respondents, were reviewed, printed and then sent to the respondents.

3.8 Data analysis Techniques

Data analysis is a process that entails editing, coding, classification and tabulation of collected data (Kothari, 2004). The analysis was done through Statistical Package for Social Science SPSS version 20.0. The tool was used to generate summaries of descriptive statistics (frequency tables, means, standard deviations, charts and graphs) of the variables that were studied and to test the correlation between use of knowledge management and performance improvement of an organization.

3.9 Reliability and Validity

Reliability is the extent to which the measurement will provide results that will be consistent over a period of time and by different researchers employing similar

methodology. Validity refers to the extent to which the test measures what it claims to measure (Gronhaug, 2005). In order for the researcher to avoid bias/distortions to achieve validity and reliability; the researcher conducted a pilot test to determine the relevance of the questions and information collected. The results from the pilot study helped the researcher to identify and clear out the ambiguities and make corrections in order to improve the research questions. The researcher used multiple methods in data collection i.e. questionnaires, focus group discussions, interviews and documentary reviews, academic member of staff from different college and department were involved to increase the validity.

3.10 Ethical Considerations

Ethics is a code of behavior that is considered as correct. Ethical consideration in this research is considered to prevent ethical dilemmas. The study put into consideration all ethical issues in its conduct including seeking for a research clearance letter from the University of Dodoma (UDOM). The study further informed respondents on the objectives of the study and sought their consent to participate in the study, convincing them to provide information without any forceful means from the researcher. The researcher also observed the right of the respondents to privacy and confidentiality of the information they provided by even not mentioning their names. The confidentiality of the data supplied by respondents is of prime concern to all reputable survey organizations (Scheuren, 2004).

3.11 Conclusion

The above chapter discussed on research methodologies, research design, methods of data collection. It also explained about validity and reliability of instruments as well as data analysis and ethical consideration.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents the research findings from the field, data analysis and discussion of the results. A total of 82 questionnaires were distributed into six colleges of the University of Dodoma. The distribution of the questionnaire among the colleges was as indicated in table 3.1 in the last chapter. The results presented are based on the specific objectives and questions of the research:

a) To assess ways of managing and sharing knowledge at the University of Dodoma.
b) To assess if the technical specification needed for knowledge management are satisfactory.
c) To assess the relationship between knowledge management and the efficiency of the organization.

Together with the data on objectives and research questions also basic demographic data are provided.

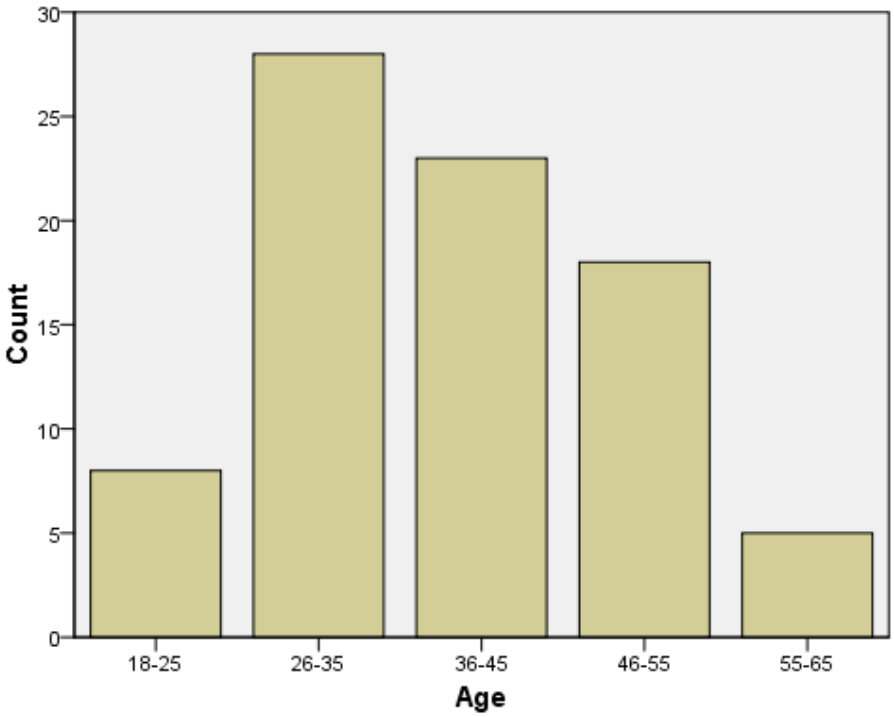
4.2 Demographic Characteristics of Respondents

This section provides the general characteristics of the respondents involved in assessing knowledge management in academic at the University of Dodoma (UDOM). These characteristics of respondents include age, gender, and educational level, college which a respondent work at UDOM and working experience of respondents. The discussion of each characteristic is presented below.

4.2.1 Age of the Respondents

The findings revealed that 8(9.8%) of the respondents were between the age of 18-25, a total number of 28(34.1%) of the respondents range between the age of 26-35, a total number of 23(28%) of respondents were between 36-45 and 18(22%) of respondents were between the age of 46-55 and 5(6.1) of the respondent were between the age of 55-65. See figure 4.1. A big number of respondents range between the age of 26-35 and followed closely by those between 36-45. This is due to the fact that the University of Dodoma is still a new institution and thus, most of employees at UDOM are young.

Figure 4. 1: Age of Respondents

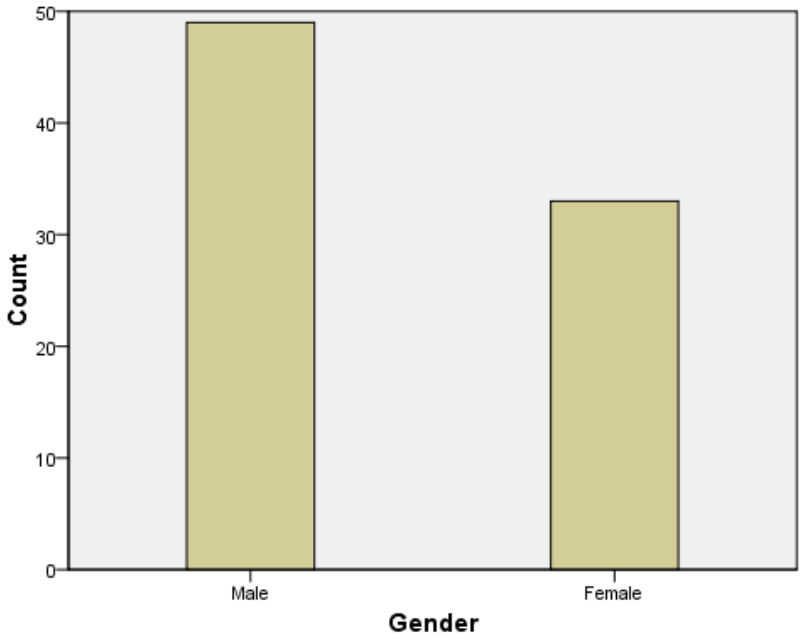


Source: Fieldwork survey (2015).

4.2.2 Gender of Respondents

This part provides the general characteristics of the respondents in terms of their gender. This was done in order to assess whether there was equal distribution of sex among the respondents. Figure 4.2 shows the sex of the respondents. It shows that 49(59.8%) of the respondents were male and 33(40.2%) of the total respondents were female. This is because; most of the academic members of staff at UDOM are male. The number of male staffs than female staffs.

Figure 4. 2: Gender of Respondents



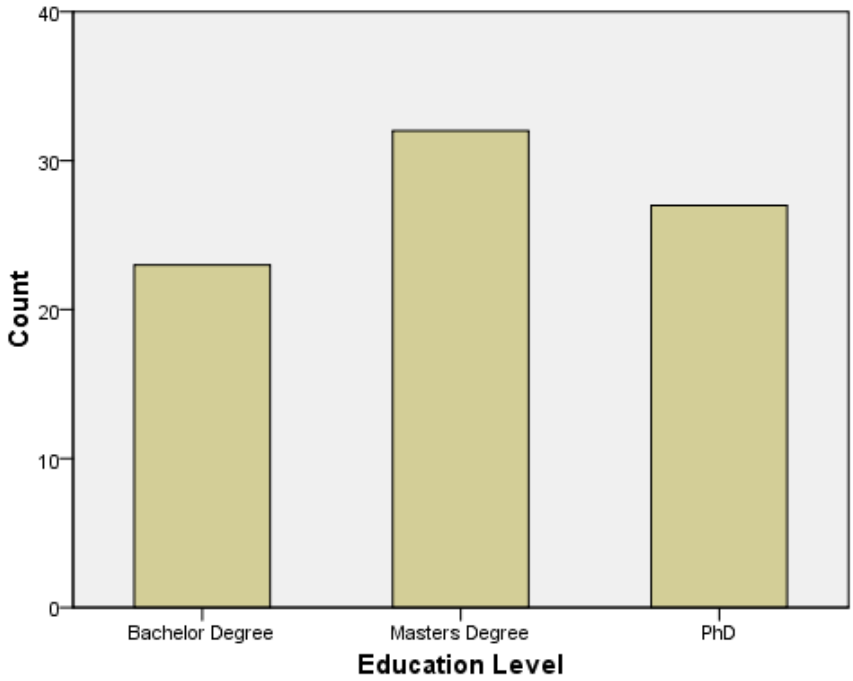
Source: Fieldwork survey (2015)

4.2.3 Level of Education of Respondents

The finding shows that 23(28.1%) of respondents had bachelor degree, 32(39%) of respondents had masters degree and 27(32.9%) of respondents had PhD. The study aimed to collect data from the most junior staffs and the most senior staffs. The most junior staff in terms of academic qualifications is tutorial assistants who are bachelor degree holders and the most senior academic in terms of academic qualifications are

PhD holders. But also there is a significant number of academic members of staff who hold masters degree who also participate in knowledge creation generation sharing and disseminations. In assessing knowledge management it is also important to involve this group. The results imply that academic member of staff at the University of Dodoma had varying level of education thus; they have different contribution on providing knowledge to the institutions. Figure 4.3 below shows the level of education of respondents.

Figure 4. 3: Educational Background



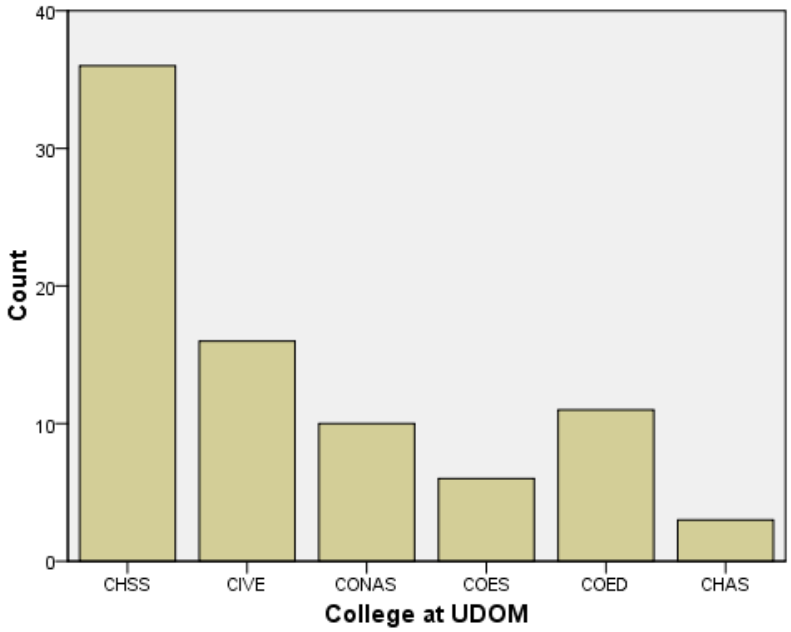
Source: Fieldwork survey (2015)

4.2.4 College at which the Respondent works

The researcher collected data from all six colleges of the University of Dodoma. From each college the research tried to collect data from all academic departments. The results were as follows: there were 36 (43.9%) of respondents are from college of humanities and social sciences (CHSS), 16 (19.5%) of respondents are from

college of informatics and virtual education (CIVE), 10 (12.2%) of respondents are from college of natural and mathematical Sciences (CONAS), 6 (7.3%) of respondents are from College of Earth Sciences (COES), 3 (3.7%) are from College of Health and Allied Sciences (CHAS) and 11 (13.4%) of the respondents were from College of education. Figure 4.4 shows the distribution of respondents by colleges.

Figure 4. 4: Working station of the respondent

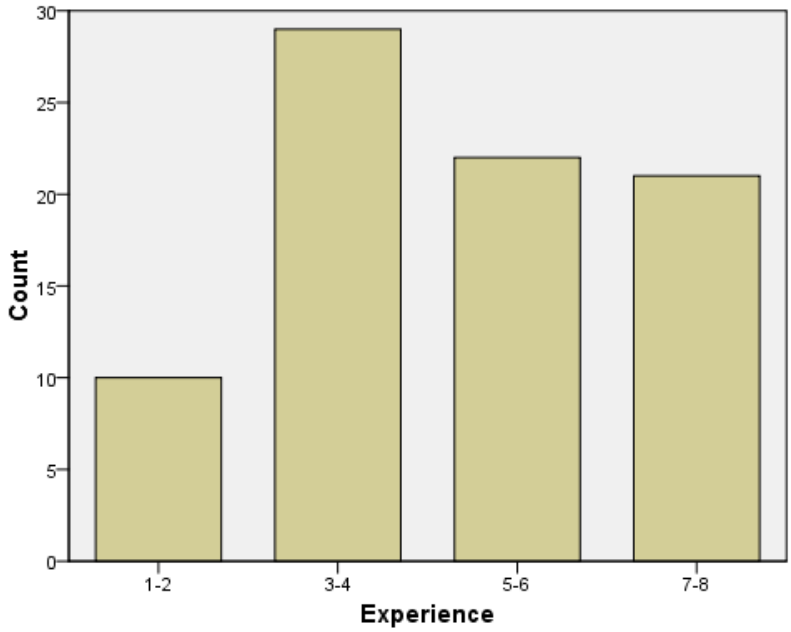


Source: Fieldwork survey (2015)

4.2.5 Working Experience of Respondents

The researcher's findings revealed that 10 (12.2%) of respondents had worked between 1-2 years, 29 (35.4%) of respondents worked between 3-4 years, 22 (26.8%) of respondents worked between 5-6 years and 21 (25.6%) of respondents had worked between 7-8 years at the University of Dodoma (figure 4.5).

Figure 4. 5: Working experience



Source: Fieldwork survey (2015)

4.3 Research objective 1: To assess ways of managing and sharing knowledge at the University of Dodoma

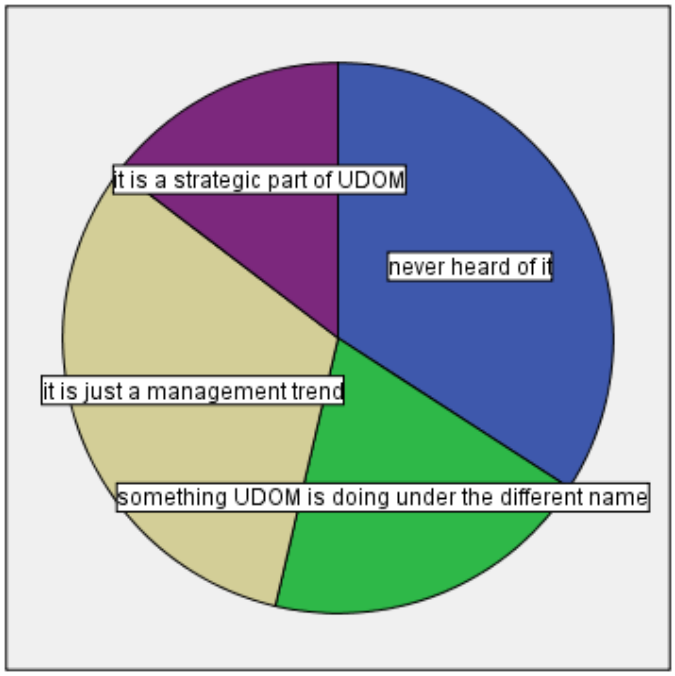
On assessing the current ways of managing knowledge at UDOM the researcher tried to look on the awareness of staff on knowledge management, existing policies on knowledge management and knowledge management in general at UDOM. Current ways of managing knowledge at UDOM are mostly affected by two independent factors. The independent factors are education level of academic member of staff and college in which they work.

4.3.1 Understanding on knowledge management

The results show that a big number of respondents, of about 28 (34.1%) have never heard of knowledge management. They do not understand what it is or what it is about. 16 (19.5%) they have an understanding of knowledge management but they

think UDOM is doing knowledge management under different name. 26 (31.7%) of respondents have an understanding of knowledge management but they think it is just a management trend of doing its activities while 12 (14.6%) respondents have and understanding of knowledge management ant they think UDOM is using Knowledge management strategically to accomplish its objectives. Figure 4.6 shows trend of understanding of knowledge management at UDOM.

Figure 4. 6: Understanding on knowledge management



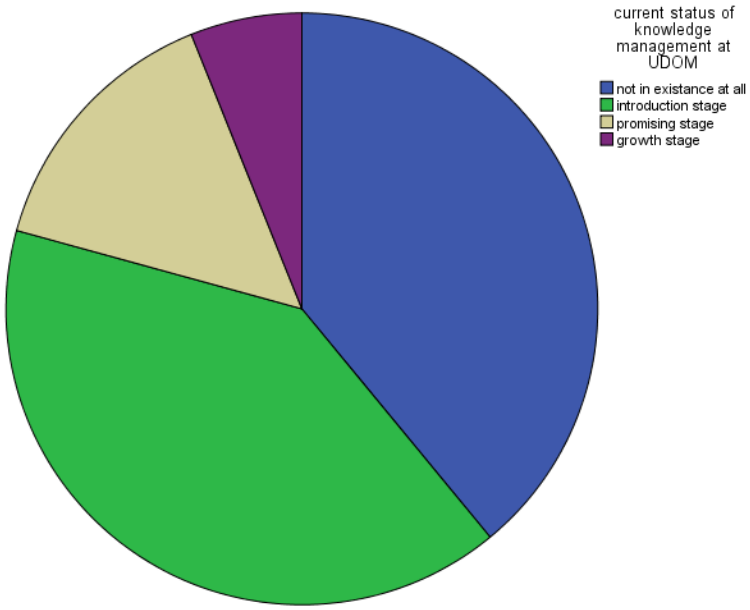
Source: Fieldwork survey (2015)

4.3.2 Current status of knowledge management

Respondents had different view on the current status of knowledge management at UDOM. 32 (39%) of the respondents said that UDOM does not manage its knowledge at all, while 33 (40.2%) of the respondents said that knowledge management is at introduction stage in UDOM. 12 (14.6%) of the respondents said

that knowledge management is at promising stage and 5 (6.1%) of respondents said that knowledge management is at growth stage. Figure 4.7 shows the response of respondents on current status of knowledge management.

Figure 4. 7: Current status of knowledge management

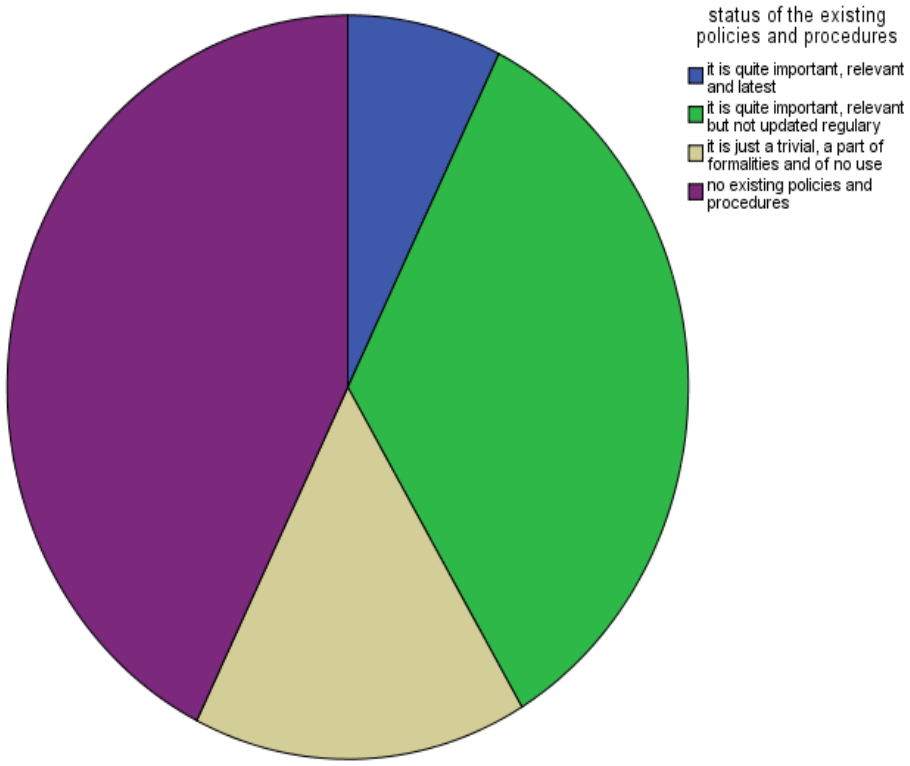


Source: Fieldwork survey (2015)

4.3.3 Existing policies and procedures.

Policies and procedures are very important in implementing knowledge management in any organization**.** Among 82 respondents, 6 (7.3) respondents said the existing policies and procedures are quite important, relevant and latest. 28 (34.1%) of respondent said that the existing policies and procedures are quite important, relevant but they are not updated regularly. 13 (15.9%) of the respondents think the existing policies are trivial and they are just part of formalities but they are of no use while 35 (42.7%) of the respondents think that there are no existing policies and procedures which govern knowledge management.

Figure 4. 8: Existing policies and procedures.

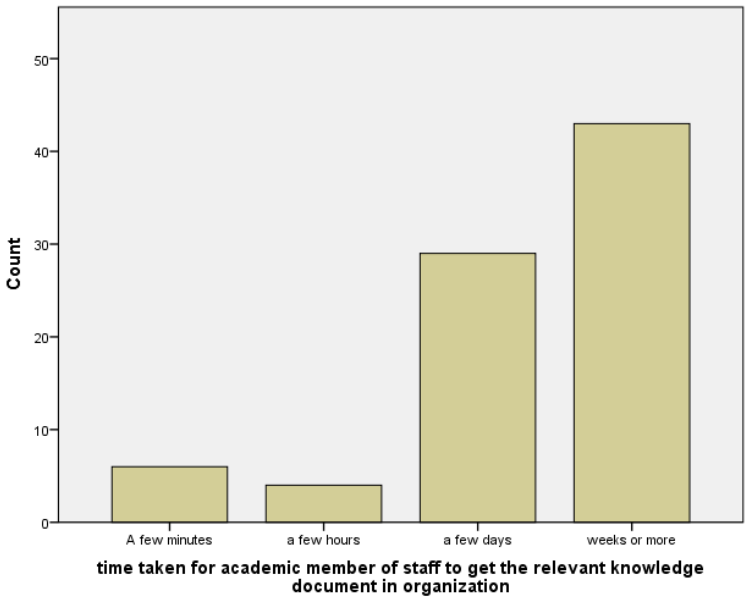


Source: Fieldwork survey (2015)

4.3.4 Time taken to get relevant knowledge document

When knowledge is well managed relevant knowledge are easily accessible within and outside the organization. Respondents had different view on accessibility of relevant knowledge documents within the organization. 6 (7.3%) respondents said that they can access relevant documents within few minutes. 4 (4.9%) of respondents said that they can access relevant documents within few hours. 29(35.4%) respondents said that they can access relevant documents within few days and 43 (52.4%) respondents said that they can access relevant documents in weeks or more. Figure 4.9 shows graph on time taken by staff to get relevant knowledge document from management or from other sources.

Figure 4. 9: Time taken to get relevant knowledge document



Source: Fieldwork survey (2015)

4.3.5 Problem related to knowledge retention

Table 4.1 bellow shows and rank problems related to knowledge retention at UDOM.

Table 4. 1: Problems related to knowledge retention according to academic qualifications

Problems	Education level					
	Bachelor Degree		Masters Degree		PhD	
	Mean	Rank	Mean	Rank	Mean	Rank
Lack of information	4.35	1	3.94	2	4.11	2
Information overload	3.09	5	3.56	4	3.35	5
Repeating things that have already been done	3.65	4	3.63	3	3.63	4
Lack of crucial knowledge due to key employee leaving the organization	4.13	3	3.63	3	3.94	3
Poor sharing of information in the organization	4.26	2	4.28	1	4.33	1

Source: Fieldwork survey (2015)

Staff had different view on some of the key problems related to knowledge retention. Academic member of staff with different academic qualification had different views and also staff working in different colleges had different views. Bachelor degree holders viewed lack of information as the biggest problem that hinder knowledge retention, followed by poor sharing of information in the organization, then followed by lack of crucial knowledge due to key employee leaving the organization, in their views repeating things that have already been done by others and information overload does not contribute much to problems related to knowledge retention with comparison to other three factors.

Academic member of staffs who are holders of masters' degree had different views with comparison to degree holder. While degree holders think lack of information is the biggest problems which contribute much to knowledge retention masters' degree holder and PhD holder think poor sharing of information in the organization is the biggest problem that hinders knowledge retention.

Table 4. 2: Problems related to knowledge retention according to campus in which academic member of staff work.

Problem	College working at UDOM											
	CHSS		CIVE		CONAS		COES		COED		CHAS	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Lack of information	4.03	2	4.25	1	4.00	3	4.67	3	4.67	2	4.11	2
Information overload	3.33	5	3.69	4	3.00	5	3.33	4	2.00	5	3.35	5
Repeating things that have already been done	3.81	4	3.19	5	4.20	2	2.83	5	3.67	4	3.63	4
Lack of crucial knowledge due to key employee leaving the organization	3.83	3	4.25	1	3.30	4	4.83	1	4.67	2	3.94	3
Poor sharing of information in the organization	4.36	1	4.06	3	4.70	1	4.83	1	5.00	1	4.33	1

Source: Fieldwork survey (2015)

Member of staff from different campus had different opinion on problems related to knowledge retention. Five campus out of six campuses in the University of Dodoma think that poor sharing of information in the organization is the biggest problem that hinder knowledge retention. Staffs from CIVE didn't give much weight to this factor. This shows that there is a poor sharing of information in the other five colleges that is CHSS, COES, CoNAS, COED and CHAS.

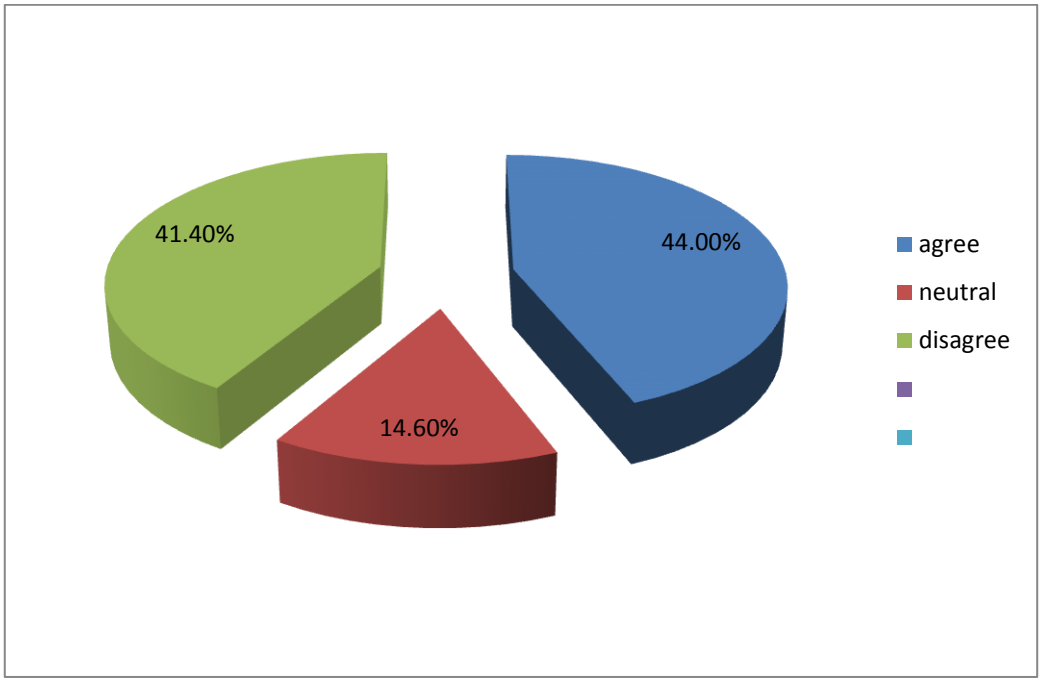
4.3.6 Satisfaction level of strategy used by UDOM for knowledge management

Respondent had different views on different strategy which can be used to improve knowledge management. Some of these strategies include knowledge management as an academic strategy, transfer of knowledge and best practice, organization objective focused knowledge and innovation and knowledge creation.

4.3.6.1 Knowledge management as an academic strategy.

The results show that the 11 (13.4%) of the respondent strongly disagree that UDOM uses knowledge management as an academic strategy, 23 (28%) disagree that UDOM uses knowledge management as an academic strategy, 12 (14.6%) were neutral on the mater, 16 (19.5%) agrees that UDOM uses knowledge management as an academic strategy and 20 (24.4%) strongly agreed that UDOM uses knowledge management as an academic strategy. Collectively 44% responded positively to the question while 41.4% responded negatively to the question, And 14.6% where neutral on the issue. Figure 4.10 shows the results obtained.

Figure 4. 10: Knowledge management as an academic strategy

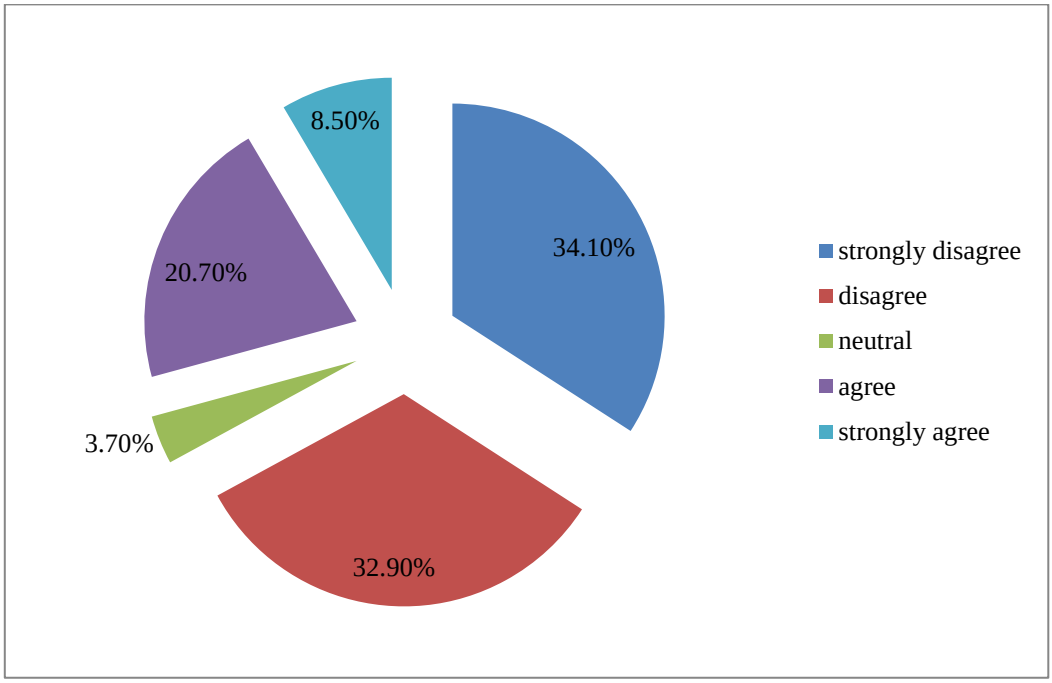


Source: Fieldwork survey (2015)

4.3.6.2 Transfer of knowledge and best practice.

In higher learning institutions transfer of knowledge is a part of life. When knowledge is transferred among members of staff it is said to be retained for it is among many member of staff. Transfer of knowledge is one of the strategies to manage knowledge. Respondents of the questionnaire had different view on the satisfaction level of transfer of knowledge as a knowledge management strategy. From the finding, it was evident that 28(34.1%) of respondents were strongly disagreed, 27(32.9%) disagreed while 3(3.7%) of respondents were neutral, 17(20.7%) agreed and 7(8.5%) of respondents were agreed that transfer of knowledge is used as a knowledge management strategy (Figure 4.11).

Figure 4. 11: Transfer of knowledge and best practice



Source: Fieldwork survey (2015)

4.3.7 UDOM culture with knowledge management.

Cultures of the organization have a great impact on knowledge management. Some of the cultural issues that the researcher tried to check that have impact in knowledge management are as follows bellow:

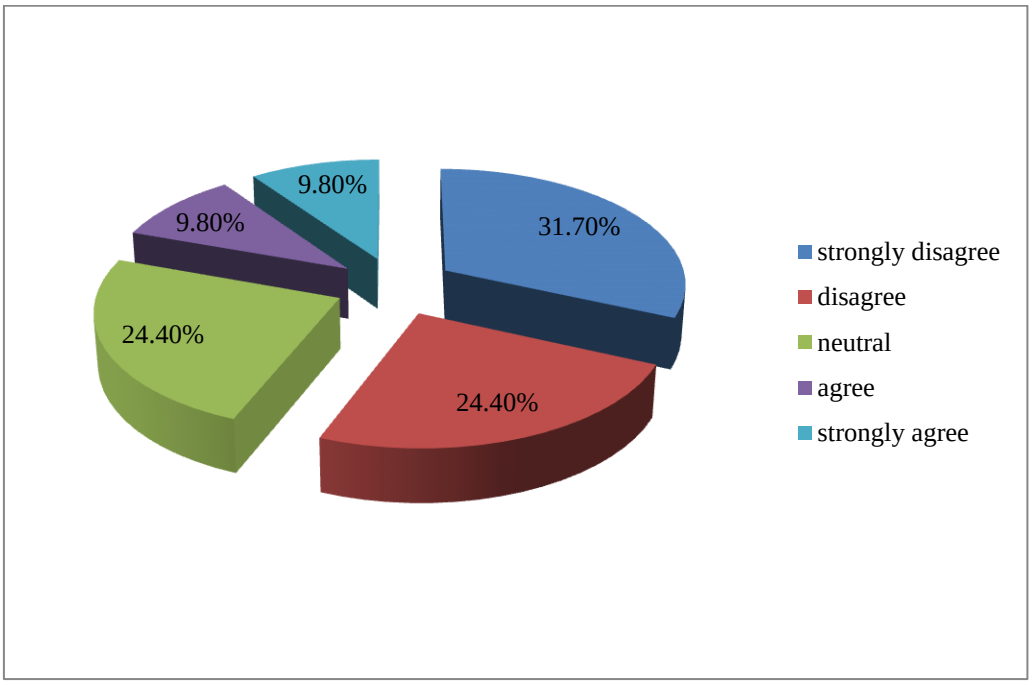
- The researcher tried to assess if the basic values and purpose emphasize on sharing knowledge.
- Also he tried to check if the organization has an open, encouraging and supportive culture.
- The researcher tried to see staff altitude towards knowledge management.
- To see if the organization culture has conducive environment for innovation and knowledge creation

4.3.7.1 Basic values and purpose emphasize on knowledge sharing.

On checking whether basic values and purpose emphasize on knowledge sharing the researcher wanted to know by how much respondents agree to the statement that UDOM basic values and purpose emphasize on sharing knowledge.

26 (31.7%) respondents strongly disagree with the statement, 20(24.4%) respondents disagree with the statement, 20 (24.4%) respondents where neutral on the statement, 8 (9.8%) respondents agreed with the statement and 8 (9.8%) respondent strongly agreed with the statement (see Figure 4.12 bellow).

Figure 4. 12: Assessment of basic values and culture.

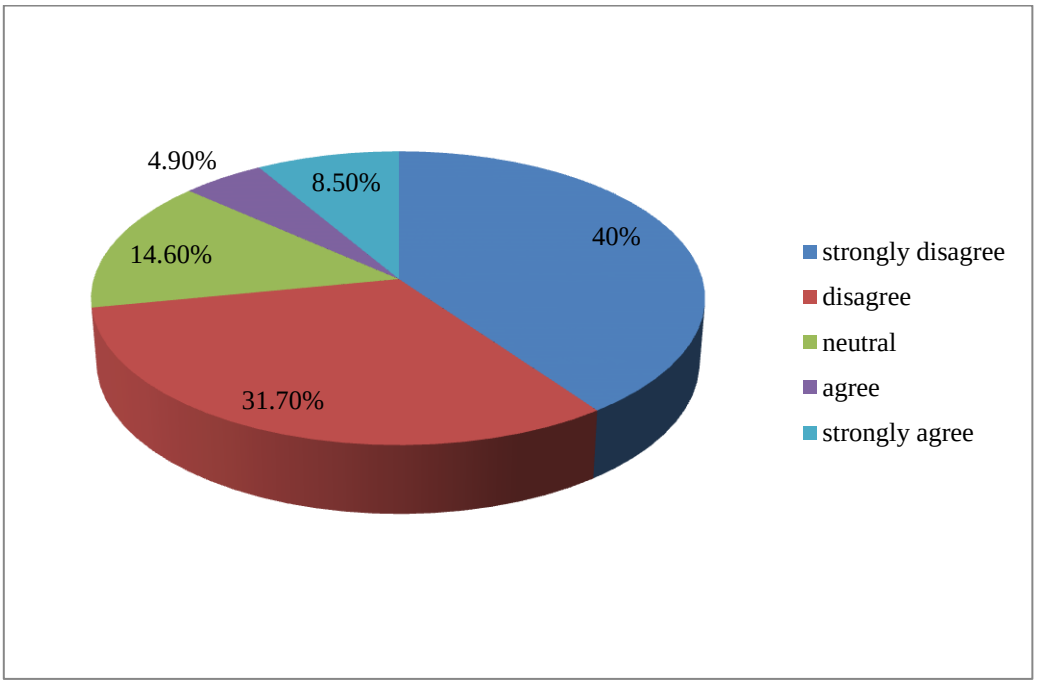


Source: Fieldwork survey (2015)

4.3.7.2 Assessment to see if an organization as open, encouraging and supportive culture.

On assessing this aspect of organization culture 33 (40.2%) respondent strongly disagree that the organization as open, encouraging and supportive culture, 26 (31.7%) respondent disagree, 12 (14.6%) respondent were neutral, 4 (4.9%) respondent agreed on the statement that the organization as open, encouraging and supportive culture and 7(8.5%) strongly agreed. The interpretation of the results is that, the organization does not have open, encouraging and supportive culture that allow member of staff to share knowledge and ideas.

Figure 4. 13: Assessment to see if an organization as open, encouraging and supportive culture.

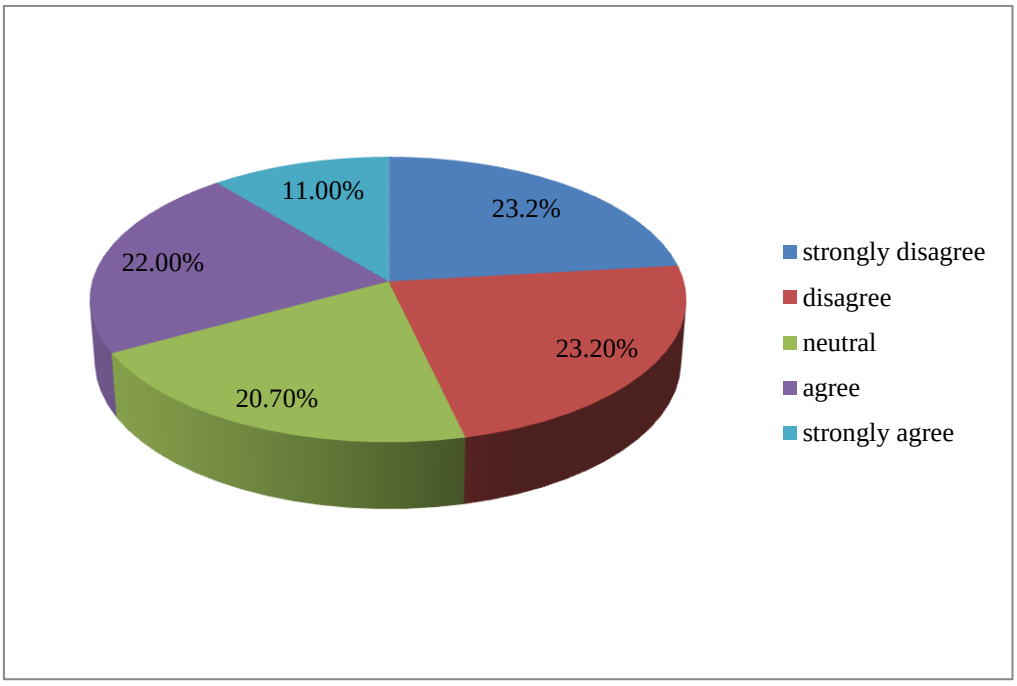


Source: Fieldwork survey (2015)

4.3.7.3 Assessment of attitude of staff towards knowledge management.

Staff had different attitude towards knowledge management. Some think it is a work of every staff to manage knowledge and some think it is a work of few selected individuals who are dedicated to do such task. Results from the research shows that 19(23.2%) strongly disagree that knowledge management is each and everybody job, 19(23.2%) disagree that knowledge management is each and everybody job, 17(20.7%) respondent were neutral on the matter, 18(22%) respondent agreed that knowledge management is each and every body job and 9(11%) strongly agreed that knowledge management is a job of each and every body. Interview conducted shows that about 50% of the respondent think knowledge management is a job of research and publication directorate.

Figure 4. 14: Assessment of attitude of staff towards knowledge management.



Source: Fieldwork survey (2015)

4.4 Research objective 2: To assess if the technical specification needed for knowledge management are satisfactory.

4.4.1 Technology implemented at UDOM.

For knowledge management to be effective and efficient there are few technical specifications that are needed to be implemented. The researcher tried to assess few of the technologies to see their status at UDOM. Some of these technologies include. Checking the availability of internet, intranet and extranet. Checking the availability of groupware, e learning, data warehousing, knowledge management software, decision support system, data management system and availability of computer for each staff. The summary of the results are as follow in the table 4.3 bellow.

Table 4. 3: Technologies implemented at UDOM

Type of Technology	implemented	Not implemented
Internet	73.2%	26.8%
Intranet	45.1%	54.9%
Extranet	2.4%	97.6%
Groupware	2.4%	97.6%
E learning	26.8%	73.2%
Data warehousing	1.2%	98.8%
Decision support system	1.2%	98.8%
Data management system	6.1%	93.9%
Availability of computer for each staff	59.8%	40.2%
Knowledge management software	1.2%	98.8%

Source: Fieldwork survey (2015)

Different technologies have been implemented at different level at UDOM. 60(73.2%) of the respondent says that internet is implemented at UDOM while 22(26.8%) of the respondent says that internet is not implemented at UDOM. The

researcher through interview found that internet services are available in four colleges that are CHSS, CIVE, COED and CHAS. But there are no internet services in two campuses of the university that is CoES and CONAS. 22 respondents who said that internet services are not available are the staff from these two colleges.

Again 37 (45.1%) respondent said that there is intranet services while 45 (54.9%) said intranet services are not implemented. just like internet services respondents from CoES and CONAS said there is no intranet services. And few fore respondents from other colleges said there are no intranet services. The researcher through interview found that there are intranet services that support services such as mailing services and students' results system (SR- System). Whoever intranet services is not used effectively.

There is no extranet at UDOM, 2 (2.4%) respondent said there is extranet services implemented at UDOM while 80 (97.6%) said there is no extranet services. Through interview the research found that there are no extranet services for academic member of staff for them to interact with member of staff from other institutions. The only extranet service available at the university is LAWSON software (human capital management system) which is used by HR department to interact with treasury office.

Again there is no groupware implemented at the university. Groupware enable staff to interact through groups according to their areas of specialization. These groups are very important in knowledge sharing, knowledge retention and knowledge management in general. 2(2.4%) respondent said that there is groupware while 80(97.6%) respondent said there is no groupware.

E learning is also another important aspect in knowledge management. The researcher found that this aspect is implemented but but it is not popular to the member of staff from all the colleges. It is been used mostly by staff from CIVE. Since it is not popular 60 (73.2%) respondent said that there are no E learning services while 22 (26.8%) respondent said there is an E learning service. Most of these 22 respondents are from CIVE.

Data warehousing is very important for knowledge retention. Data stored in the warehouse should be accessible to relevant persons for maintenance of knowledge among member of staff. The research found that there are no data warehousing services for academic member of staffs. Data warehousing services are available for students' results and accounting information for students. 1(1.2%) said there is data warehousing services and 81(98.8%) respondents said there is no data warehousing services.

Knowledge management software is not available. 1 (1.2%) respondent said knowledge management software is implemented while 81 (98.8%) respondent said knowledge management software is not implemented. knowledge management software is very important in management of knowledge.

Computes are very important tool in today's world. They are primary tools in knowledge management. Researcher found that not all academic members of staff have computers as their tools. There are a good number of staffs that do not have computers. Among 82 respondents who returned their questionnaires, 49 (59.8%) respondent said they have computer for their daily works and 33 (40.2%) said they

do not have computers for their daily work. This is a reflection on the actual shortage of computers at the University.

4.5 Research objective 3: To assess relationship between Knowledge Management and Efficiency of the Organization

The findings revealed that there is strong relationship between knowledge management and efficiency of the organization. The research had number of indications to test the relationship. These indicators included competitive advantage, staff focus, innovations and paperwork reduction. Other indicators used by the researcher include staff development, running cost reduction, intellectual property right, fast response in problem solving, quality of education offered, delivery of knowledge.

70(85.4%) of respondents agreed that knowledge management improves competitive advantage of the organization, 6(7.3%) of respondents did not agree and 6(7.3%) where neutral on the matter. Also 71(86.6%) of respondents agreed that knowledge management improves staff focus while 7(8.5%) of respondents didn't agree and 4(4.9%) where neutral on the matter.

72(87.8%) of respondents agreed that knowledge management improves innovations of the staffs while 7(8.5%) did not agree and 3(3.7%) were neutral on the matter. Results for other indicators are as shown bellow in the table 4.4.

Table 4. 4: Relationship between Knowledge Management and Efficiency of the Organization

Role played by effective knowledge management	Positive response	Negative response	Neutral
Improving competitive advantage	70 (85.4%)	6(7.3%)	6(7.3%)
Improving staff focus	71 (86.6%)	7(8.5%)	4(4.9%)
Innovations	72(87.8%)	7(8.5%)	3(3.7%)
Paperwork reduction	60(73.1%)	8(9.8%)	14(17.1%)
Staff development	67(81.7%)	10(12.2%)	5(6.1%)
Cost reduction	64(78%)	9(11%)	9(11%)
Intellectual property right reduction	33(40.3%)	28(34.1%)	21(25.6%)
Fast response in problem solving	69(84.1%)	7(8.5%)	6(7.3%)
Improving quality of education offered	70(85.4%)	10(12.2%)	2(2.4%)
Improving delivery of knowledge	72(87.8%)	7(8.5%)	3(3.7%)

Source: Field survey (2015)

4.6 Conclusion

This chapter has focused on the analysis of data and presentation of the research findings. It starts with Social-Demographic Profile of the Study Population following to the analysis of objectives of the study. The findings revealed UDOM does not practice knowledge management; there is a need to do technological improvements so as to facilitate smooth knowledge management in the organization and knowledge management as a great participation in the efficiency of the organization. The following chapter will describe the summary, conclusion and recommendations for this study.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The study focused on the assessment of knowledge management in academics in higher learning education a case study of university of Dodoma. The specific objectives of the study were to assess ways of managing and sharing knowledge at the University of Dodoma, to assess if the technical specifications needed for knowledge management are satisfactory and to assess the relationship between knowledge management and the efficiency of the organization.

This chapter concludes on the basis of research findings and suggests recommendations for the relevant methods of knowledge management at the University of Dodoma (UDOM). Finally, the chapter suggests areas for further research.

5.2 Conclusion

Basically, the finding revealed that knowledge management is not practiced at UDOM. Since knowledge management is not practiced at UDOM, performance of the organization is not up to standards. Knowledge of staff is not well coordinated for maximum efficiency of the organization.

Knowledge management is not practiced at UDOM due to number of reasons. One of the reasons knowledge management is not practiced at UDOM is that, most of staff do not have an understanding on what knowledge management is. Despite the fact that knowledge is recognized as an organization asset, there is no existing policies and procedure which guide the management of knowledge. If there is an

existing policy then it is not emphasized and staffs are not aware of the policy and its importance on knowledge management.

Since knowledge management is not practiced at UDOM, the research shows that it takes a lot of time for academic member of staff to get relevant information. This impact the performance of the organization. Activities are not done on time and organization looses time when doing its activities.

Lack of information, lack of crucial knowledge due to key employee leaving the organization and poor sharing of information has been seen as a crucial problem for more than 70%. Lack of information leaves academic member of staff less informed. Less information leads to under performance by academic member of staff. Key employees leaving the organization also have an impact to the organization for it prepares employees but it does not get to use them. Poor sharing of information cause organization knowledge to be scattered and less coordinated. It also sometimes causes reinvention of the wheel which leads to wastage of time.

The researcher also found that there is a mentality among member of staff that, the work of managing knowledge is a work of research and publication only. So most of staffs do their individual activities by themselves but the activities done by them, hardly contributing to the knowledge of the organization.

The organization culture does not favor the knowledge management activities. Their basic values and culture does not emphasize on knowledge management. The researcher found that over 70% of the respondents said that the basic values and

cultures do not emphasize knowledge sharing. Most of the staffs are not ready to share the knowledge they have fearing that they will be over shined by their fellow workers. Respondents also said that the culture is not opening, encouraging and it is not supportive culture. And also the culture does not encourage innovation and knowledge creation.

Some of the cultural barriers that respondents thinks are most problematic with regarding to knowledge management are lack of participation, people are not willing to share knowledge, lack of trust, lack of training and lack of reward or recognition for knowledge sharing and technophobia.

Staffs are not involved fully when new thinks are to be implemented. For example when new technology is to be implemented, staffs as the end user are not involved. This results into low participation of the staff in using the system. Example during the implementation of the E learning most of the staff were not involved, most of the staff from informatics where involved but staff for other colleges were not involved. This resulted into partial implementation of the system. E learning system is only been used by staffs from informatics but other colleges it is not been used. This is the results of lack of participation.

The researcher found that, most of the members of staff are not willing to share knowledge. Knowledge sharing is an important gear in knowledge retention in an organization and knowledge management in general. Staffs are not willing to share knowledge among themselves because of luck of trust among each other and the intellectual property right reduction. There is no trust among members of staff.

Members of staff do not share knowledge, fearing of losing their intellectual property rights.

In addition, researcher found that knowledge management is not practiced at UDOM because there is no reward/recognition for knowledge sharing.

The researcher also found that there are number of technical issues that need to be taken care off so as to improve knowledge management at UDOM. There are number of campuses that do not have internet services, intranet services and extranet services. E learning is not facilitated throughout the university, data were housing are needed and also each staff need to have a computer as a primary tool for their daily activities at work.

The results revealed that there is strong relationship between knowledge management and efficiency of the organization. Since the practice of knowledge management in some other universities and higher learning institutions in other countries had proved positively on the efficiency of their organizations, however knowledge management can be more productive at the University of Dodoma if it can be practiced in such a way that it brings benefits to both the institution and employees themselves.

5.3 Recommendations

5.3.1 Provision of working facilities

Most respondents recommended for provision of enough working facilities that would enable them to perform better. In order to practice knowledge management it is very important to improve working environment and facilities. Management

should make sure that at least all six campuses have internet connections to facilitate the staff to be able to communicate with other from other institutions. Also intranet services should be available to staff to communicate among them within the organization. Extranet also will help members of staff who are not at the university or who are outside for studies and other activities to access some important information in the organization and they can also contribute even when they are outside UDOM. Internet, intranet and extranet are very important to be improved so that members of staff can be able to share knowledge, and help each other to solve problems.

Groupware also need to be implemented. Groupware connects members of staff according to their areas of specializations or according to the working departments. It can also group staff in which ever member suitable for working. Groupware keeps staff closer and helps member of staff to know where they can get a hand of a help to a specific problem they face.

E learning should be promoted and be encouraged to be used throughout the university and not only in one college. E learning also facilitates electronic learning not only to students but also to member of staff. Data warehousing should be implemented so that all data can be stored in one place for easy access. Most of respondents said it takes them more than a week to access relevant information but availability of data warehousing should help and improve data accessibility.

Availability of computer to every member of staff will improve staff performance and storage of data. When these computers are interlinked and all store information

on a central data warehousing it will improve efficiency of individual staff and organization in general.

Availability of knowledge management software also will improve knowledge management activities in the university. Since there is no knowledge management software currently the knowledge of the organization is scattered and very difficult to access. With the availability of knowledge management software, organization knowledge will be organized and will be accessible easily. Even when the most potential staff leaves the organization the knowledge of that person can still remain in the organization for generations.

5.3.2 Provision of Training, Seminars and Workshops

Most of academic staffs are not familiar with knowledge management. Some practice knowledge management but in a least professional way. They just practice but not in a collective benefits of the organizations and themselves. There is a need to conduct training, seminars and workshops to educate staff on the importance and benefits of knowledge management. Also there is a need to conduct seminars to educate staff on the importance of sharing knowledge in terms of advancing their carriers. Sharing of knowledge saves time, sharing of knowledge combines ideas and invent new ideas from the individuals ideas, sharing of knowledge encourage innovations and prevent repetition of things. All these collectively enhance the efficiency of the organization.

Also most of the academic staffs at UDOM are junior staffs; they are not as experienced as the few senior staffs at the university. In knowledge between senior

and junior staffs is not well shared there is going to be a knowledge drawback in case seniors staffs retires. There is a need to conduct seminars and trainings to educate staff on the need to share knowledge for the benefit of the organization.

The world is moving through globalization whereby every time things are changing especially technologically, thus, innovation and creativity are the most important things for the survival of the organization in the competitive global market. In order for this institution to compete globally it needs well trained personnel that can be able to run its activities smoothly and competently.

Since UDOM is the center of excellence due to the fact that most of the people in Tanzania and the world in general are watching this growing institution which is considered to be the largest University in Eastern and Central Africa. Therefore, the institution needs to have competent and well organized and managed knowledge to ensure the highest and excellent services delivery to its stake-holders. The institution needs to encourage more training to its academic staffs since they are the major source of individual and institutional knowledge.

5.3.3 Reward/ recognition for knowledge sharing

Employees work for the organization and also for their welfare and their families. Thus, it is the employer's duty to ensure the welfare of its employees. Most of staff at UDOM do not share knowledge or new ideas they have because they don't see how are they going to benefit from the knowledge they share. They do not receive any reward or even recognition for the knowledge they share for the benefit of other staff and the organization at large. Reward or recognition for the staff is an important

tool of improving the working morale, and encourage cooperation among members of staff.

5.3.4 Establishment of comprehensible policy regarding knowledge management.

It is recommended that there should be a clear policy or documentation regarding the knowledge management practice and its importance to the employees and organization as well. Since knowledge management is a new practice not only in Africa but in world in general, most of the member of staffs are not familiar and they are not aware of it. The management should work on this issue, simply because knowledge management is a good practice as other studies revealed (see literature review) but it lacks its potentialities due to lack of policy that guide it. There should be a clear and open policy on knowledge management for staffs to see and follow it. The policy should state clearly the importance of knowledge management to the organization and individual staffs.

5.3.5 Knowledge management supportive culture.

The management should create a culture which encourages knowledge management practices. Introduce social activities that will encourage interactions f staffs out of working activities. This will improve trust and friendship among staff. The management should also educate its staff to remove the notion that knowledge management is the task of research and publication unit only. Some of the cultural barriers the researcher found during the research were functional silos, lack of participation; people are not willing to share knowledge, lack of trust, knowledge sharing not part of daily work and technophobia.

Functional silos means a person is given so many tasks to perform. At UDOM academic member of staff are given so many lectures to teach. One teacher what is called work load. This reduces their ability to participate in other activities such as research and consultations. In return they don't generate knowledge. Together with these and all other cultural barriers mentioned above, management should look a way to remove these barriers and introduce conducive culture.

5.4 Areas for Further Study

In general the findings of this study give the real situation of knowledge management in higher learning institutions particularly the University of Dodoma (UDOM). The observations from the study show that knowledge management is not implemented. Also the results show that knowledge management has impact on the efficiency of the organization. Knowledge management is been practiced in other higher learning institutions and contributed much on improving the performance of those institutions. The future research should focus on how effective knowledge management can be in higher learning institution in the third world countries.

Knowledge management is a new field future research should try to see the best ways of imposing knowledge management in the organization without affecting the operations of the organization.

Since knowledge management practices encourage people to share knowledge and ideas, future should focus on how these practices will protect intellectual property right of a person.

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APPENDICES

Appendix I: Questionnaire.

Dear Respondents,

This questionnaire has been designed to solicit information for purely academic purposes. This is to enable the researcher **FUMBUKA A. ADAM**, MBA Student at the University of Dodoma complete his thesis on the topic; **ASSESSMENT OF KNOWLEDGE MANAGEMENT IN ACADEMICS IN DODOMA: A STUDY OF THE UNIVERSITY OF DODOMA**, in pursuance of Master of Business Administration degree. You are highly assured that all information given would be treated with **utmost confidentiality**. Thank you.

SECTION A

BASIC DEMOGRAPHIC DATA (PLEASE TICK WHERE APPROPRIATE)

1. How old are you? (Years)

18-25	26-35	36-45	46-55	55-65

2. Gender
   a) Male ( )
   b) Female ( )
3. What is your education level?

Bachelor Degree	Masters Degree	PhD

4. Which college are you working at UDOM?

CHSS	CIVE	CONAS	COES	COED	CHAS

5. How long have you been working with UDOM?

1-2 years	3-4 years	5-6 years	7-8 years

SECTION B

ASSESMENT OF KNOWLEDGE MANAGEMENT

Knowledge management is a practice of harnessing and exploiting intellectual capital in order to gain competitive advantage and customer commitment through efficiency, innovation, and effective decision-making

6. What do you understand by the term knowledge management (KM)?

a) Never heard of it. ( )

b) Something UDOM is doing under the different name ( )

c) It is just a management trend ( )

d) It is a strategic part of UDOM ( )

7. What is the current status of knowledge management at UDOM?

a) Not in existence at all ( )

b) Introduction stage ( )

c) Promising stage ( )

d) Growth stage ( )

8. Does your organization recognize knowledge as part of their asset?

a) Yes ( )

b) No ( )

c) Can't say ( )

9. What do you think of existing policies and procedures of knowledge management in UDOM?

a) It's quite important, relevant and latest. ( )

b) It's quite important, relevant but not updated regularly ( )

c) It's just trivial, a part of formalities and of no use. ( )

d) No existing policies and procedures ( )

10. How much time does it take for academic member of staff to get the relevant knowledge document in organization?

a) A few minutes ( )

b) A few hours ( )

c) A few days ( )

d) Weeks or more ( )

11. What is the attitude of senior management with respect to knowledge management in UDOM?

a) Sees it as very important and provides full support ( )
b) Sees it as very important but hardly supports it. ( )
c) Sees it as a waste and hardly bothers. ( )
d) Was very supportive at the beginning but now lost interest. ( )

Please rank the factors given below from 1-5 on your choice of preference (5-strongly agree, 4-agree, 3-neutral, 2-dis agree, 1-strongly disagree)

11	What are the problems related to knowledge retention?					
	PROBLEM	**RANK**				
		5	4	3	2	1
I	Lack of information					
II	Information overload					
III	Reinventing the wheel (repeating things that have already been done)					
IV	Lack of crucial knowledge due to key employee leaving the organization					
V	Poor sharing of information in the organization					
12	Which of the following best describe UDOM with respect to new knowledge creation?					
	DESCRIPTION	**RANK**				
		5	4	3	2	1
I	It is the job of the research and publication only					
II	They view it as every ones job and everybody contribute to it					
III	Top management takes active interest in it and supports it continuously					
IV	It is part of organizational culture and philosophy					
13	Please mention your perception on the satisfaction level of the strategy your					

	organization use for knowledge management?					
	STRATEGY	**RANK**				
		5	4	3	2	1
I	Knowledge management as an academic strategy.					
II	Transfer of knowledge and best practice.					
III	Organization objective focused knowledge.					
IV	Personal responsibility for knowledge					
V	Innovation and knowledge creation					
14	Which of the following best describes your organization culture?					
	CULTURE	**RANK**				
		5	4	3	2	1
I	Their basic values and purpose emphasize on sharing knowledge.					
II	They have an open, encouraging and supportive culture					
III	They think knowledge management is each and everybody's job so everybody as the best of knowledge					
IV	The prevailing notion is that the knowledge management is the task of few designated ones and there is no need for knowledge sharing					
V	Innovation and knowledge creation					
15	Which one is the biggest cultural barrier in knowledge management at UDOM?					
	CULTURAL BARRIER	**RANK**				
		5	4	3	2	1
I	Functional silos					

II	Lack of participation					
III	Not willing to share knowledge					
IV	Lack of trust					
V	Knowledge sharing not part of daily work					
VI	Lack of training					
VII	Lack of reward/ recognition for knowledge sharing					
VIII	Technophobia (people are not familiar with technology)					

SECTION C: TECHNICAL SPECIFICATION NEEDED FOR KNOWLEDGE MANAGEMENT

16. What technologies have been implemented at UDOM?

(Please tick whichever is applicable)

a) Internet ( )
b) Intranet ( )
c) Extranet ( )
d) Groupware ( )
e) E learning ( )
f) Data warehousing ( )
g) Knowledge management software ( )
h) Decision support system ( )
i) Data management system ( )
j) Availability of computer for each staff ( )

If any other, please specify_____
_____
_____

What problems are you facing in using IT for knowledge management?

(Rank the factors given below from 1-5 on your choice of preference)

SN	QUESTIONS	RANK				
		5	4	3	2	1
17	Lack of training					
18	System too much complicated					
19	Lack of identifying the proper IT tool					
20	Lack of time to learn					
21	Lack of user uptake due to insufficient communication					
22	Every day use did not integrate into normal working practices					
23	Unsuccessful due to technical problems.					
24	Knowledge management system is not available					

SECTION D: KNOWLEDGE MANAGEMENT AND THE EFFICIENCY OF THE ORGANIZATION

How significant is the role that efficient knowledge management can play in achieving the best result with respect to the following at UDOM.

(Rank the factors given below from 1-5 on your choice of preference)

SN	QUESTIONS	RANK				
		5	4	3	2	1
25	Improving competitive advantage					
26	Improving staff focus					
27	innovations					
28	paperwork reduction					
29	Staff development					
30	Cost reduction					
31	Intellectual property right reduction					
32	Fast response in problem solving					

33	Improving quality of education offered					
34	Improving delivery of knowledge					

35. What is the biggest obstacle in effective implementation of knowledge management at UDOM?

(Please tick (√) whichever is applicable)

a) Changing people behavior from knowledge hoarding to knowledge sharing. ( )
b) Lack of understanding of knowledge management and its benefits. ( )
c) To determine what kind of knowledge to be managed and making it available. ( )
d) To justifying the use of scarce resources for knowledge management. ( )
e) Lack of top management commitment to knowledge management. ( )
f) Overcoming technological limitations. ( )
g) Attracting and retaining talented personnel. ( )
h) Lack of knowledge management department. ( )

36. Please rate the knowledge provided to you by UDOM.

(Rank the factors given below from 1-5 on your choice of preference)

SN	**QUESTIONS**	**RANK**				
		5	4	3	2	1
I	Relevant knowledge					
II	Latest knowledge					
III	Timely knowledge					

37. What do you think are the factors influencing knowledge retention at UDOM?

(Rank the factors given below from 1-5 on your choice of preference)

SN	QUESTIONS	RANK				
		5	4	3	2	1
I	Employee leaving for a better job elsewhere					
II	Retirement					
III	Promotion					
IV	Demotion					
V	Downsizing					
VI	External factors					
VII	Organization objectives					

38. Kindly rate the methods for knowledge management.

(Rank the factors given below from 1-5 on your choice of preference)

SN	QUESTIONS	RANK				
		5	4	3	2	1
I	Training and seminar					
II	Exit interviews					
III	Mentoring					
IV	Documentation					
V	Retiree programs					
VI	Coaching					
VII	Rotational assignment					
VIII	Group discussion					
IX	Team work					

Thank you for taking your time to fill this questionnaire