KNOWLEDGE SHARING FOR RESEARCH IN ACADEMIC INSTITUTIONS IN KENYA: THE CASE OF STRATHMORE UNIVERSITY

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A RESEARCH PROJECT PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF LIBRARY AND INFORMATION SCIENCE, DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE, UNIVERSITY OF NAIROBI

2019

DECLARATION

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

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This research project has been submitted for examination with my approval as the university supervisors

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DEDICATION

I thank the Almighty God for good health and strength to undertake this research project and would give much appreciation to my able supervisors, Dr. Njiraine and Dr. Irura for their contribution.

Finally, I thank my friends. To my wife, Jeniffer, son Moses and daughter Marylyne, many thanks for your patience, love plus the support. To family, parentsI am thankful words of wisdom and support.

ACKNOWLEDGEMENT

I thank God for giving me with the strength and guidance throughout my study years at The UON.

I thank UON Lecturers who taught me throughout the course and the Strathmore University Library Management and staff who allowed me to carry out my research in the University.

To all the respondents I appreciate you for providing data that was essential for completion of this work.

To all my friends who have contributed toward this project, be blessed.

Table of Contents

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

The study assessed knowledge sharing for research in academic institutions in Kenya with Strathmore University as the case study. This study incorporated qualitative and quantitative elements. Population consisted of Strathmore University academic staff. The following objectives guided the research: to explore knowledge sharing policies for research at Strathmore University, to identify existing knowledge sharing methods for research, to suggest ways of enhancing knowledge sharing for research and lastly to identify factors affecting knowledge sharing for research in Strathmore University. The study employed qualitative and quantitative research design influenced by objectives of research, target population, sampling method and data collection tools. This study targeted a population of 127 academic staff with a sample size of 96 academic staff. Simple random sampling was used on selected respondents for the questionnaire and purposive sampling for interview schedule. Research data collection was by questionnaires and interview guides whereby quantitative data analysis from questionnaire was through Statistical Package for Social Science (SPSS) and presented using percentage charts, pie charts and frequency distribution tables while qualitative data interpreted for clear understanding. Findings established that knowledge sharing policies, practices, methods and framework as determinants for effective knowledge sharing for research in academic institution. Additionally, the study revealed individual perception, motivational programs, organization structure and technology as immediate factors that influenced sharing knowledge for research. The study therefore recommended the adoption of knowledge sharing policies, practices and framework to address knowledge sharing cycle all the way from capture, storage and use, which will in turn give directions on issues of quality, ownership among others. The study also recommends the adoption of technology to enhance knowledge sharing for research. This entails trainings on the existing software and platforms as well as integration of technology in knowledge sharing programs. Finally, the study recommends incorporation of motivational programs to enhance sharing of knowledge. These include recognitions (acknowledgement or promotions) and monetary values (salary increment, incentives, tokens and bonus) where necessary to facilitate knowledge sharing for research in academic institutions.

LIST OF ABBREVIATIONS AND ACRONYMS

COP   Communities of practice

IM   Information management

IT   Information Technology

KM   Knowledge management

KS   Knowledge sharing

LIS   Library and Information Science

SU   Strathmore University

SPSS   Statistical packages for social sciences

UON   University of Nairobi

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter looks at background study information, problem statement, objectives of the study and lastly the research questions. To justify this study, the chapter looked at the scope, limitations and some terms being defined. Knowledge sharing is increasingly being publicized as critical in the strategic direction of many successful institutions. It is apparently found everywhere and putting it into effective use is a difficult task for many organizations. Knowledge sharing offers the much-deserved solution to this problem. However, Knowledge sharing is a wide area of study and its successful implementation and application depends on the organizational culture, structure and strategy of the firm or institution and in the profession of Library and Information Science (LIS).

1.1 Background to the study

Sharing of knowledge is the provision of acknowledgement of task, facts, know-how, and reaction regarding a creation,(Cummings, 2004:352-364).Knowledge is a crucial organization resource that upholds added competitive advantage in changing economy. To adopt this status, staff recruitment should not always be the priority of organizations but rather retain the existing staffs with certain skills or expertise and sharing knowledge between employees(Wang & Noe, 2010)

In ancient times, institutions depended on land and capital as their sources of value. In modern times, the trend is changing as information and knowledge are now the key factors for competitive advantage (Beijerse, 1999).Additionally, in the past decades,

family business owners would pass their business wisdom to their next generations and craftsmen would teach their traders on apprentice as workers would share knowledge and ideas(Hansen, Nohria, & Kierney, 1999:106-110). There is a lot of assumption by many academicians that, since knowledge sharing impacts general outcome, individuals are going to share knowledge as their routine. Contrary to this, many organizations can attest that knowledge sharing in practice does not always happen, irrespective employee-to-employee documented strategy is practiced (Hansen et al., 1999).

In contemporary academic world, process of knowledge sharing entails employees contributing to utilization of knowledge, new products, and consequently upper hand in the competitive market(Wang & Noe, 2010:115-131). KS has outstanding merits in that it reduces production costs in terms of hiring extra experts, steer innovation of new products and processes, and boost performance based on team work(Wang & Noe, 2010:115-131).

Strathmore University's inclination, to knowledge sharing to promote research, is seen in its vision to be a center of academic and professional excellence, that provides all-round education in an atmosphere of freedom and responsibility, as well as mission that promotes advancement of education through teaching, scholarship and service to society, creating a culture of continuous improvement, fostering high moral standards and developing a spirit of service and respect for others(Strathmore University Annual Report, 2018).

1.2 Statement of the research problem

Knowledge sharing has benefits of cost effectiveness, time saving, and quality of job, innovation, and motivation. Knowledge sharing not only reduces the cost of production

or service, but also contributes to the success of the organization. It helps to avoid mistakes and develops the ability to innovate. Strathmore University employees need knowledge sharing i.e. creating, and utilization of knowledge, because sharing of knowledge enables the University employees to perform their work effectively and to create new ideas. Sharing of knowledge is one of the core blocks of knowledge management, but employees are not voluntary to share the knowledge resides in their mind and other employees may leave the organization without sharing the organizations" knowledge.

Although Strathmore University integrates knowledge sharing in their systems through platforms such as research gate, Vivo and Library website, little seems to be been done to address knowledge sharing among its academic staff. Researchers spend most of their time looking for new and innovative technologies or techniques that improve research output. These techniques and technologies constitute new knowledge that needs to be shared. However, technology platforms will only assist, but not catalyze free knowledge flow without employees being encouraged to develop and share their knowledge. Therefore knowledge sharing among participants is vital while working on projects as it enables researchers share intellectual capital(Jalal, Toulson, & Tweed, 2013).One of the main pillars of Strathmore University is teaching and research. Therefore, this research aims to look at how the organization can capture and share the undocumented knowledge between incoming and outgoing academic staff. Consequently, this research will try to address knowledge gaps left between incoming and outgoing employees, as may be the case to many organizations.

1.3 Purpose of the study

Study purpose was to investigate effectiveness of sharing knowledge to enhance research activities in academic institutions with a focus on Strathmore University

1.3.1 Study objectives

i. Explore knowledge sharing policies/practices for research at Strathmore university

ii. Examine existing knowledge sharing methods for research at Strathmore university

iii. Establish factors affecting knowledge sharing for research in Strathmore University

iv. Suggest ways of enhancing knowledge sharing for research in Strathmore University

1.4 Research questions

i. Which knowledge sharing policies/strategies for research are there in Strathmore University?

ii. Which are the methods of knowledge sharing for research at Strathmore University?

iii. What factors affect knowledge sharing for research at Strathmore University?

iv. In what ways can Strathmore University enhance knowledge sharing for research?

1.5 Significance of the study

Study findings are significant in that for; researchers, the study provides an assessment

of their contribution to knowledge sharing, how to improve knowledge sharing amongst themselves besides how to overcome barriers they may be experiencing. Increased collaboration among researchers avoiding a onetime done mistake being repeated in another department. Top-level management at S.U will know what challenges academic staff are facing in trying to share knowledge and thus the research findings will tend to offer solutions that will reduce learning curve of new employees.

1.6 Assumption of the Study

This study assumed that:

i. Universities in Kenya are well established to promote research through Knowledge sharing

ii. Academic staff are well motivated to promote research through Knowledge sharing.

iii. Respondents in the study were willing to give accurate information

1.7 Scope of the study

This study was on evaluating Knowledge Sharing as a way of enhancing research in Strathmore University.

1.8 Study limitation

This study was limited to Strathmore University only out of many academic institutions in Kenya. In addition, the study only targeted the academic staff thus leaving out administrative staff.

1.9 Operational terms and concepts

Community of practice

Community of practice is a collection of people with shared experience and a passion for a common good informally bound. For instance, domains will create platform where members can participate and give meaning to what they are doing, communities will create learning notion while practice is a unique focus that a community develops, shares and maintains its knowledge through lifelong practices.

Knowledge

Knowledge is a combination of experience, expertise, authoritative information, values, insight and strong foundation perception that give basis for determining and adopting to new information originating from people's mind (Cong & Pandya, 2003).

Knowledge management

Described as the process of locating, transferring and sharing intellectual capital to create value within an enterprise (Ipe 2003).

Knowledge sharing

It is the process of making sure that the correct knowledge is availed to the right processors, with the right format and in the exact time to perform the knowledge related activities at a less cost.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Universities are knowledge intensive environments that create knowledge through research and disseminate it in form of publications. Additionally, universities enhance knowledge transfer by collaborating with commercial entities and institutions to promote innovation and research through training programs. This chapter will try to enumerate and assess the available literature on existing knowledge sharing policies for research in academic institutions, knowledge sharing methods, ways of enhancing knowledge sharing in academic institutions to enhance research and lastly factors affecting knowledge sharing in academic institutions.

2.1 Knowledge management

Knowledge management entails capturing, collecting, structuring, codifying, controlling, storing, sharing, disseminating, exploiting and using within an organization (Sagsan, 2006).

Firms attempt to store their tacit knowledge in systems is not much successful since much of the tacit knowledge and information is retained in beliefs, values and norms that become part of the firm culture and structure (Walsh & Ungstone, 2011: 654). A firm can easily broadcast its knowledge if the knowledge is readily available in usable form to persons who want to use it and that it should be easily accessible (Cranfield, 2011:75). Knowledge distributing involves sharing of the same amongst employees (Urban et al 2004:145). Knowledge attainment include motivating employees to improve their skills,

employing and retaining qualified employees in diverse fields and sharing of knowledge among employees (De Tienne et al 2001: 354). Knowledge in is applied when the same is used to solve a problem, which in turn can boost a firm competitive advantage. Performance and knowledge relationships are the contribution of knowledge innovation, which can help improve product quality and lowering the cost of the product (Teece, 2008: 234)

2.1.1Types of Knowledge

Knowledge is inborn (wisdom) or learned (knowledge) characteristics that reside within a person grouped into two categories: Tacit knowledge and Explicit knowledge

Tacit Knowledge

This implies to unspoken knowledge, which is tangled to the senses, physical experiences, body movement or the rules of the thumb. (Nonaka and Krogh, 2009).The knowledge inclines towards being informal, and difficult to transfer to other people since the knowledge is in one's mind (Calo, 2008). Additionally, it is grounded on individual experience and influenced by perceptions, values and requires personal communication through discussions and demonstrations (Noe, 2008)

Explicit Knowledge

It is knowledge that is codified and documented in manuals and databases to be shared, communicated and transferred among individuals described in formal language (Calo, 2008)

2.2Knowledge sharing policies for research

It is the voluntary person-to-person, organization-to-organization exchange and

acceptance of knowledge with the aim of realizing personal and organizational objectives and enhancing success. This can be through formal communication platforms such as team-based studies, committees of practice, email, teleconferencing or informal ways such as gossip (Capar, 2005)

2.2.1 Communities of practice/ Forums and meetings

COP is professional communities, forums or groups within an organization where individuals with different expertise meet to share knowledge with common goal on a project. Communities of practice increase employees trust and confidence with each other thus promoting quick informal charts that are beneficial in academic institutions.

2.2.2 Knowledge base

Knowledge base is a collection of ideas, best practices and rare information that is generated and stored in an organization that can be used for future reference by employees and management either audio or visual. Knowledge bases are usually in form of (Q & A) whereby solutions are provided to the most asked questions, guides, manuals or technical procedures in form of text, multimedia materials, video tutorials or links to sites.

2.2.3 Knowledge map

A knowledge map is like departments within an organization where individuals with certain expertise are found within a certain unit. It is relatively the networking or mapping of individuals to specific tasks which they have better command. This makes it easier for employees to find someone to give a competent answer in case of problem. Knowledge map lists the experts within an organization, detail their respective areas of expertise, and

provides the means of accessing them by either telephone address or physical location of their offices.

2.3 Knowledge Sharing Methods

Knowledge sharing is either push or pull. Push is where a scholar actively looks out for knowledge bases while push is when the knowledge obtained is passed to the recipient in publication formats like newsletters. Knowledge sharing habit depends on knowledge worker willingness to look out or be adoptable to sources and normally influenced by culture, incentives among others.

2.3.1Peer assist

One-on-one groupings bring individuals or colleagues together to share knowledge, lessons and practices. This entails an individual or group presenting their challenge to another group with experience in the same field. The groups will then engage in participatory knowledge sharing format based on the following dynamics; the outgoing team shares what they know based on experience and context while the incoming team shares what it knows based on thinking and the context to which they are supposed to work.

2.3.2 Coaching

Unlike mentoring, coaching aims to develop new skills and qualification among employees, improve performance to meet set goals. Coaching, as a method of knowledge sharing will help improve on researchers output as past scholars can easily coach the new employees or scholars in the same field step by step till the desired output is achieved.

2.3.3. After action review

Involves learning by talking and thinking about a completed assignment or activity with an aim of immediately capturing the lesson before it is forgotten. In relation to knowledge sharing to promote research, after action review will play a pivotal role in enhancing research in academic institutions as for instance experienced programmers can easily follow up on researchers work immediately after the lesson to gauge whether the student got the content.

2.3.4Mentoring

Monitoring is a learning relationship between two persons with one having experience in that particular field than the latter. In this scenario to promote research in academic institutions, mentors are (experienced librarians, academic staff or scholars) who pass their knowledge, ideas and experience to inexperienced staff or incoming employees.

2.4 Barriers to Knowledge Sharing

Obstacles to knowledge sharing are hindrances that curtail free flow of information from giver to receiver. Studies show that knowledge sharing is a human related behavior that should be looked on performance perspective influenced by many factors as discussed below:

2.4.1Individual factors

They are influencers coming from people's activities, insights and engagements, which include inadequate knowledge sharing time, not getting an insight on some information that fellow colleagues are seeking, coupled with fear of job security because of sharing knowledge. Additionally, lack of independence in the precision and integrity of

information due to the origin and the variances in ordinary ethos. Values and beliefs associated with it, all combined are human related factors that hinder sharing knowledge(Rebernik & Sirec, 2007).

2.4.2 Organizational factors

Organizational factors refer to conditions imposed on the corporate environment that do not promote free-flow of knowledge i.e. undefined knowledge sharing policies on the institutions goals and strategies. Poor leadership, lack of adequate communication from top management on knowledge sharing directives, unrecognized knowledge sharing initiatives by employees, lack of transparency and "one-man-office" physical environment hinder knowledge sharing practices coupled with internal feuds units or functional areas.

2.4.3 Technological factors

The incorporation of IT has been closely related to issues like functionality, uses ,design of platform and the needs of users has been pinpointed as a key factor towards employees sharing knowledge.(Razmerita, Kirchner, & Nielsen, 2016). Technology has the ability to offer instant access to raw information and to enhance partnership or teamwork to facilitate a team approach in a given institution. In turn it will make the sharing of knowledge more easy and effective.

A hindering factor for institutions is to avail the desired technology, its employees and to facilitate processes in the organization. Some technical obstacles affect the flow of knowledge. In adequate incorporation of IT systems, institutional procedures and human resources, poor IT support and in adequate frequent maintenances of systems in place.

There is an aspect of resistance to implement technology because of expertise or having not interacted with the systems and this is further propelled by inadequate or no in house training for the organizations employees for them to be able to interact well with the systems and organizations processes.

2.5 Ways to enhance Knowledge sharing

These refers to practices, methods or remedies put in place by an organization intended to ensure seamless flow of knowledge. This may include motivational factors, conducive environment of systems in place to make sure knowledge is past on and on among employees.

2.5.1 Reward system

Reward systems are usually to encourage and motivate employees to attain set organizational goals, influence performance and behavior. In coming up with reward systems, organizations should align and strategize the rewards with KS process (Al-Alawi, Al-Marzooqi, & Mohammed, 2007) which comes inform of salaries, prizes, bonuses, education opportunity. Intrinsic on the other hand are things to do with the psychological and are intangible which employees get directly from an organization for performing tasks.

i) A sense of sharing common values and belonging-Individuals will have that feeling of connection and acceptance within an organization or department by sharing their knowledge with other individuals.

ii) A sense of success and achievement- individuals contribute their knowledge through ideas, expertise or decisions in problem solving whose outcome is directly matched to the

organization or departmental success that will make them have a feeling of achievement too. A sense of respect, usefulness sand trust as reward system also have a lasting impact towards encouraging employees to share knowledge.

2.5.2 Process oriented organization structure

Organization structure tries to look at communication policies between different levels of hierarchy within an organization. Communication enhances sharing knowledge and consequently enhance research. Open door policy that encourages open communication between individuals, groups and department will create an environment where the outgoing employees can easily share what they have with the incoming. An organization in which employees are free and have trust to share knowledge between peers and skills, knowledge and information are transferred easily thus avoiding a scenario where one will be victimized for sharing what they know.

2.6 Conceptual Framework

Conceptual framework forms the accepted basis on the subject one desires to study (Lohr, 2010:2), which identified and demonstrated various variables influencing knowledge sharing for research.

Figure 2. 1: Conceptual framework

Knowledge sharing policies

. Communities of Practice-Forums

. Knowledge base numbering

.Bank of ideas

.Knowledge map

Knowledge sharing methods

. Peer Assist

. After action review

. Mentoring

. Coaching

Ways of enhancing Knowledge sharing

. Information Technology

. Process Organization structure

. Reward system

. Compliance

Barriers to Knowledge sharing

. Personal factors

. Organizational factors

. Technological factors

Organizational setting

Individual traits

Intervening variable

Knowledge sharing

Dependent variable

Free flow of information

Quality research output

Enhanced Collaboration

Competitive advantage

Outcome variable

Independent Variables

Knowledge sharing for research in any organization depends on several chain factors including, organizational policies on knowledge creation, retention and dissemination, methods in place, systems and lastly barriers.

For instance, policies dictate how knowledge is created, stored and disseminated. This is within an academic organization. Maximum use of professional's intellectual capital in an organization is critical for enhancement of knowledge base services (Fink & Disterer, 2006). It is therefore important to put in place mechanisms for managing knowledge in firms, which are knowledge based. (Choi & Fong, 2009:110-126). To sum it up, therefore, it is important to put great effort, provide resources and have policies in place that will support knowledge sharing activities among professionals at any given time in an organization.

Knowledge transfer and effective knowledge sharing methods are becoming a critical resource that influence organization success (Argote & Ingram, 2000). Much emphasis is on advantages of sharing knowledge and more so in a research-setting environment in which people collaboratively work and interact together (Nesheim & Hunskaar, 2015:1417-1424). Consistent flow of information and ideas exchange will attract innovative solutions, quality improvement of research projects and improved capacity to learn and gain experience over time. This is not only to the receiver of the knowledge but the giver as there is a mutual benefit. Repeated mentoring over time not only empowers the mentee, but also increases the mentor's intellectual capacity. Continuous peer-assist over time makes one an expert in a given area while at the same time empowering the

learner over time. Therefore, effective Knowledge sharing methods is a two-way learning paradigm that if well utilized, will influence in the overall output of the research.

Barriers are hindrances that disrupt, limit or completely stop the chain of knowledge sharing. These include personal barriers i.e. attitude, technological i.e. systems in place or organizational i.e. closed organization structures. While examining the pros of social interaction in relation to knowledge sharing,(Hsu, Lin, Wu, & Yeh, 2009:83-94)observed that, environment that supports communication creates more knowledge sharing opportunities, free flow of communication and social interaction environment that catalyzes colleagues trust and sharing of knowledge. This is effective in breaking the organizational barrier towards knowledge sharing.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

Chapter three will pinpoint the research design and data collection methods and provides a systematic approach to discuss features like, study population, data collection instruments, data collection procedures, validity and reliability of the instruments, and finally data analysis(Kothari, 2014).

3.1 Research design

Research design is the structure that holds together the research and enables one to address research questions in ways that are appropriate, efficient, effective, reliable and valid. It acts as a platform that supports the purpose of research and holds all of the elements in a research project (R. Yin, 2013). This research used quantitative and qualitative method research design to establish how sharing knowledge enhance research in academic institutions with focus to Strathmore University. Collected data analysis was qualitative and quantitative. The Qualitative approach was done through interviews and this enabled the researcher to gain an understanding and meaning of respondents social issues and to test research objectives by examining variable relationships from the questionnaire structured to shed light on research problem, objectives of the research as well as research questions. Quantitative approach was done using questionnaires as well as interviews, this enabled the researcher to use statistics to generate and subsequently analyze the data collected and add credence and credibility which helped to improve reliability and credibility of data.

3.2 Area of study

The researcher needed to first identify study location before commencing research, which entailed planning, and paying attention to minute details (Gill, 2011: 354).Strathmore University, Off Ole-Sangale road, Nairobi County, Kenya formed study area.

3.3 Population

Population is as the whole group of persons with at least one common characteristic (Kombo, 2009: 354). Strathmore University has a total human capital of 127 full-time academic staff, (Strathmore University, 2018). Target population for this study was Strathmore University academic staffs comprising of (5 professors, 21 lecturers, 9 senior lecturers, 40 assistant lecturers, 44 doctorial fellows, and 8 librarians to make a total population of 127. The list of respondents was from the data provided by Human Resource Department (People and Culture) after doing a formal request via email attaching the research proposal and citing the reason why the researcher wanted the list. A sample frame is the listing of the respondents from which a sample is to be selected. When deciding upon a file to serve as a source for a sample frame for a survey, perhaps the most important consideration is the extent to which the target population will be covered by the frame.

Table 1: Sample frame (Source: Strathmore

Participants/Respondents	Total Population	Sample size	Co-relation (%)
Professors	5	4	75.5%
Lecturers	21	16	75.5%
Senior lecturers	9	7	75.5%
Assistant Lecturers	40	30	75.5%
Doctoral Fellow	44	33	75.5%
Library staff	8	6	75.5%
Total	**127**	**96**	**75.5%**

3.4 Sampling strategies and techniques

The study applied the following sampling strategies and techniques.

3.4.1 Sampling strategies

There are two sampling strategies, probability and non-probability. Non-probability sampling represents a group of sampling techniques that help researchers to select units from a population that they are interested in studying. Collectively, these units form the sample that the researcher studies.

The researcher used purposive sampling to get sample, it reflects a group of sampling techniques that rely on the judgment of the researcher when it comes to selecting the units, people, cases/organizations, events, pieces of data) that are to be studied.

Probability sampling is based on the fact that every member of a population has a known and equal chance of being selected. For the study the researcher used Stratified Random Sampling whereby the researcher split groups based on the level of education and the position held in the university when distributing the questionnaires. From the whole sample random sample was used to distribute questionnaires based on the level of education of the respondents.(Saldaña, 2013)

3.4.2 Sampling techniques

Sampling technique has been defined as the act, procedure, or technique used to select a sample or portion of a population for the purpose of studying and understanding the entire population's characteristics.(Babbie 2013:76)

The study adopted census and purposive sampling. Census sampling was used to select all full time academic staff for the period of 2019 when the researcher was carrying out the study. Census was used since the target population was small and hence selecting a sample could be meaningless. Library staff who form part of academic staff together with a senior librarian were selected using purposive sampling since they deemed to have good knowledge of sharing knowledge because they are custodians of knowledge.(Babbie, 2013:45)

3.5 Sample size

Sample is part of whole population which researcher decided to use to collect data for research (Kombo and Tromp, 2006:77). The selected research sample should be a representative of the total population if its findings are to represent whole population.

Sample size was obtained using a statistical formula by Yamane .(R. K. Yin, 2009) as illustrated.

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

Where n =sample size, N=total population

e =confidence level/marginal error $\leq$ 5% or 0.05.

N=127

Accuracy expressed as % of total population = {(n*100)/N}

$$n = \frac{127}{1+127(0.05)^2}$$ 127/1.3175 = 96n= 96 respondents

Sampling is grouped into two categories, Probability sampling and Non-probability. The

difference is if the sample selection is on randomization (element gets equal selection chances) or not. For instance, the researcher used probability-sampling strategy (simple random sampling) in the study of quantitative components and non-probability sampling (purposive sampling) in the study of qualitative component.

3.6. Data collection methods

Research objective is what informed use of self-administered questionnaires and interview schedule to collect primary data. Quantitative and qualitative research design was suitable as it permits combination of different methods to gather data in a social based occurrence with authenticable findings (Taoole, 2008:84).

3.6.1 Questionnaire

The questionnaire comes in handy as data collection tool in which a predetermined same set of questions are given to each individual to respond to in a population (De Vaus, 2002).

Research instrument involved use of self-administered questionnaire. The reason for choosing a questionnaire was that it is cheap as many respondents can participate in the research in a short period, flexible since respondents can fill them at their own time and freedom.

The main disadvantage is that the questionnaire does not offer room for clarification since the researcher is not available to explain further to the respondents about the questions and some questions may be too complex for the respondent's hence wrong response.

The questionnaire was divided into sections whereby the first section covered demographic issues. Second section looked at knowledge sharing practices. Third

section-induced responses on relevant knowledge sharing methods applicable in Strathmore University, fourth section elicited for responses on challenges of Knowledge sharing in Strathmore University while the fifth and last section looked at probable solutions for the same.

3.6.2 Interview guides

An interview is an organized face-to-face meeting between two individuals like a researcher and a respondent (Kadushin, 2012: 397). The interview guide was anchored to the objectives of the study and covered the departmental ways of sharing knowledge, policies in place and attitude in regards to sharing knowledge, employee adoption to new technologies used in knowledge sharing, organizational structure and its contribution to free flow of information, inclusivity of staff in various departmental meetings and frequency of the same.

One senior librarian to take part in the study was selected purposively since librarians are the custodians of the institutional repository. The main advantage of using focused interview is elaboration of complex questions and high response rate than the questionnaires.

Interview guide gives the researcher the benefit of pursuing ones' own line of inquiry and the questions are mostly open-ended. There are two methods of conducting interviews a researcher can use to collect primary data. This can be either a face-to-face interview or telephone. The researcher, however, used the face-to-face method targeting one senior library staff member because of its advantages over the telephone interview. A structured interview with open-ended questions was used to collect data. The interview was fully

transcribed to avoid omitting important information for analysis.

3.7 Pilot study

Pilot study is a small-scale test of methods and procedures used on large-scale study to inform feasibility and identify modifications needed in the design of a larger study (Porta, 2008).

Research instruments are important in ensuring that the data collected is valid and reliable. This helped to serve as a measure of ensuring validity and reliability in research work. Further, piloting in research ensures that the instruments, which are deployed, function well. The researcher, therefore, carried out a pilot study to check for errors on the questionnaires. The questionnaires were pre-tested using a small sample of 15 academic staff comprising of 5 lecturers, 3 Senior lecturers, 2 Assistant lecturers and 5 library staff. These people were from similar working environment as the intended sample in this research. The pre-test survey was done at United States International University– Africa (USIU-A). The sample was picked using purposive sampling technique. The findings showed that some questions were not clear. Some respondent suggested complete deletion of certain question and rephrasing of others, this included deletion of age, which some respondents found to be a sensitive question. These views were taken into consideration by the researcher who rephrased and deleted the identified questions before the actual distribution of the questionnaire.

3.7.1 Validity

Validity is the extent to which an instrument performs and measures what it is intended to do. In this case, data collected after the pilot study was validated both externally

(extend to which results of the pilot study were generalized from a sample to a population. It entailed researching, analyzing data from target organization, clear understanding of the theory and continuous comparisons to build congruency among the empirical findings and past literature studies.(Carcary, 2009:11-24). Content validity (in which case responses of the questionnaire was validated to assess if the questions on the questionnaire reflects what the research intends to address and can legitimately be applied to other studies (Brink, 1993:35-38)

3.7.2 Reliability

Reliability is the consistency of a research instrument to measure consistently which is intended to measure. The researcher evaluated the degree of which different respondents gave consistent answers or estimates. Test-retest technique was adopted such that the results of the two pilot studied were observed and analyzed to prevent subjectivity in data interpretation and skepticism in data findings by the researcher. In turn this brought assurance and trust of findings to be credible and trustworthy to future researchers (Brink, 1993:35-38)

3.8 Data Collection Procedures

Data collection procedure is the process followed to ensure applied data collection tools are correct and efficient. Normally, data collection begins immediately after the problem has been identified (Kothari, 2014). Data collection was through questionnaire and interview schedules.

3.8.1 Data collection procedure using questionnaire

The researcher distributed questionnaires to respondents so that they could fill them and

be collected later after a specific time. Attached was a brief introduction letter to state the reason for the data collection and an example demonstrating how to fill the parts.

3.8.2 Data collection procedure using interview schedules

Prior to the interview, the researcher contacted respondent to give them enough time to prepare adequately and the interview schedule lasted for a minimum of 5min to a maximum of 10 min to avoid inconveniencing the respondents. The researcher noted down the responses on each question. This helped the researcher gain respondents experience, opinion and attitude. This was mainly verbatim quotations, which had sufficient content to be interpreted easily based on research objectives

3.9 Data Analysis and presentation

The data collected was coded and categorized to make it easy to analyze and make conclusions and meaning of the data. Checking of errors before data analysis was under taken to check for correctness of data input to the system.

Data analysis for quantitative data was pre-coded using numerical values. For instance use of likert scale as shown below:

1=strongly agree,2=agree, 3=not agree, 4=disagree, 5=strongly disagree.

The quantitative method took care of "what", "how many" and "where" aspects of the research study. The quantitative technique was used to bring together data obtained from the objectives that addressed knowledge sharing for competitive advantage, knowledge sharing methods, employee motivation to encourage sharing of knowledge.

Qualitative technique was used to bring together data obtained from the objective that

addressed ways of suggesting how knowledge sharing can be enhanced. Qualitative data collected was analysed using content data analysis technique. The method was appropriate because it allowed the researcher to make detailed analysis of how the interviewee is answering questions. The technique addressed the aspects of "how" and "why".

In data analysis, the researcher needs to approach it strategically, of which if not so, this results in data overload, loss of track and difficulty in presenting final outcome(Tetnowski, 2015).Data collected were sorted according to the categories presented in the questionnaire. The complete questionnaires were edited to check for completeness and consistency. Using the Statistical Package for Social Sciences (SPSS) software, information from the questionnaires was checked for completeness and errors by detecting unusual and extreme values.

3.10 Ethical considerations
The following ethical issues are what guided this study.

- **Plagiarism**

Plagiarism is false attribution of ideas of other scholars as one original work without acknowledging the source(Bailey, 2011). The researcher ensured acknowledgement of all sources used to develop this research to meet the accepted The University of Nairobi research turn-it-in plagiarism index of 15%. The final similarity percentage of this research project is 15% as per the University of Nairobi policy.

- **Confidentiality**

Confidentiality involves non-disclosure of research data to wrong individuals for unintended purpose. Therefore it was the responsibility of the researcher to protect respondents identity (Fouka & Mantzorou, 2011:1-14).The researcher ensured that respondents confidentiality is maintained and no traces of the questionnaire to the respondent who filled it.

- **Voluntary participation**

Voluntary participation or informed consent is a basic principle which should be communicated to the respondents before the study(Williman, 2011) and this study ensured respondents were not forced to take part in the research.

3.11 Chapter Summary

All issues discussed in relation to the research methodology. This research adopted quantitative and qualitative method for the study. Study area for the research was KS to enhance research in institutions of higher learning and the target population was all academic staff at SU.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION

4.0. Introduction

The chapter presents and discusses study research findings from collection methods in chapter three. Quantitative and qualitative research method data analysis was adopted based on data collection instruments, which allowed in the research work, gave the researcher to do a comparison, and also to compare and put together and finally to do analysis of data from the respective instruments that was used and to present in form of graphs and charts.

4.1. Background information of respondents

The interest of the researcher was not limited to the aspect of gender, age, and work experience and education qualification. 60% is the acceptable response though it can be ranked 60-69% acceptable, 70-85% very good and 85% excellent (Bryman, 2008). The researcher issued out a total of 96 questionnaires were issued out to respondents. Out of the 96, 75 were filled and returned, while 21 were not. Of the returned, the gender information showed that 19(25%) were female while 56(75%) were male. Gender distribution was of necessity as it helped determine gender balance. Table 4.1, indicates there are many male academic staff at (75%) which is 2/3 as compared to female staff (25%) 1/3. This is a clear indication that the organization is working towards the Constitution of Kenya 2010 Article 27(8) of Bill of Rights that addresses gender representation.

Sensitivity of age question made the researcher to cancel the question. This was evident from the first 21 questionnaires returned and all of them left blank on this part.

On work experience, findings showed 7(9.33%) were in range of (<3) of work experience, 7(36.00%) in the range of (3-5), 11(15.00%) were in the range of (5-10), 19(25.33%) were in the range of (10-15), 7(9.33%) were in the range of (15-20) and finally 4(5.33%) had more than 20 years' work experience. Majority of the academic staff at (25.33%) had more than 10yrs job experience, which is a plus for academic institution. This could also be a pointer that the university focuses more on staff retention which contributes to greater knowledge retention(Leistner, 2010). (15.00%) respondents are above (5-10) years' experience correlated to quality on part of teaching staff as illustrated on Table 4.1 below.

On academic qualification, there was no certificate or diploma. 19(25.33%) had degrees, 41(54.66) masters, 7(9.33%) had attained doctorate while 7(9.33%) were professors, table 4.1. Research finding show that majority of the academic staff have masters at 41(54.66%). Conclusion is that the big numbers is due to most staff enrolling for PhDs. The Commission for University Education (CUE) press release March 24 2017 require universities to phase out the position of assistant lecturer and one to have a PHD to teach in a local university. Positive implication of this is that there will be improved academic quality as a result of higher academic qualification attained by PHD holders but on the other hand there will be shortage of lecturers to meet the student lecturer ratio and demand required since there are very few PHD holders in Kenya compared to the number of courses offered in Universities as well as the number of students enrolled in Universities thus low transfer of knowledge.

Table 4. 1**: General Information**

Variable		Frequency	Percentage (%)
Gender	*Male*	*56*	*75*
	Female	*19*	*25*
Age		*0*	*0*
Work experience	*<3*	*7*	*9.33*
	(3-5)	*27*	*36.00*
	(5-10)	*11*	*14.66*
	(10-15)	*19*	*25.33*
	(15-20)	*7*	*9.33*
	>20	*4*	*5.33*
Academic Qualification	*Certificate*	0	0
	Diploma	0	0
	Degree	19	25.33
	Masters	41	54.66
	Doctorate	7	9.33
	Professors	7	9.33

4.2. Knowledge sharing Policies and practices

Knowledge sharing policies if well effected will enhance research output in Strathmore University.

Knowledge sharing is important as it helps prove that practices and policies are evidence based by bridging the gaps among research, practice, and policy(Tsui, 2006). For

instance, majority of the respondents in Strathmore University, 71(94.66%) agree that well effected knowledge sharing practices would enhance research output while 4(5.33%) disagree with the statement as shown on Fig 4.1 below. Knowledge management policies give employees' guidelines on knowledge sharing define format and prescribe the medium of sharing knowledge. Lack of knowledge policy can be an obstacle to access and free flow of knowledge (Ondari, 2007).

Figure 4. 1**: Enacting of Knowledge sharing policies**
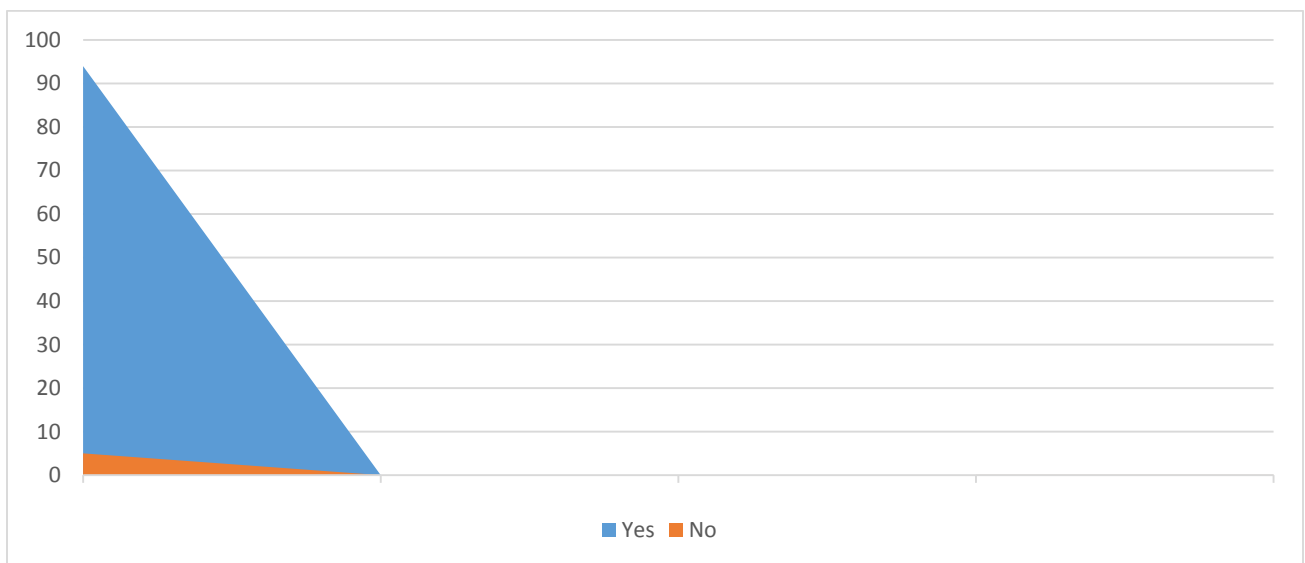
If your answer is <u>Agree</u> in above, which Knowledge sharing practices are you familiar with in your organization.

This sought to find out familiar types of knowledge sharing practices to respondents. Results were that majority were familiar with Community of practice at 34(45.33%),

19(25.33%) were familiar with Knowledge bases, those familiar with Bank of ideas at 4(5.33%), 11(14.66%) knew knowledge maps such as workshop in respective areas of research while 7(9.33%) remained neutral as shown on table 4.2 below.

Table 4.2 Familiarity of available knowledge sharing practices

Respondents	Frequency	%
Community of practice (forums and meetings)	34	45.33%
Knowledge base such (recorded tutorials)	19	25.33%
Bank of ideas	4	5.33%
Knowledge map such as (workshops)	11	14.66%
Blank/Neutral	7	9.33%

An organization that has well outline policies on knowledge sharing is most likely to preserve its expertise from outgoing to incoming academic staffs.

The study sought to find relevance of well laid down policies on knowledge sharing with respect to outgoing academic staff to new incoming staff. Findings shows majority of the respondents are positive to this opinion as of 30(40.00%) strongly agreed and 33(44.00%) agree rate. However, 4(5.33%) were neutral, 4(5.33%) disagreed and 4(5.33%) strongly disagreed as captured on Table 4.3 below. Relating the positive response to the negative, it is clear that academic staff feel that well communicated policies on knowledge sharing is likely to enhance research. This has direct impact on new staff performance as they will spend little time learning new job roles, consultation is easily available thus little mistakes at jobs, new creation and seamless handover.

Table 4.3. Well outlined (KS) policies to preserve knowhow from outgoing to incoming staff

An organization with well outline policies on (KS) is likely to preserve its expertise from outgoing to incoming academic staff.	Strongly agree 5	Agree 4	Neutral 3	Disagree 2	Strongly disagree 1
Frequency	30	33	4	4	4
Percentage (%)	40	44	5.33	5.33	5.33

If you answer is positive in above statement, do you engage in knowledge sharing practices with colleagues in your department?

The study went ahead to find if the staff do really practice knowledge sharing practices with colleagues at job place, 68(90.66) confirmed that they do practice knowledge sharing with colleagues at places of work while 7(9.33%) were of negative opinion that they do not practice knowledge sharing as captured on Table 4.4 below. From the finding, there is academic staff's willingness to share knowledge with colleagues, which is a positive direction for an academic institution as it is likely to affect creativity, innovations, sound decisions as well as quality research.

Table 4.4 Academic staff engagement in knowledge sharing

Variable	Frequency	Percentage (%)
Yes	68	90.66
No	7	9.33

How often do you share Knowledge?

When employees have the belief that they are going to benefit in return from colleagues through sharing knowledge, then they are likely to embrace sharing knowledge and therefore have higher intentions with regard to sharing knowledge. For those that share knowledge, the research went ahead to find out how frequent the respondents do share their knowledge with colleagues (outgoing with incoming). The results showed that 64(85.33%) practiced knowledge sharing more frequently while 11(14.66%) rarely do share their knowledge as shown on Table 4.5 below. From the findings, academic staff do share knowledge more frequently and this isbecause of staffrooms in all departments/schools within the organization. This may include sharing knowledge through informal consultations or departmental meetings, collaborative publication etc. This is evident on findings on above discussions.

Table 4.5 Frequency of knowledge sharing

Frequency of knowledge sharing	Frequency	Percentage (%)
Frequently	64	85.33
Rarely	11	14.66

What type of Knowledge do you frequently share among your colleagues?

The study also sought to confirm type of knowledge frequently shared at the institution and results indicate that, majority at 26(34.66%) share their intellectual knowledge through sharing of lecture notes, followed by sharing of research findings at 22(29.33%). Developments in academic field came third at 11(14.66%) while teaching methodologies at 8(10.66%) and work processes at 8(10.66%) having a tie at last position.

Figure 4. 2 **Types of knowledge shared among academic staff at Strathmore University**

Type of knowledge likely shared among academic staff (%)
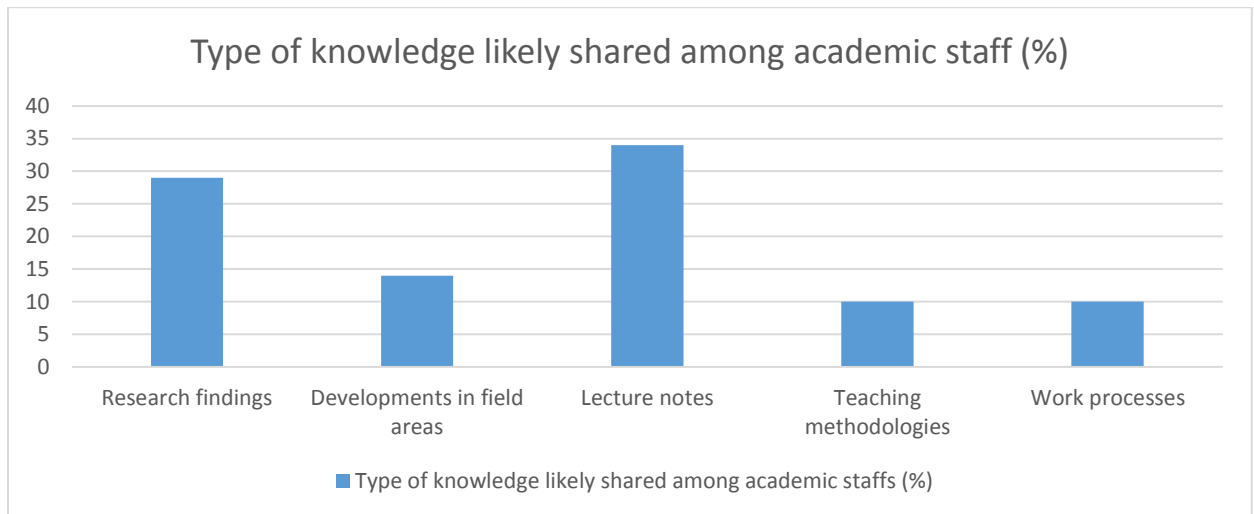
4.3. Knowledge sharing methods for research

Knowledge sharing is a major prerequisite towards organizational competitive advantage.

To boost competitive edge, academic institutions should promote creation, ways of creating new knowledge, sharing and dissemination to enhance competency and efficiency (Fullwood, Rowley, & Delbridge, 2013).When the respondents were asked if they think sharing knowledge is a major prerequisite towards organization competitive

advantage, majority 71(94.66%) agreed, while 4 (5.33%) disagreed as illustrated on Fig. 4.3 below. An organization that frequently create knowledge has an advantage of coming up with unique capability and innovation (Mitchell and Boyle 2010).

Figure 4. 3: **Sharing knowledge for competitive advantage**
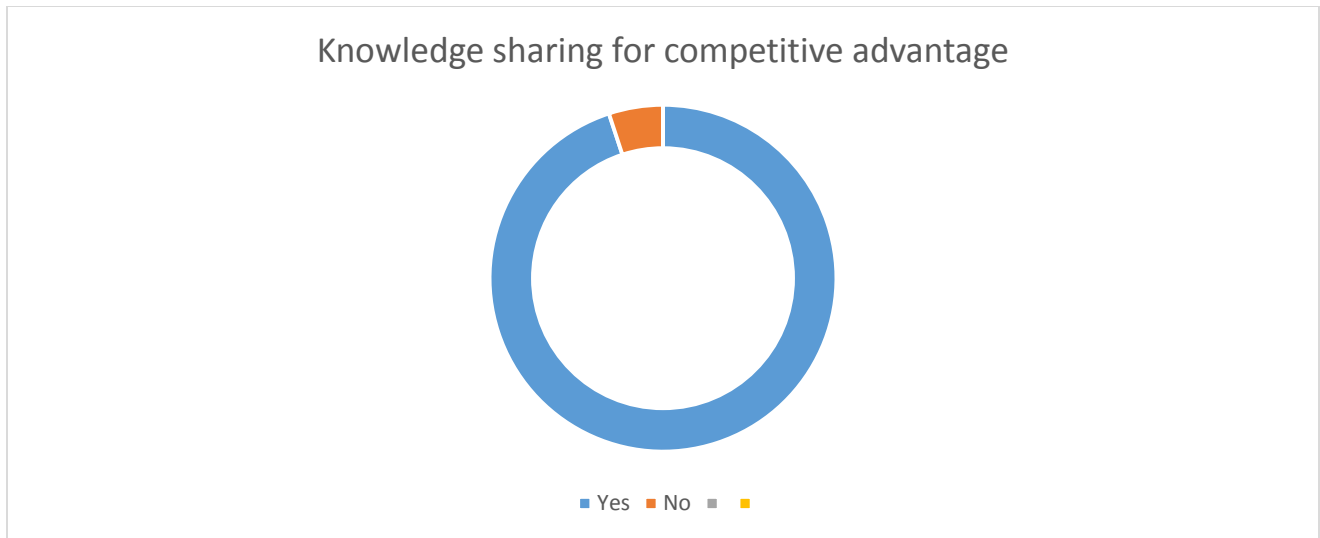
If your answer above is Agree, which knowledge sharing method do you prefer most?

Response from the above question was that majority at 45(60.00%) prefer mentorship as a way of sharing knowledge, followed by peer assist at 22(29.33%), coaching comes third at 4(5.33%) while after action review had (0.00%) response. 4(5.33%) of the total questionnaires were left blank on this subject.

Figure 4. 4**: Preferred knowledge sharing method**
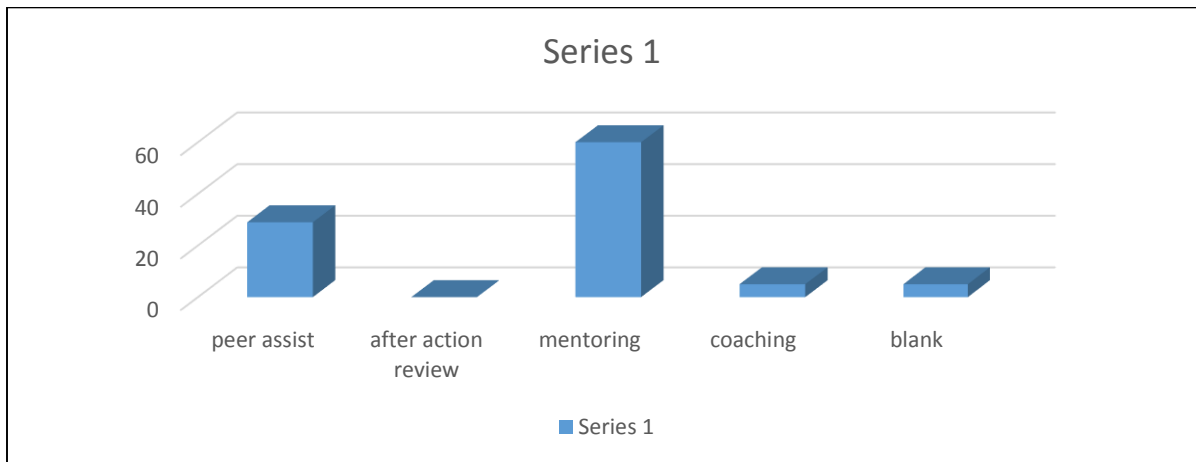
Do you have a framework to addresses how outgoing academic employees to incoming ones should share knowledge within your department.

Sum of value, inherent belief, emblem and employees' behavioral norm represents the corporate culture. From the finding, Strathmore university do not have a knowledge sharing framework to address how existing employees should pass their intellectual knowledge to the incoming one from since 60(80.00%) of the respondents acknowledge lack of the framework, 11(14.66%) confirmed existence of the framework while 4(5.33%) were neutral as shown on Table 4.6. It is clear that the organization does not have a framework in place to addresses how outgoing academic employees to incoming ones should share knowledge. Organizations knowledge is in people who create and share knowledge thus the institution should come up with a framework to address how departing employees can pass on their knowledge to incoming ones to promote knowledge sharing for research.

Figure 4. 5**: Availability of Departmental knowledge sharing framework**

Availability of departmental framework to address how outgoing to incoming staff should share knowledge	Frequency	%
Yes (available)	11	14.66
No (Not available)	60	80.88
Neutral (blank)	4	5.33

4.4 Ways of enhancing knowledge sharing

There exists Employee motivation program to encourage sharing knowledge sharing Strathmore University

(Tan & Ramayah, 2014) argue that, in knowledge sharing, academicians do so as part of their role and that they are not supposed to be stimulated using any reward to do so. As for Strathmore University, it was evident that there was a mixed response on existence of employee motivation program. Respondents that confirmed existence of motivation program to share knowledge 22(29.33%) was almost equal to those that denied its existence at 22(29.33%) and on the other hand those that were not sure stood at 19(25.33%) whereas 12(16.00%) left the question unanswered. The balance between those that allude existence of motivation knowledge sharing program to those that oppose its existence is a clear indication that either the program is not in place, fear to reveal the exact information or if the program is in place, then it is not well communicated thus the organization should draft programs that recognizes and reward people who create and share knowledge.

Figure 4. 6**: Existence of Employee motivation program to encourage sharing of knowledge**
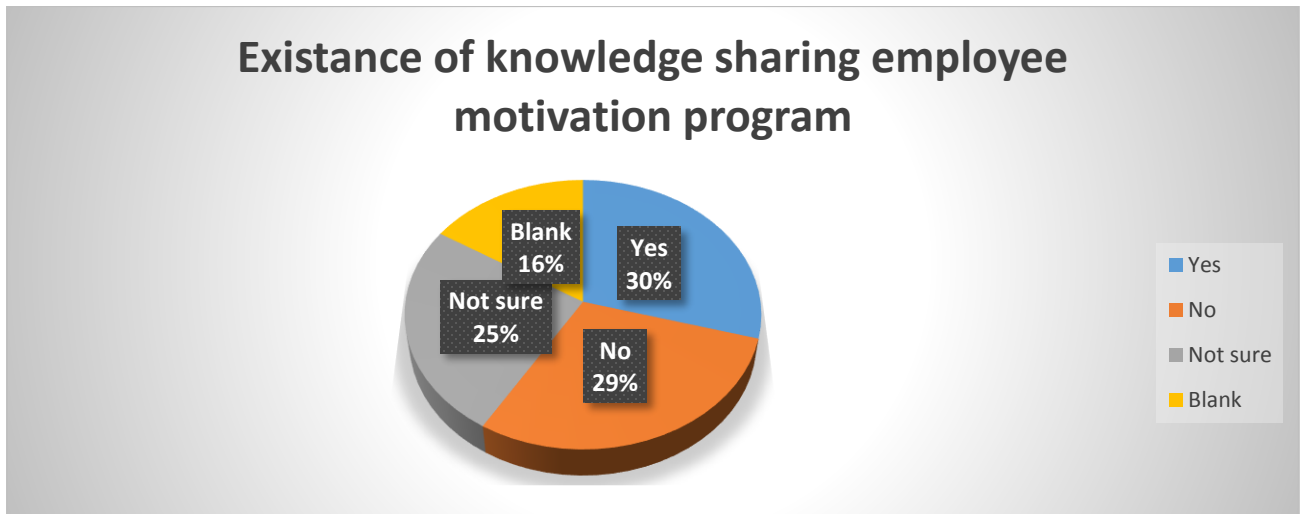
Based on your answer above, highlight some motivational factors present in your organization that will make academic staff share their intellectual knowledge with colleagues

Individuals tend to share knowledge more effective when motivational incentives and rewards in place are sufficient and appropriate to them(Boer, Berends, & Van Baalen, 2011). However, (Kugel & Schoste) observed that rewards in monetary form have an immediate effect on sharing knowledge thus organizations should provide appropriate incentives to its staff. The following were major clustered motivational suggestion to enhance sharing of knowledge in academic institutions

- Research meeting every month

- Knowledge sharing to be part of the evaluation (KPI)

- Handing over periods between existing and incoming staff (Training based)

- Organize for continuous seminars and workshops (Departmental benchmarking

Departmental process oriented structure unlike hierarchical structure enhances sharing of knowledge

Significant cultural influences on knowledge sharing is tied on organizational structure as seen from the knowledge sharing model (Al-Adaileh, 2011). Flexible academic organization structures encourage sharing of knowledge and collaboration across departments since they promote interactions among academicians (Gold, Malhotra, & Segars, 2001). Sharing of knowledge is successful based on support structure that allows unhindered information flow(Syed, Ramish, & Aslam, 2013). Informal settings such as communities of practices, assimilating social exchanges facilitates knowledge work. From the findings, Strathmore university supports process oriented structure as56(74.66%) respondents agreed to the idea as opposed to 19(25.33%) who disagreed, Table 4.7 below. This is a clear indication that the structure support knowledge sharing a fact supported by the values of the Institutions among them collegiality and teamwork.

Table 4. 2**: Organizations structure in relation to knowledge sharing**

Departmental process oriented structure, unlike hierarchical structure enhances sharing of knowledge	Frequency	Percentage
true	56	74.66
false	19	25.33

Reward system used in the organization for those who share their knowledge to enhance research.

Reward, compensation, promotions, and recognition are some of the incentives that can encourage professionals to contribute their intellectual resource to an organization. A good structural knowledge capability motivates individuals to share knowledge, establish positive relationships and good social networks. Fig 4.6 below shows that majority of staff 45(60.00%), felt there is lack of a reward system, 19(25.33%) agreed and 11(14.66%) were neutral as they left the questionnaire blank on this aspect. From finding, it is clear the organization has not established reward system to those willing to share their knowledge as discussed above.

Figure 4. 7**: Availability of reward system supporting knowledge sharing**
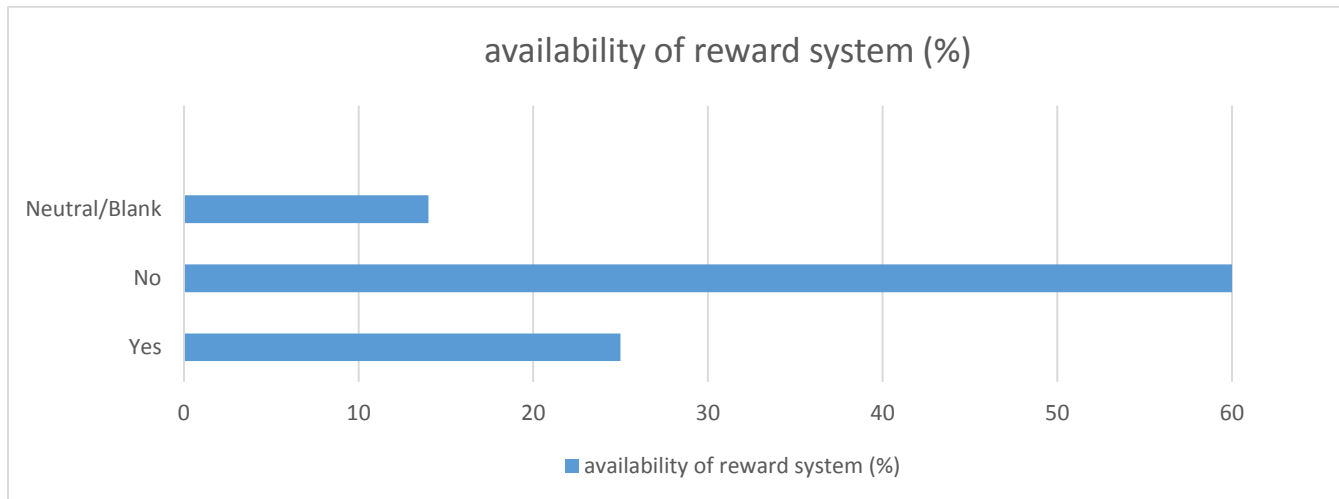
Suggest any 3-reward systems that will make you as an individual share your knowledge with colleagues.

- ➢ Sponsorship to conferences   Out of office forums/retreats

- ➢ Bonuses for trainers   Cash rewards

- ➢ Salary increment   Departmental workshops

- ➢ Support in collaborative publications

- ➢ Credits earned from sharing knowledge or expertise.

4.5 Barriers to Knowledge sharing

Kindly indicate by ticking appropriately on the grid provided against the statements based on your acceptance level. [x]

Scale: Strongly Agreed=5, Agreed=4, Not sure=3, Disagreed=2, Strongly disagreed=1

Top management needs to recognize the role of technology, performance appraisal and nonmonetary rewards, as strategies that can promote sharing of knowledge(Jain, 2007). From the findings as shown on Table 4.8 below, lack of tech skills and employees reluctance to use IT hinders sharing of Knowledge as 26(34.66%) strongly agreed, 15(20.00%) agreed, 19(25.33%)are not sure, 11(14.66%) disagreed and 4(5.33%) strongly disagreed.

Technology is a tool used to coordinate and distribute knowledge within and across organizations boundaries, which shapes social rules, processes and interactions hence alleviate problems in knowledge distribution arising from hierarchical social structure (DeSanctis & Poole, 1994).

Inter-personal trust, confidence and experiences based on social promotes creation of knowledge(Mtega, Dulle, & Ronald, 2013).Research in academic institutions is influenced by individual's perception towards sharing knowledge. This is evident from the response on table 4.8 where 34(45.33%) strongly agreed, 30(40.00) agree, 7(9.33%) were neutral and 4(5.33%) strongly disagreed.

Research in academic institution is affected by employee's job security assurance on shared knowledge as 15(20.00%) strongly agree, 26(34.66%) agree, 15(20.00%) are not sure, 12(16.00%) disagree and 7(9.33%) strongly disagree as illustrated on Table 4.8 below. The positive assertion indicates academic staff at Strathmore University do not feel intimidated when they share knowledge thus a high relation to the fact that many academic staff engage in knowledge sharing as earlier indicated on employees engagement in knowledge sharing at (60.00%) on Table 4.4, and frequency of knowledge sharing at (85.00%) on Table 4.5 above.

Organization structure that allows information to flow between departments with fewer restrictions enhances sharing of knowledge(Syed et al., 2013). Curtailed information flow within departments because of organization structure impacts research as 26(34.66%) strongly agree, 30(40.00%) agree, 12(16.00%) are not sure and 7(9.33%) disagree as shown on Table 4.8 below.

Well-designed and flexible organization structure encourages sharing of knowledge and collaboration across boundaries within academic institutions. Formal organization structure within universities promote socialization among academicians which promote sharing knowledge (Gold et al., 2001). Process oriented organization structure easily enhance research in academic institutions as 22(29.33%) strongly agreed, 34(45.33%)

agreed, 7(9.33%) were neutral, 7(9.33%) disagreed and 4(5.33%) strongly disagreed. It is evident from the finding that the institution structure supports knowledge sharing since the findings correlate with findings on table 4.4 above: willingness of academic staffs to engage in knowledge sharing.

Knowledge sharing enablers are ways or mechanisms an organization has put in place to stimulate creation, sharing and protection of the knowledge for improvement of activities (Ichijo, Krough, & Nonaka, 1998). Organizational initiative that recognize and support free sharing of knowledge have impact on research as 34(45.33%)strongly agreed, 22(29.33%) agreed, 7(9.33%) were not sure, 7(9.33%) disagreed and 3(4.00%) strongly disagreed. From findings, respondents are willing to share knowledge if the right initiatives and mechanisms are in place to promote knowledge sharing. Recommended initiative might include ensuring free flow of information, support to those willing to share knowledge through either publications, workshops, seminars etc. and mechanism that will ensure new knowledge is created and shared freely like un-official round table meetings, documentation and storage of knowledge in university repositories.

Table 4. 3**: Barriers to knowledge sharing**

Statement	strongly agree 5	agree 4	not sure 3	disagree 2	strongly disagree 1
Unfamiliarity with technology and employees reluctance to use IT hinders rapid sharing of knowledge	26 (34.66%)	15 (20.00%)	19 (25.33%)	11 (14.66%)	4 (5.33%)
Individual perception towards sharing of knowledge sharing influence research in academic institutions	34 (45.33%)	30 (40.00%)	7 (9.33%)	0	4 (5.33%)
Employees job security assurance for knowledge shared impacts research in academic institution	15 (20.00%)	26 (34.66%)	15 (20.0%)	12 (16.00%)	7 (9.33%)
Lack of free flow of information within departments affects research.	26 (34.66%)	30 (40.00%)	12 (16.00%)	7 (9.33%)	0
Process oriented Organizational structure can easily enhance research in academic institutions.	22 (29.33%)	34 (45.33%)	7 (9.33%)	7 (9.33%)	4 (5.33%)
Organizational initiative to recognize and put in place mechanisms that support free sharing of knowledge affects research	34 (45.33%)	22 (29.33%)	7 (9.33%)	7 (9.33%)	3 (4.00%)

4.6 Interview

Interview conducted for the senior librarian and interpretation done.

How does your department share knowledge? i. e Tacit knowledge among its staff

"Bi –weekly departmental meetings is our pillar. As you are aware, it is only through these presentations and trainings that we all get to learn of new developments in other departments, or any emerging discovery from our ICT team. I think that is the way to go to harness more knowledge. Going forward we shall come up with a proper documented booklet that can be for archival for those who will inherit our seats."

From the response, Strathmore University promotes knowledge sharing. This is evident from the bi-weekly departmental meetings, presentations and trainings. All these initiatives are good for knowledge sharing which has a direct impact on research.

Does your department have any ways to encourage employees to share knowledge among its members?

"Yes. Knowledge sharing is the aspect that we are trying to cultivate amongst our staff.

If yes, please would you highlight how each method/any is encouraging employees to share their knowledge?

"Group work task initiatives with one person selected as a driver"

It is evident from the research interview that Strathmore University has mechanisms to promote knowledge sharing. For instance, assignment of team leader is one way of recognition. Individual recognitions is one way of motivational programs to encourage knowledge sharing. However, use of direct motivational aspects such as monetary

rewards, promotions and incentive would stimulate the proses much more. This might not be the case for the organization thus clear indication the institution has selective/partial motivational program, which can be related with response from the questionnaire whereby (60.00%) of the respondents confirmed lack of motivational program.

Are people willing to share knowledge within the department?

"*Yes. I have seen good number of us training others formally or informally. To me that is already knowledge sharing. In some instances, it involves training where that who has better knowledge or authority on particular area takes the initiative to train fellow colleagues. For instance, we have inter staff trainings on knowledge sharing software. All this is done without outsourcing*".

Academic staff are much willing to share knowledge at the institution as disclosed in the interview. Internal inter-staff trainings is clear indication of willingness to share knowledge. This is supported by (90.00%) of the staff who engage in knowledge sharing and that (85%) do it more frequently is captured on the questionnaire.

If yes, is there a policy that protects individuals against victimization of the information shared.

"*Basically I can say no. However, as an organization we are like a family. We are open to varied opinions. That is the best way to make people feel free to share their knowledge. This is what has been there and we have seen it work.*"

Findings show that, little done as far as knowledge-sharing policy is concerned with "No" response from the interviewee and the mixed response of (30%) Yes and (30%) No on existence of knowledge sharing policy is a clear indication to this. Policies help outline which knowledge is best to capture, preserve and use by an organization. However, there is slight contradiction to this because despite lack of policy to protect individual who share knowledge against victimization, there is high rate of knowledge sharing as (90%) engage in knowledge sharing and (85%) do it more frequent. In conclusion, the research can conclude that the "working as family" notion is what makes people share knowledge more freely thus freedom to information and knowledge sharing.

How well are the employees in your department adopting to new technologies that are used to share knowledge? Explain your response.

"*Generally the reception is positive as these are tools that librarians use in everyday work. For instance Dspace which is our university repository not only does it serve as knowledge bank but constant point of reference due to its reach knowledgeable contents. We have ORCID and ViVo. All these are knowledge sharing tools and technologies best used by all of us. But knowledge sharing goes beyond technologies; it involves how best the team is able to effectively use the technologies to create a positive impact in the field of knowledge sharing.*"

Technology enhances knowledge sharing. This includes capture, storage and dissemination. For instance, institutional repositories (Dspace) act as knowledge banks. Academic staff use of Dspace to store knowledge as well as ORCID and ViVo as

sharing platform is a clear indication that Strathmore University supports Knowledge sharing.

Does the organization structure in place favoring free flow of information between peers of different ranks?

"Yes. We work as a team. Each player is crucial to our success or fail. The structure is transparent. As a department, most of our achievements in creation and sharing of knowledge is because of try and error by dedicated individuals who strive to bring in fresh thoughts and pass it to others. It is not a matter of inventing the wheel but rather excelling in our best area.

Free flow of information spurs knowledge sharing. Transparency in systems and processes creates an environment where access and sharing of knowledge is easy. Research shows that organization structure is open to knowledge sharing which is a requisite for academic institution.

Does your department have all-inclusive employees meetings and how frequent?

"Yes. Departmental meetings are there to reflect where we are from previous position. It is an all-inclusive thing as again it is a platform for presentations or so to speak departmental training in case of new development. On frequency, we do it bi-weekly".

Inclusivity, teamwork and collaborations are some of the aspects that promote generation and sharing of knowledge. Face-to-face talks help build trust between the giver and receiver of information. Use of all-inclusive bi-weekly meeting is a clear indication that Strathmore University supports knowledge sharing. This has direct

impact on quality of research as the more the consultations, the higher the risks of

mistakes reduced and the higher the quality of research. For academic institutions, this

is an advantage as competitiveness is on the output of research. This is supported by

94% of the questionnaire respondents who indicated that knowledge sharing promote

competitive advantage of academic institutions.

**4.7 Data analysis, Correlation between sharing of knowledge and Factors
influencing sharing of knowledge**

Using coefficient of variation V= Standard deviation / Mean, calculation of correlation
was as follows:

Let knowledge sharing be x, Factors affecting knowledge sharing be y

Table 4. 4**: Statistical analysis on knowledge sharing (x) and Factors influencing
knowledge sharing (y)**

x	y	(x-mean)	(y-mean)	(x-mean)(y-mean)	(x-mean)2	(y-mean)2
30	41	-29.16	-11.33	330.38	850.30	128.37
68	64	8.83	11.67	103.05	77.97	136.19
56	41	-3.16	-11.33	35.80	9.99	128.37
66	56	6.83	3.67	25.10	46.65	13.47
64	56	4.84	3.67	-107.05	23.43	13.47
71	56	11.84	3.67	-13.47	140.19	13.47
∑=355	∑=314	∑=0.02	∑=0.02	∑=555.54	∑=1148.53	∑=433.34

Mean x: 355/6 =59.16   Mean y: 314/6 =52.33

The sample covariance = 555.54/3 = 185.18

$\sum$(x-59.16)² =1148.53; $\sum$(y-52.33)² =433.34

SD for Knowledge sharing: $\sqrt{\sum}$(x-59.16)² /3 = 19.56;

 SD for Factors influencing knowledge e sharing: $\sqrt{\sum}$(x-52.33)²/3 = 12.02

 (19.56*12.02)=233.40

The sample correlation coefficient is:

$\sum$ (x-59.16) (y-52.33) / 3   ÷ $\sqrt{}$ ($\sum$(x-59.16)² /3   × $\sqrt{}$ $\sum$(x-52.33)² /3) = 235.15

185.18/235.15 = 0.787

From statistical analysis above, it is evident there is a close interdependence between
sharing knowledge and factors influencing knowledge sharing (Technology, individual
perception, organization structure, policies and knowledge sharing practices). From the
sample correlation coefficient 0.787, the results shows knowledge sharing is highly
defendant on well outline knowledge sharing policies and appropriate technology
among others as shown on table above

4.8 Chapter Summary

The chapter presents study findings which shows, research in academic institutions depends on knowledge sharing. In return, it is clear that academic institutions should come up with strategies that will enhance knowledge sharing among its staff. This include policies that will address knowledge sharing, platforms that will support free and collaborative flow of information i.e. knowledge sharing technologies, methods and practices that will facilitate easy flow of information and adopt a structure has no get keepers to information. To ice the knowledge-sharing program, academic institutions should have a program in place that recognizes and rewards individuals who share knowledge and summary and findings discussed in Chapter 5.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.0 Introduction

The chapter presents summary of findings, discussions, conclusion and recommendation on the topic guided by purpose of the study. The research goes ahead to offer recommendations and suggestions for more research in the same aspect by future researchers.

5.1. Summary of findings

This sections presents discussion of key findings

5.1.1Knowledge sharing policies/practices for research at Strathmore University

The first research objective was to explore knowledge sharing policies/practices for research at Strathmore University. Findings show majority of the respondents in Strathmore University, 71(94.66%) agree that well effected knowledge sharing policies would enhance research output while 4(5.33%) disagreed with the statement as shown on Fig 4.1. Additionally, relevant well laid down policies on knowledge sharing with respect to outgoing academic staff to new incoming staff impact research in academic institutions as study shows majority of the respondents are positive to this opinion as 30(40.00%) strongly agreed and 33(44.00%) agree. However, 4(5.33%) were neutral, 4(5.33%) disagreed and 4(5.33%) strongly disagreed as captured on Table 4.3

Effective practices in knowledge sharing are mechanisms established to ensure

employees share knowledge freely. With respect to Strathmore University, results are, majority were familiar with Community of practice at 34(45.33%), 19(25.33%) were familiar with Knowledge bases, those familiar with Bank of ideas at 4(5.33%), 11(14.66%) knew Knowledge map such as workshops in respective areas of research while 7(9.33%) remained neutral. Table 4.2. Based on familiarity with knowledge sharing practices adopted at the institution, the study confirmed staff do really practice knowledge sharing with colleagues as 68(90.66) confirmed that they do practice knowledge sharing with colleagues at places of work while 7(9.33%) were of negative opinion that they do not as captured on Table 4.4.

Familiarity with knowledge sharing practices and willingness to share knowledge established that majority at 26(34.66%)share their intellectual knowledge through sharing of lecture notes, followed by sharing research findings at 22(29.33%), developments in academic field at 11(14.66%) while teaching methodologies at 8(10.66%) and work processes at 8(10.66%). This is further supported by the fact that 64(85.33%) practiced knowledge sharing more frequently while 11(14.66%) rarely do share their knowledge as shown on Table 4.5. From above discussions, it is evident that Strathmore University has incorporated knowledge sharing, which supported by sentiment from the interviewee that "*People are willing to share knowledge. I have seen good number of us training others formally or informally*".

5.1.2 Methods of knowledge sharing for research at Strathmore University

The second objective was to find methods of knowledge sharing for research as Strathmore University. Working knowledge sharing methods are a requisite for effective sharing of knowledge which has direct impact on academic institutions competitive

advantage as majority 71(94.66%) agreed to this opinion while 4(5.33%) disagreed as illustrated on Fig. 4.3.

Effective knowledge sharing platforms help individuals build trust amongst themselves and feel free to interact in research aspects. Therefore, academic institutions should have friendly and easily adoptable knowledge sharing mechanisms in place to ensure those willing to share knowledge can really do so. This is supported by research finding that show majority at 45(60.00%) prefer mentorship as a way of sharing knowledge, followed by peer assist at 22(29.33%), coaching at 4(5.33%). However, the research noted lack of an elaborative method and framework where the university can tap knowledge of existing staff. This is evident from the results that showed 60(80.00%) of the respondents acknowledge lack of the framework, 11(14.66%) confirmed existence of the framework while 4(5.33%) were neutral as shown on Table 4.6. Even though the study interview established bi-weekly meetings as one of the main research sharing methods that alone is not enough as academic institution do spend a lot on human capital in terms of trainings, seminars and in some instances funding projects. It is for this reason that the university should have a framework and knowledge sharing method in place to make sure that those who quit have shared their expertise and skills to incoming cohorts.

5.1.3 Factors influencing/barriers to knowledge sharing

Third objective on factors influencing knowledge sharing established that lack of tech skills and employees reluctance to use IT hinder sharing of knowledge as 26(34.66%)strongly agree, 15(20.00%) agree, 19(25.33%)are not sure, 11(14.66%)disagree and 4(5.33%)strongly disagree. Table 4.8.Tech skills may include inability to use knowledge sharing software's like desktop publisher to publish

academic research for dissemination, video conferencing platforms to join either online meetings and tutorials or webinars to attend online classes.

Individual perception ranging from willingness and ability to share knowledge impact research in academic institutions as 34(45.33%)strongly agreed to the opinion, 30(40.00%)agreed, 7(9.33%) were neutral and 4(5.33%)strongly disagreed. Table 4.8. This may be affected by secondary factors such as Job security whereby 15(20.00%) strongly agree that employees job assurance impact research,26(34.66%)agreed, 15(20.00%)were not sure, 12(16.00%)disagreed and 7(9.33%) strongly disagreed. Table 4.8 below. Additionally organizational structures that are rigid to information sharing are likely to suffer setback of poor research because of little consultations and individualism. Structure that support teamwork as seen from the study enhance knowledge sharing. In this case, information should flow in both directions to achieve more in terms of research output. Organization structure also determines the resources invested in sharing knowledge whereby the role of information sources is financed and well equipped. This include institutional repositories (registry, Library, IT laboratories) and technology. This discussion is supported by research data that shows26(34.66%) strongly agreed that organization structure has an impact on knowledge sharing, 30(40.00%) agreed, 12(16.00%) were not sure and 7(9.33%) disagreed as shown on Table 4.8. Organization structure goes on to include initiatives/plans that the university has put in place to enhance knowledge sharing. Organizational initiative that recognize and support free sharing of knowledge have impact on research as 34(45.33%) strongly agreed, 22(29.33%) agreed, 7(9.33%) not sure, 7(9.33%) disagreed and 3(4.00%) strongly disagreed. This is a sum of the implementable polices and infrastructure, responsible person to execute them and the

timeline and standards for the same. In this case, Libraries being custodians of information in academic institutions knowledge sharing initiatives will give direction how to generate and disseminate knowledge and the best standards to do so to ensure quality of research. This may also include equipping the facility with reprographic tools to help in reproduction of knowledgeable resources, internet facilities to promote access and share.

5.1.4 Ways of enhancing research

The last objective was to suggest ways of enhancing knowledge sharing for research in Strathmore University. Findings indicate lack of employee motivation program as 22(29.33%) agree, 22(29.33) disagree, 16(25.00%) are not sure and 12(16.00%) were undecided as illustrated on Fig 4.5. Process oriented structure in departments easily promotes knowledge sharing as 56(74.66%) confirmed to this sentiment as opposed to 19(25.33%) who disagreed as indicated on table 4.7. The opinion of the senior librarian that the employees work as a team and transparency in the structure also promotes knowledge sharing. It is further supported by fact that little that has been done to reward those creating and sharing knowledge as 45(60.00%) confirm lack of reward system, 19(25.33) confirm of the system and 11(14.66%) were neutral as captured on Fig 4.6. To sum the whole concept of ways to enhance knowledge sharing, the research called for opinions from respondents and the suggestions were; sponsorship to conferences, bonuses for trainers, salary increment, and support in collaborative publications, credits earned from sharing knowledge, retreats and cash rewards as methods suggested of enhancing sharing knowledge in Strathmore University.

5.2. Conclusion

Based on findings in previous sections, this research concludes as follows:

- Knowledge sharing policies have an impact on academic institutions research output as they give guidelines on knowledge capture, storage and used thus providing an outline on whole concept of knowledge sharing for academic institutions. For instance, in academic institutions, policies spell out standards for knowledge creation and the quality of the same, how to store and in this case, use of archival databases (library Dspaces) and dissemination (conferences, training and workshop). Lack of policy hinders all these either formulation or implementation. For Strathmore University, even though the rate of K.S activities is high based on respondents and the university sharing platform such ORCID and ViVo as captured in the interview, little is shown on knowledge sharing policy as a program.

- Knowledge sharing methods are the fundamental avenues that stimulate sharing of knowledge between peers in an organization. Weather formal or informal settings; there is usually knowledge creation and sharing whenever there is a giver and receiver of information. In this case, Strathmore University has robust knowledge sharing methods as seen from the rate of knowledge sharing and frequency from the respondents. This has huge impact on research output.

- Technological issues, individual perception, job security, organization structure and programs in relation to sharing of knowledge have an impact on institutions academic output. Sum of all these factors lies with top management and the structure. Academic institutions should invest in technologies that are easily

adaptable to its users to stimulate creation, storage and usage of intellectual capital. Individual perception to share knowledge depends on assurance of job security without victimization. The management at Strathmore University has invested in relevant technologies such as Dspace, ViVo and ORCID that promote knowledge sharing with transparent structure that allows free flow of information.

- Findings on ways of enhancing knowledge sharing have direct implication on research for academic institutions. These include motivational factors and reward programs that encourage employees to share knowledge with assurance of benefits in return. Knowledge sharing enhancement program such as reward system and incentive (monetary values, gifts, credits and bonuses) and recognitions (acknowledgement and promotions) have direct implication on research in academic institutions. However, this research shows inadequacy in ways of enhancing knowledge sharing for research at Strathmore University despite all the investment in technology and structures that support the same. There are some proposals from the respondents on how to promote knowledge sharing for research at the institution among them; salary increment, sponsorship to conferences, bonuses for trainers and support in collaborative research and publications.

5.3 Recommendations

Policies on knowledge sharing are key in research output. Not only will they promote quality, policies goes on to give direction how tacit knowledge harvested from researchers will be stored and disseminated. For instance in case of publications, it will address copyright issues and patents for innovations. In respect to this and research findings, the

university should invest bit of their efforts on knowledge sharing policies to enhance research. This policy should capture how existing employees can pass over their intellectual capital to fellow colleagues before leaving,

Factors/barriers to knowledge sharing are culture and norms of an organization, technology and individual attitudes towards knowledge sharing that partially or completely hinder free flow of information thus cutting knowledge sharing aspect. All this factors depend on an elaborative knowledge-sharing framework within an academic institution. Reluctance to adoption of technology may be because of challenges associated with it. The study shows technology has direct impact on research thus this research recommends more training on academic staff on use of the technologies identified (ViVo, ORCID and Dspace). This will promote sharing of knowledge in terms of academic publications, dissemination (video conferencing) and collaborative internet research. Individual perception is influenced by reward systems in place and job security, which determine individual willingness to share knowledge. Therefore, academic institutions should ensure human resource affairs are well catered to ensure academician's morale towards knowledge sharing is boosted.

Knowledge sharing enablers are systems and programs to enhance knowledge sharing. Study findings shows that Strathmore University has done very little to come up with ways of enhancing knowledge sharing. This might have been informed by the willingness of many academic staff to share their knowledge and more so frequently. However, it is important that the institution develops a working employee's motivation and reward program that will make those who share knowledge feel the worthiness of their knowledge. The university can adopt promotions and recognitions as soft programs to

enhance knowledge sharing as well as monetary values where necessary. Facilitation to workshops and staff trainings have a direct impact on research as it promotes exchange of ideas thus quality research.

5.4 Further research suggestions

This research proposes the following areas as interesting fields for future studies: This study was only limited to knowledge sharing to enhance research in academic institution. This brings in another interesting concept of quality of knowledge sources in academic institutions as everyone is trying to come up and share knowledge. This entails quality of research outputs on university dspace and authenticity of innovations. Another interesting future study area on knowledge sharing for research is the use of technology. Is technology a curse or blessing in knowledge sharing for research? For instance, apart from its positive side in enhancing knowledge sharing, what are the pitfall of the same in this field? Technology has been a challenge due to cybercrimes where hackers can hack into researchers account and still vital knowledge and inventions. It has also promoted plagiarism as researchers can easily download what they want a touch of button thus bring issues of ownership in work published. Pitfalls of technology in knowledge sharing for research can therefore be a good study area.

5.5 Chapter Summary

This has presented summary discussions, conclusion and recommendations of the research. The study has highlighted Strathmore University promotes and upholds knowledge sharing for research based on the methods, organization structure and technologies available and rate of knowledge sharing among its academic staff. However, additional attention should be place on knowledge sharing policies and reward systems, which can catalyze the whole process further for more desired research output, in which case some recommendations proposed. Therefore, the study advocates for knowledge sharing be embraced in academic institutions to help enhance research output (quality and quantity) which is the main selling point for them.

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APPENDICES & ANNEXES

APPENDIX 1

INTRODUCTION LETTER FROM THE UNIVERSITY

APPENDIX II

INTRODUCTION LETTER

Christopher K. Kibos,

P.O Box 59857-00200,

Nairobi.

Dear respondents,

RE: RESEARCH INFORMATION FOR MASTERS PROJECT

I am a postgraduate student undertaking a Master of Library and Information Science at the University of Nairobi. As a partial fulfillment of the requirements for the award of the master's degree, I am undertaking a study on **"knowledge sharing for research in academic institutions in Kenya: the case of Strathmore University.** The objectives of the study are to: To examine knowledge sharing practices, identify applicable Knowledge Sharing methods, to identify challenges in Knowledge sharing and to suggest ways in which Knowledge sharing can be enhanced in Strathmore University.

The study will be beneficial to the academic institutions because the findings will recommend the ways of enhancing the Knowledge sharing methods for academics and researchers within the institutions. I kindly request you to complete the attached questionnaire to enable me collect data regarding the topic under investigation.
The information provided in this study will only be used for the intended academic purpose and will be treated with utmost privacy.

Thank you in advance.

Yours faithfully,

Christopher Kibos

Master Student

APPENDIX III

QUESTIONNAIRE

The questionnaire below is designed to collect data for a research study on the knowledge sharing to promote research in academic institutions in Kenya a case study of Strathmore University. The information provided in this questionnaire will be used in an educational research and will be treated with utmost confidence. The questionnaire consists of – items. Kindly fill in the spaces provided as accurate as possible and tick where required appropriately. Thank you.

N/B Knowledge sharing is the process of mutually exchanging knowledge and jointly creating new knowledge either through articulation or socialization framed within a context by the knowledge of the source.

SECTION A: Bio data

    1. What is your gender   Male [   ]   Female [   ]

    2. Age [   ]

    3. Work experience

      <3[   ]   3-5[   ]   5-10[   ]   10-15[   ]   15-20[   ]   20> [   ]

    4. Highest academic qualification attained

    Certificate [] Diploma [] Degree [] Master [   ] Doctorate [   ] Professor[   ]

SECTION B: Knowledge sharing practices at Strathmore University

    5. Knowledge sharing policies if well effected will enhance research output in Strathmore   University.

    [ ] Agree   [ ] Disagree   [ ] Not sure

    b) If your answer is **Agree** in above, which Knowledge sharing practices are you familiar with in your organization

    [ ] Community of practice such as Forums and meetings

    [ ] Knowledge base such as recorded tutorials

    [ ] Bank of ideas

    [ ] Knowledge map such as workshops in respective areas of research

Other…………………………………………………………………………………………
……………………………………………………………………………………………………
……………….

6. a) An organization that has well outline policies on knowledge sharing is most likely to preserve its knowhow from outgoing academic staff and pass it to incoming academic staff.

[ ] Strongly agree   [ ] Agree   [ ] Disagree   [ ] strongly disagree

b) If you answer is **positive** in above statement, do you engage in knowledge sharing   practices with colleagues in your department?

[ ] Yes   [ ] No

c) If **yes**, how often do you share Knowledge?

[ ] Frequent   [ ] Rarely

7. What type of Knowledge is shared frequently among your colleagues? (Tick appropriately) [**x**]

Research findings

Developments in your field

Lecture notes

Teaching methodologies

Work processes

Other…………………………………………………………………………………………
……………………………………………………………………………………………………
……………….

SECTION C: Knowledge sharing methods for research at Strathmore University

8) a) Knowledge sharing is a major requisite towards organizational competitive advantage.

[ ] Agree   [ ] Disagree   [ ] Not sure

b) If your answer is **Agree** above, which knowledge sharing method do you prefer

most?

[ ] Peer assist   [ ] After-action review   [ ] Mentoring   [   ] Coaching

9. Do you have a framework within your department that addresses how outgoing academic employees to incoming ones should share knowledge?

[ ] Yes   [   ] No

b) If **Yes,** briefly describe how your department take into account to ensure before the   exiting person leaves, he/she has shared their expertise with other staff

Other……………………………………………………………………………………

……………………………………………………………………………………………

……………….

SECTION D: Ways of enhancing knowledge sharing for research at Strathmore University

11) a) There exists Employee motivation program to encourage Knowledge sharing in   Strathmore University

[ ] Yes   [ ] No   [ ] Not sure

b) Based on your answer above, highlight some motivational factors currently present in   your organization that will make academic staff share their intellectual knowledge   with colleagues

……………………………………………………………………………………………

……………………………………………………………………………………………

12. Process oriented structure unlike Hierarchical structure in departments can easily   promote sharing of Knowledge

[ ] True   [ ] False

13. Is there any reward system used in your organization for those who share their Knowledge to enhance research?

[ ] Yes   [ ] No

b) In your own opinion, suggest any 3-reward systems that will make you as an individual   share your skills, expertise and knowledge in your area of research with your colleagues.

………………………………………………………………………………………………………

………………………………………………………………………………………………………

………………………………………………………………………………………………………

SECTION E: Barriers to Knowledge sharing for research at Strathmore University

10. a) Based on your level of acceptance, kindly indicate by ticking appropriately on the grid provided against the statements. [**x**] Scale used is that **Strongly Agree=, Agree=4,   Not   sure=3, Disagree=2, Strongly disagree=1**

Statement	5	4	3	2	1
Unfamiliarity with technology and reluctance to use IT by employees hinders rapid sharing of Knowledge					
Individual perception towards knowledge sharing will influence research in academic institutions					
Assurance of employees job security for knowledge shared impacts research in academic institution					
Lack of free flow of information within departments because of organizational structure will have an impact on research.					
Process oriented Organizational structure rather than hierarchical structure can easily enhance research in academic institutions.					
Organizational initiative to recognize and put in place mechanisms that support free sharing of Knowledge can easily impact research					

Other……………………………………………………………………………………………

………………………………………………………………………………………………

Thank you for your time

APPENDIX IV

INTERVIEW SCHEDULE
Introduction

Hi Sir/Madam

I am Christopher K. Kibos. I am a Masters student at The University of Nairobi carrying out a research on: **Knowledge Sharing for Research in Academic Institutions in Kenya, a case of Strathmore University.**

Based on my sampling method (purposive sampling), you have been selected to take part in the interview. The information you provide will be used for academic purpose only and for the success of this research.

1. Gender of the interviewee Male [ ]   Female [ ]

2. How does your department share knowledge i.e. tacit knowledge among its team?

3. Does your department have any ways to encourage employees to share their knowledge among its members? If yes, please would you highlight how each method/any is encouraging employees to share their knowledge? If No, then which other ways do the department use to encourage employees to share knowledge

4. Are people willing to share knowledge within the department? If yes, is there a policy that protects individuals against victimization of the information shared?

5. How well are the employees in your department adopting to new technologies that used to share knowledge? Explain your response.

6. Does the organization structure in place favoring free flow of information between peers of different ranks?

7. Does your department have all-inclusive employee's meetings and how frequent?

Thank you for your cooperation