JIMMA UNIVERSITY

COLLEGE OF NATURAL SCIENCES

DEPARTMENT OF INFORMATION SCIENCE

ASSESSING KNOWLEDGE SHARING PRACTICES AMONG HEALTH PROFESSIONALS TO IMROVE ORGANIZATIONAL PERFORMANCE: THE CASE OF ASSOSA HOSPITAL, ETHIOPIA

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February, 2015

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THESIS SUBMITTED TO THE COLLEGE OF NATURAL SCIENCES, JIMMA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN INFORMATION AND KNOWLEDGE MANAGEMENT (IKM).

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APPROVAL SHEET

As *Thesis* Research advisors, we hereby certify that we have read and evaluated this thesis prepared, under our guidance, by DerejeRoba, entitled "**“Assessing knowledge sharing practices among health professionals to improve organizational performance”: The case of Assosa hospital, Ethiopia"**has been read and approved as meeting the requirements of department of Information science in partial fulfilment for the award of the degree of master science in Information and Knowledge Management, Jimma University, Jimma, Ethiopia.

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As member of the *Board of Examiners* of the *M.Sc. Thesis Open Defence Examination*, We certify that we have read, evaluated the Thesis prepared by DerejeRoba and examined the candidate. We recommended that the Thesis can be accepted as fulfilling the *Thesis* requirement for the Degree of: *Master of Science* in Information and Knowledge Management (IKM).

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External Examiner	Signature	Date

DECLARATION

First, I declare that this thesis is my work and that all sources of materials used in this thesis have been duly acknowledged. All scholarly matter that is included in the thesis has been given recognition through citation. I affirm that I have cited and referenced all sources used in this document. This thesis is submitted in partial fulfilment of the requirement for a master degree from the Jimma University, College of natural sciences; department of information science. Brief quotations from this thesis may be used without special permission, provided that accurate and complete acknowledgement of the source is made. Requests for permission for extended quotations from, or reproduction of this thesis in whole or in part may be granted by the head of department, advisors and Graduate Studies coordinators when in his or her judgment the proposed use of the material is in the interest of scholarship. In all other instances however, permission must be obtained from the author of the thesis.

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BIOGRAPHICAL SKETCH

The author was born in BenishangulGumuze Regional state in September, 1981 G.C. He attended his elementary, Junior and high preparatory education at Bullen elementary, secondary and preparatory school respectively and completed his preparatory education in June 2004. He joined Addis Ababa University of higher institution in October 2005 and successfully completed his *Bachelor of Science* Degree in *information technology* in October, 2007. After graduation, he employed 6 years in government sector. In September 2014, he joined Jimma University regular programme to pursue his postgraduate studies in Information and knowledge management (IKM).

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ACRONYMS AND ABRIVATIONS

BGRS	Benishangul-Gumuze Regional state
IT	Information Technology
ICT	Information Communication Technology
KM	Knowledge Management
KS	Knowledge Sharing
SPSS	Statistical Package for Social Sciences
CoP	Community of practices
KSP	Knowledge Sharing Practices
OP	Organizational Performances

TABLE OFCONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Knowledge is considered as a prime asset of the organization. Since knowledge is central resources for different organizations especially knowledge intensive organizations like, education institution, health sector, needs to manage the knowledge in a proper way in order to gain competitive advantages and for provide quality service. Nevertheless, the practices and implementation of Knowledge sharing is still in its infancy in public organizations. Various types of medical errors have occurred in resource-limited countries because of poor knowledge and experience sharing practices among health professionals. The main objective of this study is to investigate knowledge sharing practices among health professional to improve organizational performances in Assosa Hospital, Benishangul Gumuze regional state, Ethiopia. The used methodology was cross-sectional research design survey, qualitative and quantitative method (mixed). Semi-structured questionnaires, interviews and observation were used as data collecting tools to get responses. One hundred six (106) questionnaires were distributed in Assosa Hospital, health services sector. Ninety one (91) usable responses were received which is 86% response rate. To analyze data, descriptive and inferential (regression) statistics were used with (SPSS software (version, 20)). As the results of this study shown most of the respondents approved the need of knowledge and experience sharing practices in their routine activities. Nearly 32% of the study participants had knowledge and experience sharing practices and majority 56% of the respondents showed willingness to share their knowledge and experiences. Trust among staff members, open communication among employees, awareness, motivational scheme, supportive leadership, and resource allocation were the most influential factors of knowledge and experience sharing practices in study area. It can be concluded that most of the respondents have little bit knowledge of the importance of knowledge and experience sharing practices and only a limited number of respondents practiced it and finally researcher recommended that improving management support, proper resource allocation, motivating staffs, and planning KSP in organization as part of work process are important interventions to improve knowledge sharing and organizational performances in the study area. The study was conducted in a single public sector organization, which limits the generalizability of the findings to other settings, therefore, to addressing a more representative sample; further research must address across more governmental sectors.

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the study

As a result of change from an information age to a knowledge age, knowledge has been recognized as the most significant aspect of the human life. Individuals and organizations have started to realize and appreciate the knowledge as the most treasured asset in the emerging viable environment (Syed-Ikhsan and Rowland, 2004).Especially twenty first century is known as knowledge era, and in this era knowledge is one of the main tools and it is considered as the economic resource as intangible assets for any organizations to perform their tasks next to labor, land and capital(Paulin and Suneson, 2012).

Knowledge Management has largely focused on: (1), the nature of knowledge; (2), the processes of KM such as generation, sharing, distribution of knowledge; (3), the infrastructure of KM such as technological, organizational or managerial issues (Geisler, 2007). Knowledge management process is the heart of knowledge management. Therefore, most researchers present phase of knowledge management process. Tiwana, (2002) classifies KM in three different processes: knowledge acquisition, knowledge sharing and knowledge utilization. Arthur Anderson and APQC (1996) proposed process to design to capture tacit knowledge and make it explicit for all individuals within organization. This process consists of applying, sharing, creating, identifying, collecting, adapting, and organizing. KS is emphasizing on the process and social interaction for knowledge exchange (Gupta and Govindarajan, 2000). However, it is a narrower concept than knowledge management, which includes knowledge creation, transfer, and sharing.

Knowledge sharing is not an easy concept to define. Many scholars have tried to define knowledge sharing in the private and public sectors. Jacobson, (2006) refers to knowledge sharing as “an exchange of knowledge between individuals,” and Lindsey,(2006) defines knowledge sharing as “facilitating learning, through sharing, into usable ideas, products and processes, and knowledge sharing (KS) can be defined as “the exchange of knowledge between and among individuals and within and among teams, organizational units, and organizations”

(King, 2009). Knowledge sharing involves a main part of creating competitive study based on knowledge management.

Knowledge sharing can be studied in organizational, collective and individual levels. Organizational and collective knowledge sharing roots in the practice of people and conducts their activities here; it means motivation for knowledge sharing (King, 2009).Since, knowledge is a central resource of government services, effective knowledge sharing among employees is a significant management challenge for providing excellent services to the public at all levels (Kimand Lee, 2006).

Managing knowledge efficiently and effectively is considered a core competence for organizations to survive in the long run. The capability of organizations to leverage their knowledge resources seems to be one of the most important parameters from the strategic perspective. Nevertheless, the evolution and implementation of Knowledge sharing is still in its infancy in public organizations (Yao, etal.,2007). Knowledge sharing within organizations may cause wonderful interactions, especially for knowledge intensive organizations at individual, organizational, and collective levels. Health professionals need updated health information from credible sources to perform efficiently and effectively and to provide evidence based health care services.

The main objective of the study was to investigate knowledge sharing practices among health professionals that would improve organizational performance in Assosa hospital. Specifically the study focused to investigate current status of knowledge sharing practices; identified potential factors that hinder the effective knowledge sharing practices among employees and possible mechanisms of knowledge sharing practices among staff in organization.

1.2. Statement of the Problem

As the world moves towards a “knowledge based economy”, knowledge is increasingly being considered as the main driver of this economy. Many practitioners and academics assume that since knowledge sharing is crucial for achieving the collective outcome i.e. individual and organizational performances. People will share knowledge as part of their work requirements. However, most organizations tend to over-emphasize on systems and tools, rather than on the

core component that is "knowledge sharing" among knowledge workers in organization. Therefore, knowledge sharing practices is vital in knowledge-based organizations such as health sectors, since the majority of the employees are knowledge workers/health care professionals.

Health professionals need up-to-date health information from credible sources to improve their knowledge and provide evidence based healthcare services to their clients (Ghebre, 2005).As shown by various studies, developing knowledge sharing habits within the organizations is essential for the success of health institutions and their customers by increasing intellectual capital, reducing costs, and making individuals and organizations competitive in their environment (Zhang, et al., 2006). However, as indicated by different studies in Ethiopia, knowledge and experience sharing practice of health professionals is poor due to several reasons (Andualem, et al., 2013). Health care workers in most of the health institutions are working simply by referring to their handouts and remembering their school trainings (Andualem, et al, 2013).

Many scholars have been interested in the effect of knowledge sharing on better performance and effectiveness in the private sector (Kim and Lee, 2006). However, it is hard to find scholarly research on knowledge sharing in the public sectors i.e. there is limited research conducted so far in public sectors (Willem and Buelens, 2007). This is also quite true in Ethiopia and particularly no more study is done yet in Benishangul-Gumuze Regional State in this regard so far.

The Assosa hospital which is considered for this study is one of the public sector service organizations in Benishangul-Gumuze Regional state (BGRS), Ethiopia, which needs urgency to encourage knowledge sharing because knowledge sharing is the main driving source for both public and private sectors. As Taylor and Wright, (2004) stated knowledge sharing in public sector has been slow to realize its importance, knowledge sharing practices is not taken as strategic part of work process, due to knowledge sharing in public services sector is at infancy stage in Ethiopian in general and in Benishangul-Gumuze Regional State in particular. Thus, this was initiated with the following objectives.

Research question

The study will attempt to answer the following questions**:**

1. What is status of knowledge sharing practices among health professionals in Assosa Hospital?
2. What are the factors that affect knowledge sharing practice among health professionals in Assosa Hospital?
3. What are mechanisms that can be used to improve social networks and knowledge sharing practices among health professionals in Assosa Hospital?
4. What are existing extra-social networks among the employees and its contribution for knowledge sharing?

1.3. Objective

The main objective of the study is toinvestigateknowledge sharing practices among health professionals to improve organizational performance inAssosa Hospital, Ethiopia.

Specific objectives

- To study the status of knowledge sharing practices among health professionals in Assosa Hospital.
- To identifythe factors that influence knowledgesharingpracticesamong health professionals in Assosa Hospital.
- To determine the mechanisms that can be used to improve knowledge sharing practicesamong health professionals in Assosa Hospital.
- To investigate the existing extra-social activities/networks among the employees and its contribution for knowledge sharing
- To develop knowledge sharing practices framework for study area.

1.4. Significance of the Study

The purpose of this paper is to assess the knowledge sharing practices among health professionals to improve organizational performance, trying to find evidence that having these

practices contributes to performance. Finding of the studycan send the message that both individuals and organizations can actually have benefits in knowledge sharingpractices. Knowledge sharing among healthcare workerscan cause wonderful interactions, especially for knowledge intensive organization like health sectors.Healthprofessionalsneed updated health information from credible sources to improve their knowledge and provide evidence based health care services.

Finding of this study will serve as important evidence for health administrators, policy makers, health professionals, none governmental organizations (NGOs) and researchers to plan and make interventions to improve knowledge and experience sharing practices in the study area. The study also will offerthemechanismof knowledge sharing activities among health professionals that can be used to minimize potential influencing factors of knowledge sharing andfinallyit couldimproveorganizational performance.

Thus, the findings of this study may help: As a source of reference to those who aspire to make further investigation in the area of related dimensions andalso the study will assist as baseline information for further study and provide directions for any interference events.Assessingknowledge sharing practices will provide a better understanding of the true influencing and inhibiting factors on effective knowledge sharing practice in public organizations.

The study will also attempt to make a significant scholarly contribution regarding to knowledge sharing practices in the public sector, because so far there is only few studies conducted in Ethiopia.

Therefore, the findings of this research will help: policy makers, researchers, planners and development actors in public sectors to better understand what knowledge management is and how to manage it in an effective way, to identify root causes of an emergence of problems associated with knowledge sharing and in turn it will improve organizational performance.

1.5. Scope and limitation of the Study

The study was focused oninvestigating knowledge sharingpracticesamong Health professionals and stakeholders in Assosa Hospital in BenishangulGumuze Regional state under regional health Bureau, which is an area that has received little research attentionyet.The study also focuses only on one hospital in the region. Therefore, results of the study could not be generalizes to other organizational sectors, and the scope was limited to knowledge sharing practices among health professionals. Participants for this study covered onlyhealth professionals and key informant middle managers of departments in Hospital.

1.6. Operational definitions

Knowledge: - is the entirety of proficiency and skills that individuals use for problem solving. That means all theoretical skills, as well as rules on how to act (Alavi&Leidner, 1999).

Knowledge management (KM): - is a fluid mix of framed experience, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information (Davenport, 2000)

Knowledge sharing (KS): -The term knowledge-sharing implies the giving and receiving of information framed within a context of the knowledge of the source (BechinaandBommen, 2006).

Knowledge sharing practices (KSP): - Knowledge sharing practice is an approach or effective ways to capture, transfer and retain knowledge that are embedded in the organizations, individuals, (Leavitt, 2002).

Community of practice (CoP): - A community of practice is a group of like-minded people who create, refine, communicate, and use shared knowledge about a shared practice, (Jain, 2007).

Public sector organization: Refers to the functioning agencies and units at the federal, state, country, municipal and local levels of government,(EktaArora, 2011).

1.7. Organization of the document

This studydocumentorganized into five chapters. The first chapter is devoted to the introduction part that includes background of the study, statement of the problem, objective of the study, scope of the study, significance of the study, operational definition and organization of the thesis. In the second chapter, relevant literature on definitions and basic concepts of knowledge, types and levels of knowledge, knowledge management, knowledge sharing, factors of knowledge sharing, knowledge sharing mechanisms, knowledge sharing frameworks and related studies on the area are reviewed. Chapter three outlines the methodology followed whereas chapter four deals with the results and discussion of the study. Finally chapter five presents conclusion and recommendations of the study findings.

CHAPTER TWO

2. LITERATURE REVIEW AND RELATED WORKS

2.1. Literature review

2.1.1. Overview on knowledge

Many scholars define knowledge in a variety of ways.Influential KM authors Nonakaand Takeuchi, (1995) define knowledge as a "dynamic human process of justifying personal belief toward the 'truth'. They contend that knowledge enables an entity's capacity for effective action to be increased. While this definition harks back to Plato's requirement for justification, it also adds a further dimension to the way in which knowledge can increase the application of effective action.

Knowledge is the power to act and to make value-producing decisions (Polanyi, 1967). Knowledge is a justified personal belief that increases an individual's capacity to take effective action (Alavi and Leidner, 1999). In their study Davenport and Prusak, (1998) define knowledge as "a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information". Davenport and Beers, (1998) define knowledge as "a high-value form of information that is ready to apply to decisions and actions."

In his study MsDemott, (2001)highlighted the following features of the knowledge: knowledge is a human act; knowledge is the result of thinking; knowledge belongs to the communications; knowledge circulates through communities in many ways.

One of the most common and elementary discussions within the knowledge management literature concerns the distinction between data, information, knowledge, and, in some instances, wisdom (Gurteen, 1999). In general, data are raw facts. For data to be of value, however, they must be processed (put in a given context) to obtain information, which decision can be made. Knowledge is perceived as meaningful information.

The relationship between data, information and knowledge is recursive and depends on the degree of "organization" and "interpretation". Data and information are distinguished by their "organization", and information and knowledge are differentiated by "interpretation" (Bhatt

2001). The main difference between knowledge and information is determined by the means its transfer realized. Meanwhile the information could be easily transferred from person to the others. The knowledge has lower degree of transferability, heaving a psychological content and reflecting the intuition, creativity and experience of the owner of that knowledge (Bhatt, 2001).Therefore, knowledge is neither data nor information. Knowledge is an understanding, and one gains knowledge through experience, reasoning, intuition and learning. Individuals expand their knowledge when others share their knowledge, and one's knowledge is combined with the knowledge of others to create new knowledge (CIO Council, 2001). It also derived from information. It results from making comparisons, identifying consequences, and making connections.

Some experts include wisdom and insight in their definitions of knowledge. Wisdom is the utilization of accumulated knowledge. Knowledge also includes judgment and "rules of thumb" developed over time through trial and error.

2.1.2.Types of Knowledge

Many researchers classify knowledge to facilitate knowledge management processes for their own knowledge framework. Manyresearchers classify knowledge into tacit and explicit on the basis of Polanyi's (1997) classification: Moreover, many authors commonly discussed category of knowledge as either explicit or tacit. Famous oneis(Nonaka and Takeuchi, 1995)proposes two dimensions of knowledge, tacit and explicit.

Explicit knowledge

Knowledge resource is seen as an "iceberg" that its visible part is explicit knowledge. Explicit knowledge is defined as "transmittable in formal, systematic language" (Nonaka, 1994). It contains information that has codified into a format that others may readily understand and use, is easily articulated, and can be readily stored in some tangible format. In an organizational context, this knowledge may be captured and stored within an instruction manual, a set of processes or procedures, or within a technology system such as a database.

Tacit knowledge

Tacit knowledge: a term originally introduced by famous polymath Michael Polanyi, is more abstract, complex and context dependent (Delong, 2004). Tacit knowledge is subjective and experience-based, such that it cannot easily be expressed in words, but also includes cognitive skills such as beliefs, images, intuition, and mental models as well as technical skills such as craft and know-how (Nonakaand Takeuchi, 1995).

Early work in the domain of tacit knowledge was carried out by Polanyi, (1967) who suggested that "we know more than we can tell", simply because tacit knowledge is not easily articulated. In an organizational context (Saint Onge, 1996) has been defined tacit knowledge as consisting of the collective mindsets of everyone in the organization.

2.1.3.Level of knowledge

Many scholars classified knowledge in to different levels, such asindividual and collective knowledge (Chue, 2001);Cultural knowledge-based on shared believes and understandings (Choo, 1998);Private and public knowledge-private knowledge is specific organizational knowledge and public knowledge is the knowledge that accessible from the public domain (Matusic and Hill, 1998),Personalized and codified knowledge-personalized knowledge as being closely tied to the person who developed it, and suggest that it is shared mainly through person-to-person contact. Conversely, codified knowledge is more explicit in nature and is commonly found within organizational information repositories (Hasen et al., 1998); Experimental knowledge- pragmatic and practiced knowledge (wikstrom et al., 1994); Component and architectural knowledge: component knowledge is related to distinct aspect of organization's operations and may be held individually or collectively. Architectural knowledge related to organizations wide routines for coordinating components (Hendresonandclark, 1990).

In his study (Blackler, 1995)did look five typesofknowledge from psychological and behavior perspectives. These five types are: 'embrained', 'embodied', 'encoded', and 'embedded', Enculturedknowledge as follows:

Embrainedknowledge:depend on conceptual skill and cognitive skills. For instance, scientific knowledge, which allows person to understand the universal, its rules, and laws of nature;

Embodied knowledge: is action-oriented knowledge. It is know-how knowledge (according to Polanyi, 1962) and knowledge of experiences (according to Nonaka and Takeuchi, 1995). This type of knowledge depends on personal skills. Embodied knowledge is represented by tacit knowledge and is focused on "learning-by-doing".

Encoded knowledge: is collective-specific knowledge (according to Polanyi, 1962) and is represented by explicit knowledge. This knowledge could be stored in different databases and be represented by symbols and signs.

Enculturedknowledge:This type of knowledge is based on common believes and understandings between employeesand embedded knowledge: resides in systematic routines.

2.1.4.Knowledge Management

Knowledge management has been playing vital functions in knowledge-intensive economy. Organizations are adapting knowledge management which is prevalent to every organization nowadays. Knowledge has been extensively recognized as the central foundation for generating an organization's defensible economic benefit (Tehand Yong, 2011). According to Cummings, (2003) knowledge management includes different processes as well as methods in order to obtain tacit and codified know-how within the organization. Having been defined in numerous means, knowledge management can be described on the processes taken by the firms to produce, maintain and share knowledge(Akashah, et al., 2011). It is a surprising mix of strategies, tools, and techniques. Knowledge management makes use of a mixture of techniques from knowledge-based system design, such as structured knowledge acquisition strategies from subject matter experts; this makes it difficult to define what KM is. KM is a highly multidisciplinary field(McAdam and Mcreedy, 1999).

Recently, the field of knowledge management has emerged as an area of interest in the academic and organizational practice. The literature reveals a rapidly increasing number of studies and researches covering many different disciplines and areas of interest to academicians and practitioners (McAdam and Mcreedy, 1999). It is defined thatKM as "the formalization of and access to experience, knowledge and expertise that create new capabilities, enable superior performance, encourage innovation and enhance customer value" (Lytras, et al., 2002).

Emergence of knowledge management (KM)

Although the phrase "knowledge management" entered popular usage in the late 1980s (e.g., conferences in KM began appearing, books on KM were published, and the term began to be seen in business-oriented journals), KM has been around for many decades. Librarians, philosophers, teachers, and writers have long been making use of many of the same techniques. However, it could also be argued that knowledge management has been around far longer than the actual term has been in use.

Wells, (1938), though never using the actual term knowledge management, described his vision of the "World Brain," which would allow the intellectual organization of the sum total of our collective knowledge. The World Brain would represent "a universal organization and clarification of knowledge and ideas". Wells anticipated the World Wide Web (WWW), albeit in a utopic idealized manner, when he spoke of "this wide gap between at present unassembled and unexploited best thought and knowledge in the world we live in a world of unused and misapplied knowledge and skill". The World Brain encapsulates many of the desirable features of the intellectual capital approach to KM: selected, well-organized, and widely vetted content that is maintained, kept up to date, and, above all, put to use to generate value to users, the users' community, and their organization.

What Wells imagined for the entire world can easily be applied within an organization in the form of an intranet. What is new and is termed knowledge management is that we are now able to simulate rich, interactive, face-to-face knowledge encounters virtually through the use of new communication technologies.

In the early 1960s, Drucker was the first to coin the term knowledge worker (Drucker, 1964). Senge, (1990) focused on the "learning organization" as one that can learn from past experiences stored in corporate memory systems. Nonakaand Takeuchi (1995) studied how knowledge is produced, used, and diffused within organizations and how such knowledge contributed to the diffusion of innovation.The concept of KM is nothing new (Hansen et al., 1999). Still 1950 Peter Duruker introduced the concept of "knowledge worker" for the employees able to use the organizations knowledge to develop intangible products. Organizations have always used KM practices (in various disguises) to make decisions, and to produce goods and services, though not

in a deliberate and systematic manner. Essentially, what is new about KM is the act of being conscious about the existence of a KM process (Sarvary, 1999).

Application of knowledge management (KM)

Knowledge management provides benefits to individual employees, to communities of practice, and to the organization itself. This three-tiered view of KM helps emphasize why KM is important today.

For the individual, KM:

- ✓ Helps people do their jobs and save time through better decision making and problem solving.
- ✓ Builds a sense of community bonds within the organization.
- ✓ Helps people to keep up to date.
- ✓ Provides opportunities to contribute.

For the community of practice, KM:

- ✓ Develops professional skills.
- ✓ Promotes peer-to-peer mentoring.
- ✓ Facilitates more effective networking and collaboration.
- ✓ Develops a professional code of ethics that members can follow.
- ✓ Develops a common language.

For the organization, KM:

- ✓ Helps drive strategy.
- ✓ Solves problems quickly.
- ✓ Diffuses best practices.
- ✓ Improves knowledge embedded in products and services.
- ✓ Cross-fertilizes ideas and increases opportunities for innovation.
- ✓ Enables organizations to stay ahead of the competition better.
- ✓ Builds organizational memory.

Component of knowledge management (KM)

Knowledge management has often been described as comprising three elements: people, processes and technology.Human, organization and technology together form the three key components of knowledge management, considering also the relation to society (Mandl, 2010).

The first component human/people is about the promotion and creation of knowledge, skills and competencies of the organization members, which form the carrier of relevant knowledge and the core of all knowledge management as the actual "driving forces" of continuous learning.

The second component organization implies the development of a knowledge- and learning-friendly environment and culture in the organization and creating a framework that will facilitate the management of knowledge resources.

The third component technology deals with the implementation and design of information and communication infrastructures and tools, supporting the knowledge based processes in an efficient and user-friendly manner.

Knowledge Management Process (KMP)

The studies in the field of KM has largely focused on three major streams (Geisler, 2007): the nature of knowledge; the processes of KM such as generation, sharing, distribution of knowledge; and the infrastructure of KM such as technological, organizational or managerial issues for managing knowledge effectively.

Knowledge management process is the heart of knowledge management. Therefore, most researchers present phase of knowledge management process. Tiwana (2002) classifies KM in three different processes: knowledge acquisition, knowledge sharing and knowledge utilization. Anderson and American Productivity & Quality Center (APQC), (1996) proposed process to design to capture tacit knowledge and make it explicit for all individuals within organization. This process consists of applying, sharing, creating, identifying, collecting, adapting, and organizing.

Wiig, (1995) divided knowledge management processes into creation, manifestation, use, and transfer. Creation and manifestation is related to how it is created and manifested in people's minds as well as in procedures, culture and even technology. Use is concerned with how it is

used in making decisions and other knowledge-related work by individuals and businesses. Transfer is related to how we learn and how we otherwise can capture and exchange knowledge.

Knowledge acquisition is the process of development and creation of insights, skills, and relationships. Knowledge sharing is the act of disseminating and making available knowledge that is already known, and knowledge utilization is where learning is integrated into the organization (Tiwana, 2002).

Nonaka, (1994) identifies four different modes of knowledge conversion. This model illustrates the way in which knowledge is created and converted as it flows through the individual, group and organizational levels.

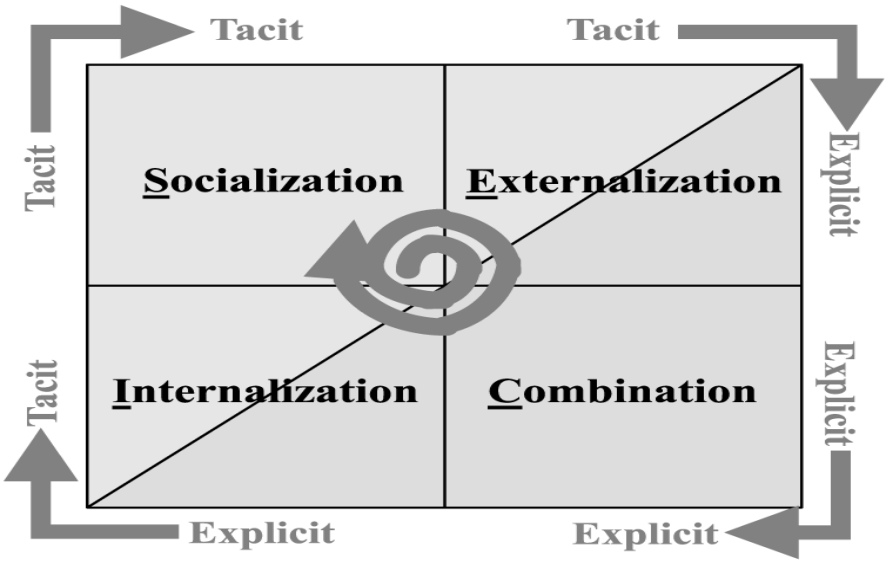

Figure2.1.4.1: Knowledge Management Process model (KMP) from literature review

Source: (Nonaka, 1994)

Socialization (tacit to tacit) is a direct transfer of tacit knowledge from person(s) to person(s) through social interaction and experience sharing, thereby creating new tacit knowledge (for e.g.: exchanging insights during talks by the water-cooler).

Externalization (tacit to explicit) is a process of converting tacit knowledge to explicit knowledge (for e.g.: writing an article or giving a presentation using an individual's experience)

Combination (explicit to explicit) is a process of bringing together different bodies of explicit knowledge to create new knowledge (for e.g.: formal training in schools, using information from various websites to draft a technical paper)

Internalization (explicit to tacit) is a process of internalizing explicit knowledge of others into individual's tacit knowledge, which is actually the learning process or learning by doing (for e.g.: practicing storytelling technique after reading KM book, understanding how to run the machine after reading an instruction manual)

2.1.5. Concept of knowledge sharing

The term knowledge sharing is generally used more often than "information sharing". Information sharing refers to sharing with others that occurs in experimental studies in which participants are given lists of information, manuals, or programs. Knowledge sharing differs from knowledge transfer and knowledge exchange. Knowledge transfer involves both the sharing of knowledge by the knowledge source and the acquisition and application of knowledge by the recipient. "Knowledge transfer" typically has been used to describe the movement of knowledge between different units, divisions, or organizations rather than individuals (Szulanski,et al., (2004).

Although "knowledge exchange" has been used interchangeably with "knowledge sharing" (e.g., Cabrera, et al., 2006) knowledge exchange includes both knowledge sharing (and employees providing knowledge to others) and knowledge seeking (or employees searching for knowledge from others). There is no single accepted definition for knowledge sharing (Earl and Scott, 1999). Anyhow, some researchers attempted to define knowledge sharing for better understanding. Hansen, (1999) declares knowledge sharing to be the provision or receipt of task, information, know-how, and a feedback regarding a product or procedure. Similarly, according to the definition by Lee, (2001)knowledge sharing is a "set of activities of transferring or disseminating knowledge from one person, group or organization to another." So, knowledge sharing is something more than communication, and information distribution.

According to Gagne, (2009)knowledge sharing is a process when the employees exchange knowledge and produce new knowledge. However, the fact that organizational knowledge

sharing generates value requires the reproduction of knowledge at personal and organizational levels. Considering this fact, it is necessary for the managers to set up systems that will motivate the employees to share knowledge positively and willingly. The result of this motivation is related to how important the employees consider knowledge sharing with a personal or collective purpose (Gagne, 2009). In other words, individuals or groups need to share knowledge with each other through cooperation and therefore gain mutual benefits.

Knowledge sharing practice in organization

Knowledge sharing practice is an approach oreffective ways to capture, transfer and retain knowledge are embedded in the organizations work flow (Leavitt, 2002).The most frequently used approaches to share and capture tacit and explicit knowledge in theAmerican Productivity & Quality Center (APQC),(1996) study were milestone reviews, training, After-Action Reviews, internal networks, documentation of work/flow process, Communities of Practice/interest.

Levels of knowledge sharing in organization

The process of knowledge sharing consists of three different elements (Ho, et al., 2009): objects, way of sharing, andLevel of sharing.Objects-referring to the kind of knowledge which is being shared; the way of sharing – including face-to-face, networks, conference and organizational learning, and level of sharing – involving individuals, teams and organizations

Knowledge sharing at an individual level is defined as a voluntary act (Davenport, 1997), that can create new experience or understanding for the knowledge sharing recipient (Willem, 2002). Willem, (2002) states that knowledge sharing occurs between at least two parties and is a reciprocal process that allows the reshaping and sense-making of the knowledge in the new context;Knowledge sharing contains an expectation of reciprocity, and therefore differs from information sharing which can be unidirectional and unrequested (Connelly andKelloway, 2003). It is a dual process that enquires and contributes to knowledge stocks through activities such as learning-by-observation, listening and asking, sharing ideas, giving advice, recognizing cues, and adopting patterns of behavior (BosuaandScheepers, 2007).

At the team level, project teams can be particularly effective in the field of knowledge sharing through the timely integration of knowledge across organizational boundaries (Szulanski, 1996). Fedor et al., (2003) investigated the impact of factors related to KM on the responses of project

team members involved with product process development. They found that knowledge dissemination was often dependent on the informal interaction between project team members, and both team leadership and organizational support had key impacts on the projects. Where leadership was low, use of tacit knowledge was high to moderate the level of leadership involvement. Organizational support was most effective in the dissemination of explicit knowledge.

In an organizational contextBartolandSrivastava, (2002) define knowledge sharing as individuals sharing organizationally relevant information, ideas, suggestions and expertise with one another. In his study Cummings, (2003)states that knowledge sharing is the process by which organizations obtain access to their own and other organizations' knowledge.

Importance of Knowledge Sharing

According to Davenport, (1998) the role of knowledge sharing in knowledge management is too important that some connoisseurs state that knowledge management existence is to support knowledge sharing, another important reason for knowledge sharing is that it mitigates costs, improves performance, mitigates delays in goods delivery, improves service providing and, ultimately, decreases the costs on finding and access to knowledge valuable types inside the organization. Another research shows that knowledge sharing plays a vital role in organization's general performance improvement (Keshavarzi, 2008). Likewise, effective knowledge sharing among organizational members leads to cost mitigation in knowledge production and to guarantee the dissemination of the best working methods inside the organization which enables them to resolve their problems.

In his study Keshavarzi, (2008)notes that knowledge sharing should be done more objective in organization which accelerates individual, organizational and innovative learning and is better manifested in product and service development which facilitates more success in target market and achieving organization's macro goals.

2.1.6. Factors that influencing Knowledge Sharing

Knowledge sharing is not a technical issue, but a social one (Gorry, 2008).Knowledge sharing is affected by a variety of factors including individual, organizational, and social factors. Most

studies deal with the preconditions of knowledge sharing under the assumption that knowledge sharing has a positive impact on organizational performance in the private and public sectors. There are many factors that influence knowledge sharing. These factors can be divided into positive and negative factors.

The negative factors are also referred to as 'barriers' in past research on knowledge sharing. Despite the growing significance of knowledge sharing's practices for organizations' competitiveness and market performance, several barriers make it difficult for KM to achieve the goals and deliver a positive return on investment(Rige, 2005).

Knowledge sharing variables in the organization is related often with the individual (awareness, trust, personality, job satisfaction), organizational (structure, culture, reward and recognition, work processes and office layout) and technological (ICT tools, ICT infrastructure and ICT know-how) aspects(Bakhari andZawiyah, 2008).

Ipe's, (2003) theoretical framework identifies factors that influence knowledge sharing: the nature of knowledge, motivation to share, opportunities to share and, culture of work environment. In the first dimension, the nature of knowledge shared is influenced by the tacit or explicit nature of the knowledge, as well as the value of the knowledge. In the second dimension, the motivation to share knowledge can be influenced by both internal and external factors. Opportunities to share are defined as purposive learning channels consisting of formal mechanisms such as structured work teams, technology based systems and training programs that are designed specifically to facilitate the acquisition and dissemination of knowledge.

The majority of knowledge shared through formal channels will be explicit in nature. Conversely, relational channels include personal relationships and social networks. These channels are more conducive to building trust and facilitating the development of respect and friendship, all of which are considered to contribute to knowledge sharing. Zawawi et al., (2011) in their study of barrier factors influencing knowledge sharing in public organizations classify the barrier factors into three categories, namely, individual factors, technological factors, and organizational factors. Individual barriers are factors related to the internal being of the individual, such as beliefs and perceptions. These could be linked directly or indirectly to

external factors, such as the influence of national culture on the perceptions and beliefs of the individual.

Organizational factors include the influence of the organizational culture, lack of proper integration between knowledge management activities and long-term goals as well as objectives of the organization, lack of proper leadership, and lack of appropriate rewards in the organization whereas technical factors include the unavailability of the required technological resources, including software and hardware to assist in implementation of knowledge management activities (Zawawi et al., 2011).

According to Riege(2005), knowledge sharing obstacles at employee and individual level are the lack of communication and social bonds among the employees, differences in national culture, too much emphasis on the position, low awareness of the value and benefit of possessed knowledge to others; insufficient feedback; differences in experience levels; lack of contact time and interaction between knowledge sources and recipients; age differences; gender differences; differences in education levels; lack of trust in people because they may misuse knowledge or take unjust credit

On the other hand, obstacles at organizational level are economic capacity, lack of background and resources, lack of formal and informal meeting places, inconvenient physical environment and finally technological obstacles are insufficient or no technological devices, the fact that these devices are not used for the purpose of sharing knowledge among the employees and not being able to follow technological advancements (Riege, 2005).

According toSeba et al., (2012) the factors that affect knowledge sharing in the public sector are organizational structure, leadership, time allocation, and trust could be barriers to knowledge sharing in public organization. Yao, et al., (2007) found out that strongest barriers are a “lack of rewards”, a “lack of time” and a “weak culture of knowledge sharing”.

In his study Christensen, (2007)identified five factors in an organization, which impact on knowledge sharing behaviors are: 1.Stickiness on knowledge. Tacit knowledge may be considered stickier than explicit knowledge, hence, requires more effort for an activity; 2. A lack of an identity, a common identity provides knowledge sharing in an easy way, as people from a same group use shared language, shared vision and goal.

3. The weak relationship between a receiver and a sender of knowledge. A sender and a receiver should have a strong relationship between each other to be able to share knowledge. A receiver and a sender should trust to each other in order to trust knowledge, which he or she obtains;4. Alack of a willingness to share knowledge,both a sender and a receiver should have a wish to share knowledge; 5. No knowledge about knowledge. If employees have no knowledge of what knowledge they are going to share, then it would make knowledge sharing impossible.

Kim and Lee, (2006) construct a model consists of organizational culture, structure and information technology to examine the knowledge sharing capabilities among employees in public and private sector organizations in South Korea. They find that performance-based reward systems, IT applications focusing on end-users and social networks are key variables affecting knowledge sharing activities.

2.1.7. Mechanismsthatfostering knowledge sharingpractices

Fostering knowledge sharing is more than simply putting people together in a conference room or sending them on experiential learning programs. It is about creating an environment in which people are able to discern whether their colleagues are both knowledgeable and willing to extend their knowledge to the benefit of others (Daniel et al., 2003).

Hsu (2006),in an effort to classify the different approaches used in literature to promote knowledge sharing has managed to summarize them into three approaches. The first approach is called "tool-based" which focused on building sophisticated IT system in knowledge sharing. The second approach emphasizes the importance of incentives to facilitate knowledge sharing, is thus called "incentive-based". The third approach is the integrative approach which considers management values, organizational culture, processes and structure to encourage knowledge sharing.

BartolandSrivastava, (2002), identify four main mechanisms for individuals to share knowledge in organizations: (a) through contributions to organizational databases, (b) through formal interactions within or across teams or work unit, (c) through informal interactions among individuals, and (d) within voluntary forums such as communities of practice. The selection of knowledge sharing mechanism should depend on the type of knowledge to be shared, the routine

and frequency of the sharing process, and the nature of the knowledge recipient whether at the individual, group, or organization level (Dixon, 2000).

Work design (team, cross-functional, and interdependency)

Designing work around teams gives employees the opportunity to work closely with others and encourages knowledge sharing; especially when rewards are based on team results (Noe et al., 2003).Work design directly affects the establishing interdependencies, frequency of interactions and information flow requirements among jobs. Work design is, therefore, an important tool for fostering knowledge flows by leveraging social networks. For instance, rather than designing stable, individualized jobs with concrete tasks, work can be conceptualized as a sequence of assignments where employees work closely with other employees on a series of projects. Empirical support for the value of interdependency for knowledge exchange comes from a study of teams of knowledge workers that found a positive relationship between task interdependence and knowledge sharing (Janz, et al., 1997).

Community of practice (CoP)

Communities of practice represent another way of organizing work interactions that can also be very effective for leveraging knowledge flows (Noe, et al., 2003).They are self-forming groups that cut across business units, geographical dispersion and functional boundaries to connect individuals sharing common disciplinary interests or tasks (Lengnick-Hall and Lengnick-Hall, 2003).

In their study McDermott and O'Dell, (2001)propose that human networks are one of the mostimportantmediumthroughwhich knowledge is shared. Based on their study of five companies known for sharing knowledge effectively, the authors suggest that knowledge-sharing networks be built on already existing informal networks that individuals have formed to get help or to find out who knows what. These networks can be legitimized or enabled by giving them tools and resources to share knowledge more effectivelyparticipation in communities of practice can be encouraged through performance evaluations and promotion decisions as well(Lengnick-Hall and Lengnick-Hall, 2003).

Training and development

Extensive training and development programs:Modeling and vicarious learning, role-playing, mastery or success experiences and coaching or verbal persuasion should help to increase general levels of self-efficacy among employees (Bandura, 1997).

Training in team building should increase levels of structural, cognitive and relational social capital that will also help to stimulate knowledge-sharing process. Team-based training will help build relationships that are vital for the transfer of knowledge (Bandura, 1997).

Cross-training will facilitate knowledge sharing among employees from different areas by increasing interactions, creating a common language, building social ties and increasing employees' awareness of the demands of different jobs(Bandura, 1997).

Formalized orientation and socialization programs are very useful for helping employees to acquire organizational values, norms and shared cognitive schemata (Kang, et al., 2003). These programs will not only increase interactions among employees, but will result in a shared language, closer interpersonal ties, shared norms and identification with others. The trust that results from the relational social capital formed during socialization processes is necessary for the reciprocity beliefs that positively affect knowledge sharing.

Performance appraisal and compensation

Given the predicted impact of the perceived benefits of knowledge sharing, performance appraisal and compensation systems must be designed to encourage knowledge-sharing practice. Rewarding and recognizing these systems sends a strong signal to the employees that the organization values knowledge sharing. In their study of five 'best practice' knowledge-sharing companies, McDermott and O'Dell, (2001)cite a number of examples of acknowledging and rewarding knowledge sharing. For instance, at American Management Systems sharing knowledge is directly included in the performance evaluation and knowledge contributions are recognized with an annual 'Knowledge in action' award.

Recognizing knowledge-sharing practice in performance appraisals may also help to reduce the perceived cost. One of the reasons often cited for not contributing to knowledge repositories is a reluctance to spend time on knowledge sharing. Employees believe that they should spend their limited time on what they perceive to be more productive activities (Husted and Michailova,

2002). When these acts are directly evaluated and rewarded, employees are more likely to see them as an integral part of their job responsibilities.

Non-financial rewards may also be perceived as less salient (O'Dell and Grayson, 1998) maintain that intrinsic rewards, such as recognition, may be more effective than extrinsic rewards for engaging employees in knowledge-sharing activities.

The biggest potential drawback of rewarding knowledge-sharing practice is that individual goals and rewards often lead to competition among employees. Knowledge-sharingpractice should be evaluated and rewarded, evaluation and compensation systems, in general, should be based on group and organization-level outcomes rather than on individual outcomes. Appraisal and incentive systems based on group or firm performance and stock ownership programs will reinforce collective goals and mutual cooperation that should lead to higher levels of trust necessary for knowledge exchanges (Kang, et al., 2003).

Knowledge sharing norms can be transmitted in a number of ways. Organizational cultures are typically created and sustained through socialization processes, storytelling and rituals. Organizations that incorporate knowledge-sharing practice into these experiences will demonstrate the importance of knowledge sharing to their employees. Examples set by other employees, especially managers who take the time to share their knowledge, clearly signal that there is a knowledge-sharing norm.

According to (Davenport and Prusak, 1998)open communication, equality, fairness in decision-making processes and perceived support from the organization, co-workers and/or one's supervisor are expected to affect the relational dimension of social capital positively, increasing trust and cooperation among organizational members and, consequently, increasing expectations of reciprocity.

Documentation of Work/Flow Process

Documenting knowledge for future use should be a continuing process. Organizations need to make documentations more accessible and widely distributed, and create documentation practices from scratch if present practices are ineffective. Employees should be able to pass the "bus test." That is, if they were hit by a bus, would their surviving co-workers be able to find and

use their files. This practice is particularly important because exiting employees are not motivated to organize their files and "some savvy professionals and managers will recognize that, by leaving their files in disarray, or even nonexistent, they can assure themselves lucrative consulting contracts for a few years (Delong, 2004). Corning's Developed Technology Archives, for example, is a Web-based, searchable index that stores information on project participants and documentation.

After Action Reviews

The U.S. Army created this technique to improve team performance by reflecting on action" (Leavitt, 2002). The reviews are designed usually to capture explicit knowledge. Still, the teams' discussions create content and tacit knowledge for the captured explicit knowledge (Leavitt, 2002).

Communication or social interaction

Communication High band-width communication, that is two-way, face-to-face discussion, provides a rich medium for information exchange. Lengnick-Hall and Lengnick-Hall, (2003) explain how co-location, or bringing employees together under the same roof, increases the frequency of interactions among workers. This not only leads to more chance encounters during which information can be shared, but also increases familiarity, which can result in shared understanding and feelings of community, both of which increase the likelihood of sharing. In other words, co-location increases social capital that results in more effective communication.

The knowledge-intensive corporations studied by Robertson and O'Malley,(2000)recognized the importance of high band-width communication. The role of information technology in facilitating knowledge exchange in the firm was limited. Consultants preferred project teams to work face-to-face rather than via intranet discussion groups. The firm considered social networking to be far more important than using formalized databases.

While technology is extremely useful for facilitating the exchange of information, it should not altogether replace face-to-face interactions. This type of communication is the key for establishing trusting relationships. Any socialization effort that brings employees together in an informal setting, such as playing together on athletic teams, eating lunch with colleagues or

providing a lounge where employees can take coffee breaks, will provide opportunities for increasing social capital through high band-width communication (Snell, et al., 1999).

Fair and openness among staffs

Perceptions of fairness affect levels of trust, a vital component of relational social capital. Fairness of rewards is included among the supportive human resource practices, because it signals that the organization cares about the well-being of its employees and is willing to invest in them (Allen et al., 2003). Hislop, (2003)suggests fair and equitable decision-making practices to be one of the HR policies that should directly influence knowledge-sharing attitudes and behaviors. Obviously there will be higher levels of trust when employees feel that organizational decisions are fair.

Flood and his colleagues state that the 'perceived fairness of an organization's reward and recognition practices plays a very critical role in encouraging employees to part with the value-creating knowledge' (Flood, et al., 2001). Their study of knowledge workers in the high technology and financial services industries provides empirical support for this idea. They found that equity perceptions led to higher perceptions of met expectations at work and that these perceptions were, in turn, positively related to feelings of obligation to contribute to the organization (Flood, et al., 2001).

Well-designed information technology

One of the best ways to reduce the perceived cost of sharing knowledge is to have a well-designed, user-friendly technological tool that simplifies the task and reduces the time necessary for sharing one's ideas with others. Training in the use of these tools can help people use the systems more efficiently and thus further reduce the perceptions of cost (Cabrera and Cabrera, 2002). However, although information technology plays a vital role in facilitating the flow of knowledge in organizations, in many instances the introduction of new technology has failed because inadequate attention was paid to the non-technical or human factors which are critical determinants of the effectiveness of the new systems (Cabrera, et al., 2001).

Supportive management

Numerous articles have alluded to the importance of support, from the organization, supervisor or peers, for encouraging knowledge-sharing practice(Oldham, 2003). Oldham, (2003) for example, includes supervisor and co-worker support as critical work context antecedents of creative idea formulation and sharing. While he postulates that supervisor and co-worker support should contribute to employees' positive mood states and that this should result in more creative ideas, one would also expect that intentions to share would be positively affected.

Organizational cultures in knowledge sharing

The literature on organizational culture borrows heavily from anthropology and sociology. Originally an anthropological term, culture refers to the underlying values, beliefs, and codes of practice that make a community what it is. The customs of society, the self-image of its members, the things that make it different from other societies, are its culture. Culture is powerfully subjective and reflects the meanings and understandings that we typically attribute to situations, and the solutions that we apply to common problems.

The idea of a common culture suggests possible problems about whether organizations have cultures. Organizations are only one constituent element of society. People enter them from the surrounding community and bring their culture with them. It is still possible for organizations to have cultures of their own, for they possess the paradoxical quality of being both parts of and apart from society. They are embedded in the wider societal context, but they are also communities of their own with distinct rules and values.

Schein, (1999) who is generally considered the father of organizational culture, provides the following definition: "organizational culture is a pattern of basic assumptions—invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration—that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems".

Organizational culture can also be defined in terms of both its causes and effects. Using an outcomes perspective, we can define culture as a manifest pattern of behavior, consistent behavioral patterns observed across a group of individuals, or "the way we do things around here." Culture thus defines consistent ways in which people perform tasks, solve problems,

andresolve conflicts, treat customers and employees, and so on. Using a process perspective, culture can also be defined as a set of mechanisms such as informal values, norms, and beliefs that control how individuals and groups in an organization interact with each other and people outside the organization.

Organizational culture may be differentiated in many ways. For example, in their study Goffee and Johns, (2000) identified four types of organizational culture, which they created by using two dimensions. The first dimension, sociability, is a measure for friendliness. A high sociable culture indicates that people within the culture tend to be friendly to each other without expecting something in return. Sociability inconsistent with a high people orientation, high team orientation, and focus on process rather than outcomes. Solidarity, the second dimension, measures the task orientation. High solidarity means that people can work well together toward common goals, even when they have personal disputes or conflicts.

1. A communal culture can give its members a sense of belonging, though it also is task-driven. Leaders of this culture are usually very inspirational and charismatic. The major negative is that they often exert too much influence and other members are rarely vocal.

2. In a networked culture, members are treated as friends and family. People have close contact with each other and love each other. They are willing to help each other and share information. The disadvantage of this culture is that people are so kind to each other that they are reluctant to point out and criticize the poor performance.

3. A mercenary culture focuses on strict goals. Members are expected to meet the goals and to get the job done quickly. Since everyone focuses on goals and objectivity, there is little room for political cliques. The negative is that those with poor performance may be treated inhumanely.

4. In a fragmented culture, the sense of belonging to and identification with the organization is usually very weak. The individualists constitute the organizations, and their commitment is given first to individual members and task work. The downside is that there is a lack of cooperation.

2.1.9. Knowledge sharing and organizational performance

Schneider finds that knowledge exists in many forms and that coproduction through collaboration produces useful new ways of approaching problems, which in turn can help improve performance (Schneider, 2009). Kang, et al., (2008) examine the relationship between knowledge sharing and individual-level work performance in the public sector. They find that knowledge sharing significantly affects work performance, and mutual trust plays a role mediating the relationship between knowledge sharing and work performance. Fugate, et al., (2009) report positive relationships between improved knowledge management in logistics operations and organizational performance, By testing the effect of knowledge sharing on individual performance and the interaction effect between knowledge sharing and goal-setting on individual performance.Quigley,et al., (2007) finds a positive impact of knowledge sharing on performance and an interaction effect between motivational mechanisms and knowledge sharing on the relationship with performance.

In addition, Grant, (1996) argues that knowledge sharing can strengthen organizational effectiveness by maximizing the utilization of shared knowledge by members in organizations. Chakravarthy, et al., (1999) view knowledge sharing as a process for improving effective organizational performance by accessing useful knowledge from other work units. Gorry, (2008) also contends that knowledge sharing can help workers improve the quality of public services, and successful knowledge sharing needs institutional support and encouragement. Examining the influence of knowledge management on organizational performance in the public as well as the private sectors, Anantatmula, (2007) emphasizes improved communication and enhanced collaboration in knowledge management to improve productivity and decision making. A study by Gottschalk, (2007)yields several propositions about the relationship between knowledge sharing and management capabilities, which may in turn affect organizational performance. His study suggests that increases in knowledge sharing will improve resource mobilization, decision making capability, strategic ability, and the ability to link implementation elements. According to Lesser and Storck, (2010), the ongoing activities of communities of practice affect organizational performance positively by decreasing the learning curves of new employees, responding more rapidly to customer needs and inquires, reducing “reinvention of the wheel,”5 and spawning new ideas for products and services.

2.1.10. Conceptual framework Knowledge sharing practice

A conceptual framework can be used to explain, "Either graphically or in narrative form, the main things to be studied - the key factors,constructs or variables - and the presumed relationships among them" (Miles and Huberman, 1994). A framework can enable the researcher to organize ideas and concepts into a coherent manner that makes them easy to communicate to others. Frameworks can also be used as an explanation for practices,attitudes and to provide an underlying theoretical lens to guide the study.

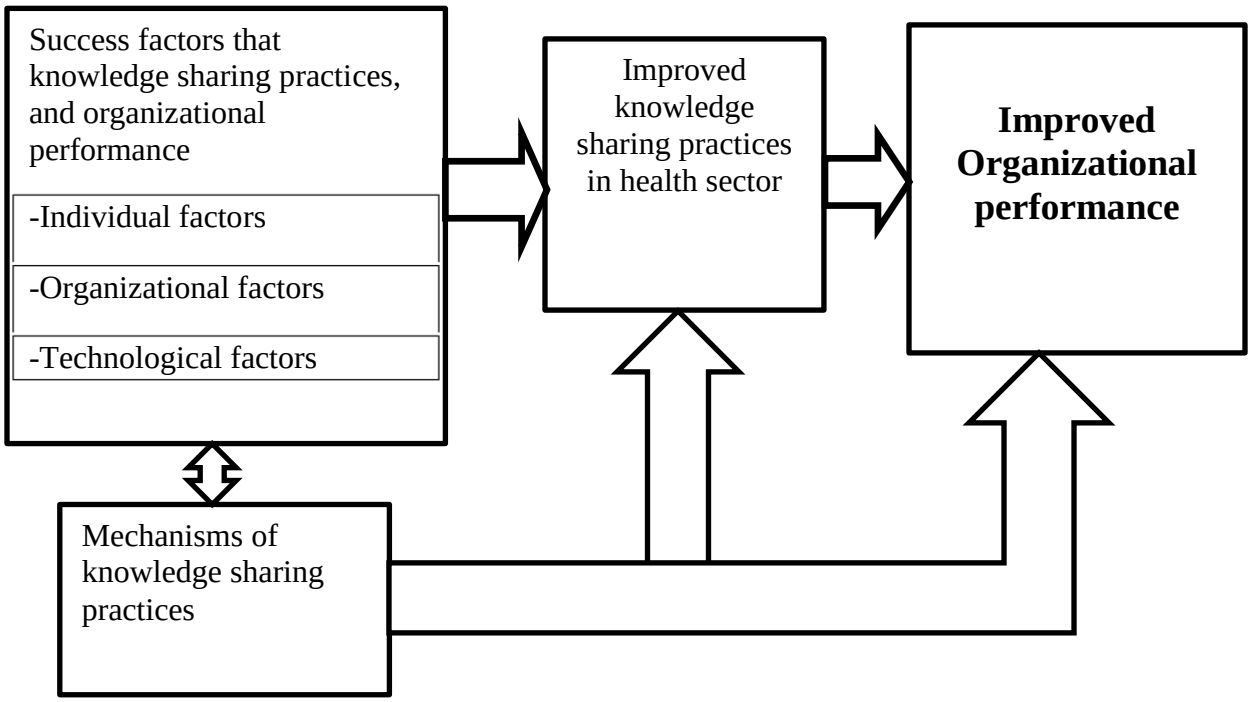

Figure 2.1.10.1: Initial conceptual framework of Knowledge Sharing PracticesadoptedZewawi et al. (2011).

The above figure: 2.1.10.1 shows the initial conceptual framework of Knowledge Sharing Practices that adopted from literature. The conceptual framework illustrates how health professionals can communicate one another by using different tools and approaches to improve knowledge sharing and organizational performances in health care sectors. Accordingly, it imagines that health professionals need to interact through different communication and knowledge sharing tools to enhance knowledge sharing success in concepts and practices. The communication and knowledge sharing tools range from different kinds of micro-level and

conventional electronic and printed media to emerging Information Communication Technologies and other practical tools.

Different tools can be used to different degrees for having effective communication and knowledge sharing among stakeholders but use of appropriate tools is expected to be a vehicle for improved communication and knowledge sharing. This eventually leads to the creation the concepts of knowledge sharing to improve the performance.

2.2. Related works

Amayah, (2013) had conducted the research in USA on the title of "determinants of knowledge sharing in a public sector organization". The purpose of the study was to investigate the factors that affect knowledge sharing in a public sector organization and to facilitate knowledge sharing among public employees and across agencies to understand the factors influencing employees' willingness to share knowledge which has been neglected in knowledge-sharing research. The researcher used quantitative research. The questionnaires were e-mailed to 1,738 civil service employees at a mid-size public academic institution in the Midwest. Of the 1,738 individuals who were e-mailed the questionnaire, 461 returned completed questionnaires. The data were gathered through questionnaires and analyzed using multiple regressions. Findings were Community-related considerations, normative considerations, personal benefits, social interaction, rewards, and organizational support were motivators and enablers found to have a unique contribution to the variance in knowledge sharing. Two barriers, degree of courage and degree of empathy, which measured organizational climate, were found to have a significant main effect on knowledge sharing. The interaction of normative consideration with social interaction, personal benefit with organizational support, and normative considerations with degree of courage had a moderating effect on the relationship between motivating factors and knowledge sharing. And finally the researcher conclusion and recommendation were some factors affecting an individual's knowledge sharing in the context of a public sector organization. A model generated by the stepwise regression analysis, which was statistically significant explained 58 percent of the variance in knowledge sharing. Community-related considerations were found to be the strongest predictor to knowledge sharing in the organization of interest.

Therefore, public sector managers will need to pay particular attention to programs and activities they can design to develop a sense of community among co-workers.

Alam, et al., (2009)had done empirical study, on the title of Assessing Knowledge Sharing among Employees in Malaysia. The researchers identified the problems that there are many employees who are unwilling to share their knowledge they have (Chow, et al., 2000). Thus, the purpose of study was to present and tests the key factors of knowledge sharing among employees in organization. They had designed Survey questions to collected data from knowledge intensive organizations of ICT and used 305 sample size to examine employee perceptions of all variables were identified and used the data analysis tools SPSS, V.16.The research was done under theoretical framework developed based on the previous study with the selected independent variables are commitment, reward system, culture, social interaction, trust and technology were tested and examined. The findings of the study were: reward system, culture, trust and technology are the four key factors which positively influencing the knowledge sharing practice in the corporations and employees commitment and social-interaction were found negative relation with knowledge sharing among employees.

Gruber and Duxbury, (2001) conducted an in-depth study of the research and development department of a high-technology company. They looked at the linkages between organizational culture and knowledge sharing and used the variables of trust, openness, top management support, and the reward structure of the organization to try to explain any correlations. They interviewed 30 employees, and their initial questions addressed the sharing of explicit knowledge. It was found that this was mostly through databases, intranets, and shared drives, but 28% was still through face-to-face contact. The study also elicited some information on what made it hard to share explicit knowledge and gave suggestions as to how it could be made easier. The major difficulties mentioned were that it was hard to find, there were different systems and no standards, the information was not where it should be, the tools were difficult to use, and the database was not easily accessible. Some of the suggestions made were to conduct training on knowledge retrieval, to define a knowledge strategy that would categorize in a standard way, to standardize the information technologies, and to create project websites (Gruber and Duxbury, 2001). Next the authors looked at how tacit knowledge was shared. The most popular means (90%) was face-to-face followed by informal networks (25%).Some of the factors that made it

difficult to share tacit knowledge included attitudes that knowledge was power, not knowing who the expert was, not knowing if the knowledge exists, and loss of knowledge when people left the company. Some suggestions that were made to improve tacit knowledge sharing included recognizing the value of tacit knowledge, improving relationships within the organization, and increasing opportunities for people within different parts of the organization to interact (Gruber and Duxbury, 2001)

Asemahagn, (2014) has conducted study of the research to assess knowledge-sharing practices and determinants among health professionals in hospitals found in Addis Ababa, Ethiopia. The Methods of institutional based cross-sectional study was conducted among 320 randomly selected health professionals. Heusedpretestedself-administered questionnaire to collect data about different variables.Data entry and analysis were done using Epi-Info version 3.5.4 and SPSS version-20 respectively. Descriptive statistics and multivariate regression analyses were applied to describe study objectives and identify the determinants of knowledge sharing practices respectively. The result of the study by Asemahagn, (2014) showed that most of the respondents approved the need of knowledge and experience sharing practices in their routine activities. Trust on others' knowledge, motivation, supportive leadership, job satisfaction, awareness, willingness and resource allocation are the determinants of knowledge and experience sharing practices. Supportive leadership, resources, and trust on others' knowledge can enhance knowledge and experience sharing. He had concluded that most of the respondents knew the importance of knowledge and experience sharing practices, only a limited number of respondents practiced it. Individual, organizational and resource related issues are the major determinants of low knowledge sharing practices, and finally he recommended that improving management support, proper resource allocation, motivating staffs, and accessing health information sources are important interventions to improve the problem in the study area.

TeklitGebretsadik, et al., (2014)have conducted a study to Knowledge sharing practice and its associated factors of healthcare professionals of public hospitals, Mekelle, Northern Ethiopia.Using cross-sectional study design data was collected from 305 random selected health professionals. He used pretestedself-administered questionnaire to collect data about different variables. They used data entry and analysis was done using STATA version 11and finally logistic regression used to assess the presence of the association between dependent and

independent variables.The finding of the study showed that most of the total participants 49.18% have knowledge sharing practice. The significant predictors of knowledge sharing practice were; motivation to transfer knowledge, salary increment, supportive leadership, knowledge sharing opportunity. Their study revealed that there is still lower level of knowledge sharing, which is affected by leadership, openness, opportunity, amount of monthly income and staff motivation.

The aim of the study is to investigate knowledge sharing practices, to develop knowledge sharing frameworks for organization. Additionally the aim is to improve the knowledge sharing practices among health professionals as well as can improve organizational performances.The finding of this study would serve as baseline for health administrators, policy makers, health professionals, none governmental organizations (NGOs) and researchers to improve knowledge and experience sharing practices in the study area.

CHAPTER THREE

3. METHODOLOGY

3.1. Introduction

In this study, a mixed methodology is adopted, namely, both quantitative and qualitative methods.Research methodology deals with the sources of data, study area, research design, research method, sample size, instrument to be used and statistical tools to be applied for the data analysis. Research methods can be classified in various ways; one of the most common distinctions is between qualitative and quantitative research methods based on the type of data used, the logic employed, the type of investigation and the analysis approaches (Kothari, 2004).

The qualitative researcher and the research participant work together to document and develop interpretations of events or situations relative to a specific research question (Kerlinger, 2004). On the other hand, in the quantitative research the main objective is to investigate quantitative properties and phenomena and their relationships. The quantitative researcher can function independently of the participants of the research to a major degree, although some interaction is probably inevitable (Kothari, 2004).

3.1.Study Area

The geographical area for this study wasBenishangul-Gumize Regional State, because there is limited similar study done in the region to date. The region is located in the western part of the country between 09.17^0 - 12.06^0 North latitude and 34.10^0 - 37.04^0 East longitude. The region has international boundary with the Sudan in the west and is bordered by the Amhara region in the north and northeast, Oromiya in the southeast and Gambella in the south. The regional capital, Asossa is located at a distance of 687 km west of Addis Abeba.It has an estimated area of 51,000 square kilometers and the current estimated population is 515,262, (49.7% female & 50.3% male). This implies a population density of 11.5persons/km^2. The average number of family members of a household in the region is seven. Of the total population, 92.2% lives in rural areas and 7.8% is. It is divided into 3 administrative zones and 20 woreda. The area of each administrative zones are Metekel zone is the largest zone with an area of 26,272 sq. km, Assosa zone 14,166 (sq. km), and Kamashi zone 8,850 sq. km.

There are two hospitals found in BGRS they are Assosa Hospital which found in Assosa zone in Assosa town and Pawi hospital which found in metekelzone.Assosa town, is capital city of Benishangul-Gumuze Region state, its distance from Addis Ababa 687 Km and from Jimma to Assosa is 395 km (CSA, 2006).

The proposed study area isAssosa Hospital in Benishangil_Gumuze regional state (BGRS), Ethiopia, located 687 KM away from City of Addis Ababa to the Westand is depicted in figure below.

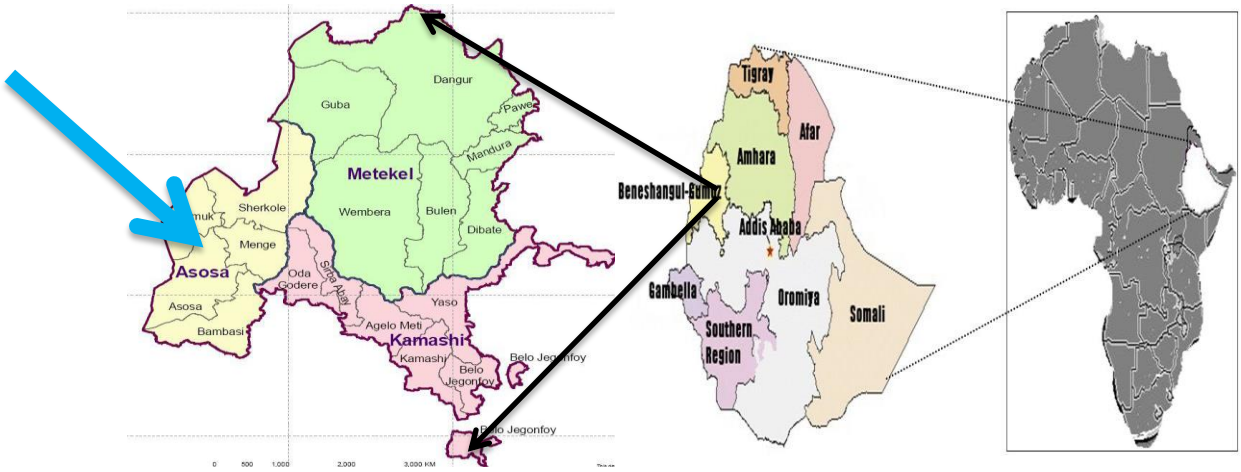

Figure 3.1.1: Geographical and regional map of BenishangulGumuze.

3.2.Research Design

It is very important to choose the appropriate research design in order to achieve the study objective. Kerlinger, (2004)explained the research design as a plan that specifies how data connecting to a given problem should be collected and analyzed.

According to Dillman, (1978) and Fowler, (1993), there are three key elements in the conduct of surveys, and these can be used to assess survey research. These elements include research design, sampling procedures, and data collection methods.

A research design is the plan and structure of investigation so conceived as to obtain answers to research questions (Cooper and Emory, 1995). Depending on the problem or question the researcher addresses, an appropriate research design should be selected such as the time dimension, control of variables, and degree of problem crystallization.

A cross-sectional research survey method was applied in the study because of a survey is normally conducted to determine the present status of a given phenomenon (Soper et al., 1990).Cross-sectional surveys are useful in assessing practices, attitudes, knowledge and beliefs of a population in relation to a particular health related event (US Department of Health, Education and Welfare, 1969). The results from these surveys give an indication of the magnitude of the problem in a particular population at a particular point in time.

3.2 Research Method

In this study, a mixed method, namely, both quantitative and qualitative methods was used.

3.3. Study population

Targeted population for this study covered 152 employees in hospital, which includes 7 middle managers and 145 health professionals.

3.4. Sampling techniques and sample size determinations

3.4.1. Sampling techniques

There are two approaches of sampling techniques. These are probability sampling techniques and non-probability sampling techniques. From probability techniques simple random sampling technique/lottery method was used to determine samples from 145 health care workers excluding supportive staff and key 7 informant middle managers take purposively. Therefore, in order to select the representative respondents from the targeted population the researcherused simple random sampling techniques.

3.4.2. Sample size determinations

From the sample frame Assosa hospital, the sampling unit is health professionals/employees. The researcher's preliminary survey the total number of employees in Assosa hospital is 152. From 152 total employees 145 health care officers was selected by using simple random sampling method and 7 key informant middle managers were selected purposively for interview because the researcher assumed they may give rich information about the study.To select the actual sample size from 145 health professionals, sample size determination formula was used. Thatis(Kothari, 2004):

$$n = \frac{z^2 pqN}{d^2(N-1) + z^2 pq}$$

Description: N= is the population size

n = required sample size

z = confidence level at 95% (standard value of 1.96)

d=margin of error at 5% (standard value of 0.05)

p =population proportion at which the sample size is maximum (at p=0.5 and q=0.5, p*q=0.25)

Where q=1-p

$$n = \frac{z^2 pqN}{d^2(N-1) + z^2 pq} = n = \frac{(1.96)2 * 0.5 * 0.5 * 145}{(0.05)^2 * (145-1) + (1.96)^2 * 0.5 * 0.5} = \mathbf{106}$$

Therefore, the sample size for this study is **106 +7=113**respondents**.**

3.4. Data collection instruments

In order to collect the required data for the study, the following three types of data collection tools were used:

3.4.1. Questionnaires

Based on the basic research questions and in light of the review of related literature, the questionnaire is prepared in English language and each item rated on a five-point Likert scale, ranging from 'strongly disagree to strongly agree'. The items in the questionnaires contained both close-ended and open-ended items. The close-ended items used for the very reason that they are easier to categorize the responses gathered. The others are open-ended items and their major purpose is to give opportunity for experts to express their feelings and perceptions related to the items without restriction.

3.4.2. Interviews

The researcher believes that interview plays a supportive role to both questionnaires and observations in obtaining information regarding healthcare workers knowledge sharing practices and problem associated at knowledge sharing process. Therefore, semi structured interview was employed as it allows a wider freedom to ask further questions. And it also helps to control the direction of the interview to obtain the desired data. Moreover, it enables the interviewees to express their ideas and yet its semi structure nature saves them from being off the point. To this end, 7key informant department heads were selected purposively and interviewed regarding to research objectives. The interviewer was taking notes while the interview was conducted. In order to obtain more accurate responses from the interviewees, the interviewer explained and clarified both the purpose of the research and each lead question. In addition, the researcher made clear incomplete or ambiguous responses by asking additional probe questions.

3.4.3. Observation

The researcher developed the observation check list to observe the mechanisms/tools for knowledge sharing in the study area. The check list has been prepared based on the related literature review for the study.

3.5. Data collection procedure

In this study, the data was collected by using a self-administered questionnaire and in-depth interview. Before data collection from the selected sector, the researcher distributed an official letter with detail description of the research objectives for the respondents. On the other hand confidentiality of information provided by the respondents was communicated. During data collection, each respondent was informed about the purpose, scope and expected outcome of the research, and appropriate informed written consents taken from the respondents. Anyone who havenointerest to participate was excluded from the study; and during the interview, respondents who interested to avoid specific questions or discontinue the interview allowed to do so. The questionnaires were distributed to respondents in Assosa Hospital and given 7 days to answer and return the questionnaires to their department/section heads. By preparing the date of

appointment interviews was conducted with a reasonable length of time then acknowledges all respondents who devote their valuable time to complete the questionnaires and interviews

3.6. Method of Data Analysis

The collected data was analyzed using both qualitative and quantitative methods of data analysis. First the data was edited, categorized, coded and tabulated. Then, it was described by using statistical techniques of both descriptive and inferential statistics. Accordingly, mean, standard deviation, frequency distribution and percentage were used to describe categorical data. When the scale is a 5- point-Likert type the ideal mean value ranges as follow: 0-1.49 as very low, 1.50-2.49 as low, 2.50-3.49 as moderate, 3.50-4.49 as high and 4.50-5.00 as very high implementation of activities,(standardized ideal mean value ranges, with 5- point-Likert). Moreover, linear regression was employed to predict statisticaleffectandrelations between variables. The p-value is either < 0.05 or > 0.05.If it is less than 0.05, there is a statistical significant effect and correlations. If the p-value is greater than 0.05, there is no statistical significant effect and correlations. An asterisk (*) is put on the coefficient to show the significant level whether the p-value is less than or greater than 0.05.All quantitative data were analyzed using Statistical Package for Social Science (SPSS-version, 20.0).

On the other hand qualitative data was analyzed by narration and description. The data collected using semi-structured interview, were analyzed and interpreted qualitatively. With regard to the analysis of the interview and the observation, they were described and analyzed qualitatively in relation data obtained through the questionnaires. The result of each observation and interview was interpreted along with the result obtained through the questionnaires. Finally the, analysis and interpretations were made on the basis of the questionnaires, interviews and observation.

3.7.Validity and reliability of data

Constructing validity includes using tools, which are corresponded to a study. This validity allows a researcher to identify if these tools really measure a research phenomenon and to help to answer on research questions. The researcherhas-beenused a questionnaire, an interview

andobservationto collect data. All these tools helped to do the research and to answer the research questions.Moreover, to cheek content validity and internal constancy (reliability) of the questionnaires waspre-tested to make necessary modifications so as to correct and avoid confusing and ambiguous questions as data quality control. For testing the data collection questionnaires, five randomly selected health professionals were selected purposively in study sector (Assosa Hospital)to fill the questionnaire. Afterthe respondents checked questionnaires,a researcher asked the respondents about the clarity and whether or not the questionnaire fully covered all the measures issues related to practices and challenges knowledge sharing. Based on the comments obtained from respondents , items which were not clear have been made clear, unnecessary items were made to be omitted and other items which are assumed to be important for the objective of the research and not included have been made part of the questionnaire. Moreover, face-to-face interviews were used to keep the validity content.

3.8. Ethical consideration

After receiving official letter of cooperation from Jimma University, department of Information Science, the researcher communicated with head of Assosa Hospital and individual respondents about the objectives the research. The purpose of the study was made clear and understandable for all respondents. Any communication with the concerned bodies was accomplished at their voluntarily consent without harming and threatening the personal and institutional wellbeing. In addition, all information obtained from individual respondents was kept confidential.

CHAPTER FOUR

4. RESULTS AND DISCUSSION

4.1. Results

This section deals with the presentation, analysis and interpretation of the data obtained through observations, questionnaires and interviews to address the research questions. The section consists of two main parts. The first part presents results. The second part deals discussion with the analysis and result of the study. The data collected through the questionnaires were first categorized and illustrated on various tables to make them easy to understand and then various statistical tools were used for quantitative analysis. The closed-ended items were computed and analyzed using descriptive statistics such as percentage and mean scores and inferential statistics like linear regression. Mean value and percentage was utilized for easy presentation of frequency distribution and for comparison of the degree of the prevailing practices and inferential statistics like, simple linear and multi-regression analysis was used to predict the main influences independent variables on dependent variable. In addition, items across each category were arranged under the rating five points Likert-scale. These five points scale range from: strongly agree = 5, agree = 4, neutral = 3, disagree = 2 and strongly disagree = 1 and finally, the data obtained from observation and interviews were narrated and analyzed qualitatively in relation to the data obtained through the questionnaires.

4.1.1.Demographic information of respondents

The general information about the respondents' sex, age, educational qualification, years of experiences and work position are presented for better understanding of their background.

The data was collected on the characteristics of the respondents are presented in the table 4.2 below. One hundred six self-administered questionnaires were distributed among the study participants. Of the total distributed 106 questionnaires, 91 (86%) were completed and returned back for analyses.

Table 4.1.1.1: Demographic information of sample respondents

Required information		Responses in	
No	variables	Frequency	Percentage (%)
1	**age**		
	21-30	38	41.8
	31-40	29	31.9
	41-50	19	20.9
	above 50	5	5.5
	Total	91	100.0
2	**Gender (Sex)**		
	male	63	69.2
	female	28	30.8
	Total	91	100.0
3	**Educational level**		
	Specialist	1	1.1
	Medical Doctor	2	2.2
	master degree	22	24.2
	first degree	42	46.2
	diploma	24	26.4
	Total	91	100.0
4	**Working Experience**		
	0-5	36	39.6
	6-10	32	35.2
	11-15	10	11.0
	16-20	5	5.5
	above 20	8	8.8

	Total	91	100.0
5	**Work position**		
	Operational Staff	71	78.0
	Middle-level managers	15	16.5
	Executive managers	2	2.2
	Others	3	3.3
	Total	91	100.0

Table 4.1.1.1shows personal and demographic characteristics of sample respondents of the study consist of both male and female individuals. The male respondents were found to be 69 percent of the total sample whereas the remaining 31 percent were female. The largest group of the respondents was between the age of 20 and 30 (42 %). Age group 31-40 is 32 percent; 41-50 years of age amounted to 21 percent and age group more than 50 years is 5 percent. Regarding to educational qualification of respondents, in the same table above, 42 (46.2%) and 24(26.4 %) of the respondents are first degree and diploma holder respectively. While, 22(24.4 %), 2(2.2 %) and 1(1.1%) of professionals have master degree, Medical Doctor and specialist holders respectively.

Speaking about work experience 40 percent of the respondents had a work experience ranging from less than five years. Nearly 35 percent had six to ten years of experience, 11 percent had experience ranging from eleven to fifteen years, 5.5 percent have been working from sixteen to twenty years while 8.8 percent of the respondents more than twenty years ago. Regarding to work position majority 78 percent of respondents' had been working on the position of operational staff.

4.1.2. Status of knowledge sharing practices

This section deals with the items related to the status of knowledge sharing practice among health professionals in Assosa Hospital. Each item is analyzed based on the data obtained through questionnaires responded by health professionals. All the constructs of knowledge sharing variables were measured by using a five-point Likert-scale.

Figure 4.1.2.1: presence of articulated (or written) knowledge sharing strategy in study area.

Regarding with presence of knowledge sharing strategy as one part of daily work process, 89 percent of health professionals disagreedtowardthepresence of clearly articulated (i.e. written) knowledge sharing strategy in the organization, and 11 percent of respondents agreed on the presence of knowledge sharing strategy in the Assosa Hospital.

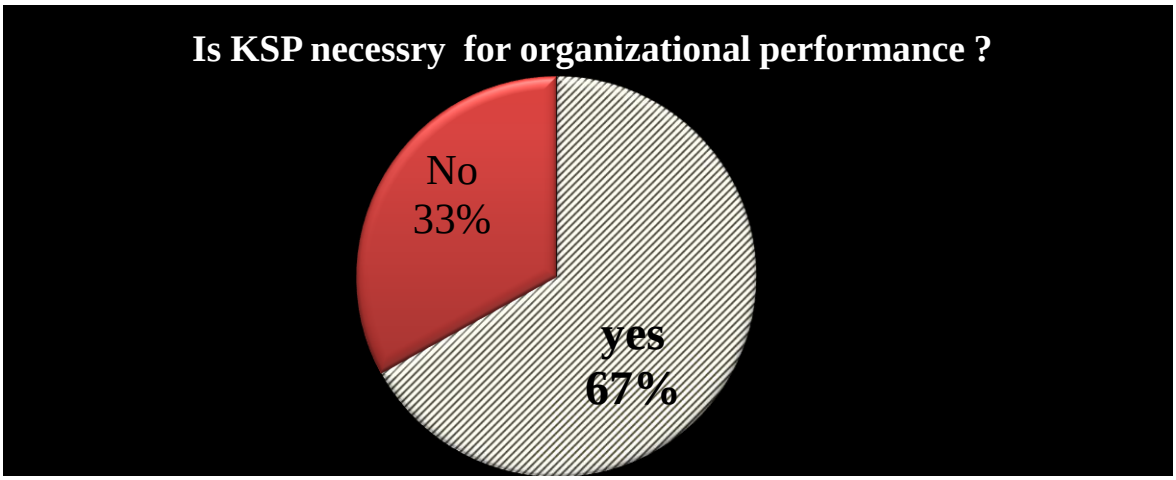

Figure 4.1.2.2: Importance of KSP for organizational performances

However, specking abouttheimportance of knowledge sharing, the majority 67 percent of health professionals acknowledged the importance of the presence of knowledge sharing practices to improve organizational performance.

Table 4.1.2.1: Status of knowledge sharing practices in study area;

No	**The willingness,motivationand practices of health professionals to share knowledge**	**Strongly agree%**	**Agree %**	**Neutral/ undecided %**	**Disagree %**	**Strongly disagree %**	**Mean value**	**Sd.dev**
	Value of five-point-Likert scale	5	4	3	2	1		
1	Health professionals commonly share their knowledge and experience with their coworkers while working.	5.5%	26.4%	1.1%	37.4%	29.7%	2.41	1.30
2	Your coworkers have willingness to share their knowledge, information, and experience with other coworkers in organization.	14.3%	42.9%	2.2%	25.3%	15.4%	3.15	1.37
3	You share your knowledge, work experience and ideas through group discussions, review meetings frequently with your coworkers.	1.1%	16.5%	8.8%	54.9%	18.7%	2.26	0.98
4	The knowledge, information, findings, reports, or files are easily accessible that others have in your unit/department/organization.	2.2%	26.4%	13.2%	39.6%	18.7%	2.54	1.13
5	Certain tasks accomplish through teamwork discussion and collaboration between colleagues.	14.3%	47.3%	1.1%	22.0%	15.4%	3.23	1.35
6	There is a motivational scheme in organization to encourage staffs to share their knowledge within and outside the organization	5.5%	22%	13.2%	37.4%	22%	2.52	1.21
7	Presence of periodic meetings, trainings, workshops, and orientation help to organize and share knowledge and information for staffs	9.9%	26.4%	2.2%	35.2%	26.4%	2.58	1.38
8	The organization provides various tools and technologies to facilitate knowledge sharing and exchange (e.g. groupware, e-mail, intranet);	2.2%	33%	11%	37.4%	16.7%	2.67	1.16
9	The technological tools are necessary at the organization for effective knowledge sharing.	8.8%	40.7%	-	31.9%	18.7%	2.89	1.35
10	There is a good working environment to improve your knowledge sharing practices.	4.4%	17.6%	16.5%	40.7%	20.9%	2.42	`1.10
11	Employees are rewarded for sharing their knowledge and experience with their colleagues.	3.3%	12.1%	2.2%	50.5%	31.9%	2.04	1.06
12	The knowledge sharing rewards are available to motivate staffs to exchange/share their knowledge effectively.	16.5%	58.2%	1.1%	12.1%	12.1%	3.55	1.25

13	Supportive leadership is helpful to improve knowledge sharing practices.	5.5%	14.3%	9.9%	41.7%	28.6%	2.26	1.18
14	Presence of specific budget allocation is vital to motivate knowledge and information sharing in organization	3.3%	36.3%	3.3%	34.1%	23.1%	2.63	1.27
15	A considerable level of trust among co-workers is vital for knowledge and information sharing in organization	14.3%	35.2%	11.0%	31.9%	7.7%	3.16	1.24
16	Face-to-face interaction and communication helps to facilitate knowledge sharing among colleagues at workplace.	6.6%	26.4%	8.8%	39.6%	18.6%	2.63	1.24
17	Fair and open communication and decision among staff available to improve knowledge sharing practices.	4.4%	25.3%	2.2%	38.5%	29.7%	2.36	1.26
18	Sharing knowledge, information through paper or/and electronic documents, team discussions, review meetings, is helpful for overall organizational performance.	7.7%	28.6%	4.4%	30.8%	28.6%	2.56	1.36

Keys: - scale ranges of mean value: *0-1.49=very low level; 1.50- 2.49 =low level; 2.50 - 3.49 = moderate level; 3.50-4.49 =high level; 3.50 - 5.00 = very high level.*

The result of this study showed that, 32percent of health professionals agreed (strongly agreed + agreed)to ward health professionals commonly sharetheirknowledgeandexperience to those healthcare professionals workingtogether.However,the majority(67 %)disagreed. The mean value of the responses is2.41 which are in the scope of low-level of practices to share knowledge, (Table 4.1.2.1: item1).The majority 57 percent of health professionals shows their willingness to share their knowledge/information with other coworkers while working.

Regarding to frequency or how often health workers share their knowledge, through group discussions, review meetings and documented forms. Accordingly,the majority 73percent of respondents disagreed and 18percentwas agreed on healthcare workers share their knowledge, work experience and ideas through group discussions, review meetings frequently. But 9percent were neither agree, nor disagreed. The mean-score of this item 2.26 is in the range of disagreement. Thus, healthcare worker share their knowledge, information and experiences infrequently with coworkers. It ranged at low level of knowledge sharing frequency.

As it was showed in table 4.1.2.1the accessibility of knowledge, information, data, and reports through paper or electronic formats that coworkers have in the organization, 29percentand

58percentof respondents agreed and disagreed respectively whereas,13percent were neutral. Themean score of the respondents is2.54whichare in the range of moderate level. This reveals that the extent to which accessibility of knowledge in organization ranges at medium level.

Moreover, concerning with the teamwork and collaboration to accomplish certain organizational tasks between colleagues; were presented in table 4.1.2.1item 5, accordingly62 percent respondents agreed as certain tasks are accomplished through teamwork and collaboration. However, 37 percent respondents agreed and 1 percent respondents did not make decision. The mean value of this item is 3.23 is in the range of moderate level of practices of teamwork and collaboration. Thus, it can be concluded that the teamwork and collaboration between healthcare workers to enhance knowledge sharing ranges at moderate level.

Furthermore as showed in table 4.1.2.1item 6 the presence of motivational scheme in the hospital 59 percent of healthcare workers agreed that there is no motivational schemein hospital for sharing knowledge.However, only 28 percent agreed on the presence of motivation in hospital but 13percent of respondents unable to decide. The mean value of 2.52 withthe standard deviation 1.21 is in the range of disagreement which indicates at moderate level motivational system in hospital.

Regarding with presence of periodicwork related training, workshop and meeting, about 36% respondents agreed. However, 62 percent of the respondents disagreed and 2% of the respondents were neutral. The mean value of the responses is 2.58 with Sd.dev of 1.38, whichis in the range of medium level, (See table 4.1.2.1: item7).Specking about necessity of ICT access, near half of 49.5 percent of the respondents believed thatthe technological tools are important in the organization for effective knowledge sharing.However, 50.5 percent of the respondents disagreed.

Concerning with good working environment in the hospital: the majority of61 percent respondents agreed that there was no good working environment/clement for sharing knowledge, information, experiences and only 21 percent agreed on the presence of motivation in organization, but 18 percent of respondents unable to decide. The mean value of 2.42 with standard deviation 1.10 is in the range of disagreement which indicates at difficult working area, (See table 4.1.2.1item10).

Regarding the presence of rewards and recognition system respondents showed 16 percent agreed whereas, 82 percent of disagreed on presence reward and recognition for sharing knowledge and experience, but 2 percent of respondents unable to decide. The mean value of 2.02 with standard deviation 1.06 is in the range of disagreement or ineffective/poor reward system at working area, (see table 4.1.2.1item11).The majority (75 %) ofrespondentsbelievethat rewards and recognition systems is available for effective knowledge sharing in the study area/organization.

Regarding to the support of leadership the result of the study showed that 19.8 percent of the healthcare professionals agreed that there was supportive leadership from their sector/department/organization that encourages them to participate in knowledge sharing practice. However, the majorities (70.3 %) were disagreed and 9.9 percent were unable to decide. The mean value of the responses is 2.26 which are in the range of disagreement. This implies that there is limited management support to encourage knowledge sharing in the study organization, (see table 4.1.2.1, item13).

Presence of resource allocation: The result of this study showed that, nearly 40 percent of the health professionals agreed thatspecific budget allocation is vital to motivate knowledge and information sharing in organization On the other hand, only 57 percent disagreed and about 3 percent were neutral. The mean value of the responses is 2.63 with standard deviation 1.27, which implies that the implementation of resources allocation for knowledge sharing in the Organization was found at moderate level, (See table 4.1.2.1item14).

Presence of trust among healthcare workers: health professionals were asked whether trust in the organization there. As the result of the study showed around 40% of respondents agreed as considerable level of trust among co-workers is vital for knowledge and information sharing in organization. However, 49 percent disagreed and 11 percent were neutral. The mean value of responses is 3.16 that indicate in the scope of moderating level of trust, [see table 4.1.2.1, item15]. And about presence availability of face to face interaction of health professionals at work place: Only 33 percent respondents agreed as face-to-face social interaction is necessary to communicate and share knowledge among employees in the work place. But the majority (58%)

of the respondents disagreed and 9 percent were neutral. The mean value of the responses is 2.63 with Sd.dev of 1.24 which is in the range of moderate level, (see table 4.1.2.1item16).

Speaking about the presence of open and fair communication among employers the majority (68%) of the respondents agreed that there was no fair and open communication and decision to share knowledge and 30 percent has an opposite opinion on the presence of open and fair decision making within their hospitaland2 percent of the respondents were neutral. The mean score of 2.36 is agreement of responses on lack of fair and open communication and decision in Assosa hospital, (see table 4.1.2.1, item17).

Finally, regarding to importance of knowledge sharing practices,the result of this study revealed that 36% of the respondents believed that knowledge and information sharing through paper or electronic documents, discussions, review meetings, was helpful for overall organizational performance.

4.1.3. Factors that influence knowledge sharing practices

In an attempt to explore the main influence for the spread of knowledge in the study area the survey questionnaires were grouped in to individual, organizational and technological factors/variables. The most important factor variables are analyzed and presented in the table 4.1.2.2 below:

4.1.3a.Individual factors of knowledge sharing practices

Table 4.1.3a: Individual factors for knowledge sharing practices

Items selected as factors for knowledge sharing		Strongly agree%	Agree %	Neutral /undecided %	Disagree%	Strongly disagree %	Mean value	Std. dev.
Individual factors/variables		5	4	3	2	1		
1	There is lack of awareness of importance knowledge sharing.	17.6%	25.3%	11%	36.3%	9.9%	3.04	1.31
2	Lack of considerable level of trust between employees in organization	9.9%	34.1%	16.5%	25.3%	14.3%	3.00	1.25
3	Lack of fair and open communication among staffs to encourage knowledge sharing.	26.4%	37.4%	8.8%	17.6%	9.9%	3.53	1.13
4	Lack of face-to-face social interaction among colleagues at workplace.	7.7%	26.4%	9.9%	38.5%	17.6%	2.68	1.25

5	An employee does not share knowledge because of fear of taking unjust credit no it or perceiving he/she loses of importance.	9.9%	28.6%	4.4%	31.9%	25.3%	2.66	1.384
6	Employees in your organization do not share knowledge because they think knowledge is power.	-	23.1%	11.0%	39.6%	26.4%	2.31	1.102

Key: mean value range: 4.50-5.00 – very high level of effect. 3.50- 4.49 – high level of effect, 2.50-3.49– moderate level of effect, 1.50-2.49– low level of effect, 0-1.49– very low level of effect

Lack of awareness: - Health professionals were asked about the level of awareness on knowledge sharing practice. Accordingly, 46% respondents agreed thatthere was lack of awareness on importance of knowledge sharing and 43% disagreed on absence of awareness whereas 11% were neutral. The mean value of responses is 3.04. This implies that awareness of health professionals on knowledge sharing is found at medium level in the study organization.

Lack of trust among healthcare workers: health professionals were asked whether there is lack of trust in the organization. As the result of the study showed around 44% of respondents agreed (strongly agreed and agreed) on the lack of considerable level of trust among health workers. However, 40 percent had an opposite opinion and 16 percent were neutral. The mean value of responses is 3.00 that indicate in the scope of moderating level of trust.

Regarding lack of open and fair communication among employers and employees, the result of the study also revealed that, 64 percent of the respondents agreed as there was no fair and open communication and decision to share knowledge and 27 percent has opposite opinion on the presence of open and fair decision making within their hospital. However, 9 percent of respondents were neutral. The mean score of 3.54 is agreement of responses on lack of fair and open communication and decision. One can conclude from the result, the level of open and fair decision making was low.

Lack of face to face interaction of health professionals at work place: Only 34 percent of the respondents agreed as there was no face-to-face social interaction among employees in the workplace. However,majority(56%)of respondents disagreed and 10 percent were neutral. The mean value of the responses is2.68, with Sd.dev, 1.255 which is in the range of moderate level.

Regarding to fear of taking unjust credit or fear of loss of perceived personal benefit toward sharing knowledge, information and experiences in organization, respondents were asked to rate

their agreements.About39 percent of the respondents agreed as an employee does not share knowledge because of the fear of it being misused by taking unjust credit for it or perceiving he/she loses importance. The majority (57%) disagreed and 4 percent were neutral. The mean value of the responses is 2.66, with Sd.dev1.34 which are in the range of moderate leveland finally the respondents were asked about the extent of the problem to which loss of knowledge is power for knowledge and experience sharing. The majority (66%)of the respondents disagreed that employee does not share knowledge because of knowledge is power. However, near 23 percent of the respondents agreed and 11 percent were neutral.

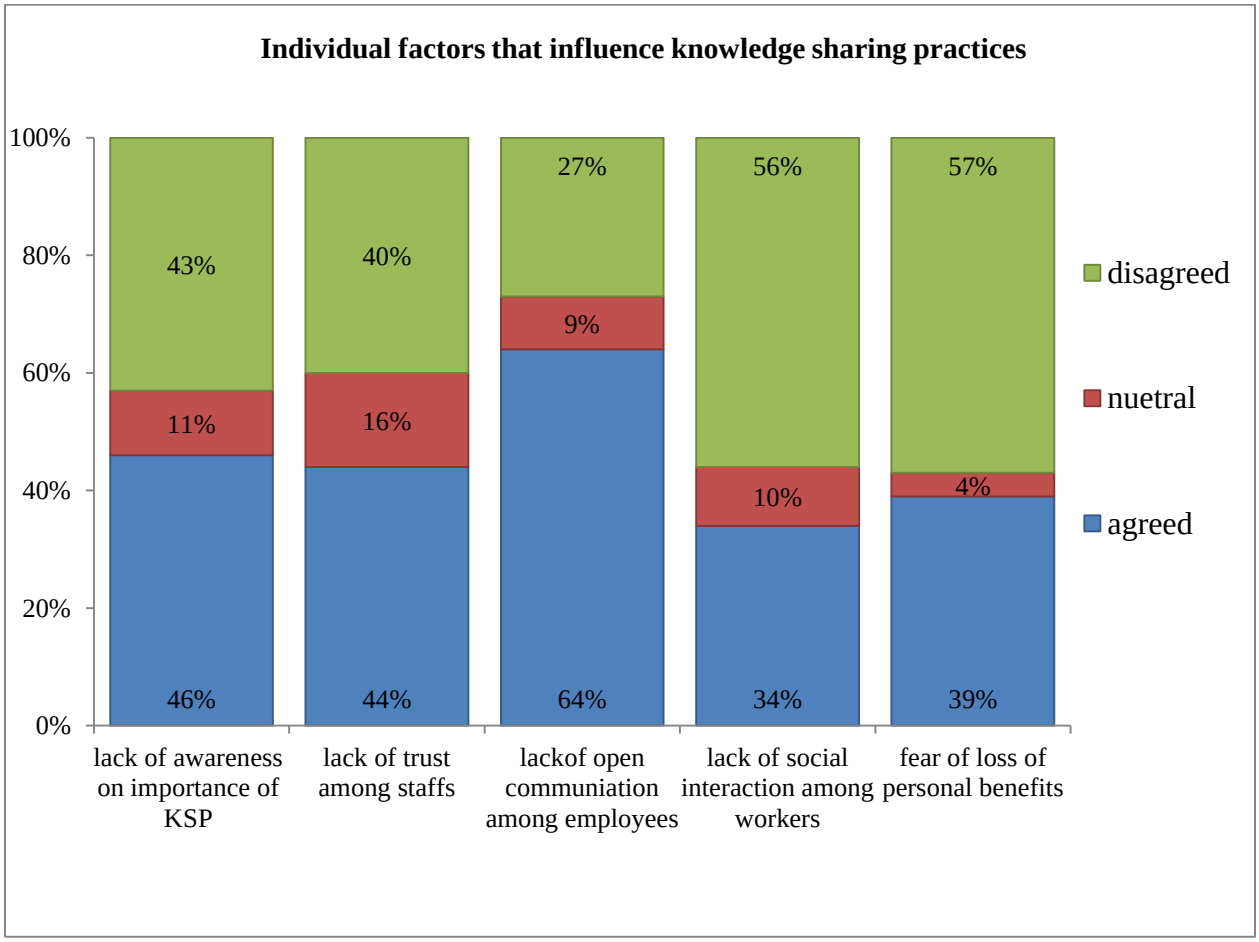

Figure4.1.3a: Individual factors for knowledge sharing practices

The above figure 4.1.3a indicated resultsfrom the data of respondents regarding to individual barrier factors of knowledge sharing practices. They are “Lack of awareness on importance KSP(46%)”, “lack of trust among staffs”, “lack of openness(64%)”, “lack social

interaction(34%)" and "fear of loss perceived personal benefits(39%)" see the figure 4.3 findings results.

4.1.3b.Organizational factors of knowledge sharing practices

Table 4.1.3b: Organizational factors for knowledge sharing practices

Items selected as factors for knowledge sharing		Strongly agree%	Agree %	Neutral/undecided %	Disagree%	Strongly disagree %	M	Std. dev.
	Value of five-point-Liker scale	**5**	**4**	**3**	**2**	**1**		
	Organizational factors/variables							
1	Health professionals were not rewarded for sharing their knowledge and experience with their colleagues.	26.4%	38.5%	5.5%	22.0%	7.7%	3.54	1.30
2	There is lack of formal and informal activities to encourage knowledge sharing in your organization.	3.3%	40.7%	7.7%	34.1%	14.3%	2.85	1.2
3	There is lack of technical support and immediate maintenance which obstructs work routines and communication flows.	8.8%	56%	8.8%	19.8%	6.6%	3.41	1.10
4	Retention of highly skilled and experienced employee is not a high priority in your organization.	27.5%	51.6%	8.8%	9.9%	2.2%	3.92	0.98
5	The existing organizational culture does not support sharing knowledge practices.	7.7%	46.2%	12%	20.9%	13.2%	3.14	1.22
6	There is no a specific budget dedicated for knowledge sharing in organization.	6.6%	34.1%	4.4%	33.0%	22.0%	2.70	1.32
7	Knowledge sharing is not taken as part of the daily work process in the organization.	18.7%	56%	1.1%	18.7%	5.5%	3.64	1.15

Key: mean value range: 4.50-5.00 – very high level of effect. 3.50- 4.49 – high level of effect, 2.50-3.49– moderate level of effect, 1.50-2.49– low level of effect, 0-1.49– very low level of effect

Lack of rewards: As the result of this studyshowedin table 4.4, and item 1, nearly 65 percent of the health professionalswere agreed as there was no reward system for sharing their knowledge and experience with their colleagues. On the other hand 30 percent disagreed and about 5 percent were neutral. The mean value of the responses is 3.54 with Sd.dev, 1.30 which are in the range of agreement, which implies that the implementation of reward system in the organization were low. However, 83.5 percent of respondents agreed regarding to availability of reward and 15.5 percent respondents disagreed.

Regarding with lack of formal and informal activities to encourage knowledge sharing, about44 percent of respondents agreed as there was formal and informal activities. However, 48 percent of respondents disagreed and 8% of the respondents were neutral. The mean value of the responses is 2.28 with its Sd. dev. 1.3which are in the range of medium level.

Regarding to the lack of technical support and immediate maintenance which obstructs work routines and communication flows,the result of the study showed that 65 percent of the healthcare professionals agreed that there was lack of technical support and immediate maintenance which obstructs work routines and communication flows from their sector/department/organization.However, 26 percent were disagreed and 9 percent were unable to decide. The mean value of the responses is 3.41 which are in the range of inclines to disagreement. This implies that there was no technical support and immediate maintenance which obstructs work routines and communication flows, good management support to encourage knowledge sharing in the study organization, (see table 4.1.3b, item3).

And also, the respondents were asked about the extent of the problem to retaining highly skilled and experienced staffs in organization. Accordingly, majority (79 %) of the respondents agreed that there was a problem of retaining highly skilled and experienced professional in study organization. And mean a value response is 3.92 that showed there is low level of safeguard highly skilled and experienced staffs retention.

Knowledge sharing Culture: Regarding to the knowledge sharing culture health professionals was asked extent of their agreements. About fifty four percent and 34 percent of respondents agreed and disagreed respectively on the openness of organizational culture for sharing knowledge. On the other hand, nearly 12% of the respondents were unable to decide. The mean value of the responses is 3.14 with standard deviation 1.22, which is in the range of moderating level of effect.

Lack of financial resource allocation: As showed the result of this study, about 40 percent of the health professionals agreed that there is lack of financial resource allocation for knowledge sharing, professional development and training. On the other hand, 57 percent disagreed and about 3 percent were neutral. The mean value of the responses is 2.63 with standard deviation 1.27implies that the implementation of resources allocation for knowledge sharing in the Organization was foundat moderate level.

Regarding with lack of knowledge sharing strategy as one part of daily work process, 74 percent of health professionals agreed toward absence of clearly articulated (i.e. written) knowledge sharing strategy in the organization and 11% were neutral, however, 25 percent of respondents opposite opinion on the absence of knowledge sharing strategy in the Assosa hospital.

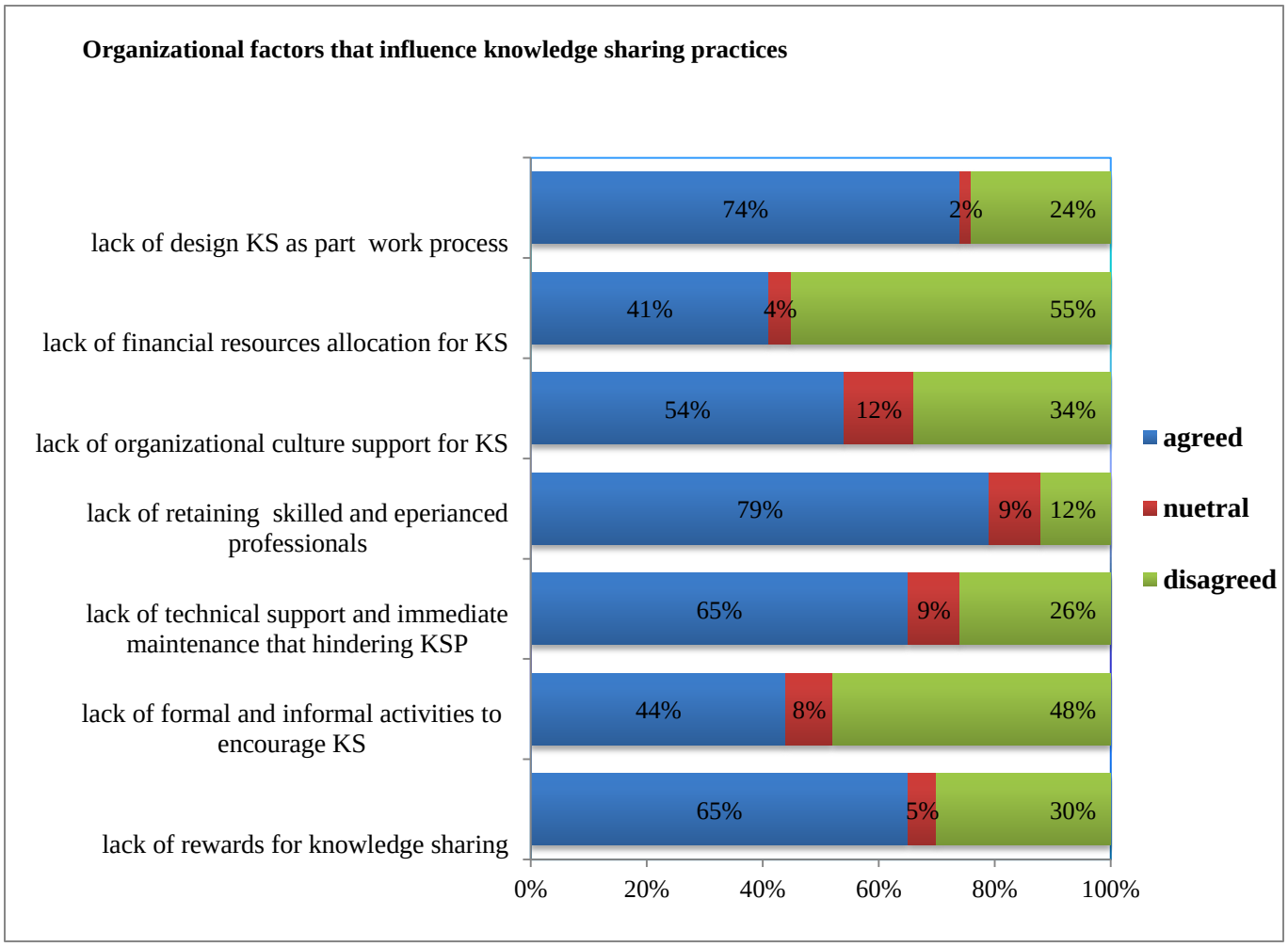

Figure4.1.3b: Organizational factors for knowledge sharing practices

Figure 4.1.3b indicated the results of organizational factors for knowledge sharing practices that presented the seven organizational barrier factors of knowledge sharing practices. They are "Lack of clear strategy of KSP", "lack of sufficient financial resource allocation for KSP", "lack of culture of organization for KSP", "lack of retaining skilled professionals", "lack of immediate maintenance and solve of knowledge sharing practices obstacles"," lack of proper formal and

informal mechanism/activities of KSP" and "lack of rewards for KS" see the figure 4.4 findings results.

4.1.3c.Technological factors of knowledge sharing practices

Table 4.1.3c: Technological factors for knowledge sharing practices

	Items selected as factors for knowledge sharing	Strongly agree%	Agree %	Neutral/ undecided %	Disagree%	Strongly disagree%	M	Std. dev.
	Technological factors/variables	5	4	3	2	1		
1	The organization provides various tools and technologies to facilitate knowledge sharing and exchange (e.g. groupware, e-mail, intranet)	3.3%	31.9%	11%	38.5%	15.4%	2.61	1.17
2	You feel comfortable using the knowledge sharing technologies available.	7.7%	44%	8.8%	28.6%	11.0%	3.09	1.21
3	Do you use information technology to share your knowledge? 'Yes' 'No' If you Say 'yes', how easy is to use?	Yes=29%			No=71%			

Key: mean value range: 4.50-5.00 – very high level of effect. 3.50- 4.49 – high level of effect, 2.50-3.49– moderate level of effect, 1.50-2.49– low level of effect, 0-1.49– very low level of effect

Presence of information technology system: Respondents were asked whether their organization provide information systems that facilitate knowledge sharing. Accordingly, about 35 percent of the respondents agreed, and 54 percent disagreed whereas about 11 percent were unable to decide on the presence of ICT access that facilitates knowledge sharing in study area. The mean value of responses is 2.61 is in the range of moderate level of ICT access,(See Table 4.1.3c, item 1). When participants were asked whether or not, they felt comfortable while using knowledge sharing technology availability, about52 percent agreed; close to 39 percent disagreed and about 9 percent were neutral.

Regarding perceived ease of use of information technology the majority(71%) of the respondents were not IT users and 29% of respondents believed that sharing of knowledge bysupport of IT to be easily achievable. However, the sharing of knowledge and information effectively and

frequently was difficult and impractical in the absence of modern information system that would facilitate knowledge sharing between employees, departments in organization.

4.1.4. Mechanisms and tools that fosters Knowledge sharing practices

Knowledge sharing practices can be facilitated through a range of communication channels. This research found that, whenever possible, the study participants preferred to share knowledge through face-to-face interaction, whether that be through a formal opportunity, such as a structured meeting, or through an informal activity such as a casual, or opportunistic conversation.

Table 4.1.4.1: Mechanisms and tools for knowledge sharing practices

Do you participate in any training programs, workshops and seminars for your work?			If your answer is yes; how frequently have you attended training, workshop, seminars… related to your work?	
	Number	Percentage	Frequency	Percentage
yes	54	59.3%	very frequently	3.7
no	37	40.7%	frequently	5.6
Total	91	100.0%	somewhat frequently	25.9
			Not frequently	64.8

As the result of this study showed 59 percent of health professionals had participated training programs, workshops and seminars for their work and 41 percent did not get the opportunity. This implies that they never participate on training, workshops, and seminars.

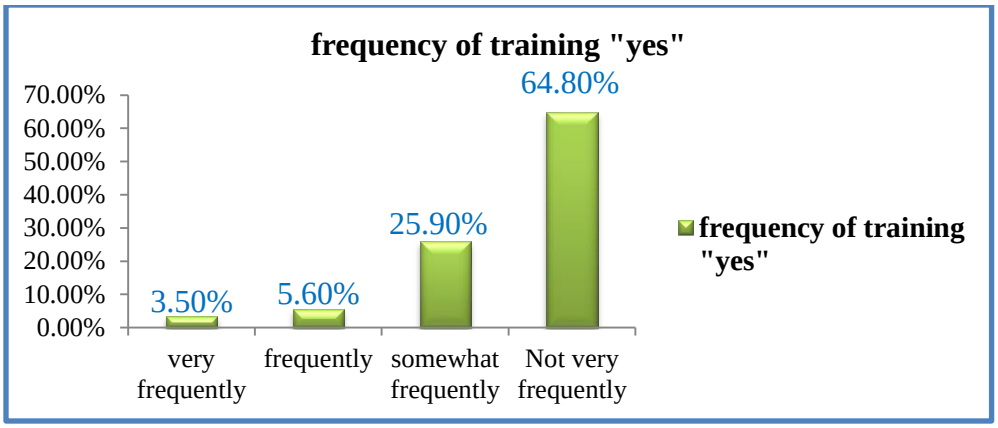

Figure 4.1.4.1: Frequency work training of health professionals as KSP

Regarding to frequency (the how often) healthcare workershadbeenparticipated, scheduled work training, workshops, and meting: the majority (65%) of the respondents indicated their agreementsthat"Not very frequently", andsome (26%) "Somewhat frequently", whereas 5.6% and 3.5% of participants had showed "frequently" and "very frequently" respectively towardhow often healthcare workers had work related training programs, workshops and seminars, see figure 4.1.4.1for better visualization.

Speaking about the presence of various types of mechanisms to share knowledge and experiences health professionals showed their preferred way to share knowledge/information they need during work.

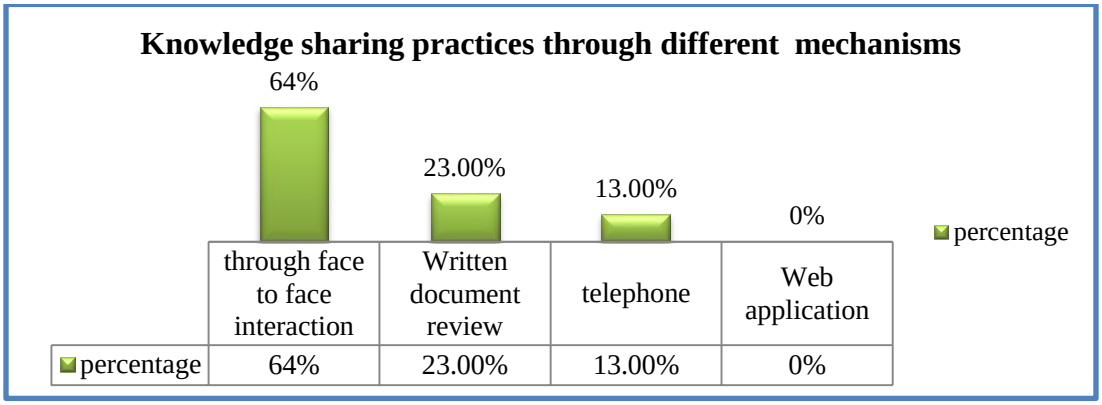

Figure 4.1.4.2: Knowledge sharing mechanisms among health professionals

Figure 4.1.4.2 aboveindicated that, respondents preferred their best mechanisms to share knowledge and information were: through face to face interaction encompass (review meeting 16.5%, training 12.1%, team work 17.6%, workshop 11%, community of practices 6.6%),

written documentation review 23.1%, telephone 13%, and web based application (internet 0%, Email 0%, shared network driver 0%), figure 4.6 presented a graphic of the participants' answers for better visualization.

4.1.5. Observation results for mechanisms of knowledge sharing practice

In study area, knowledge sharing practices is undertaken through in variety of formal and informal mechanisms including face-to-face communication, documented based, andtelephone.However, the researcher observed availability ofwire or wireless connections then, checked the absence of presences of web based technology like E-mail/Internet/intranet.

Table 4.1.5.1: Observation checklist for mechanisms of knowledge sharing practice

No	Presence of information/knowledge sharing techniques or tools in organization	Presence of mechanisms of KSP	
		present	absent
1	Text books, medical records, training manuals	√	
2	Face to face discussion	√	
3	Web based technology like E-mail/Internet/intranet.		√
4	Presence of technology that makes knowledge sharing easy		√
5	Presences of Team work/collaboration at workplace	√	

The result of the observation showed that face-to-face (f2f) team discussion with colleagues and referring text books, medical records, training manuals are one of their preferred and adapted methods to share/transfer knowledge and information from work units or colleagues without panic rather than presence of technology that makes knowledge sharing easy, (see check list table 4.1.5.1).

4.1.6. Qualitative study result

The researcher believes that the aim to collect qualitative data is to determine the participants 'perspectives and their thoughts about the research scope. Therefore, semi-structured interview was employed as it allows a wider freedom to ask further questions. To this end seven key

informant department heads were interviewed regarding to research objectives. The qualitative study result according to key informant participants pinpoint was as follow:

1. Do you understand the concept of knowledge shaking practices? Is it part of the work design?
2. Is sharing knowledge, idea, and information among staffs and stakeholders a priority?
3. What is the plan of your organization with respect to knowledge sharing practices in order to get the benefits of it?

The researcher asked seven key informant middle managers in these interviews. Regarding to how participants understand the concept of knowledge shaking practices? Is it part of the work design? Majority interviewees have limited idea about knowledge sharing practices. As hospital Head states: "We surely understand the importance of sharing knowledge and experience, but it is a pity we are not efficiently using the potential. You know, we are usually occupied in other routine activities and meetings making it hard to actively participate in such initiatives. I don't mean we never communicate or share knowledge with stakeholders/staffs but it is far below enough. I don't think we should communicate and learn from each other only when the opportunity comes in your way or reciprocal issues. It must be a planned activity from the beginning".Thiswas also confirmed other interviewed participants' commented as knowledge sharing practices that "It is important that we have a plan for sharing knowledge just like we plan for other our activities. We just recently become a little bit aware of the concept of knowledge management while working with foreign projects engaged on capacity building and technical assistance. Lack of clearly defined strategy and plan of KS have implication to performance in organization. To summarize the answers on the above statements, mostly participants have limited idea about knowledge sharing practices, lack of time, and lack knowledge sharing strategy/plan is major factors to knowledge sharing practices.

4. Are there factors that hinder knowledge sharing processes among staffs and stakeholders within organization? If yes, please list? How do you tackle the challenges? Regarding factors that hinder knowledge sharing practices among staffs and stakeholders within organization? The key informant participants pinpoint the major challenges that influence the knowledge and information sharing in the organization was as follow:

ICT related factors: All interviewees told that they have felt toward lack ofcollaborative ICT tools such as internet, internet, voicemail, shared drives or networks available in organization. Majority of interviewees felt that "wehavelackofan intranet access for a long time, thisslows our work reports and communication systems" Despite the fact that, majority of health professionals believe that the availability of ICT tools for effective knowledge sharing. As pointed out one interviewee: "There is work towards getting something like ability to share data via ICT, it would be a mechanism to share data and be consistent amongst staffs but it's not at a point where.

Motivational related issue: the participants told that, majority health professionals do not have a self-motivationandarenot motivated by the research organization.Theyexplainedthat the possible reason for lack of self-motivation is: low level of trust; negative attitude to one another, and poor leadership support with shallow relationship between staffs. For example one interviewee told that "some managers did not want anyone to know what they did and resistant to contacting others". Some manager does not share and transfer knowledge, so employees do not have a wish to do it too. Employees prefer to share knowledge between their groups than rather with different groups, as employees trust their colleagues and have a stronger communication with them. Thus, they suggested that it could be minimize by developing a better understanding of each authority and regular meetings should be organized.

Regardingmechanisms to facilitate knowledge sharing practices among employees and stakeholders? In study area, knowledge sharing practices is undertaken through in variety of formal and informal mechanisms including face-to-face communication, medical document and training module review and telephone. Participants were interviewed to identify the knowledge sharingtechniques that they most commonly use to communicate with each of the other participants with whom they had indicated a knowledge sharing relationship. The result of the interview showed that face-to-face (f2f) team discussion with colleagues is one of their preferred and adapted methods to share/transfer knowledge and information from friends/work units or colleagues without panic. One of the interviewee revealed that "face-to-face communications like training, workshops, meting and teamwork discussion in the form of formal ways are the most influential knowledge sharing and communication tools."

Medical document reviews: health professionals were asked if printed medical documents materials, as a resource for knowledge and information sharing in the workplace. About 23% of the respondents preferred medical document review as one of the mechanisms to sharing knowledge/information as reference for minimize medical errors and performs tasks. As the result of interviews the major technique of knowledge and information sharing were medical printed documents like books, journals and annual reports. Therefore, the second preferred mechanism to share knowledge and information was printed medical resources, like training modules; annual report documents in study area.

4.1.7: Result of extra-social networks that encourages knowledge sharing practices

Analysis of the level of extra-social networks that encourages knowledge sharing practices among health professionals was represented by supportive organizational culture and frequency of social interaction in organization.

Figure 4.1.7.1: presence of social network strategy in study area

According to the respondents' responses and opinion the presence social interaction strategy to share knowledge/information were, the majority (55%)of healthcare workersSaied "yes" and41 percent Sayed "No". With regard to how important of staffs interaction within the organization to produce its outputs? The majority (69%) and 20 percent of the respondents believed that staffs interaction within the organization very important and important respectively to produce

improved performance. Regarding to organizational culture, health professionals were asked whether their organizational culture encourages social interaction. Accordingly, the majority (64 %)oftherespondents did not acknowledge the encouragement of organizational culture for social interaction and 36 percent of respondents agreed as organizational culture encourages social interaction.

4.2: Inferential statistical analysis: Correlations and Regression Analysis

Table 4.2.1: indicates the several individual, organizational and technological variables showed statistically significant correlation either positively or negatively. Bivariate Pearson's Correlation test shows dependent and independent variables of knowledge sharing, individual, organizational, technological and organizational performance. An asterisk (*) is put on the coefficient to show the significant level.

Table 4.2.1: The results of Pearson's Correlation test between variables

Bivariate Correlations	**Knowledge sharing variables (KSP)**				**Organizational performance (OP)**
A)Knowledge sharing variables	**knowledge sharing practices**	**Frequency to Share Knowledge**	**Accessibility of knowledge**	**Presence of teamwork discussion**	
knowledge sharing practices	1				.399**
Frequency to Knowledge Sharing	.355**	1			.052
Accessibility of knowledge	.142	.268*	1		.031
Presence of teamwork discussion and collaboration.	.351**	.012	.078	1	.272**
B)Organizational variables/factors					
Presence of motivational scheme	.353**	.021	.230*	.327**	.310**
Presence of periodic meetings, workshops, trainings	.331**	.008	.067	.075	.273**
Presence of rewards and recognition	.433**	.269**	.024	.137	.158
Presence of supportive leadership	.354**	.245*	.232*	.034	.044

Budget allocation for knowledge sharing in the organization	.437**	.114	.239*	.176	.594**
C) Individual variables/factors					
Trust among staffs	.287*	.109	-.142	.081	.076
face-to-face interaction and communication among staffs	.258*	.108	.112	.293**	.035
Fear of loss of personal benefits for KS	-.274**	.102	-.046	-.183	-.165
fair and open communication and decision among staffs	.687**	.189	.125	.366**	.401**
lack of awareness	-.286*	-.028	-.013	-.208*	-.442**
D)Technological factors/variables					
Presence of ICT access	.067	.395**	.487**	-.106	.021

For example,Table 4.2.1: The results of Pearson's Correlation test between variablestest shows statistical significant positive correlation between knowledge sharing practices and organizational performance (OP) is .399**. In underorganizational factors: Presence of motivational scheme, presence of periodic meeting, workshops, were correlated positively with OP at significant level .310**, .273** and .273**respectively.

4.2.1: Predicting influence of Individual factors/variables on KSP and organizational performance:

The study examined several individual variables that might possible explanations for knowledge sharing practices. Lack of awareness on importance KS, presence of trust among staffs, presence of face-to-face social interaction, fair and open communication and decision among staff and fear of loss perceived personal benefits showed statistically significant correlation with variable knowledge sharing.

Regression analysis shows that the individual factors/variables: fear of loss perceived personal benefits *(B=-.164*, P<.05),* trust among employees *(B=.189*, P<.05)* and fair/open communication and decision among staffs (.588**, P<.01) were found as the independent predictors that significantly correlated to knowledge sharing in the significance level of 95% in this study.

All individual factors jointly could explain up to 55% and 29% of the total variance in knowledge sharing (R^2=.551) and organizational performance (R^2=.291) respectively.

Table 4.2.1: Effect of Individual factors on KSP and organizational performance

	Predicting effects of KSP				**Predicting organizational performance**			
Individual factors/ predictors	Coefficients		t	Sig. P value	Coefficients		t	Sig. P value
	B	S.E			B	S.E	5.227	
(Constant)	.950	.451	2.107	.038	3.166	.606	-.858	.000
Fear of loss perceived personal benefit	-.164*	.070	-2.354	.021	-.080	.094	2.983	.393
Fair/openness among staffs	.588**	.082	7.178	.000	.328**	.110	-.364	.004
Face-to-face social interaction	.105	.079	1.323	.189	-.039	.106	.344	.717
trust among staffs	.189*	.079	2.403	.018	.036	.105	-3.730	.732
Lack of awareness on KS	-.116	.073	-1.593	.115	-.365**	.098	5.227	.000
Joint influence	**R^2 =.551=55%, F=20.889, P< .01**				**R^2=.291, F=6.973, P<.01**			

The result of this study shows that the association between health workers openness had a statistical significant correlation with knowledge sharing and organizational performance. The multiple regression result shows that fair/open communication and decision among staffs found highest statistical significant predictor for knowledge sharing practice (B=.588**, p value=.000) and organizational performance, *(B=.328**, P=.004)* in this study, (figure 4.9).

Regarding to variable Fear of loss perceived personal benefits: regression model showed negative correlation and weak significantly impact on knowledge sharing variable (B=-.164* with p<.05. From this finding one can interpret that Fear of loss perceived personal benefits' negative *B* value suggests that practicesof sharing knowledge decreases as fear of loss perceived personal benefits increase.

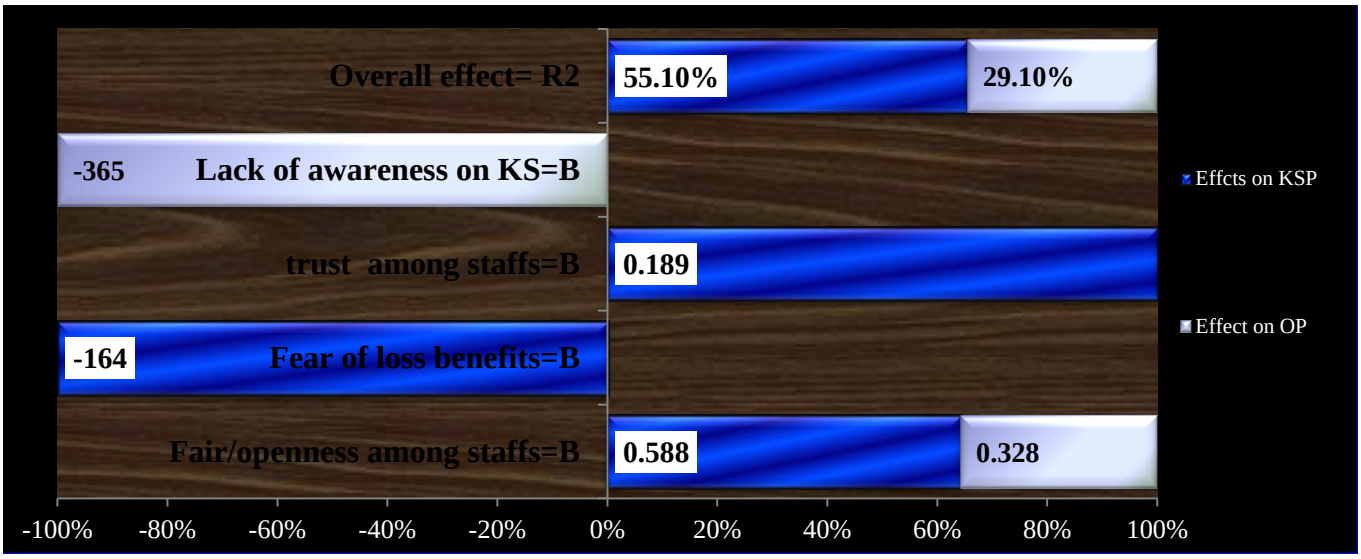

Figure 4.2.1: Effects of Individual factors on KS and organizational performance

Speaking about, predictor variable **trust** among healthcare workers and dependent variables of knowledge sharing practice had direct positive relationship (B=.189* with p<.05) which shows significant correlation and impact. This finding intenerates that trust between employees increase, practices of knowledge sharing among employees increase. Therefore, trust among health professionals was found as one of influential variable on knowledge sharing practices. However, the model regression analysis shows that independent variables face-to-face social interaction andlack of awareness on KS is not statistically significant predictor for the dependent variable (knowledge sharing practice). With respect to, lack of awareness among healthcare workers, it shows negative significant correlation and impact for dependent variables of organizational performance *(B=-.365** with p<.01).* In other word lack of awareness negative B-value suggests that performance in organization decreases as lack of awareness increase among staffer. Therefore, lack of awareness among health professionals was found as one of influential variable on organizational performance but not for knowledge sharing, (See table 4.2.1 above).

4.2.3: Predicting influence of organizational factors on knowledge sharing and organizational performance:

The organizational factors: supportive leadership, financial resources and rewards, presence of motivational scheme, and presence of periodic meeting, workshops, and training for KS were

correlated with knowledge staining practices and also found as independent predictors in the regression analysis.

Out of all organizational factors/variables: presence of supportive leadership *(B=.273**, p<.01),* financial resources allocation for KSP *(B= .257**, p <.01),* Presence of work training, meeting, and workshop *(B=.206*, P<.05),* and lack of rewards *(B=.248**, p<.01)* were included in regression equation and have significantly contributed to the variance in knowledge sharing (R^2 =.450). All selected independent organizational variables could explain about 45 percent and 44.3% of variance/changes on knowledge sharing practices (R^2=.450) and organizational performance (R^2=.443) respectively.

Table 4.2.3.1: Effects of organizational factors on KSP and organizational performance

Model	Predicting effects of KSP					Predicting effects of organizational performance				
Organizational factors/predictors	Coefficients		R^2	t	Sig.=P	Coefficients		R^2	t	Sig.=P
	B	S.E				B	S.E			
(Constant)	-.763	.413		-1.846	.068	.412	.445		.926	.357
Presence of work related periodic meeting, workshop, training	.206*	.086		2.401	.019	.190*	.091		2.077	.041
presence of Rewards	.248**	.093		2.664	.009	-.097	.100		-.974	.333
Presence of motivational scheme	.186*	.090		2.063	.042	.263**	.097		2.714	.008
Supportive leadership	.273**	.092		2.975	.004	-.048	.098		-.485	.629
Presence of resource allocation	.257**	.089		2.869	.005	.569**	.097		5.886	.000
Total joint influences	**R^2= .45%, F= 13.916, P,<.01**					**R^2=.443=44.3%, F=13.492, P<.01**				

1. Resource allocation for knowledge sharing:

The biggest influential predictor variable for both knowledge sharing practices and organizational performance is presence of financial resource allocation for knowledge sharing. As the result of this study shows there is a statistically significant positive association between financial resource allocation, knowledge sharing practices and organizational performance. It had coefficient *B=.459**, P<.01 and B =.596**, P<.01* for both knowledge sharing practices and

organizational performance respectively, which is the best predictor variable. The positive coefficient B with signification level explains that presence of resource allocation have direct relationship with knowledge sharing among workers and performance of organization, which implies that practices of sharing knowledge, information and performance increases with presence of sufficient financial resources allocation. Therefore, presence of financial resources is best predictor for both knowledge sharing and organizational performance.

2. Presence of supportive leadership

The results of this study show that the association between supportive leadership and knowledge sharing is positive significant predictor. The multiple regression result shows supportive leadership are (*B=.273**, p-value<.01),* influential variables for change of in knowledge sharing variable but it does not show any statically significant predict on organizational performance. In other words, the averages healthcare workers who had supportive leadership were .314, times more likely to practice knowledge sharing than those who had no supportive leadership by controlling the other variables as constant.

3. Presence of rewards and recognition

A reward is one of the effective factors that will encourage employees to share knowledge with each other in the organization (Kugel&Schostek, 2004). The results of this study show that there is a significant association between rewards system and knowledge sharing practices. It is significant at *B=.248**,P<.01* level, which implies, knowledge sharing and rewards has direct relationships. In other words, when health professionals were rewarded as incentive, their willingness and practices to share knowledge might increase. It does not have statically significant predicted on organizational performance.

4. Presence of work related periodic meeting, workshops, training etc.

Healthcare workers have professional skills and expertise to deal with a variety of situations. Therefore, in this study also there is a significant association between presence of work training and knowledge sharing practices. It had *B=.206*, P<.05* level which implies, knowledge sharing and presence of work training has direct positive relationships. In other words, health professionals who had job related trainings, workshops, meetings in organization, also will share more their knowledge, skills, and experience. The frequency of reported work-related training was used as a measure of professionalism. The regression result, work related training has

statically significant correlation with organizational performance B=.190*, P<.05. Which implies that presence of job related training will improve performance.

5. Presence of motivational scheme: Individuals should be motivated to transfer their knowledge with their colleagues in the hospital, (Ipe M., 2003). The multiple regression result shows presence of motivational scheme has statistically significant predictor with the knowledge sharing variable (186*, p<.05), and organizational performance (263**, p-value<.01). Motivational system factor in organization are considered to be significant and impressive on the practices of knowledge sharing and to improve performance in organization. When employees are motivated to share their knowledge, organizational performance will also increase.

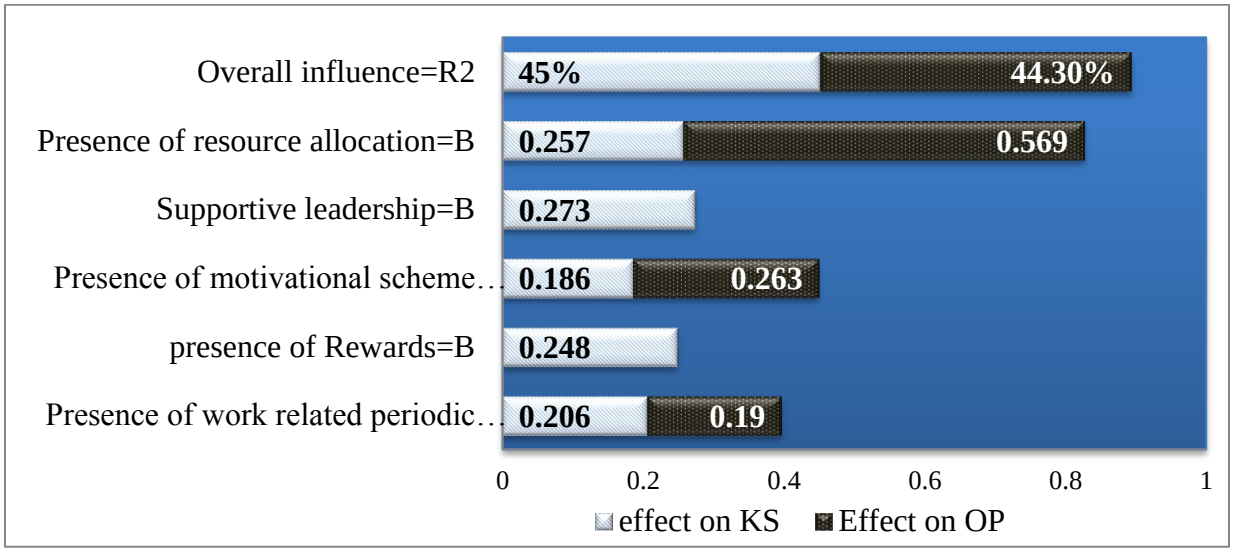

Figure 4.2.3.1: Effects of organizational factors on KS and organizational performance:

Therefore, the study finds that presence of supportive leadership, financial resources; presence of motivational scheme; presence of organized meeting, workshops, training, would be associated with KSP and the study proves that those variables will impact on the organizational performance, figure 4.2.3.1for better visualization.

4.2.4: Predicting influence ICT access variables on knowledge sharing and organizational performance:

Results of simple linear regression analysis shows that *(B= .358**, p-value=.000, R^2=.137=14%),* implying that there is a positive and significant correlation between technology and knowledge sharing. The presence of ICT access in the organization predicted about 14% of changes for sharing knowledge, information by commonly and easily, among health

professionals in organization. However, it does not statically significant predict for organizational performance.

Table 4.2.4.1: Predicting effects of technological factors on KS and OP

Model	Predicting effects of KSP					Predicting effects of organizational performance				
technological factors/predictors	Coefficients		R^2	t	Sig. P-value	Coefficients		R^2	t	Sig.=P
	B	S.E				B	S.E			
(Constant)	1.371	.303		4.522	.000	2.288	.347		6.595	.000
Presence of ICT access	.358**	.095	.137	3.765	.000	.109	.109	.010	1.006	.317

4.2.5: Predicting influence of knowledge sharing on organizational performance

The following statistical tests were used to investigate the relation of knowledge sharing and its components with organizational performance. The results of Pearson's Correlation Test show that the variable of knowledge sharing is positively and significantly related to organizational performance in the significance level of 95%. It can be claimed that organizational performance will increase as knowledge sharing improves among the employees. As it is shown in this Table 4.4.5: knowledge sharing has a linear correlation with organizational performance and knowledge sharing account for 18.4 percent of the changes in organizational performance (R^2=.184).

Table4.2.5.1: Effect of knowledge sharing on organizational performance

Predictors/ KS variable		Coefficient		R^2	T	Sig.
		B	S.E			
model	(Constant)	1.494	.502		2.978	.004
1	Practice of knowledge sharing practices	.405	.121	.184	3.343	.001

As the result of linear regression shows that knowledge sharing has significant effects on organizational performance. The model is significant at level of $p<0.01$ with F-value of 4.852.

The coefficient of determination (R^2) is 0.184, which indicates that near 18.4 % of the variance /change in organizational performance is explained by the independent variables of knowledge sharing practices. Out of four independent variables: willingness to share knowledge, (B= .405**, p<.01), shows statistically significant predictors. Therefore, it can be concluded that there is correlation between of knowledge sharing and organizational performance, i.e. as the status of knowledge sharing practices improves organizational performance will also improve.

As model summary shows total impact of organizational variables had statically significance changes with coefficient.

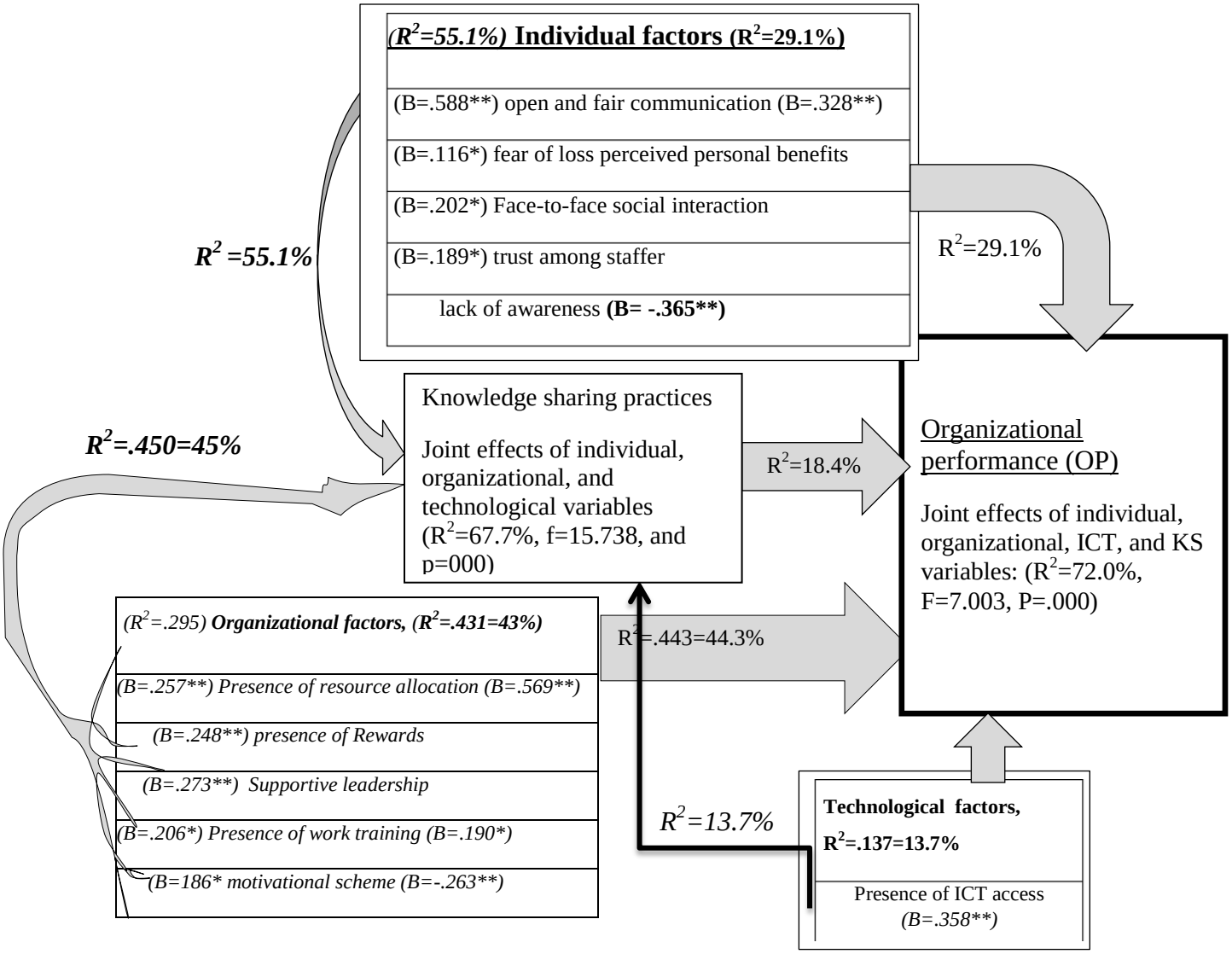

Figure 4.2:1-5: Summary of total impacts independent variableson dependent variables

Under organizational factors those variables: supportive leadership, financial resources, presence of motivational scheme, presence of organized meeting, workshops, training and rewards, used in this study were found as independent predictors in the multi-regression analysis. Therefore, all selected independent variables could explain about 45% of total variance/changes in knowledge sharing practices. Moreover, also organizational variables had statically significance changes with coefficient determination, R^2=.443 which equal to 44.3% of the variance/changes of organizational performance.

Therefore, the study finds that presence of supportive leadership, financial resources; presence of motivational scheme; presence of organized meeting, workshops, training, and presence of rewards in the organization would be associated with performance and the study proves that those variables will impact on the organizational performance. Presence of resource allocation has a greatest impact on performance rather than other variables.

The presence of ICT access is associated with knowledge sharing practices among the employees. Simple linear regression analysis shows results of *(B= .358**, p<.01, R^2=13.7%,* implying that there is a positive and a correlation between technology and knowledge sharing. The presence of ICT access in the organization predicted 13.7% of changes of knowledge sharing. But unfortunately, presence of ICT access doesn't predict significant effect and correlation with organizational performance.

To sum up: individual factors (55.1%), organizational factors (45%) and technological factors (13.7%) could explain up to 68.7 percent of the total variance/ changes on knowledge sharing practices, (R^2=.687).Moreover, variables that predicts the organizational performance were knowledge sharing practices (18.4%), organizational variables (44.3%), individual variables (29.1%), altogether could explain 72.0% of the total variance in organizational performance, (R^2 =.720), (see the above summary figure 4.2:1-5)

4.3. Discussion:

Health sector is knowledge intensive organization, where a high degree of sharing knowledge is paramount to achieve the intended goals and to deliver quality service. The study intended to investigate effect of knowledge sharing practices. Knowledge sharing practices in the study area was determined through respondents' responses and opinion in semi-structured interview and survey's respondents. As results of quantitative research, about 46 percent of the respondents wereaware the importance of knowledge sharing practices. Similarly the result of semi-structured interviewsconfirmed thatthe majority of the interviewees have limited idea about knowledge sharing practices andas the result of quantitative study shows, out of the 91 (86%) participants, 32 percent of healthcare professionals were participated in the knowledge sharing practice by sharing their knowledge to those healthcare professionals working together. This finding was slightly lower than the result of the study conducted in hospitals under Mekele city, which was 49.18 percent of the health care professionals were frequently participated in knowledge sharing

practice, (TeklitGebretsadik et al., 2004). However,about 57 percent of the respondents have willingness to share their knowledge and experiences. This implies that there is still low level of knowledge sharing practices, which is affected by different factors.Based on the results from participants' answers on low level of knowledge sharing practices, the most possible reasons was lack of knowledge sharing strategy/plan, limited staffs' awareness, poor leadership support, poor financial resource allocation, lack of motivational scheme, etc.

The second research question focused on identifyingthe key factors that influence knowledge sharing practices in Assosa hospital. Identifying factors that encourage or discourage knowledge sharing practices in organizations in the hospitals under study in particular is important to investigate ways to increase the use of knowledge that already exists in the hospital. Some selected factors that influence knowledge sharing in this study was found as follow:As qualitative and quantitative data analysis shows that participants have several barriers in knowledge sharing and knowledge transfer. These barriers connect with the technology, organization and individual aspects.According to the results from this study trust among staffs, awareness, fair and open communication among staffs, fear of loss of personal benefits, social interaction was identified factors under the individual dimensions whereas, Supportive leadership, resource allocation, presence of periodic meetings and motivational scheme were commonly identified organizational factors and technological factors are poor ICT access, poor ICT know-how of most staffs.

As a result of this study showed that most of the participants do not trust their colleagues and managers.It means that the employees do not want to be open about their perspectives and ideas when managers are not willing to show trust to them. The reason for lack of trust among staffs is lack of fair and open communication.The majority (64%) of the respondentsshows that lack of fair and open communication among staffs was the most important barrier factors for knowledge sharing practices in the study hospital. The result found in this study was higher than the result of the same study conducted in the governmental hospitals under Mekele city which was 31 percent of the respondent agreed on the absence of open communication among the healthcare professionals in their organization. As the study by Hislop (2003) suggests fair and open decision-making practices that should directly influence knowledge-sharing practice. Obviously there will be higher levels of trust when employees feel that communications are open and fair.Thestatistical regression result also shows that open communication and decision among

staffs found as highest significant predictor for knowledge sharing practice (B=.588**, p-value=.000) and then organizational performance, (B=.328**, P=.004) in this study.

Similarly the result interview also confirmed that trust among staffs, was mentioned as variables that also affected a tendency towards willingness to share knowledge and information. This finding also supported by the study conducted in hospitals under Addis Abeba health bureau, health professionals were reported 34 percent lack of trust on staffs' knowledge, as variables that influence knowledgesharing practices, (Asemahagn BMC Health Services Research 2014).And variable fear of loss perceived personal benefits showed negative significant correlation and impact on knowledge sharing variable (B=-.164* with p<.05. From this finding one can interpret that fear of loss perceived personal benefits' negative Beta coefficientvalue suggests that willingness to share knowledge decreases as fear of loss perceived personal benefits increase. Moreover, in his study Riege, (2005), identified knowledge sharing obstacles at employee and individual level are the lack of communication and social bonds among the employees, low awareness of the value and benefit of possessed knowledge to others; lack of interaction between knowledge sources and recipients; lack of trust in people because they may misuse knowledge or take unjust credit.

All individual factors jointly could explain up to 55% and 29% of the total variance in knowledge sharing (R^2=.551) and organizational performance (R^2=.291) respectively. Discussing about the most important organizational barrier factors in the study hospital were: lack of rewards and recognition (65%), lack of knowledge sharing strategy as part of daily work process (74%), lack of retaining highly skilled and experienced professionals (79%), lack of financial resource allocation for knowledge sharing (41%), lack of technical support and immediate maintenance that obstacle KSP (65%), lack of formal and informal activities to encourage KSP (44%). This finding also supported by other studies carried out in different areas. For example, in his study (Riege, 2005) pinpoint obstacles at organizational level are economic capacity, lack of background and resources, lack of formal and informal meeting places, inconvenient physical environment and finally technological obstacles are insufficient or no technological devices, the fact that these devices are not used for the purpose of sharing knowledge among the employees and not being able to follow technological advancements, (Riege, 2005).

The result showed that of the majority (59%) of healthcare workers agreed that there is no motivational scheme in hospital for sharing knowledge. Managers should be to pay more attention to motivation factors.Motivation plays an important role in knowledge sharing. It is true that if health professionals are motivated and aware they will increase knowledge sharing. This also supported by different study findings from different areas. For example,Sansone and Harackiewicz, (2000) found that a motivation helps people to reach their goals. People cannot be motivated always by one factor. Usually, a motivation means a combination of different factors.Based on the results from quantitative research, the research organization should be to provide several motivation factors. Managers could provide motivational schemes for knowledge sharing practices. These motivation factors like training, rewards and recognitions, modern knowledge sharing mechanisms and toolscould enable employees to share and transfer knowledge and experiences.

Even though rewards and recognition are very essential and common means to motivate staffs in most of the organizations, the majority (65%) of participants were agreed absenceof reward and recognition in the study area. This might be due to the presence of poor resource allocation (41%), poor supportive leadership (70.4%). And also the majority of participants agree that they are not actively encouraged to share knowledge frequently with other team members. The result of this study also showed that18 percent of respondentsagreedthat health professionals share their knowledge and experience infrequently through group discussions, review meetings and documented forms. Other studies suggest that team members will be most strongly influenced by those with whom they have more frequent interactions Lang, (2004). Therefore, those individuals who have more frequent interaction with others are likely to be more influential within the collaboration and to achieve some specific organizational goals.

Under the organizational variables the significant predictors of knowledge sharing practice at hospitals at 5% significant level were: presence of supportive leadership (B=.273**, p<.01), financial resources allocation for KSP (B= .257**, p <.01), Presence of work training, meeting, and workshop (B=.206*, P<.05), and lack of rewards (B=.248**, p<.01) were included in regression equation and have significantly contributed to the variance in knowledge sharing (R^2 =.450). All selected independent organizational variables could explain about 45 percent and

44.3% of variance/changes on knowledge sharing practices (R^2=.450) and organizational performance (R^2=.443) respectively.

The biggest influential predictor variable for both knowledge sharing practices and organizational performance is presence of financial resource allocation for knowledge sharing. As the result of this study shows there is a statistically significant positive association between financial resource allocation, knowledge sharing practices and organizational performance. It had coefficient *B=.459**, P<.01 and B=.596**, P<.01* for both knowledge sharing practices and organizational performance respectively, which is the best predictor variable. The positive coefficient B with signification level explains that presence of resource allocation have direct relationship with knowledge sharing among workers and performance of organization, which implies that practices of sharing knowledge, information and performance increases with presence of sufficient financial resources allocation. Therefore, presence of financial resources is best predictor for both knowledge sharing and organizational performance.

Regarding to the supportive leadership the result of this study showed that; the majority (70 %) of the healthcare professionals agreed that there was no supportive leadership from their managers that encourages them to participate in knowledge sharing practice. This result is little fewer than the result of study conducted in the public Hospitals in Mekelle city which was 62 percent of respondents that disagreed with the presence of supportive leadership in their hospital that encourages them to perform knowledge sharing practice. The results of this study show that the association between supportive leadership and knowledge sharing is positive significant predictor. The multiple regression result shows supportive leadership are (B=.273**, p-value<.01), influential variables for change of in knowledge sharing variable but it does not show any statically significant predict on organizational performance. In other words, the averages healthcare workers who had supportive leadership were .273 times more likely to practice knowledge sharing than those who had no supportive leadership.

As stated by studiesofAssessment of the Ethiopian National Health Information System Final Report, (2007) ICTs became backbones for health care institutions in this competing environment. Nowadays, various stakeholders have given attention to the application of ICTs in health care facilities to deliver evidence based quality health care services. However, the opposite was true in the study areas. The majority, 54.0% of the health professionals reported the presence of poor ICTs access in the study area. The most possible reasons could be financial

resource limitation, poor attention from management and staffs and lack of skilled personnel. This is relatively higher than findings from Addis Ababa health bureau hospitals, by Asemahagn BMC Health Services Research, (2014); respondents were reported about 78 percent on absence of information communication technologies (ICTs) within the hospitals.ICT is One of the best ways to reduce the perceived cost of sharing knowledge is to have a well-designed, user-friendly technological tool that simplifies the task and reduces the time necessary for sharing one's ideas with others.Alsosimple linear regression analysis shows that the presence of ICT access in the organization predicted for knowledge sharing practices, (B= .358**, p-value=.000,). This finding supported the study byLin and Lee, (2006) that identified a positive relationship between use of technology and knowledge sharing.However, it does not statically significant predict for organizational performance.Similarly regarding to the factors that influence the knowledge sharing practice in the study area, the data obtained from the interviews was identified as barriers:low level awareness of KS, lack of time, lack of integrated ICT access and lack knowledge sharing strategy is major factors to knowledge sharing practices.

As part of the survey, respondents were asked to choose their best-bet knowledge sharing and communication tools in order to be used in information and knowledge sharing.In knowledge intensive organization using appropriate knowledge sharing mechanisms and tools has a paramount importance to share knowledge and experience and mobilize scarce resources towards improving performance in the study area.ICT tools, such as shared workspaces, or other technology collaboration tools are not used by any participants.In the case of face-to-face communication encompasses: 16.5% of review meeting, 12.1%,of in-service training, 16.5% of teamwork discussion, 11%, of workshops, 23.1% of medical written documentation review, 6.6% of community of practice, 0% of internet, 0% of Email, and telephone 13.2% in this study area.This is finding is slightly lower compared to study findings from in Addis Ababa (Asemahagn BMC Health Services Research, 2014) where the major knowledge sharing tools and mechanisms were medical textbooks 39.0%, trainings 29.0%, workshops 21.0% and guidelines 21.0%.From this it is safe to discussthat,the majority(64%)of the health professionals share their knowledge and information by face to face;23% medical written documentation review, 13% telephone, and using web based application lack. Therefore from this result one can understand, the most simplest and convenient tools were face to face communication like review meeting, workshop…..rather than computer and web based application like internet, e-mail….to

share/transfer their knowledge/information in work place.The most possible reasons could be poor ICT infrastructure andresource, poor attention from management and staffs, lack of familiarity with ICT and lack of skilled personnel.

According to respondents responses and opinion the presence social interaction strategy to share knowledge/information, 41 percent of healthcare workers agreed that there is lack social interaction strategy but majority 69 percent respondents believed that staffs interaction within the organizationas"very important' to produce improved performance. Most participants believed that achieving higher levels of trust requires an increased level of interaction between participants in the organization.Ink pen and Tsang (2005) posit that the presence of shared purpose and goals provides individuals with similar understandings of how to interact with each other. Further, they contend that this sense of shared purpose acts as a "bonding mechanism" that assists different parts of a network to integrate knowledge.

4.4. Knowledge sharing framework for the study area

The previous sections reiterated the key findings from the study and noted the identification of the key factors.This section discusses these important aspects, and incorporates them into the conceptual model (See figure 4.10). The conceptual framework, originally presented in chapter two, was developed following an extensive review of the extant literature. It enabled the researcher to encapsulate the ideas and concepts gained from the literature review, and distil these into a coherent framework to help guide the research.There are many factors that influence knowledge sharing. These factors can be divided into positive and negative factors. The negative factors are also referred to as 'barriers' in past research on knowledge sharing.

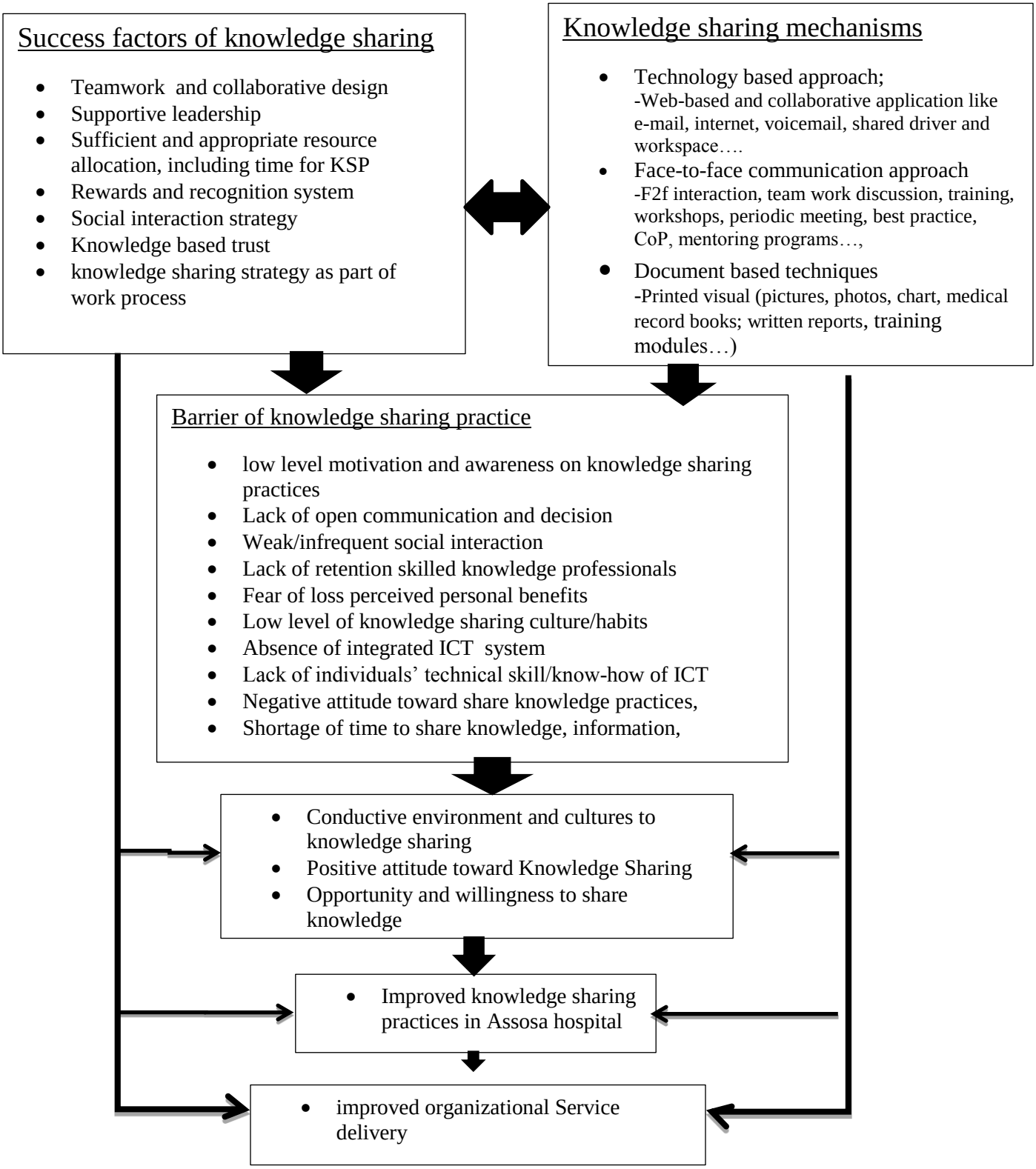

Figure 4.4.1: final conceptual framework of Knowledge Sharing Practices

(From researcher's point of view)

1. Teamwork and collaboration among staff;

The majority (63%) of the respondents seemed to agree that in organization, certain tasks are accomplished through teamwork. In his study (Goh, 2002) identified teamwork and collaboration required to accomplish tasks as indicators of the knowledge sharing (reliability measure).Face-to-face discussion provides a rich medium for information exchange.

Lengnick-Hall and Lengnick-Hal,(2003) explains how teamwork, or bringing employees together under the same roof, increases the frequency of interactions among workers. This not only leads to more chance encounters during which information can be shared, but also increases familiarity, which can result in shared understanding and feelings of community, both of which increase the likelihood of sharing. In other words, teamwork increases social interaction that results in more effective communication. According to the perception and opinion of survey respondents: low level of trust among staffs (44%), lack of open communication among staffs (64%), low level of social interaction (34%), were the most influential factors that influence as barriers for effective knowledge sharing practices in the study area. Therefore, teamwork is helpful to organizational teams because it provides the opportunity for face-to-face communication and an environment that better supports trust-building and decision-making (Loureiro& Curran, 2007).Face-to-face communication was the preferred knowledge sharing techniques for the majority of 64% participants in the study area.

This framework suggests that a purposeful approach to teamwork and collaboration design can have benefits to weaken the barriers of knowledge sharing practices which are, low level of trust among staffs, lack of open communication among staffs low level of social interaction. Finally, in this study, the predominant influence on a participant's choice of knowledge sharing mechanisms is concerned with the nature of the knowledge. In hospitals most of sample respondents are operational staffs. Operational level knowledge is easily discussed face-to-face because it will generally be easy to explain or resolve: Participants indicate that, in general, the better they know an individual, the more likely they will be to communicate with them face-to-face. Thus, teamwork is the mechanism that increases face-to-face communication and assisting trust building among individuals.

2. Supportive leadership

In order to realization knowledge sharing in organizations, top managers must have a clear vision concerning the knowledge value. Because, the true supportive leadership affects employees'

cognitive abilities and creating maps enhance their mastery to create new ideas (Faniel&Majchrzak, 2007). This study found the barriers for knowledge sharing practices like: absence of knowledge sharing strategy, lack of rewards and recognition systems, lack of retention skilled professionals, negative attitude toward knowledge sharing; low level of awareness on KS; poor ICT system, and lack of open communication and decisions among staffs.The effectiveness of both reward and recognition systems will motivate people to share their knowledge. Absence of any transparent rewards and recognition systems will hamper the KS (Valmohammadi, 2010). There is a need for KS strategy which must be supported by top management and requires a good KM infrastructure, staff retention, and incentives to encourage knowledge sharing (Singh, et al., 2006; Siemsen, et al., 2008). KS mechanisms have a positive relationship between monetary rewards and KS (Bartol and Srivastava, 2002). Motivated employees pose greater effective and continuance commitment and lower employee turnover intentions (Yang, 2009). Therefore, this framework helps to facilitate the key role of top managers. Leadership is one of the most important factors in this context.

3. Sufficient and appropriate resource allocation, including time for KSP

Financial resources are one of the key variables that support the infrastructure and manpower requirements for KS. KS needs huge support from infrastructure, which requires huge funds (Apulu and Latham, 2009). Along with technology, another important aspect of KM is the people. They require training and education, motivational aids, etc., and all of these require finances. An organization requires the allocation of funds and other resources for KS implementation Kant and Singh, (2009). This study revealed that lack of resources allocation is one factor that influence knowledge sharing practices, including financial, human, and time are necessary enabler for effective knowledge sharing practice with support of manager. Thus, this framework is the implication for solving the shortage of resources for KSP.

4. Rewards and recognition system

Reward is also one of the effective factors which will encourage people to share knowledge with others. Kugel&Schostek (2004) study found that knowledge is shared only because monetary rewards are obtained, and when the rewards system is withdrawn, the knowledge sharing behavior will decrease (rewards or bonuses are extrinsic motivation (Stenmark, 2003).

To promote knowledge sharing, senior management must take a more pro-active and visible role in supporting the development of a knowledge management framework within their

organizations (Corcoran, & Robison, n.d.). The result of this study showed that the majority (59 %) of the healthcare workers agreed that there is no motivational scheme in hospital for sharing knowledge. It is true that if health professionals are motivated and aware of knowledge sharing, they will increase KSP. Therefore, in order to be successful in motivating staff to share their knowledge, these rewards, compensation, and recognition must be properly designed to fit employees' needs as incentives for sharing knowledge and information. This is because; ineffective or insufficient rewards and recognition can fail to reinforce knowledge sharing practices.

5. Social interaction strategy

A key area of interest in knowledge sharing research is social networks. A social network is described by Haythornthwaite (1999) as a set of social entities, for example individuals, groups, or organizations that are connected to each other in order to exchange information or other resources. The result of interview and observation showed that face-to-face social interaction is dominant of their preferred and adapted methods to share/transfer knowledge and information from friends/work units or colleagues without panic. A social network consists of a finite set or sets of actors and the relation or relations defined between them (Wasserman & Faust, 1994). Many researchers have demonstrated that people are sharing knowledge when the interpersonal relationships are strong and a high sense of community exists within the organization (Bock, et al., 2005). Thus this framework might be support the face to face interaction among employees and an employer are one success factors which strength shallow relationships, between staffs and improves knowledge sharing and organizational performance.

6. Knowledge sharing strategy as part of work process

Regarding with presence of knowledge sharing strategy as one part of daily work process, the vast majority (89%) of the health professionals agreed toward absence of clearly articulated (i.e. written) knowledge sharing strategy in the study area. Knowledge sharing has no value for individuals and the organization, unless those who need useful knowledge receive, admit and apply it. Due to lack of a single strategy of knowledge management, it is difficult to measure its use. One of interviewee commented the interesting points as "It is important that we have a formal written plan for sharing knowledge just like we plan for other work activities. We just recently become a little bit aware of the concept of knowledge management while working with

foreign projects engaged on capacity building and technical assistance. Lack of clearly defined strategy and plan of KS will have implication to performance of shared organizational goals".

7. Knowledge sharing mechanisms/approaches

Knowledge sharing practices can be facilitated through a range of communication channels. This research found that, even in distributed participants indicate that, whenever possible, they prefer to share knowledge through face-to-face interaction, whether that be through a formal opportunity, such as a structured meeting, or through an informal activity such as a casual, or opportunistic conversation.

As results of the interviews and survey, respondents were asked to choose their best-bet knowledge sharing and communication tools in order to be used in information and knowledge sharing. The majority (64%) health professionals share their knowledge and information by face to face; 23% medical written documentation review, 13% telephone, and community of practice/CoP 6.6% were found.

Therefore, this framework shows the availability of proper mechanisms as enabler for effective knowledge sharing practices and organizational performance. Thus, from this result one can understand, the most predominant and convenient tools were face to face communication like review meetings, workshops…..rather than computer and web based application like internet, e-mail….to share/transfer their knowledge/information in work place. The most possible reasons could be poor ICT infrastructure and resource, poor attention from management and staffs lack of familiarity with ICT and lack of skilled personnel

CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

Governmental organizations have to deal with diverse problems, since knowledge is central resources for different organizations especially knowledge intensive organizations like, education institution, health sector; sharing knowledge and experience is required to address organizational goals and to deliver quality service. Various types of medical errors have occurred in resource-limited countries because of poor knowledge and experience sharing practices among health professionals.Thus, knowledge sharing practices play importantrolesinknowledge management and allow employees exchanging their perspectives, thinking, and ideas, and thus create a strong relationship between each other. In this case, employees could interact with each other and exchange necessary knowledge for their work. The study was conducted in Assosa Hospital under BenishangulGumuze health bureau, Ethiopia. AssosaHospitalisgovernmental service sector, and in this sector knowledge sharing practices have been little studied. Speaking in general, yet the effective knowledge sharing practices is in its infancy in public organizations rather than privet organizations.

In this study qualitative and quantitative research wasused with open-ended and closed-ended questions, semi-structured interviews and observation in order to have a wide understanding of the research scope. The literate review was done and several organization documents were obtained in order to deeper understand the research objectives, which are related with knowledge sharing practices. Based on the results from participants' answers the study yielded several results. According to the qualitative research result the most of the interviewees have limited idea about knowledge and experience sharing practices. About 57 percent of the respondents showed willingness to share their knowledge and experiences. However, the study found that about 32 percent of healthcare professionals in the hospital were participated in effective knowledge sharing practice. This revealed that there is still low level of knowledge sharing practices, which is affected by different factors.

Identifying the most important factors affecting knowledge sharing practices among hospital staffs is very essential for managers, health professionals and other concerned bodies in order to make evidence-based plans to solve the problem. According to results of study from respondents' answers, and the regression result: lack of awareness (46%), low level of trust among staffs (44%), lack of open communication among staffs (64%), low level of social interaction (34%), and fear of loss personal benefits (39%) were the most influential individual factors that influence as barriers in the study area. All individual factors jointly could explain up to 55% and 29% of the total variance in knowledge sharing (R^2=.551) and organizational performance (R^2=.291) respectively.

The organizational barrier factors that rated by survey respondents are: low level of supportive leadership (70%), lack of motivational scheme (63%), lack of retention highly skilled and experienced staffs (79%), poor ICT access (53%), lack formal training, workshop, meetings (56%), lack of rewards and recognitions (65%), lack of financial resource allocation for knowledge sharing(41%), lack of technical support and immediate maintenance that hinders KSP in organization(65%), and absence of articulated KS strategy as part of work process(74%), were identified barrier factors for effective knowledge sharing in the study area. The result of inferential statistical also predicted that supportive leadership, financial resources allocation, presence of rewards, presence of motivational scheme, and presence of periodic meeting, workshops, training; and ICT access were found as independent predictors in the regression analysis for both knowledge sharing practices and performance of organization. All selected independent organizational variables could explain about 45% and 44.3% of variance/changes foreffectiveknowledge sharing practices (R^2=.450) and organizational performance (R^2=.443) respectively.

The third research questions in the survey were designed the mechanisms that facilitate knowledge sharing practices in Assosahospital.In knowledge intensive organization using appropriate knowledge sharing mechanisms and tools has a paramount importance to share knowledge and experience and mobilize scarce resources to improving performance. A knowledge sharing practice is defined as formal or informal activities through which knowledge can be shared between employees, units, departments and organizations.As results of the interviews and survey, respondents were asked to choose their best-bet knowledge sharing and communication tools in order to be used in information and knowledge sharing. The majority (64

%) of the health professionals shares their knowledge and information by face to face; 23% medical written documentation review, 13% telephone, and by using web based application 0%. Therefore from this result one can understand, the most predominant and convenient tools were face to face communication like review meetings, workshops…..rather than computer and web based application like internet, e-mail….to share/transfer their knowledge/information in work place. The most possible reasons could be poor ICT infrastructure and resource, poor attention from management and staffs lack of familiarity with ICT and lack of skilled personnel.

5.3. Recommendations

The results of the study have several implications for public management and for practitioners. As the result of this study showed, that there is still low level of knowledge sharing practices, which is affected by different factors. First, the study points to the need for more attention to be paid to knowledge sharing in public organization. The findings underscore the need for deeper investigation of knowledge sharing when looking for influences on public performance.

To promote knowledge sharing, top management must take a more pro-active and visible role in supporting the development of a knowledge management framework within their organizations (Corcoran, & Robison, n.d.). Therefore, in order to be successful in motivating staff to share their knowledge, these rewards, compensation, and recognition must be properly designed to fit employees' needs as incentives for sharing knowledge and information. This is because; ineffective or insufficient rewards and recognition can fail to reinforce knowledge sharing practices. And also extensive collaborative training programs should provide that gains health professionals participant self-efficacy and developing teamwork skills.

Regarding with knowledge sharing strategy as one part of daily work process, interviewee, and observations results confirmed that clearly articulated (i.e. written) knowledge sharing strategy in the study areaabsence. Due to lack of a single strategy of knowledge sharing, it is difficult to measure its use and values. One of interviewee commented the interesting points as "It is important that we have a formal written plan for sharing knowledge just like we plan for other work activities. We just recently become a little bit aware of the concept of knowledge management while working with foreign projects engaged on capacity building and technical assistance. Lack of clearly defined strategy and plan of KS will have implication to performance of shared organizational goals".

The interviews revealed some of the techniques that participants were using or wished to use to promote effective knowledge sharing. There are many ways for an organization to identify, store, and transfer knowledge. Some strategies will work better in one organization than another. Some may not be appropriate for specific types of content. The challenge is to identify and develop complementary ways to further knowledge sharing in an organization.

Recommendations for knowledge sharing techniques and tools follow: Trainings, workshops, and periodic meetings regarding to knowledge sharing practices. These are formal activities where an experienced person passes along knowledge and skill to an entry-level employee.Accordingly, the following are recommended:

Best Practices: Best practices are the identification and use of practices that result in excellence. Best practices include processes, methods, and strategies. These best practices have been honed over time to a point where they are viewed as exemplary and should be adopted by others. Identifying and sharing best practices is an important way to incorporate the knowledge of some into the work of many.

Communities-of-practice: Communities of Practice are groups of individuals who share knowledge within a particular area of interest over a period of time. These lead to opportunities for peer-group recognition and support continuous learning, which reinforce knowledge share.Cross et al. (2002) recommend that informal networks can be facilitated by organizational leaders by creating time and space for cross-unit collaboration, by focusing on developing relationships within the work context rather than through off-site specific team building exercises, by hiring individuals who can demonstrate a commitment to collaboration and rewarding that behavior, and, finally, by recognizing and rewarding individuals who involve others in problem solving.

Use of technology: Knowledge management requires the use of computer technologies to effectively support knowledge sharing and collaboration but it was noted that face-to-face (f2f) is still the predominant method of knowledge sharing with manual based documents in study area.As stated by study (Mohamed, A., 2011), ICTs became backbones for health care institutions in this competing environment. Nowadays, various stakeholders have given attention to the application of ICTs in health care facilities to deliver evidence based quality health care services.However, the opposite was true in the study areas. As the result of this study shows, 71% staffs was not ICT access user. All interviewee in this study feels for lack of

collaborativeICT access of the technologies, such as internet, e-mail, corporate intranets.Therefore, it is recommended that top management should focus providing necessary resources to implement carefully chosen, user-friendly information technology to enhance existing social networks to facilitate knowledge diffusion among departments.

The study also identified lack of open communication and trust among staffs as determinant factors in the study area. Furthermore, the organization should provide an open and trusting culture sustained by high band-width communication, social equality, fairness and support with strong norms for knowledge sharing.The results have revealed that open communication is the highest predictor for knowledge sharing and organizational performance. It is suggested that top management should focus on providing a positive attitude of their employees, through improving relationships and recognition of their contributions, in order to encourage sharing. Employees are more willing to offer and share knowledge when they perceive knowledge sharing is encouraged in organization. Finally exploring the mechanisms and tools of knowledge and experience sharing is the suggested ways as knowledge and information sharing channels among health professionals.

According to Pollard, (2005) the expectations for knowledge management, and by definition knowledge sharing, were that it would be able to improve growth; productivity and efficiency reflected in cost savings; customer relationships; employee learning, satisfaction and retention; and management decision making. By providing the tools, methodologies, training and support on a unit or departmental level, employees are encouraged to capture, share and archive their knowledge and information for the good of the organization.

5.3. Further research

This study has several limitations. First, the measures of some variables depend primarily on respondents' perceptions and beliefs. Second,the study was conducted in a single public sector organization, which limits the generalizability of the findings to other settings. Another limitation was time and financial constraint for feasible study knowledge-sharing practices and self-reported data are subject to response bias.Future researchers must benefit from the limitations of this research.

-Incorporating qualitative research methods to a deeper extent; methods such as qualitative observations and longitudinal studies are highly recommended.

-Addressing a more representative sample; further research must address more governmental sector institutions where organizational politics dominates a role in hoarding knowledge.

-Unfortunately, this solution was not feasible in this research due to the time and financial constraint. Alternatively, future researchers should dedicate a separate study to highly politicized institutions to allow deeper investigation of knowledge transfer barriers.

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APPENDIX: DATA COLLECTION INSTRUMENTS

This questionnaire is a data collection instrument for a research entitled: **Assessing knowledge sharing practices among health professionals to improve organizational performance**. This questionnaire has four parts. Please answer the questions with all frankness by ticking (√) the option that very closely approximates to your perception of the items. Your confidentiality is hereby assured and the information is used only for the purpose of research. Thank you very much for your cooperation.

If you have any question or concerns please do not hesitate to contact me at my address:

Name: Dereje Roba;

E-mail: _ okocha26032004@gmail.com

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General Information of demographic

1. Age in years:

☐ Less than 20 ☐ 21-30 ☐ 31-40

☐ 41-50 ☐ Greater than 50

2. Sex ☐ Male ☐ Female

3. Educational level:

☐ Specialist ☐ Medical Doctor

☐ First Degree ☐ Diploma

☐ 10+2 other, please specify_____ _____

4. Work Position

☐ Operational Staff ☐ Middle-level managers

☐ Executive managers ☐ Other----------

5. Professional_____? ☐ Nurse/HO ☐ specialist doctor, ☐ pharmacist, ☐ midwifery

6. Regardless of the locality, how many years have you worked in health care services program?

☐ 0-5 years ☐ 6-10 years ☐ 11-15 years

☐ 15-20 years ☐ More than 20 years

Part One: Status of knowledge sharing practices

1. Is there a clearly articulated (i.e. written) knowledge sharing strategy in your organization?

☐ Yes ☐ No ☐ do not know

2. In general, do you believe that staffs understand how their knowledge sharing practices contribute to the performance of the organization?

☐ Yes ☐ No ☐ do not know

3. Does the knowledge sharing program increase the value of organizational performance?

☐ Yes ☐ No ☐ do not know

Please indicate the extent to which you agreement with the following statements by putting a tick (√) mark in the appropriate box.

No	**The willingness, motivation and practices of health professionals to share knowledge**	**Strongly agree%**	**Agree %**	**Neutral/undecided %**	**Disagree %**	**Strongly disagree %**
	Value of five-point-Likert scale	5	4	3	2	1
1	Health professionals commonly share their knowledge and experience with their coworkers while working.					
2	Your coworkers have willingness to share their knowledge, information, and experience with other coworkers in organization.					
3	You share your knowledge, work experience and ideas through group discussions, review meetings frequently with your coworkers.					
4	The knowledge, information, findings, reports, or files are easily accessible that others have in your unit/department/organization.					
5	Certain tasks accomplish through teamwork discussion and collaboration between colleagues.					
6	There is a motivational scheme in organization to encourage staff to share their knowledge within and outside the organization					
7	Presence of periodic meetings, trainings, workshops, and orientation help to organize and share knowledge and information for staff					
8	The organization provides various tools and technologies to facilitate knowledge sharing and exchange (e.g. groupware, e-mail, intranet)					
9	The technological tools are available at the organization for effective knowledge sharing.					
10	There is a good working environment to improve your knowledge sharing practices.					
11	Employees are rewarded for sharing their knowledge and experience with their colleagues.					
12	The knowledge sharing rewards are available to motivate staff to exchange/share their knowledge effectively.					
13	Supportive leadership is helpful to improve knowledge sharing practices.					

14	Presence of specific financial budget allocation is vital to motivate employees and to design ICT access in knowledge sharing in organization					
15	A considerable level of trust among co-workers is vital for knowledge and information sharing in organization					
16	Face-to-face interaction and communication help to facilitate knowledge sharing among colleagues at workplace.					
17	Fair and open communication and decision among staff is available to improve knowledge sharing practices.					
18	Sharing knowledge through paper or electronic documents, team discussions, review meetings, helpful for organizational performance.					

Part two: Associate factors of knowledge sharing practices

1. Sharing information, knowledge, know-how, and ideas are part of daily work process of the organization. ☐ Yes ☐ No ☐ do not know

If your answer is No.1: why? _____

2. Do you use information technology to share your knowledge?

☐ Yes ☐ No ☐ do not know

If you yes, is it easiness to use among employees: ----------

3. Health professionals and stakeholders share knowledge which has been gained from formal training, discussions, guidelines, journals and electronic documents.

☐ Yes ☐ No ☐ do not know

If your answer is No. why_____

Please indicate the extent to which you agree or disagree with the following statements by putting a tick (√) mark in the appropriate box.

	Barriers of knowledge sharing practices among health professionals.	Strongly Agree%	Agree %	Neutral %	Disagree%	Strongly Disagree%
1	There is lack of rewards and recognition systems that would motivate people to share their knowledge.					
2	Knowledge/information sharing is not taken as part of the daily work process of the organization					
3	There is lack of fair or open communication amongstaff to share knowledge.					

4	There is lack of formal and informal activities to encourage knowledge sharing in your organization.					
5	The existing institutional culture does not provide sufficient support for sharing knowledge.					
6	There is lack of interaction between those who need knowledge and those who can provide knowledge.					
7	Retention of highly skilled and experienced staff is not a high priority in your organization.					
8	There is a general lack of trust among colleagues in your organization.					
9	An employee does not share knowledge because of the fear of it being misused by taking unjust credit for itor perceiving he/she loses importance.					
10	Employees in your organization do not share knowledge because they think knowledge is power.					
11	There is lack of awareness of importance knowledge sharing.					
12	There is lack of technical support and immediate maintenance which obstructs work routines and communication flows.					
13	There is no a specific budget dedicated for knowledge sharing in the organization.					

Part three:

The Mechanisms that encourages knowledge sharing practices among employees

1. Do you participate in any external /internal training programs, workshops and seminars for your work? ☐ Yes ☐ No ☐ do not know

2. If your answer for question No. 1 is yes; how frequently have you attended training, workshop, related to your work?

☐ Very frequently ☐ somewhat frequently

☐ Frequently ☐ Not very frequently

3. Which way you prefer to get the knowledge/information, know-how, ideas you need during work?

☐ Email ☐ Intranet ☐ Telephone;

☐ Review meetings ☐ Workshop ☐ Seminar;

☐ Written documentation review ☐ Collaboration and teamwork

☐ Training ☐ Communities of practice ☐ chatting

9. Any other_____

Part four:

Extra-social networks that encourages knowledge sharing practices

1. Does the organization offers social interaction strategy to share knowledge/information?

☐ Yes ☐ No ☐ do not know

If yes, please state how? ----------

2. How important is staff interaction within the organization to produce its outputs?

☐ Very important ☐ significant ☐ somewhat important

☐ not very important ☐ Not important at all

3. To what degree does the organization support social interaction that enables people to- people knowledge/information sharing?

☐ Very supportive ☐ somewhat supportive ☐ ` Is Supportive;

☐ not very supportive ☐ Not supportive at all

4. Does your organization culture encourage social interaction?

☐ Yes ☐ No ☐ do not know: Ifsay yes, in Q& A 4how ----------

Observation checklist

Presence of information/knowledge sharing techniques or tools in organization by observing with prepared checklist either, presence or absence.

No	Presence of information/knowledge sharing techniques or tools in organization		
		Present	absent
1	Text books, medical records, training manuals		
2	Face to face discussion		
3	Web based technology like E-mail/Internet/intranet.		
4	Presence of technology that makes knowledge sharing easy		
5	Presences of Team work/collaboration at workplace		

Interview questions:

1. Do you understand the concept of knowledge shaking practices? Is it part of your work design?
2. Is sharing knowledge, idea, and information among staffs and stakeholders a priority?
3. Are there factors that hinder knowledge sharing processes among staffs and stakeholders within organization? If yes, please list? How do you tackle the challenges?
4. What mechanisms you use to facilitate knowledge sharing practices among employees and stakeholders?
5. What are the impacts of knowledge sharing practices on performance?
6. How do you organize and manage work and jobs, including skills, to promote cooperation, initiatives new ideas?
7. What is the plan of your organization with respect to knowledge sharing practices in order to get the benefits of it?

Thank you so much for your time and invaluable information

TABLE OFCONTENTS